

SALARY COMPARISON OF FEMALE AND MALE INTERCOLLEGIATE
BASKETBALL COACHES: AN EQUAL OPPORTUNITY STUDY

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DEDICATION

To Nancy

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TABLE OF CONTENTS

DEDICATION	iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	vii
Chapter	
I. INTRODUCTION	1
Rationale for the Study	1
Statement of the Problem	6
Definitions and/or Explanations of Terms	7
Sex Discrimination	7
Equal Pay Act of 1963	8
Title VII of the Civil Rights Act of 1964	9
Title IX of the Education Amendments of 1972	9
Executive Order 11246	10
Executive Order 11373	10
Coach	10
Salary per Participant	10
Salary per Official Game	10
Salary per Season Record	10
Degree	11
Experience	11
Auxiliary Personnel	11
Participants	11
Purpose of the Study	11
Hypotheses of the Study	12
Delimitations of the Study	13
II. RELATED LITERATURE	14
Selected Studies	14
Court Litigation	28

III.	PROCEDURES FOLLOWED IN THE DEVELOPMENT OF THE STUDY	35
	Sources of Data	35
	Preliminary Procedures	36
	Selection and Description of the Instrument	37
	Procedures for Obtaining Subjects	40
	Collection of the Data	41
IV.	PRESENTATION OF THE FINDINGS	43
	Description of the Subjects	43
	Analysis of the Data	49
V.	SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS	69
	Summary of the Findings	71
	Conclusion	79
	Recommendations for Further Studies	79
APPENDICES		80
A.	Questionnaire and Cover Letter	81
B.	Checklist	85
C.	Human Review Committee Form	87
D.	Raw Data	89
REFERENCES		96

LIST OF TABLES

Table	Page
1. Description of the Subjects and Status Variables	45
2. Multivariate Analysis Correlation Matrix for Male Coaches	51
3. Multivariate Analysis Correlation Matrix for Female Coaches	52
4. Differences Between Correlations of Males and Females	54
5. Results of the Multivariate Analysis of Differences Between Groups on Each of Five Independent Variables	55
6. Difference Between Groups on the Variable of Salary/Auxiliary Personnel	59
7. Observed and Expected Frequencies of Individual Male and Female Coaches Falling in Each of Three Academic Categories	60
8. Multiple Regression Equation for Predicting Women's Salaries	63
9. Multiple Regression Equation for Predicting Men's Salaries	65
10. Actual and Predicted Salaries of AIAW and NCAA Division I Basketball Coaches	67

CHAPTER I

INTRODUCTION

Rationale for the Study

"Differential treatment of men and women exists in almost every segment and aspect of our society" (Dunkle, 1974, p. 1). What is perhaps most damaging to the female is when such treatment is perpetuated by the educational institutions "which are supposed to provide all citizens with the tools to live in a democracy" (Dunkle, 1974, p. 1).

Supreme Court Justice John Harlan, in a famous Supreme Court decision (*Plessy v. Ferguson*, 1963 U.S. 537 [1896]), wrote: "In the eye of the law, there is in this country no superior, dominant, ruling class of citizens. There is no caste here" (p. 559). Nevertheless, modern women have had to fight for their right to equality with men in terms of social, cultural, and economic pursuits because of a host of historically imposed restraints.

In today's society, sport is a major social institution. A university's intercollegiate athletic program is one of the most prominent aspects of its community. The success or failure of an institution's athletic teams is

carefully followed by students, faculty, and alumnae. This observance can have significant influence on seemingly disparate facets of the institution such as campus morale, financial contributions by alumnae, and the structure of financial budgets within the institution (Lowell, 1979).

Legal issues have become one of the more troublesome areas for a university and its athletic program. The courts and the federal government have entered into the regulation of intercollegiate athletics; and the legal basis for this regulatory intervention "can be analyzed into two major categories: sex discrimination or the mandate for equality of opportunity for men and women; and the regulation of athletes by sports organizations" (Gerber, 1979, p. 468).

Since 1963, Congress and the Executive Branch of the United States have passed major pieces of legislation which addressed and attacked sex discrimination in employment. The Equal Pay Act of 1963 (29 U.S.C. 206[d][1]); Title VII of the Civil Rights Act of 1964 (42 U.S.C. 2000e--2000-17); Title IX of the Education Amendments Act of 1972 (20 U.S.C. 1681-1686); and Executive Order 11375 (32 Fed. Reg. 14303 [1967]), amending Executive Order 11246 (3 C.F.R. 169 [1965]) are specific federal legislative acts designed to

eradicate discrimination based upon the social conditions and stereotyped characterizations of the sexes.

Historically and traditionally, this nation has placed a greater emphasis on competitive athletics for males than for females. In 1973-1974, an average of 95.8% of the total athletic budgets in colleges/universities were allocated for men, leaving a meager 4.2% for women's athletics. In National Collegiate Athletic Association (NCAA) Division I colleges the average proportion was even greater with 97.9% of the total athletic budgets distributed to men's athletics leaving 2.1% to the women's athletic programs ("More Hurdles," 1980).

As women's athletic programs began to grow in number of participants, an increase in budget proportions occurred. The Association for Intercollegiate Athletics for Women (AIAW) ("More Hurdles," 1980) reported that in all AIAW colleges, women received an average percentage (16.4%) of the total athletic budgets in 1978-1979. The AIAW and NCAA Division I colleges spent, on the average, 14.3% of their total budgets on women in 1978-1979 even though women constituted 28.9% of the athletes.

The NCAA ("More Hurdles," 1980) reported that 715 colleges offered intercollegiate basketball for men involving 14,683 participants in 1976-1977. During the same time

period 649 colleges were offering intercollegiate basketball for women; there were 10,859 participants in these programs. The AIAW ("More Hurdles"), the NCAA ("More Hurdles"), and Raiborn (1978) reported that the per capita expenditures for men and women in all NCAA member institutions which also belonged to the AIAW Division I, were \$5,257 and \$2,156, respectively.

When per capita expenditures were specific to NCAA Division I colleges, the average expenditure per male basketball participant averaged \$12,250 in 1978-1979. All women's sports in AIAW Division I colleges had expenditures per capita of \$2,156 ("More Hurdles," 1980).

Athletic budgets for both women and men have increased over the years (Raiborn, 1978). In addition to grants-in-aid, recruiting (NCAA), and transportation,

[e]xpenditures for salaries, fringe benefits, and wages have risen faster than in the university at large and are well beyond the general price levels of the economy because of the highly competitive job market for coaches. (Lopiano, 1979, p. 405)

Such factors as the increase in female participants in intercollegiate athletic programs and the popularity of women's intercollegiate basketball (AIAW 1980 television contracts), and the enactment of federal legislation in

employment, led the investigator to believe that a study in the area of salary disparity was needed. In determining whether the underpayment of female coaches existed and if it was related to the sex of the coach or to the sex of the participants, recent federal legislation was used to determine if sex discrimination in payment existed. Although an institution may be able to justify its pay scales for coaches, it nevertheless may not be in compliance with federal laws requiring equal employment opportunity.

In *Brennan v. Woodbridge School District* (1974), the plaintiff, a female softball coach, was awarded back pay and was granted a permanent injunction enjoining the defendant from further discrimination based upon sex in employment. In this case the male baseball coach was compensated with a larger salary for his coaching duties than the female softball coach. The significance of the case is the court's decision that the jobs were substantially equal in their requirements of skill, effort, and responsibility and therefore should be equally compensated.

A lawsuit filed by the Equal Employment Opportunity Commission against an Indiana school district ("The Chronicle of Higher Education," May 1980) alleged that the school district violated federal civil rights laws because

its payments to its male and female high school coaches were unequal. The investigation revealed, according to the commission report, that the female coaches were paid less than the male coaches but they performed jobs requiring substantially equal skill, effort, and responsibility.

Although Cheatum (1974) stated that for a college staff member to work for sex equity in athletics would be about as safe as it would be for a spectator "to lurch onto a football field and stumble into the path of a defensive tackle" (p. 2), this study was concerned with whether salary disparity existed and if that disparity could be categorized as sex discrimination in intercollegiate athletics.

Statement of the Problem

The problem was to determine if sex discrimination in salaries in intercollegiate basketball coaches exists in selected coeducational institutions of higher education in the United States. Specifically, the female basketball coaches were representative of Division I of the Association for Intercollegiate Athletics for Women (AIAW), and the male basketball coaches were representative of Division I of the National Collegiate Athletic Association (NCAA). The empirical data measured included the following dependent variables: (a) coaches' salaries, (b) coaches'

salaries per number of participants, (c) coaches' salaries per number of season games, (d) coaches' salaries versus win/loss record, (e) degree held by coach, (f) experience in coaching, and (g) number of auxiliary personnel supervised. The subjects studied were 53 paired female and male head basketball coaches from their respective institutions of higher learning throughout the United States.

Data were gathered from the individual coach's institution by a questionnaire during the 1980-1981 academic year. The questionnaire was distributed to the AIAW and the NCAA faculty representatives of the coaches' institutions. Based on the analysis of the data obtained, conclusions were drawn concerning the question of sex discrimination as evidenced in coaches' salaries.

Definitions and/or Explanations of Terms

For the purpose of clarification, the following definitions and/or explanations of terms were established for use in this study.

Sex Discrimination: Black (1979) has defined sex discrimination

to be the effect of a statute or practice which confers particular privileges on a class arbitrarily selected from a large number of persons, all of

whom stand in the same relation to the privileges granted and between whom and those not favored no reasonable distinction can be found. In general, a failure to treat all equally. (p. 420)

Equal Pay Act of 1963: The Equal Pay Act of 1963 amended section six of the Fair Labor Standards Act (FLSA), 29 U.S.C. 206(d)(1), provides that:

No employer having employees subject to any provisions of this section shall discriminate, within any establishment in which such employees are employed, between employees on the basis of sex by paying wages to employees in such establishment at a rate less than the rate at which he pays wages to employees of the opposite sex in such establishment for equal work on jobs the performance of which requires equal skill, effort, and responsibility, and which are performed under similar working conditions, except where such payment is made pursuant to (i) a seniority system; (ii) a merit system, (iii) a system which measures earnings by quantity or quality of production; or (iv) a differential based on any other factor other than sex: PROVIDED, That an employer who is paying a wage rate differential in violation of this subsection shall

not, in order to comply with the provisions of this subsection, reduce the wage rate of any employee.

(p. 8025)

Title VII of the Civil Rights Act of 1964: Title VII 42

U.S.C. 2000e--2000e-17 provides that:

It shall be an unlawful employment practice for an employer--(1) to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, or national origin; or (2) to limit, segregate, or classify his employees in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, sex, or national origin. (p. 255)

Title IX of the Education Amendments of 1972: According to the 20 U.S.C. 1681 et seq and finally interpreted in the 44 Fed. Reg. 71413 December 11, 1979, the basic law reads:

No person in the United States shall, on the basis of sex, be excluded from participation, in, be denied of benefits of, or be subjected to

discrimination under any education program or activity receiving Federal financial assistance.

(p. 71413)

Executive Order 11246: This order mandates that contractors (institutions) not discriminate against any employee or applicant for employment because of race, creed, color, or national origin (30 Fed. Reg. 12319 [1965]).

Executive Order 11373: In 1967 Executive Order 11246 was amended by Executive Order 11373 to prevent contractors (institutions) from discrimination against any employee or applicant for employment because of race, color, religion, sex, or national origin (32 Fed. Reg. 14303 [1967]).

Coach: For the purpose of this study a coach is an individual who holds the legitimate authority to instruct players and direct the activities of the varsity basketball team in the individual's institution of higher learning.

Salary per Participant: The coach's salary divided by the number of participants in the program determined the average amount a coach received per participant.

Salary per Official Game: The salary divided by the number of games played in the 1979-1980 season determined the average amount a coach received per game.

Salary per Season Record: The win/loss record for the basketball coach from the previous year (1978-1979)

determined the percentage of games won for the coach. In order to determine the average amount of the salary differential per percentage point for the individual coach for the year 1979-1980, the difference between salaries for the 1978-1979, 1979-1980 basketball seasons was found, and divided by the percentage of games won (1978-1979).

Degree: For the purpose of the present study the highest degree a coach had obtained was classified as one of the following: Doctorate, Masterate, Baccalaureate, Associate, or None.

Experience: The experience a coach had to her/his credit was determined by the total number of years of coaching basketball in either high school or institutions of higher education.

Auxiliary Personnel: For the purpose of the present study the auxiliary personnel were the number of assistant basketball coaches.

Participants: A participant was a basketball player who was eligible to play in post season games such as conference, state, regional, and national championships.

Purpose of the Study

The purpose of this investigation was to determine if salaries of intercollegiate basketball coaches differ according to the sex of the coach.

Hypotheses of the Study

The following null hypotheses were tested at the .05 level of significance.

1. There is no significant difference between the salary of female basketball coaches and male basketball coaches.

2. There is no significant difference between female and male coaches' salaries when related to the number of participants coached.

3. There is no significant difference between female and male coaches' salaries when related to the number of games coached.

4. There is no significant difference between female and male coaches' salaries when related to the win/loss record during the season.

5. There is no significant difference between female and male coaches' salaries when related to the degree held.

6. There is no significant difference between female and male coaches' salaries when related to the number of years of experience in coaching.

7. There is no significant difference between female and male coaches' salaries when related to the number of auxiliary personnel.

8. There is no significant difference between female and male coaches' actual salaries when compared to their predicted salaries.

Delimitations of the Study

The study was subject to the following delimitations:

1. The number of paired female and male head inter-collegiate basketball coaches in AIAW Division I and the NCAA Division I who responded.
2. The degree to which the subjects are representative of the population.
3. The cooperation of the individuals in completing and returning the questionnaires.
4. The degree to which the information collected is accurate.
5. The restriction of the questions to matters within the realm of federal law and policy guidelines.
6. The selection of the 1979-1980 academic year as the time period investigated.

CHAPTER II

RELATED LITERATURE

The survey of related literature indicated that this study did not duplicate any known investigation. The following chapter is limited to a review of selected studies and court litigation especially pertinent to this research. In addition, the review includes background information on salary disparity applicable to the study.

Selected Studies

Raiborn (1970) conducted a study of member institutions of the NCAA to determine the financial status of intercollegiate athletic programs. He noted, "the format of the study was designed to transcend the problems of individual differences and to deal with points of mutual and general concern to the member institutions of the NCAA" (Raiborn, 1970, p. 1).

The analyses of the financial data and personnel data were restricted to the 10-year period ending with the 1968-1969 academic year. Although the original questionnaire encompassed the 10-year period, the 5-year period ending with the 1968-1969 academic year served as the basis for analyzing more detailed information.

The NCAA membership was classified into five homogeneous groups based on the criteria of the dominance of certain sports and the strength of the competitive program determined by the nature of scheduled opposition. The five classifications applied to the NCAA member institutions (655) as of August 1969.

A total of 277 institutions representing 42% of the NCAA membership responded to the questionnaire. The percentage of response by the five groups was proportionately distributed in accordance with the basic NCAA membership structure.

Revenues and expenditures were divided into various categories and then analyzed to determine financial trends for the 10 fiscal years ending in 1969. One category, total salaries, wages, and fringe benefits, was reported without specifics since no individual monetary information was requested or received from the questionnaire.

It was reported in the study that total salaries, wages, and benefits comprised from 23% to 31% of the total athletic expenses for all respondents. Raiborn (1970) noted that trends in salary expenses should be evaluated in connection with institutional policies, organizational structure, and changes in the number of full-time equivalent personnel associated with particular sports. For

example, collectively, 51% of the total respondents held dual positions in terms of responsibilities in academic programs and intercollegiate athletics at their respective institutions.

It was reported that the average of all total coaches' salaries for all respondents increased by 53% for the 5-year period ending with the 1969 academic year. The increase was attributed in part to the expansion of the coaching staff. Collectively, average coaches' salaries for all respondent institutions increased 65% between 1965 and 1969. The average number of coaches per institution increased from 10 to 14 during the review period. Two primary explanations were reported for the increase in coaching staffs: (a) specialization of staffs in particular sports and (b) addition of sports not previously offered.

Bergmann and Maxwell (1975) compared faculty salaries of men and women at the University of Maryland. The purpose was to determine in broad terms the salary status of women faculty and to develop a prototype study which could be utilized by a faculty group on any campus where salary information is available. The investigators stated that the analysis should be diagnostic. They proposed to determine if there were a problem of sex discrimination in

terms of salary remuneration, to direct attention toward the most egregious individual cases and departments, and to provide a rough estimate of the amounts of money needed to bring women's salaries to a level more comparable to men's salaries.

The procedures involved classification of each faculty member by sex, latest degree obtained, number of years of professional experience, and salary for the year specified in the investigation. The length of yearly contract was determined (i.e. 10 month or 12 month), percentage of time for the part-time employee, and whether the person had a doctorate.

A multiple regression equation was determined by using all of the data for male faculty members. The regression equation was the "predicted salary equals \$15,237 plus \$447 for each year since degree minus \$3,685 if the person lacked a doctorate plus a departmental differential" (p. 263). "The departmental differential was the number of dollars per year since degree which should be added or subtracted for membership in a particular department" (p. 263).

The regression equation was not designed to predict an individual's salary, but "rather to show what the average situation was for men of a given number of years

of experience in a particular department" (p. 264). Scholarly merit or teaching performance were not considered. The investigators pointed out that a difference in a faculty member's actual salary and the predicted salary may have been attributable to the fact that the faculty member was above or below average in scholarly merit and/or teaching performance.

The regression equation was then used to predict the salaries of women faculty. Years since last degree, whether or not an earned doctorate was held, and the department were inserted in the equation and "the salary which would have been predicted for her had she been a man with those characteristics" (p. 264), was computed.

The findings indicated that the salary-setting procedures were sex biased.

Of the 166 women at Maryland, 122 or 73% had actual salaries lower than those which would have been predicted for them had they been men, and 44 or 27% had salaries higher than those predicted. (Bergmann & Maxwell, 1975, p. 264)

In terms of dollars the total sum of predicted salaries exceeded the total sum of actual salaries by \$275,604.

Of the 1,049 male faculty included in the study, 587 or 56% had actual salaries below the predicted salaries by

the regression equation and 462 were above their predicted salaries. In terms of dollars the sum of the predicted salaries exceeded the sum of actual salaries by \$1.00.

Anderson and Murphy (1977) employed statistical methods to determine whether discrimination in salaries among educators existed. Differential variables which legitimately can be considered to determine salary differentials were used. The differential variables excluded race, religion, and sex which were considered improper criteria.

Procedures which could be used as a model to determine equal opportunity within an organization were developed to identify salary discrimination. The procedures involved:

1. Stratification of employment groups to reflect equal levels of employment.
 2. Grouping of subjects to reflect similar duties regardless of employment title.
 3. Use of legitimate criteria for determining differences in remuneration for employees by employers independent of illegal criteria (race, religion, and sex).
- The legitimate characteristics used in the educational milieu to determine salary differentials were educational attainment and years of credited experience in education.

An analysis of covariance (ANCOVA) was used to assure comparability of groups prior to determining significance of difference; Bartlett's test was applied to determine sample homogeneity. An analysis of variance (ANOVA) was used to determine the significance of differences in remuneration at the .001 level. In addition to ANCOVA and ANOVA, Chi Square (with and without Yates correction) and the Student t test were used.

The data were generated from actual salaries predicted from common slopes and intercepts for whole groups, both male and female, estimated over and underpayment, and differences in number of men and women at different levels in the education setting. Subjects were classified into groups from 10 school districts and included 1,200 personnel.

The findings indicated:

1. A clear case of prima facie salary discrimination based on sex at the .0001 level of significance.
2. That more than 7% of the variance was accounted for by degrees and years of experience in the covariance terms.
3. That men as a group comprised more overpaid individuals when actual versus predicted years of experience and degrees were compared.

4. That when men and women were compared in terms of underpayment, no significant difference was found. However, a much different pattern evolved when men versus women in the overpaid category were considered. This suggested a high discrimination against women.

5. That when adjusted means were developed to indicate the probable salary to be received by either a man or woman based upon years of experience and degrees, the adjustment indicated that men as a group would receive \$3.16 per diem more than women as a group. The actual difference was \$7.29 per diem and left an unaccounted for difference of \$4.13. When applied to an annual measurement with a 200 day contract, women would lose \$800 or more because of sex discrimination in the sample illustrated. (Anderson & Murphy, 1977, p. 56)

Multiple regression techniques were used by Seberhagen (1979) to analyze salary disparities between women and men in a state government. Regression equations were developed to predict monthly salaries for the total sample of 301 women and men and of each sex separately (109 women and 192 men).

The independent variables were sex (for the total sample only), state tenure, occupational prestige, position tenure, education, number of hours worked per week, and number of employees supervised. With the exception of sex, the remaining independent variables were assumed by the investigators to be loosely equated to employee "merit".

The findings of the study indicated a 70% variance in salaries based upon the regression equation after correction for shrinkage. Merit accounted for 59% of the variance and sex for 11%, with a residual of 30%. There was an overall \$281.54 per month difference in mean salaries of men and women with 29% or \$82.31 of that figure explained by differences in merit. The remaining difference between the sexes of \$199.23 per month or 71% was explained by possible sex discrimination.

When separate regression models for the prediction of salary for each sex were developed they revealed unequal treatment in the salary setting process; merit accounted for 65% of the variance in the women's salaries. The major difference between the two models was that occupational prestige did not contribute to the prediction of salaries for women.

The male regression model was applied to the women's sample and it was estimated that 70% of the sex differences in mean salaries and 88% of the sex differences in median salaries were attributable to sex discrimination. When the female regression equation was applied to the male sample, it was estimated that 73% and 65% of the sex differences in the mean and median salaries, respectively, could be attributed to sex discrimination.

By using an index based upon actual versus predicted salaries, it was found that 65% of the women and 2% of the men could be classified as victims of sex discrimination. When using the index to determine beneficiaries of salaries, however, 55% of the men versus 0% of the women were classified as beneficiaries.

Between 1974 and 1979 data were collected from 335 collegiate female athletic directors to assess the trends in selecting coaches for female athletes (Holmen & Parkhouse, 1981). The purpose of the investigation was to determine the number, level, and gender of those coaching female athletes. Two questionnaires were utilized to gather the data during the 5-year time period.

The first questionnaire was designed to solicit information pertaining to gender trends for the 1974 and 1976 academic years. Originally the questionnaire was

randomly distributed to 400 directors of women's athletics at member institutions of the AIAW.

An 84% return, 335 of 400, was received from the first questionnaire including its follow-up. A shorter version of the initial questionnaire was sent to the same 400 directors 1 year later to determine the gender trends in employing coaches for the 1979 academic year. The second questionnaire yielded an 86% return rate (343 of 400).

Two kinds of data were analyzed to answer the research questions concerning the number of head coaches, female and male; the number of assistant coaches, female and male; and the extent of the changes in gender of the head/assistant coaches of female athletes. An additional research question involved the extent of the change in gender of the coaches for specific team and individual sports during the 5-year period.

The investigators employed the Chi square test for goodness of fit to determine the significance of the changes in overall total and number of head and assistant coaches. The Chi square test for goodness of fit was utilized further to determine the significance of increase in the number of males coaching women's teams. The Chi square for contingency tables was employed to determine

the extent of increase in number of assistant coaches from 1974 to 1976 and from 1976 to 1979 compared to the changes in number of head coaches during the same two time periods.

Based upon a sample of 150 institutions in 1974 and 1976, the investigators reported that about .3 of 1% of the coaches in men's programs were women. In 1974, 25% of the coaches in women's programs were men and by 1976 men occupied 41% of the coaching positions in the women's programs. The increase in number of male coaches of women's sports was significant at the .001 level.

During the 5-year period (1974 to 1979) there was an increase of 37% in the number of positions for coaches of female athletes. The investigators reported a significant increase in head coaching positions between 1974 and 1976, but a nonsignificant increase between 1976 and 1979; however, the total change for the 5-year period was significant at the .01 level. The increase in the number of assistant coaching positions from 1974 to 1976 and 1976 to 1979 was significant, as it was as for the 5-year period.

The data indicated the increase in the number of assistant coaching positions from 1974 to 1976 and 1976 to 1979 was significantly greater than the increase in

head coaches during the same two periods. Although the change in total number of coaches, including the assistants, was significant, almost all the changes in head coaching positions occurred in the first 2-year period (1974 to 1976).

From 1974 to 1976, the number of male head and assistant coaches increased 76% while female coaches increased by only 5% ($p < .05$). The number of male coaches increased by 61% from 1976 to 1979 whereas their female counterparts decreased by 2%. For the 5-year time period, the total number of male coaches increased 182% ($p < .001$) as compared to a nonsignificant increase of 3% for female coaches.

The number of male head coaches increased by 137%; women head coaches decreased in number by 20% during the 5-year period. In terms of assistant coaches, the number of men increased 368% and the number of females increased 174% ($p < .001$).

The investigators determined the extent of change in gender of the coaches for specific individual and team sports. The greatest increase in number of head coaches was in cross-country running from 16 in 1974 to 168 in 1979. Of these, 76% were male.

The major change in head coaches of team sports occurred in field hockey with a decrease of 56 positions, 53 of these were held by women. Basketball positions originally held by women declined by 84, or 32%, whereas an increase of 61 positions, or 22%, occurred among the men.

Although the most significant trend was in the reduction of female head coaches, an increase occurred in the total number of head coaching positions. The investigators determined that the consistent tendency was toward hiring male head coaches.

Several explanations were given for the substantial increase in the number of male coaches. The investigators suggested that perhaps men were considered more qualified in terms of experience and expertise in producing winning teams; that men may have had more access to the political system (whom to contact for a given job); and, that since the passage of Title IX, coaching salaries of AIAW member institutions have been more in tune with their NCAA counterparts. The last point implied that it is as advantageous to coach female athletes as it is to coach male athletes.

Court Litigation

The legal citations reviewed for this study substantiate the federal legislation pertaining to equal employment opportunities. Each case emphasizes a different application of the law with reference to equal employment/pay opportunities.

In the Labor Law Reporter (1977) an explanation of the application of the Equal Pay Act of 1963 was given. Specifically the Act:

1. Covers both public and private employment.
2. Has jurisdiction only where a comparison in compensation, pay and fringe benefits, may be made between a man and a woman.
3. Defines that work is equal if it is substantially similar in skill, effort and responsibility, and under similar working conditions.
4. States that pay is unequal when the pay is determined by the salary and fringe benefits actually being earned, and not by a theoretical pay scale that may or may not be applied.

In Hodgson v. Daisy Manufacturing Company 445 F.2d 823 (1970) the mental effort clause of the Equal Pay Act of 1963 was tested. The Daisy Manufacturing Company's defense was that certain operations performed by males required

greater physical effort than that expended by the females. The judgment was in favor of the plaintiff and the legal conclusions were:

In determining wage classifications, an employer cannot make jobs unequal by arbitrarily according greater weight to the physical effort required by a job than the weight or value accorded to skill, job responsibility and working conditions. (p. 823)

In *Wirtz v. Wheaton Glass Company* 421 F.2d 259 (3rd Cir), cert. denied, 398 U.S. 905 (1970), the plaintiffs brought suit against the glass company claiming that the company discriminated against its female selector-packers on the basis of sex by paying them at an hourly rate of 10% less than the male selector-packers. The defendants denied that the female selector-packers performed equal work within the terms of the Equal Pay Act of 1963.

The district court entered judgment in favor of the glass company, holding that the Secretary of Labor failed to prove that the wage differential was based upon sex discrimination. The Secretary appealed and the judgment of the district court was reversed with direction to enter an appropriate judgment in favor of the plaintiff.

The significance of the landmark decision was that it was the first circuit court decision construing the Equal

Pay Act of 1963; this decision has been instrumental in the development of later equal pay cases. The most important aspect of the case was the decision that jobs meriting equal pay need not be identical, but only substantially equal.

In *Brennan v. American Brands, Inc.* DC Ky (1973) 21 WH 61, the mere fact that differences in pay exist was not sufficient to show a violation of equal pay provisions of the Equal Pay Act of 1963. The case involved section supervisors in a cigar manufacturing plant where the highest paid section supervisor was a female and the lowest paid were not all of one sex. In Section 6(d) of the FLSA of 1938, later amended by the Equal Pay Act of 1963, differences in pay for equal work on jobs requiring equal skill, effort, and responsibility under the same or similar working conditions are permitted where such differences are based on seniority, merit, quantity and quality of production, and other factors other than sex.

In *Brennan v. Woodbridge School District* DC Del (1974) 21 WH 966, the court ruled that although incidental differences may exist in job comparisons, the incidental differences are inconsequential. The plaintiff, a female, was hired to teach English and coach the girls' softball team. The plaintiff held a Bachelor of Science degree in physical

education and had taken required courses in coaching techniques. For a specific 3 month period, March 1973 to May 1973, the coach was compensated \$300 for coaching the softball team.

The male employee was hired as a teacher of history and health and held a degree in social studies. His only experience in athletics was as a participant in high school and college. He had no coaching experience but was compensated \$400 for the specific 3 month period, March 1973 to May 1973, to coach the boys' baseball team.

Duties of both employees included recruiting, supervising the players, instructing during practice, traveling when necessary with their teams to games, supervising and accounting for equipment and uniforms, and arranging schedules of practice, play, and transportation. No financial responsibility was incurred by either coach since no game admission charges were levied and the players were responsible for cleaning their own uniforms.

Each team had a roster with approximately 18 players. Both teams had the same type and quantity of equipment and the same games schedule with both playing the same schools at home and away. Both teams traveled on the same bus and their practice schedule was determined by the State Department of Public Instruction.

The significant points of the Woodbridge case were:

1. The defendant's employees, as described herein, were "engaged in commerce" and "in the production of goods for commerce and included employees handling or otherwise working on such goods within the meaning of the Act" (p. 968).

2. Jobs are substantially equal; the court depended on the actual job requirements and not the job classification or description.

3. Skill consideration included such factors as experience, training, education, and ability.

4. Jobs are equal if they involve the same primary job functions, substantially equal skill, effort, and responsibility.

5. Those directing extracurricular activities, such as coaching athletic teams, are engaged in teaching "since such activities are a recognized part of the school's responsibility in contributing to the educational development of the student" (p. 969).

The actual job requirements of a particular position were tested against the definition of the Equal Pay Act of 1963 in *Shultz v. Brookhaven General Hospital* 305 F. Supp 424, on remand 436 F.2d 719, aff'd 470 F.2d 729 (1972).

The plaintiff contended that female nurse's aides and

male orderlies performed substantially equal work and that the defendant paid female aides less which was not based on "any factor other than sex" (p. 729).

The conclusions of the law were that job requirements are to be viewed as a whole and that in determining a violation of the Equal Pay Act of 1963, the requirements of the particular jobs should be compared rather than the skill of individual employees, the effort of individual employees, or their previous training and experience. It was further concluded that most of the physical and mental effort exerted in the aide/orderly job was related to the primary duties of both.

The defendants contended that the primary work between the disputed employees was the same; however, there were secondary differences in the jobs. The court concluded that employers may not be permitted to frustrate the purposes of the Equal Pay Act of 1963 by calling for extra effort only occasionally, only from one or two male employees, or by paying males substantially more than females for the performance of tasks which command a low rate of pay when performed full-time by other personnel in the same establishment.

The lifting of weight was an issue as one of the secondary differences between aide and orderly job

performance. The defendant contended that because the orderlies lifted more weight than the nurse's aides, there was a secondary difference in job requirements. Nevertheless, the Court viewed the job requirements as a whole and determined them to be substantially equal.

CHAPTER III

PROCEDURES FOLLOWED IN THE DEVELOPMENT OF THE STUDY

The purpose of this study was to determine if the salaries of intercollegiate basketball coaches differed according to the sex of the coach. In this chapter the development of the study is described under the following headings: Sources of Data, Preliminary Procedures, Selection and Description of the Instrument, Procedures for Obtaining Subjects, and Collection of the Data.

Sources of Data

The sources of data for this investigation were from both documentary and human resources. The documentary sources included books, periodicals, government bulletins, and court litigation related to all aspects of the study. Pertinent dissertations and microfilms/fische were examined in preparing the study. The human sources consisted of selected authorities in the fields of intercollegiate athletics, government, and the legal profession. Special assistance was procured from the Equal Employment Opportunity Commission in Dallas, Texas, and the Health, Education, and Welfare Regional Office in Dallas, Texas.

Further assistance was received from the voting delegates at the AIAW Delegate Assembly in Washington, D.C. during January, 1980. The human sources who participated in the study were Division I AIAW and NCAA faculty representatives from colleges/universities throughout the United States who had intercollegiate basketball teams.

Preliminary Procedures

The investigator outlined and adhered to several preliminary procedures in the development of the study. First, a review of the relevant literature was conducted. Included in this perusal was a study of the developmental techniques which should be adhered to in designing a questionnaire for gathering research data.

A tentative outline of the study was then prepared and presented to the dissertation committee for suggestions and corrections. Permission to conduct the study was procured from the Human Subjects Review Committee at the Texas Woman's University. The approved tentative outline and the permission were filed in the form of a prospectus in the Office of the Provost of the Graduate School at the Texas Woman's University.

Selection and Description of the Instrument

The study involved the collection of data from a large number of selected subjects located in a wide geographical area. For this reason, a questionnaire was judged to be the best method of data collection.

Wallace (1954) supported the choice of the mail questionnaire by citing several advantages which were applicable to this study. He stated that the mail questionnaire might yield greater validity than other methods because it permits the survey of larger and more geographically representative samples. Two additional advantages are the minimum expense and the limited time period required for data collection.

Selltiz, Wrightsman, and Cook (1976) stated, Another advantage of questionnaires is that the respondents may have greater confidence in their anonymity, and thus feel freer to express views they fear might be disapproved of or might get them into trouble. (p. 295)

They also indicated that if the questionnaire was presented as anonymous and there were no apparent identification marks, the respondents would tend to feel greater confidence that the responses would not be identified.

Consideration was given to the suggestions by Bailey (1978) in the construction of the questionnaire. He recommended that before writing the questionnaire one should anticipate why a respondent might give erroneous information or fail to answer a question altogether. An additional recommendation was to clarify the relevance of the study to the respondent. The suggested procedure to be followed should include clarification of the study in an accompanying cover letter, remembering that there might be situations where too much explanation in the cover letter might bias the responses.

The investigator adhered to the following criteria as suggested by Miller (1977) for the construction of the questionnaire:

1. It must be short to have a greater probability of return.
2. It must be clear in terms of the purpose and the value of the findings to the respondent.
3. It must use language geared to the level of the respondent.
4. It should have questions that are brief, concise, and limited to a single idea or a single reference.
5. It should contain a sequence of questions to protect the respondent's ego.

6. It must have an arrangement of questions that secures a sequence that is natural and easy for the respondent.

Based in part on suggestions received from the Equal Employment Opportunity Commission in Dallas, Texas, questions were designed to elicit the specific data sought for the study. The questionnaire began with checklist questions and continued to open format questions pertaining to personal and financial information.

A cover letter was prepared that emphasized the purpose and usefulness of the study, the purpose of the questionnaire, and the importance of each respondent to the success of the study. Full use was made of personalization procedures. Each individual cover letter was addressed to the respondent by name and was personally signed by the investigator.

A pilot study was conducted with selected AIAW and NCAA Division II colleges throughout the southwest and the northeast of the United States. Questions were revised and/or deleted according to the responses received in the pilot study. Recommendations received were considered and the cover letter was also revised. The final questionnaire was arranged on a single sheet of paper, front and back, and was distributed with the cover letter to the subjects

in the study. A copy of the questionnaire and cover letter may be found in Appendix A. In addition, a self-addressed, stamped, envelope was included in each packet to facilitate the return of the completed questionnaire.

Procedures for Obtaining Subjects

The subjects in this study were from institutions of higher education that had both an AIAW Division I women's basketball team and an NCAA Division I men's basketball team. Additional delimitations were that the AIAW team had to be coached by a female and the NCAA team had to be coached by a male.

In order to compile the list of respondents, the following sources were surveyed: The National Directory of College Athletics women's and men's editions (Franks, 1980), the AIAW Directory (AIAW, 1980), and the National Collegiate Championship Handbook-Basketball (NCAA, 1980). Examination of these sources revealed 100 institutions with paired Division I AIAW and NCAA basketball teams. These institutions of higher education were four year systems that included public and private colleges and universities in a geographic area that encompassed the entire continental United States.

After considerable discussion by the dissertation committee and consultations with athletic administrators and coaches, the decision was made to mail the survey to the AIAW and the NCAA faculty representatives at all institutions in anticipation of greater participation/response.

Collection of the Data

The regimen followed in the collection of data by questionnaire was established as recommended by Miller (1977). A time table was established for the initial mailing of the data packet and a deadline for the return of responses. The time for and the type of subsequent reminder was determined before the initial mailing.

A data file of the faculty representatives and their respective institutions and addresses was created using a BMS (Bibliographical Management System) program on the DEC System-2050 (computer) at the Texas Woman's University. The checklist for processing the responses was produced by running the BMS program through a COBOL program. A copy of the checklist may be found in Appendix B.

The respondents were given two weeks to answer the questionnaire and return it by mail. After recording the responses from the first mailing, a second data packet complete with a second cover letter was mailed to the

faculty representatives who had not responded to the first request. A second two weeks were given for responses. Because of the time of year the data were being collected, the investigator (with the aid of a colleague) was able to make personal contact with numerous AIAW faculty representatives at the Delegate Assembly in Detroit, Michigan in January 1981. This personal contact was most beneficial in receiving full response to the questionnaire from, perhaps, initially reluctant subjects.

Telephone calls were made to various faculty representatives after the second mailing. When it was necessary, a third copy of the questionnaire was mailed with a brief cover letter to various faculty representatives. If responses were not complete (usually the omitted answers were the two salary questions), these questions were then included at the end of a letter to be completed, torn from the body of the letter, and returned in an enclosed, self-addressed, stamped envelope. Each response was immediately recorded upon receipt on the checklist.

CHAPTER IV

PRESENTATION OF THE FINDINGS

The purpose of this investigation was to determine if salaries of intercollegiate basketball coaches differed according to the sex of the coach. The problem was to determine if sex discrimination existed when the salaries of intercollegiate basketball coaches from selected coeducational institutions of higher education in the United States were studied. Data were gathered from the coaches' institutions by questionnaire during the 1980-1981 academic year.

The questionnaire was mailed to 100 institutions which had at that time both AIAW and NCAA Division I basketball teams. A delimitation was that the women's team was coached by a female and the men's team was coached by a male. Of the initial 100 institutions to which questionnaires were sent, responses were received from 53 institutions. This constituted a 53% rate of return and included responses from both the male and female coach at each institution. The findings are presented under the following headings: Description of the Subjects and Analysis of the Data.

Description of the Subjects

A total of 106 subjects, 53 female and 53 male basketball coaches, participated in the investigation. The subjects are described in Table 1 according to the status variables of academic degree, employment contract length, years in present position, number of auxiliary coaching personnel, total years coaching experience, total official games played by their teams in 1979-1980, number of participants, wins, losses, salary, salary gain, and age.

As shown in Table 1, the male coaches were older than the female coaches as indicated by the mean ages of 41.28 years and 33.47 years, respectively. The ages ranged from 29-61 years for the males and from 22-52 years for the females.

The degree earned by each group ranged from baccalaureate to the doctorate. Of the 53 male coaches, 11 held the baccalaureate, 41 held the masterate, and 1 held the doctorate. The 53 female coaches held the following degrees: 19 baccalaureate, 32 masterate, and 2 doctorate.

The contract length for males and females ranged from 1-5 years and 0-3 years, respectively. The number of years in the present position was similar for the two groups as indicated by the mean of 4.2 years for the males and 4.0 years for the females.

Table 1
Description of the Subjects and Status Variables

Variables	Range	<u>M</u>	<u>SD</u>	<u>SEM</u>
Age in Years				
Males	32 (29-61)	41.2830	7.1854	.9870
Females	30 (22-52)	33.4712	6.9520	.9549
Degree ^a				
Males ^b (11, 41, 1) ^c	2 (2-4) ^d	2.8113	.4410	.0606
Females (19, 32, 2)	2 (2-4)	2.6792	.5468	.0751
Contract Length				
Males	4 (1-5)	2.7547	1.4924	.2050
Females	3 (0-3)	1.3019	.6957	.0956
Years in Present Position				
Males	22 (1-23)	4.2453	4.3496	.5975
Females	19 (1-20)	4.0189	3.8903	.5344

^aDegree earned.

^bEach group = 53.

^cNumbers in parentheses denote number of Baccalaureate, Masterate, and Doctorate degrees held.

^dDegrees coded with Baccalaureate = 2, Masterate = 3, Doctorate = 4.

Table 1 (continued)
Description of the Subjects and Status Variables

Variables	Range	<u>M</u>	<u>SD</u>	<u>SEM</u>
Auxiliary Personnel ^e				
Males	3 (1-4)	2.3774	.7397	.1016
Females	3 (0-3)	1.2830	.6900	.0948
Total Years Coaching ^f Experience				
Males	35 (4-39)	17.4528	7.2419	.9947
Females	23 (2-25)	9.4340	4.8258	.6629
Total Official Games 1979-1980				
Males	6 (25-31)	27.0943	1.4711	.2021
Females	18 (16-34)	27.1698	3.5774	.4914
Number of Participants				
Males	9 (7-16)	13.1887	1.7765	.2440
Females	9 (8-17)	12.3585	1.9325	.2654
Wins 1978-1979				
Males	20 (6-26)	15.8302	5.2577	.7222
Females	36 (1-37)	14.8491	6.9487	.9545

^e Auxiliary personnel are assistant coaches.

^f Total years indicate high school and college experience.

Table 1 (continued)

Description of the Subjects and Status Variables

Variables	Range	M	SD	SEM
Losses 1978-1979				
Males	18 (5-23)	12.5283	4.1723	.5731
Females	16 (4-20)	11.6981	4.1676	.5725
Salary 1979-1980				
Males	\$27,500 (\$17,500-\$45,000)	29,841.74	6895.02	947.10
Females	\$22,200 (\$7,800-\$30,000)	17,570.79	4643.80	637.88
Salary Gain ^g				
Males	\$12,500 (0-\$12,500)	3,283.00	2695.27	370.22
Females	\$6,000 (0-\$6,000)	2,050.09	1275.11	175.15

^gGain = 1979-1980 Salary less 1978-1979 Salary.

A mean difference of 1.1 was found between the groups relative to auxiliary personnel. This indicated that the males had more auxiliary personnel than the females.

Table 1 illustrates a difference in means for total years experience in high school and college coaching. The males averaged 17.45 years and the females averaged 9.43 years.

As shown in Table 1, the two groups coached a comparable number of official games during the 1979-1980 season; the males coached an average of 27.09 games and the females coached an average of 27.17 games. The range of the number of participants coached was also similar; these means for the males and females were 13.19 and 12.36, respectively.

The average number of games won (15.83) for the male group was one game more than the average number (14.84) for the females. The average number of games lost (11.70) for the females differed by less than one game from the average number (12.53) for the males.

The mean salary for the 53 males was \$29,841.74 in comparison to a mean salary of \$17,570.79 for the 53 females. Although the ranges for the two groups were somewhat similar, observation of the data showed that the salary levels were not. The males were at the upper end of the spectrum and the females were at the lower end.

The salary gain from the 1978-1979 year to the 1979-1980 year showed an average gain of \$3,283.00 for the males and an average gain of \$2,050.09 for the females. As indicated by the range in values, the smallest salary increase for either group was zero; some male and female coaches did not receive a raise from 1978-1979 to 1979-1980. The largest salary gain (\$12,500) occurred among the males; the largest salary gain among the females was \$6,000.

Analysis of the Data

A total of 106 subjects, 53 males and 53 females, was included in the multivariate portion of the analysis. As explained in Chapter I, the variables to be measured were: (a) coaches' salaries, (b) coaches' salaries per number of participants, (c) coaches' salaries per number of season games, (d) coaches' salaries versus win/loss record, (e) degree held by coach, and (f) experience in coaching. The sixth variable, number of auxiliary personnel supervised, was not included in the multivariate analysis; it is presented later in Table 6. The 6 variables were selected from the 13 variables discussed in Table 1 and examined in order to support or reject the null hypotheses of the study. Recent federal legislation was investigated and used to support the choice of the six variables examined to determine if sex discrimination in payment existed.

A multivariate analysis was used to compare the salaries of the males and females and to determine if a significant difference existed. The preliminary step in the multivariate process yielded a Hotelling's $T^2=130.26$; this was transformed to an $F(5,99)=24.80$, $p<.001$, which indicated a significant difference between the mean vectors for the two groups. Subsequent analysis was required to discover exactly which of the variables contributed to the overall significant difference.

A correlation matrix of the variables for the male group is presented in Table 2; a correlation matrix for the female group is presented in Table 3. The correlations that are significantly different from zero are indicated by asterisks in each table. As indicated in Table 2, the significant correlations ranged between .29 and .97, and reflected the relationships among salary, number of participants, and official games; between number of participants, and official games; and between official games and experience. It should be noted that record (win/loss) and coaching experience were not significantly related to the salary of the male coaches. The significant correlations for the female coaches ranged between .42 and .85, and reflected the relationships among salary and number of participants,

Table 2

Multivariate Analysis Correlation Matrix for Male Coaches

	Salary	Number of Participants	Official Games	Experience	Record
Salary	1.0000				
Number of Participants	.8005*	-----			
Official Games	.9730*	.7603*	-----		
Experience	.2302	.1650	.2868*	-----	
Record	.1036	.0523	.1339	-0.0427	-----

* $t_{.95}(52) \geq .2722$

Table 3

Multivariate Analysis Correlation Matrix for Female Coaches

	Salary	Number of Participants	Official Games	Experience	Record
Salary	1.0000				
Number of Participants	.8476*	-----			
Official Games	.8404*	.7323*	-----		
Experience	.1305	.1832	.1657	-----	
Record	.2730*	.3442*	.4054*	.4173*	-----

* $t_{.95}(52) \geq .2722$

official games, and record; between number of participants, official games, and record; between official games and record; and between experience and record. As with the male group, coaching experience was not significantly related to salary for the female group; however, a significant relationship was found between salary and win/loss record.

The differences between the correlations in the male group and the correlations in the female group are presented in Table 4. Fisher's Z-transformation was applied; significant differences are indicated by asterisks. Table 4 indicates that in only one case were the correlations significantly different. The significant difference was found in the relationship between salary and official games.

The results of the multivariate analysis of the differences between the two groups on each of five variables are presented in Table 5. Further analysis was required as a significant result was obtained in the multivariate t test of two groups (Hotelling's $T^2=130.26$; $F[5,99]=24.80$, $<p.001$). The variables which contributed to the overall significant difference were determined. In Table 5, the range, mean, standard deviation, standard error of the mean, t value, and level of significance for each of the five variables tested are presented. The range in salary for the 53 women (\$22,000) was less than that for the 53 men (\$27,500). The means indicated the male group had a higher salary (\$29,841.74) than the female group

Table 4

Differences Between Correlations of Males and Females

	Salary	Number of Participants	Official Games	Experience	Record
Salary					
Number of Participants	-.1696				
Official Games	1.0999*	.0770			
Experience	.0368	-.0067	.0564		
Record	-.0661	-.1213	-.1561	-.3423	

54

* $\bar{Z}_{.95} \geq .3920$

Table 5

Results of the Multivariate Analysis of Differences Between Groups
on Each of Five Independent Variables

Variable	Groups ^a	Range	<u>M</u>	<u>SD</u>	<u>SEM</u>	<u>t</u>	<u>p</u>
Salary	Male	27,500 (17,500-45,000)	29,841.74	6,895.02	947.10		
	Female	22,200 (7,800-30,000)	17,570.79	4,643.80	637.88	10.75**	0.000
Salary/ Participants	Male	2,404.76 (1,166.67-3,571.43)	2,303.39	597.36	82.05		
	Female	1,850 (650-2,500)	1,460.33	465.09	63.89	8.11**	0.000
Salary/ Official Games	Male	966.67 (700-1,666.67)	1,102.49	250.87	34.46		
	Female	793.53 (268.97-1,062.50)	654.80	177.67	24.41	10.60**	0.000
Salary/ Experience	Male	7,064.29 (935.71-8,000)	2,042.99	1,155.49	158.72		
	Female	22,062.67 (8,333.33-22,896)	2,657.68	3,026.74	415.75	-1.38	0.17
Salary/ Record	Male	300.43 (0.00-300.43)	64.92	58.45	8.03		
	Female	139.86 (0.00-139.86)	40.52	28.46	3.91	2.73**	0.007

Note: Range, M, SD, and SEM reported in dollars and cents.

^aEach group = 53 subjects..

*F_{.95}(104) ≥ 1.98

**F_{.99}(104) ≥ 2.63

(\$17,570.79). The standard deviation for the male group was \$6,895.02; it was \$4,643.80 for the female group. As shown in Table 5, a significant difference was found between the salaries of the male and the female coaches [$t(104)=10.75$, $p<.001$].

When coaches' salaries in relation to the number of participants coached was studied, it was found that the range was greater for the males (\$2,404.76) than it was for the females (\$1,850.00). The lowest and the highest values for the males (\$1,166.67 to \$3,571.43) were considerably higher than those values for the females (\$650 to \$2,500). The mean for the males (\$2,303.39) was significantly different from the mean for the females (\$1,460.33); $t(104)=8.11$, $p<.001$. The standard deviations for the males and females were \$597.36 and \$465.09, respectively.

The third variable studied was the salary per number of official games played. As previously indicated in Table 4, a significant difference existed between the correlations of the two groups for the variables official games and salary. As expected, a significant difference was found between the males and females when salary per number of official games played was investigated. The difference between the mean salary for the males (\$1,102.49) and the mean salary for the females (\$654.80) was significant [$t(104)=10.60$, $p<.001$]. Although the ranges for the males and females were relatively close (\$966.67 to \$793.53,

respectively), the lowest and the highest values differed greatly (males, \$700.00 to \$1,666.67; females, \$268.97 to \$1,062.50). The standard deviation for the males was \$250.87, whereas it was \$177.67 for the females.

No significant difference was found between the groups when the salaries were based on the number of years of experience in coaching [$t(104) = -1.38, p > .05$]. The mean for the male group (\$2,042.99) was less than the mean for the female group (\$2,657.68). When the ranges for the males and females were compared (\$7,064.29 and \$22,062.67, respectively) a large difference occurred.

The fifth variable in the multivariate analysis was salary related to the win/loss record during the season. As previously indicated in Chapter I, the salary per season record was defined as the difference between the salaries for 1978-1979 and 1979-1980, divided by the percentage of games won in 1978-1979. As indicated by the lowest value in the range of scores for the males, there were coaches who did not receive a raise from one year to the next. There were also female coaches who did not receive raises from one year to the next. The mean for the male group (\$64.92) indicated a larger raise than for the female group (\$40.52). The standard deviation for the male group (\$58.45) indicated a greater variation in the amount of

raise when compared to the standard deviation for the female group (\$28.46). A significant difference was found between the two groups [$t(104)=2.73$, $p<.01$].

A t -test was performed on the sixth variable to determine if there was a significant difference between the male and female coaches when salary was corrected for the number of auxiliary personnel supervised. Forty-seven female coaches reported that they supervised auxiliary personnel; six indicated that they had no auxiliary personnel. To maintain equal frequencies, six male subjects were randomly selected to be deleted from the analysis. The data are presented in Table 6. When salary was related to the number of auxiliary personnel, no difference between the means of the males (\$13,799.02) and females (\$13,931.71) was found [$t(92)=.12$, $p>.90$]. It should be noted that the fewer the number of auxiliary personnel supervised, the higher is the salary figure.

A Chi-square analysis was performed to determine if there was a significant difference between the male and female basketball coaches when the highest academic degree earned was compared. Since no data were missing relative to this variable, data from all subjects (53 males and 53 females) were included. The observed and expected frequencies are presented in Table 7. The subjects were

Table 6

Difference Between Groups on the Variable
of Salary/Auxiliary Personnel

Variable	Group ^a	<u>M</u>	<u>SD</u>	<u>SEM</u>	<u>t</u>	<u>p</u>
Salary ^b / Auxiliary Personnel	Male	13,799.02	5,467.47	797.51	.12	.90
	Female	13,931.71	5,053.13	737.07		

^aEach group = 47 subjects.

^bM, SD, and SEM reported in dollars and cents.

Note: F._{.95}(92) ≥ 1.99

Table 7

Observed and Expected Frequencies of Individual Male and Female
Coaches Falling in Each of Three Academic Categories

Group	Degree			Chi Square
	Baccalaureate	Masterate	Doctorate	
Males	Observed	11	41.0	1.0
	Expected	15	36.5	1.5
Females	Observed	19	32.0	2.0
	Expected	15	36.5	1.5
Totals	30	73.0	3.0	

60

3.576

$$\chi^2_{.95}(2) \geq 5.99$$

classified according to the highest academic degree they had earned i.e., baccalaureate, masterate, or doctorate. No significant difference was found between the groups. The obtained $\chi^2(2)=3.58$, was not significant at the .05 level.

A multiple stepwise regression analysis was used to determine which of 13 variables contributed significantly to the variable of salary. The variables included in the analysis for both groups were present contract, degree, contract length, years in present position, auxiliary personnel, total years experience, total official games played, number of participants coached, wins, losses, salary, salary gain, and age.

Twenty-six males, randomly selected from the original 53, were included in the portion of the investigation designed to determine which variables would make the best predictors of salary and the optimum weight to be associated with each. The resulting adjusted multiple correlation for the group of 26 males was $R=.5442$ with a standard error of estimate of \$4,711.5692. An F -test of the correlation was significant [$F(2,23)=15.92$, $p<.01$] for the males. The prediction equation was then used to predict the salaries of the remaining 27 male coaches. These predicted salaries were correlated with their actual salaries to complete the

cross-validation of the equation. The resulting Pearson r for the cross-validation group (27 males) was $r=.47$ ($p<.05$). It was significantly different from zero, thus indicating that the prediction equation was valid and could be utilized for individuals other than those upon which it was developed.

The multiple regression equation from the male group is presented in Table 8. The two variables which were weighted by the multiple stepwise regression are shown. The first predictor variable identified was contract length ($R=.65$); it accounted for 42% of the variance ($R^2=.42$) in the prediction of the dependent variable salary. The second variable selected was age. Together, the two variables had a multiple R of .76 and accounted for 58% of the variance ($R^2=.58$) in the prediction of the dependent variable salary.

The regression equation shown in Table 8 was utilized to predict the female coaches' salaries. A t -test was used to determine if there was a significant difference between the 53 females' total actual salary and the total predicted salary. The mean difference between the actual salary and the predicted salary was $-\$4,597.06$. This difference was significant, indicating an underpayment in salary for the female coaches if salary were based on the same variables as those identified for the male coaches [$t(104) = -3.40$, $p<.001$].

Table 8

Multiple Regression Equation for Predicting Women's Salaries

Variable ^a	Multiple Regression Equation ^b	R	R ²
Contract Length	$\hat{y} = 6338.9768 + CL(2580.0897) + Age(412.1219)$.6503	.4228
Age		.7620	.5806

^avariables selected as predictors.^bEquation developed on data supplied by male basketball coaches.

A multiple stepwise regression analysis was also used to determine which of 13 variables contributed significantly to the dependent variable salary for the female coaches. The variables included in the analysis were the same as those involved in the development of the males' prediction equation; they were present contract, degree, contract length, years in present position, auxiliary personnel, total years experience, total official games, number of participants, wins, losses, salary, salary gain, and age.

A random selection of 26 of the 53 female coaches provided the sample utilized to determine which variables would be the best predictors of salary for the females, and to find the optimum weight associated with each predictor. The resulting adjusted multiple correlation for the 26 females was $R=.5222$; the standard error of estimate was \$3,054.2398. The result of an F -test of the correlation was significant, $F(3,22)=10.11$, $p<.01$). The Pearson r for the cross-validation group (27 females) $r=.41$, $p<.05$ was significantly different from zero which indicated that the prediction equation was valid and could be utilized for individuals other than those upon which it was developed.

The multiple regression equation developed from the female group is presented in Table 9. The three factors weighted by the multiple regression are shown. The first

Table 9

Multiple Regression Equation for Predicting Men's Salaries

Variable ^a	Multiple Regression Equation ^b	R	R ²
Total Years Experience	$\hat{y} = 6548.7578 + \text{TVE}(561.9301) + \text{SG}(1.7238) + \text{CL}(1823.5242)$.5178	.2681
Salary Gain ^c		.7006	.4908
Contract Length		.7613	.5795

^aVariables selected as predictors.

^bEquation developed on data supplied by female basketball coaches.

^cSalary gain is difference between 1978-1979 and 1979-1980 salaries.

predictor variable identified from the female group was total years experience ($R=.52$); it accounted for 27% of the variance ($R^2=.27$) in the prediction of the dependent variable salary. The second variable selected was salary gain. This variable, plus total years experience, accounted for 49% of the variance ($R^2=.49$). The third and last variable identified was the contract length. Together, the three variables yielded a multiple R^2 of .58; they accounted for 58% of the variance in the dependent variable salary.

The regression equation shown in Table 9 was utilized to predict the male coaches' salaries. The mean difference between the actual and the predicted salaries for 53 male coaches was \$2,918.55; the actual salary for the male group was higher than the predicted salary. The difference between the males actual and predicted salaries was significant [$t(104)=2.10$, $p<.05$].

A summary of the results related to the salaries is presented in Table 10. The sums of the actual and predicted salaries, differences, and the percentages of coaches overpaid and underpaid are shown. The sum of the female coaches' actual salaries differed from the sum of their predicted salaries by -\$313,844.22. An underpayment occurred for 94% of the females when their predicted salary was determined by the equation which included the variables

Table 10
Actual and Predicted Salaries of AIAW and NCAA
Division I Basketball Coaches

Group ^a	Sum of Actual Salaries	Sum of Predicted Salaries	Difference Between Actual Salaries and Predicted Salaries	Percent- age Over- age paid	Percent- age Under- age paid
Females	\$931,252.00	\$1,245,096.22 ^b	-\$313,844.22		94
Males	\$1,581,612.00	\$1,436,928.60 ^c	\$144,683.40	68	

^a $\bar{n} = 53$ for each group.

^bBased on male prediction equation.

^cBased on female prediction equation.

selected in the multiple stepwise regression analysis based on the males' actual salaries. The difference between the sum of the males' actual salaries and their predicted salaries (\$144,683.40) indicated that 68% of the males were overpaid when their predicted salaries were calculated using the equation which included the variables selected in the multiple stepwise regression analysis based on the females' actual salaries.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

In today's society, sport is a major social institution. A university's intercollegiate athletic program is one of the most prominent aspects of its community. The success or failure of an institution's athletic teams is carefully followed by students, faculty, and alumnae.

Because legal issues have become one of the more troublesome areas for a university and its athletic program, the courts and the federal government have entered into the regulation of intercollegiate athletics. Gerber (1979) stated that the legal basis for the regulatory intervention can be separated into two categories "... sex discrimination or the mandate for equality of opportunity for men and women; and the regulation of athletes by sports organizations" (p. 468).

Since 1963, Congress and the Executive Branch of the federal government have passed major pieces of legislation which addressed sex discrimination in employment. The specific legislative acts were designed to eradicate

discrimination based upon the social conditions and stereotyped characterizations of the sexes.

Historically, this nation has placed greater emphasis on competitive athletics for males than for females. In 1973-1974, an average of 95.8% of the total athletic budgets in colleges/universities was allocated for men, leaving a meager 4.2% for women's athletics ("More Hurdles," 1980).

Athletic budgets for men have increased over the years, whereas, increases in the budgets for women have occurred only recently (Raiborn, 1978). By the year 1978-1979, women's athletic programs had increased in number and budget proportions. Nevertheless, it was reported in "More Hurdles" (1980) that members of the AIAW and the NCAA Division I colleges spent, on the average, only 14.3% of their total athletic budgets on women in 1978-1979 even though women constituted 28.9% of the number of athletes.

Although it is known that an increase in female participants in intercollegiate athletic programs has occurred, that the popularity of women's intercollegiate basketball has increased (as indicated, for example, by the AIAW 1980 television contracts), and that federal legislation in employment has been enacted, the current disparities in budgets for female programs led the

investigator to undertake this study in the area of salaries. It was anticipated that if underpayment of female coaches existed, it would be related to the sex of the coach.

Recent court litigation (Brennan v. Woodbridge School District, 1974), and a lawsuit filed by the Equal Employment Opportunity Commission against an Indiana school district ("The Chronicle of Higher Education," May 1980) supported the timeliness of this study. The problem of the study was to determine if sex discrimination with respect to the salaries of intercollegiate basketball coaches existed in selected coeducational institutions of higher education in the United States. The study involved the collection of data from 53 paired female and male head basketball coaches from their respective institutions of higher learning throughout the nation. A questionnaire was utilized as the data collection device.

Summary of the Findings

The following null hypotheses were tested at the .05 level of significance.

1. There is no significant difference between the salary of female basketball coaches and male basketball coaches. REJECTED

2. There is no significant difference between female and male coaches' salaries when related to the number of participants coached. REJECTED

3. There is no significant difference between female and male coaches' salaries when related to the number of games coached. REJECTED

4. There is no significant difference between female and male coaches' salaries when related to the win/loss record during the season. REJECTED

5. There is no significant difference between female and male coaches' salaries when related to the degree held. ACCEPTED

6. There is no significant difference between female and male coaches' salaries when related to the number of years of experience in coaching. ACCEPTED

7. There is no significant difference between female and male coaches' salaries when related to the number of auxiliary personnel. ACCEPTED

8. There is no significant difference between female and male coaches' actual salaries when compared to their predicted salaries. REJECTED

This investigation indicated that the salaries of AIAW and NCAA Division I basketball coaches are not as close as suggested by Holmen and Parkhouse (1981). When the salaries were compared by a multivariate analysis, the mean difference between the females (AIAW) and the males (NCAA) was approximately \$12,000; this difference was significant at the .01 level. To determine possible causes of the tremendous difference in the salaries between the two groups, further investigation was warranted.

When a ratio was calculated to determine the amount of salary per basketball participant (player) coached, a significant difference in salaries between the female coaches and male coaches was found. Less than a one player difference (.7) was determined between the two groups: that incidental difference may be considered inconsequential if based on the precedent set in *Brennan v. Woodbridge School District* DC Del (1974) 21 WH 966. Although the males were coaching on the average only .7 of a player more than the females, they were receiving an average of \$12,000 more than the average salary of the females. This would appear not to comply with the mandates of the Equal Pay Act of 1963 (29 U.S.C. 206[d][1]) concerning the exception that permits a difference in pay when the pay is based

upon the performance of jobs which require substantially unequal responsibilities.

The mean difference between the females and the males for official games coached was .07. It appears that in terms of responsibility, the two groups of coaches were substantially equal and therefore should have received comparable pay if that pay was based upon the number of official games coached in a season. The males coached a lesser number of games during the season; this may have been a result of the fact that the NCAA stipulates how many seasonal games may be scheduled. It seems that the .07 mean difference between the two groups in official games may have been inconsequential and not sufficient to justify a \$12,000 difference in salary in the men's favor.

A difference in pay between the two groups may be justifiable provided that payment is made pursuant to ". . . a system which measures earnings by quantity or quality of production . . ." as stated in the Equal Pay Act of 1963 (29 U.S.C. 206[d][1]). A ratio was formed between the salary and the record (number of wins). The male coaches received a mean salary of \$64.92 per win, whereas the female coaches received a mean salary of \$40.52 per win; thus, the males received 50% more money per win than the females.

The actual mean difference between the two groups for the number of wins for the 1978 basketball season was one, with the males having the higher mean. The difference in the number of wins could imply that the initial \$12,000 mean difference between the salaries of the male coaches and the female coaches was a justifiable quality of production to determine the salaries of the coaches. However, since the mean difference in the number of wins for the male coaches and the female coaches appear to be substantially comparable in quantity, it would not appear to be justification for the significant difference in salaries between the two groups.

The mean difference in the level of education between the groups as determined by the highest degree earned i.e., baccalaureate, masterate, or doctorate, was non-significant. It would appear that the degree earned would not be classified as ". . . a differential based on any other factor other than sex. . ." as stipulated in the Equal Pay Act of 1963 (29 U.S.C. 206[d][1]), and therefore, should not be justification for the significant difference in salaries between the two groups.

A non-significant difference was found between the male coaches and the female coaches when the ratio of salary to experience was used. Although the mean

difference of coaching experience was almost two-fold between the males (17.45 years) and the females (9.43 years), a lesser number of years of experience accounts for the larger ratio of salary to experience for the women.

It seems that the seniority section of the Equal Pay Act of 1963 (29 U.S.C. 206[d][1]) would be appropriate to use as justification for the significant difference in salary between the two groups participating in this study. Coaching experience does appear to influence salary.

There was no significant difference found between the male coaches and the female coaches when the ratio of salary to auxiliary personnel was determined. Men were provided with nearly twice the number of auxiliary personnel as women. In terms of dollars and cents, however, the actual ratio was greater for the females than the males. The higher figure for the females resulted because they were responsible for fewer auxiliary personnel than the male coaches. Since there was no significant difference between the groups with reference to the ratio, the difference between salaries for the groups could be attributed partly to responsibility for auxiliary personnel.

A regression equation was used to predict the salary for each individual coach based upon specific criteria determined by the equation. Contract length and age were

the weighted factors in the male-based equation which was used to predict the female coaches' salaries. Total years of experience, salary gain, and contract length were the weighted factors in the female-based equation which was used to predict male coaches' salaries.

The findings seem to indicate that the salary setting procedures may be attributed to sex discrimination. Of the female coaches, 94% were underpaid. The total amount of underpayment was \$313,844.22. Only 6% of the females had actual salaries higher than the predicted salaries. When the male coaches' salaries were predicted using the regression equation based on data from the female coaches, 32% of the males were underpaid. The remaining 68% of the male coaches were overpaid a total amount of \$144,683.40.

Contract length was a factor that contributed to the predicted salaries of both groups. Age contributed to the salary of the male group and total years of coaching experience was a factor that contributed to the salary of the female group. The mean for the total number of years of coaching experience was two-fold for the men compared to the mean for the women. The male coaches had a mean age of 41.3 years and the female coaches had a mean age of 33.5 years. Since age contributed to the male salaries but not to the female salaries, and years of coaching

contributed to the female salaries but not to the male salaries, it would appear that the procedures used to determine the coaching salaries could be sex biased in favor of the males because both factors were greater for the males.

Even though an institution may claim that it can justify its pay scales for coaches, it may not be in compliance with federal laws requiring equal employment opportunity. Congress and the Executive Branch of the federal government have addressed sex discrimination in employment. The courts have established precedents by their decisions which have held that jobs which are substantially equal in skill, effort, and responsibility, be equally compensated.

It was determined that the coaching positions investigated in this study were substantially equal in skill, effort, and responsibility. The exceptions in the Equal Pay Act of 1963 (29 U.S.C. 206[d][1]) that substantiate legitimate differences in payment were investigated and the results lent further support to the contention that the positions studied were substantially equal in seniority, quantity and quality, and any other factor not based on sex.

Conclusion

Based upon the findings, it can be concluded that the difference in salary between the male and female basketball coaches in Division I colleges and universities appears to be attributable to sex based factors. Furthermore, the male coaches are subject to higher salaries than the female coaches without any reasonable basis for that distinction found between the two groups, except possibly for years of experience and number of auxiliary personnel supervised.

Recommendations for Further Studies

For future study concerning the athletic programs of males and females, the investigator proposes the following recommendations:

1. Study an identical population within the National Collegiate Athletic Association, if the proposed merger and inclusion of women's intercollegiate athletics occurs, to determine the progress toward comparable coaching salaries for men and women.

2. Study public school districts (including the senior and/or junior high schools) in a specified state to determine if sex discrimination exists between male and female coaches' salaries in the total athletic program.

APPENDIX A
QUESTIONNAIRE AND COVER LETTER

BASKETBALL COACHES SURVEY

This survey is an attempt to obtain information concerning the status of basketball coaches. Please take a few minutes to answer the questions below. The information in this questionnaire is strictly for research purposes and the data will be statistically treated. Please do not sign your name. Your answers are confidential, so please answer frankly. Thank you for taking time to complete the survey.

Please return by December 1, 1980 to the address at the end.

1. What is your present position? ☐ Full-Time Coaching
☐ Part-Time Coaching ☐ Coaching and Teaching
☐ Other, please specify_____
2. What is your present contract status for coaching?
☐ Paid Full-Time ☐ Paid Part-Time ☐ Paid Graduate Assistant
3. What is the highest degree you have completed?
☐ Associate ☐ Bachelors ☐ Masters ☐ Doctorate
☐ Other, please specify_____
4. What is the length of your present coaching contract?
☐ 3 years ☐ 4 years ☐ 5 years ☐ Other, please specify_____
5. How many years have you been in your present position?
☐ 1 year ☐ 2 years ☐ 3 years ☐ 4 years
☐ 5 years ☐ Other, please specify_____
6. How many assistant basketball coaches do you have?
☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 Other, please specify__
7. What is the present contract status of the assistant basketball coach(es)? Number paid full-time_____
- Number paid part-time_____ Number paid graduate assistant(s)_____
8. How many total years of experience have you had in coaching basketball_____

9. How many total years of experience have you had in coaching high school basketball? _____
10. How many total years of experience have you had in coaching college/university basketball? _____
11. What were the total number of games played by your team during the 1979-1980 season? _____
12. What were the total number of official regular season games played by your team during 1979-1980 season? (Do not include scrimmages.) _____
13. What were the total number of post-season games played by your team during the 1979-1980 season ? _____
14. How many opponents in your regular season were Division I? _____
15. How many individuals were on the varsity team at the conclusion of the regular season play? (Do not include redshirts.) _____
16. What was the season record for the basketball team in 1978-1979? _____
17. What was the season record for the basketball team in 1979-1980? _____
18. What was your coaching salary prior to taxes or deductions in 1978-1979? _____
19. What was your coaching salary prior to taxes or deductions in 1979-1980? _____
20. Check one please: Female _____ Male _____
21. Your present age: _____

Please return by December 1, 1980 to:

Sue G. Mottinger
14575 Tamerisk
Dallas, TX 75234

DEPARTMENT OF PHYSICAL EDUCATION
College of Health, Physical Education, and Recreation
TEXAS WOMAN'S UNIVERSITY
Denton, Texas 76204

Telephone (817) 387-4587

P.O. Box 23717 TWU Station

November 18, 1980

As a doctoral student at Texas Woman's University, I am conducting a study on the status of intercollegiate basketball coaches throughout the United States.

A survey of the economic status, experience, and won/loss record of the basketball coaches is the nucleus of the study. As the faculty representative of your institution to the National Collegiate Athletic Association for Men (NCAA) from Division I, you are being asked to complete the enclosed questionnaire about the coach for the men's team at your institution and return it in the self-addressed, stamped envelope by December 1, 1980. If necessary, please feel free to forward the questionnaire to the men's coach for him to complete and return.

The responses from the questionnaire will be coded and the data will be combined and reported. After the coding of the responses, the questionnaires will be discarded. Please be assured that no institution, faculty representative, or coach will be singled out anywhere in the manuscript. The information received from the questionnaire is strictly for research purposes and the data will be statistically treated.

Your agreement to participate in the study is indicated by the following statement: I UNDERSTAND THAT MY RETURN OF THIS QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH. Although the following statement is not applicable to the present study, Texas Woman's University research policy requires it to be included. In addition, no medical service or compensation is provided to subjects by the university as a result of injury from participating in research. You are free to withdraw your consent and to discontinue participation in this project at anytime.

We believe this study will make a major contribution in determining the advancement of Division I towards the improvement of intercollegiate athletics for men and women. Your participation and cooperation relative to this study are greatly appreciated.

Sincerely,



Sue G. Mottinger

Dissertation Committee:

Dr. Barbara Gench, Chairman
Dr. Marilyn Hinson
Ms. Joanne Kuhn
Dr. Arlene Lockhart
Dr. Jane Mutt
Ms. Ann Powell

APPENDIX B

CHECKLIST

Questionnaire Checklist

AIAW/NCAA Faculty Representatives

Subject ID Number	Representative, AIAW Institution Address City, State Zip	Sent (Date)	Received (Date)	Reminder 1 (Date)	Telephone (Date)	Other (Date)
	Representative, NCAA Institution Address City, State Zip					
	Representative, AIAW Institution Address City, State Zip					
	Representative, NCAA Institution Address City, State Zip					

APPENDIX C
HUMAN REVIEW COMMITTEE FORM

TEXAS WOMAN'S UNIVERSITY
Box 23717 TWU Station
Denton, Texas 76204

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Sue G. Mottinger Center: Denton
Address: 14575 Tamerisk Date: October 23, 1980
Dallas, TX 75234

Dear Sue G. Mottinger

Your study entitled Salary Comparision of Female and Male

Intercollegiate Basketball Coaches: An Equal Opportunity Affirmative
Action Study
has been reviewed by a committee of the Human Subjects Review
Committee and it appears to meet our requirements in regard
to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

____ Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

____ Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

____ The filing of signatures of subjects with the Human Subjects Review Committee is not required.

____ Other:

X No special provisions apply.

cc: Graduate School
Project Director
Director of School or
Chairman of Department

Sincerely,

Marilyn Hinson

Chairman, Human Subjects
Review Committee

at Denton

APPENDIX D

RAW DATA

RAW DATA OF THE FEMALE SUBJECTS AND STATUS VARIABLES

Subject ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
1	1	3	1	1	2	5	29	12	13	13	30	\$15,000	\$17,000	\$21,282.72
2	2	2	2	1	2	2	25	11	13	16	22	17,000	22,896	20,565.84
3	2	3	3	4	1	7	17	12	5	11	29	14,500	17,000	26,030.78
4	1	3	3	2	2	8	32	8	19	13	31	18,000	20,000	26,855.02
5	1	3	1	1	1	17	24	13	8	15	40	19,900	21,000	25,403.94
6	1	2	1	2	3	7	27	12	16	15	29	13,000	15,000	20,870.60
7	1	3	1	3	0	10	25	15	6	13	32	10,500	12,000	22,106.97
8	2	4	1	4	1	21	33	12	20	8	50	24,000	26,000	29,525.16
9	1	3	3	3	2	12	30	12	19	8	37	26,000	28,000	29,327.76
10	1	3	0	4	2	16	36	14	20	10	48	22,000	24,000	26,120.83
11	1	3	1	1	2	13	26	12	8	13	38	14,000	17,000	24,579.70
12	1	2	2	4	1	6	25	9	16	9	27	16,000	18,300	22,626.45
13	1	2	1	3	1	5	29	12	7	18	25	13,500	15,800	19,222.11
14	1	3	2	1	2	6	27	12	27	7	30	12,500	15,000	23,862.81
15	1	2	1	3	1	12	28	11	12	10	33	15,500	18,600	22,519.09
16	1	2	2	2	2	10	27	11	9	12	31	15,000	21,000	24,274.94
17	1	3	1	1	1	3	25	13	10	17	27	12,000	13,000	20,046.36
18	1	3	1	4	2	6	28	15	23	8	27	12,000	15,200	20,046.36

RAW DATA OF THE FEMALE SUBJECTS AND STATUS VARIABLES

Subject ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
19	2	2	1	1	2	11	28	11	14	12	30	\$21,000	\$25,000	\$21,282.72
20	1	3	1	1	1	11	33	11	16	11	35	15,750	16,333	23,343.33
21	1	3	1	2	1	7	34	10	13	28	28	16,000	18,000	20,458.48
22	1	3	1	1	2	7	34	12	17	10	29	14,500	15,000	20,870.60
23	1	3	1	3	1	5	33	10	17	11	29	15,000	18,000	20,870.60
24	1	3	1	5	1	8	29	15	16	13	30	15,000	16,000	21,282.72
25	1	2	1	3	1	7	29	15	11	9	28	16,500	17,600	20,458.48
26	1	3	1	5	1	5	30	14	28	4	38	19,900	22,400	24,579.70
27	1	2	3	1	1	8	22	10	12	15	30	16,200	18,000	26,442.90
28	2	3	1	3	1	8	22	15	10	12	37	11,400	12,445	24,167.58
29	1	2	1	4	1	7	32	9	17	10	43	15,000	18,000	26,640.31
30	1	2	1	3	1	20	30	14	15	7	40	12,500	14,600	25,403.94
31	1	2	3	6	2	17	26	12	9	15	37	18,400	19,300	29,327.76
32	2	2	1	4	0	7	35	10	21	7	30	9,000	11,000	21,282.72
33	1	3	1	3	1	6	28	12	11	14	30	7,500	7,800	21,282.72
34	1	2	3	2	1	7	26	13	9	16	26	15,000	17,000	24,294.42
35	2	3	1	1	0	7	32	11	1	17	30	10,000	10,000	21,282.72
36	1	3	1	8	2	23	17	12	19	9	42	22,000	25,000	26,228.19

RAW DATA OF THE FEMALE SUBJECTS AND STATUS VARIABLES

Subject ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
37	1	3	1	4	1	5	28	15	20	6	27	\$16,000	\$18,000	\$20,046.36
38	1	3	1	3	0	7	25	13	11	15	28	14,000	15,000	20,458.48
39	2	3	1	4	2	14	34	16	16	12	37	20,000	21,000	24,167.58
40	1	3	1	6	2	6	38	9	30	9	28	17,500	20,000	20,458.48
41	1	3	1	4	1	4	31	13	26	18	31	17,000	18,000	21,694.85
42	1	2	2	1	0	11	33	12	9	18	34	16,000	16,000	25,511.30
43	2	3	1	5	2	15	37	13	37	4	39	25,000	30,000	24,991.82
44	2	2	1	2	1	12	21	10	6	14	34	7,500	10,000	22,931.21
45	1	2	1	1	1	10	32	17	21	5	34	14,000	15,000	22,931.21
46	1	3	1	3	0	9	29	14	9	15	31	12,700	13,800	21,694.85
47	1	4	1	0	2	11	28	12	21	5	43	11,847	13,328	26,640.31
48	1	3	1	5	1	10	31	12	18	14	31	16,500	20,300	21,694.85
49	1	2	1	2	1	2	27	12	10	15	30	10,000	11,000	21,282.72
50	2	3	1	20	1	15	30	13	13	16	52	18,000	20,000	30,349.41
51	1	3	1	3	2	5	27	13	15	14	24	10,500	13,500	18,809.99
52	1	3	1	17	1	25	27	14	12	17	50	21,000	23,000	29,525.16
53	1	2	1	3	2	12	27	15	6	20	43	14,000	15,000	26,640.31

RAW DATA OF THE MALE SUBJECTS AND STATUS VARIABLES

Student ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
1	1	3	3	1	3	21	32	11	15	11	43	\$32,000	\$35,000	\$25,344.21
2	1	3	1	23	3	34	30	15	16	14	60	31,000	34,000	32,649.31
3	1	3	3	3	2	18	29	15	16	11	41	21,000	23,000	25,581.67
4	1	3	3	3	2	13	27	14	16	10	35	30,000	33,000	24,495.82
5	1	3	1	1	2	15	26	13	11	15	37	20,000	21,500	19,386.93
6	1	3	3	3	3	8	30	12	17	9	29	33,000	36,300	26,632.74
7	1	3	1	4	2	18	31	15	14	13	43	21,500	23,450	21,848.43
8	1	3	1	6	2	14	28	12	11	21	38	26,000	30,000	23,134.50
9	1	2	3	1	3	8	32	12	25	5	40	25,000	35,000	33,752.77
10	1	3	5	6	2	18	32	13	19	10	45	36,000	40,000	32,676.32
11	1	2	1	4	2	17	30	12	21	8	38	23,000	26,000	23,096.49
12	1	3	4	1	1	15	26	12	14	12	37	13,500	26,000	43,819.30
13	1	3	2	2	2	10	28	13	16	11	35	23,500	24,500	17,538.91
14	1	2	4	3	3	6	26	15	7	22	32	29,000	29,000	17,214.44
15	1	2	1	7	3	12	26	13	13	14	34	24,850	26,725	18,347.57
16	1	2	2	6	2	24	30	12	19	11	48	37,267	39,811	28,067.48
17	1	3	5	1	2	31	27	16	11	16	53	35,000	45,000	50,324.21
18	1	3	1	3	3	15	27	11	13	14	35	21,000	23,200	20,593.59

RAW DATA OF THE MALE SUBJECTS AND STATUS VARIABLES

Student ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
19	1	3	3	1	3	10	31	13	15	13	35	\$16,000	\$23,000	\$29,705.23
20	1	2	1	1	3	18	30	14	23	9	42	22,000	24,000	21,934.62
21	1	3	4	9	3	24	33	14	23	6	45	25,000	30,000	35,948.18
22	1	3	5	9	3	20	36	13	24	8	44	40,000	42,000	30,352.58
23	1	3	1	5	1	15	27	12	10	17	35	24,000	26,000	20,248.83
24	1	3	1	1	3	25	26	15	9	18	47	25,000	27,000	25,868.13
25	1	3	1	2	2	11	28	15	14	13	33	20,900	23,500	19,035.39
26	1	3	1	2	3	13	26	13	14	13	34	23,800	25,200	18,090.69
27	1	3	5	1	2	22	28	7	19	10	46	23,000	25,000	31,476.44
28	1	3	4	1	2	13	27	16	16	11	37	18,000	22,000	28,043.15
29	1	3	3	2	2	28	28	12	12	15	51	32,500	35,000	32,062.87
30	1	2	1	10	4	39	30	15	18	10	61	32,000	34,600	34,769.44
31	1	3	4	4	2	10	29	12	25	7	40	34,000	36,000	22,909.76
32	1	3	3	1	2	16	27	15	22	10	38	20,000	23,000	26,181.61
33	1	3	1	3	2	28	27	10	6	21	54	24,500	26,200	27,036.78
34	1	3	3	13	2	27	30	14	14	12	50	31,000	32,900	30,466.66
35	1	2	3	2	1	8	26	10	9	18	40	22,000	24,000	19,962.37
36	1	3	3	2	4	19	27	12	20	9	41	23,000	35,000	43,381.60
37	1	3	4	3	2	18	26	14	15	13	40	30,000	32,000	27,405.20

RAW DATA OF THE MALE SUBJECTS AND STATUS VARIABLES

Student ID Number	Present Contract	Degree	Contract Length	Years in Position	Auxiliary Personnel	Total Years Experience	Official Games	Number of Participants	Wins 1978-1979	Losses 1978-1979	Age in Years	Salary 1978-1979	Salary 1979-1980	Predicted Salary
38	1	3	1	5	2	17	30	14	16	11	39	\$20,000	\$22,000	\$21,372.69
39	1	3	1	1	3	10	26	12	11	15	33	27,000	30,000	19,162.98
40	1	3	5	3	3	15	29	16	21	12	38	39,500	42,500	29,266.73
41	1	4	5	18	1	26	34	13	24	9	49	30,000	31,000	32,000.36
42	1	3	1	5	2	9	27	12	11	16	37	18,000	20,000	16,877.25
43	1	2	5	4	2	25	31	11	26	5	59	36,500	39,230	34,420.61
44	1	3	3	1	2	16	37	15	13	14	38	17,000	22,000	29,629.21
45	1	3	3	1	2	15	25	15	14	11	37	16,500	17,500	22,172.08
46	1	3	4	4	3	27	29	13	22	9	49	30,000	33,000	34,186.37
47	1	2	5	8	2	14	29	15	18	9	37	39,996	39,996	23,533.40
48	1	3	5	5	2	16	29	13	25	9	41	35,000	41,000	35,000.06
49	1	3	2	3	1	15	29	12	8	19	40	22,000	25,000	23,796.16
50	1	2	4	2	4	18	29	15	10	17	40	35,000	38,500	29,990.90
51	1	3	1	1	3	4	27	15	17	11	35	30,000	32,000	14,067.60
52	1	3	3	1	3	20	26	14	7	23	41	21,000	28,000	35,324.53
53	1	3	3	3	3	17	29	12	14	14	39	19,000	22,000	26,743.54

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