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Comparison of NCAA division I, II, & III athletic training positions regarding duties and compensation

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COMPARISON OF NCAA DIVISION I, II, & III ATHLETIC TRAINING POSITIONS REGARDING DUTIES AND COMPENSATION

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CHAPTER I

INTRODUCTION

The sports arena is one of the fastest growing sectors of American society from little league and junior soccer to college and professional football (Staurowsky & Scriber, 1998). This in part is due to the increase in women's sports leagues as well as increased opportunities for women in college athletics because of Title IX (Arnheim & Prentice, 2000). As sports participation has increased, so has the profession of athletic training. The number of certified athletic trainers entering the job market is now larger than ever and is continuing to grow (Arnheim & Prentice, 2000).

The athletic trainer is a highly trained healthcare professional who is responsible for all phases of healthcare in an athletic environment. These responsibilities include prevention, first aid, evaluation and management of injuries, rehabilitation, education and counseling (Anderson & Hall, 1995).

PURPOSE

Both newly certified and veteran athletic trainers are faced with career decisions about the type of athletic training setting in which they want to work. In recent years the athletic training profession has blossomed and now not only includes the traditional work settings such as high school, collegiate, and the professional sports arena, but also hospital, industrial, and clinical settings (Staurowsky & Scriber, 1998). When making

career choices an athletic trainer must look at the different elements of each setting, such as duties and compensation. There have been several studies which have compared the differences between athletic training settings such as high school, college, and clinical in regard to duties and compensation (Staurowsky & Scriber 1998; Moss, 1994, 1996; Bartimole, 1995; Lawton, 1993). However, there seems to be a lack of information available comparing salary and working conditions at the different collegiate divisional levels. A recent study reported in the NATA News (Hunt, 2001) made some comparisons regarding divisional differences in salary and benefits. This study, however, does not specifically compare NCAA divisions and in particular division IA, IAA, and IAAA. Head athletic trainers' duties were not included in this study as well.

The Athletic training profession is constantly changing and athletic trainers need to be aware of current trends in the market place. One of the reasons athletic trainers leave the profession is due to low pay (Capel, 1990). In one study, 98% of certified athletic trainers stated that they feel underpaid with 82% indicating there should be a base salary range for athletic trainers (Laurenzi & Sellers, 1991). One of the primary goals of this study was to increase athletic trainer's awareness of the salary ranges, duties, and benefits of their peers. This information will allow athletic trainers to make informed decisions when seeking employment and negotiating employment contracts.

This study makes comparisons between the duties and compensations of the five National Collegiate Athletic Association (NCAA) division levels (I-A, I-AA, I-AAA, II, and III). The results of the study will include demographic information on the people who currently hold these positions including age, sex, certifications, education, and years of experience. A second set of data will include primary sports coverage, hours in a

typical work week, weekend coverage, clinical supervision of student athletic trainers, insurance billing, training room budget, rehabilitation of athletes, strength and conditioning responsibilities, and doctor appointments. A third set of data will focus on compensation including base salary, insurance coverage, contract length, and other benefits such as a courtesy car, and monetary bonuses.

SIGNIFICANCE OF THE STUDY

In recent years the number of athletic trainers entering the profession has grown tremendously. As students complete the degree and sit for the National Athletic Trainers Association Board of Certification (NATABOC) exam, many questions concerning their future arise. What lies ahead in the near future and what goals are reasonable ten-twenty years down the road? No study exists that provides information on the positive and negative aspects of the different athletic training settings and/or collegiate levels. This study is significant because it attempts to answer some basic questions such as: 1) How much do athletic trainers make at the different divisional levels of the NCAA? 2) What is expected of athletic trainers as far as hours worked, teaching duties, work conditions, and training room duties? 3) What benefits do athletic trainers receive in return for their services? 4) How much education (i.e. master's/doctoral degree) do athletic trainers need? 5) What should athletic trainers expect when working at the different NCAA levels? Knowledge of current trends among athletic trainers in the field is important for entry-level athletic trainers when making career choices.

This study is also significant in many other ways. This research can be used by current athletic trainers in the field who may be thinking of making a career change

between divisions. The data can also be a tool for current athletic trainers re-negotiating the terms of their contracts. Being aware of current trends within the athletic training profession can better equip educators and can be a powerful tool when making changes within a program. This information will also be available to administrators and policy makers at universities to keep them abreast of current salary ranges and expectations of athletic trainers working in schools at the same NCAA level.

HYPOTHESES

This study tests the following nullhypotheses:

1. There is no significant difference among head athletic trainers' salaries at the different NCAA divisional levels.
2. There is no significant difference among assistant athletic trainers' salaries at the different NCAA divisional levels.
3. There is no significant difference among head athletic trainers' time spent on specific duties at the different NCAA divisional levels.
4. There is no significant difference among head athletic trainers' years of experience at the different NCAA divisional levels.
5. There is no significant difference in the number of full time staff ATCs at the different NCAA divisional levels.
6. There is no significant difference in the number of hours athletic trainers work per week at the different NCAA divisional levels.
7. There is no significant relationship between head athletic trainers' years of experience and salary.

8. There is no significant relationship between institutional size and total hours worked or number of weekends worked per month.
9. There is no significant difference between institutional size and head or assistant athletic trainers' salary.
10. There is no significant difference among head athletic trainers' salaries and gender.
11. There is on significant difference among head athletic trainers' salaries and contract length.
12. There is no significant difference between primary sport coverage and head athletic trainers' salaries.
13. There is no significant difference among head or assistant athletic trainers' salaries and institutional status (public or private).
14. There is no significant difference among head athletic trainers' salaries and teaching.
15. There is no significant difference among head athletic trainers' salaries and education level.
16. There is no significant difference among head athletic trainers' benefits at the different NCAA divisional levels.
17. There is no significant difference in head athletic trainers' insurance coverage at the different NCAA divisional levels

DEFINITIONS

1. **Duties** - An act(s) or course of action that is required of one by position, social custom, law, or religion (Webster, 1993). Duties are what the athletic trainer is expected to do on a day to day basis. This has nothing to do with the actual job description written by the college, but what actually takes place week in and week out. The duties considered in this study were limited to:

   - Primary sports coverage
   - teaching requirements
   - hours in typical work week
   - weekend coverage
   - clinical supervision of student athletic trainers
   - insurance billing
   - planning team meals & travel
   - doctor appointments & travel
   - training room budget
   - rehabilitation
   - ordering training room supplies
   - strength & conditioning programs

2. **Compensation** - Compensation is something given or received as payment or reparation, as for a service or loss (Webster, 1993). Compensation considered in this study was limited to:

   - annual base salary
   - health insurance
   - disability insurance
   - vacation time
   - contract length
   - courtesy car
   - payment of CEU's
   - bonuses
   - NATA dues
   - Meal plan

3. **NCAA** - The National Collegiate Athletic Association is the organization through which the nation's colleges and universities speak and act on athletic matters at the national level (NCAA Guide lines, 2000). It is a voluntary association of more than 1,200 institutions, conferences, organizations and individuals devoted to the sound administration of intercollegiate athletics.

4. **ATC** - The certified athletic trainer (ATC) is a highly educated and skilled professional specializing in the prevention, treatment and rehabilitation of injuries (Arnheim & Prentice, 2000). In cooperation with physicians and other allied health personnel, the ATC functions as an integral member of the athletic healthcare team in secondary schools, colleges and universities, sports medicine clinics, professional sports programs, industrial settings, and other healthcare environments.

5. **NATA** - The National Athletic Trainers' Association (NATA) is a non-profit organization with more than 23,000 members worldwide (Arnheim & Prentice, 2000). The NATA is committed to advancing, encouraging and improving the athletic training profession.

6. **CAAHEP**- CAAHEP stands for the Commission on Accreditation of Allied Health Education Programs. Currently eighteen professional review committees are sponsored by the forty-nine separate organizations (including NATA) that make up CAAHEP. The CAAHEP is recognized as an accreditation agency for allied health education programs by the U.S. Department of Education. As of 1999, seventy-nine institutions across the United States offered entry-level

athletic training education programs that have been accredited by CAAHEP and thirteen graduate programs (Arnheim & Prentice, 2000).

7. **Division IA**- A higher education institution that is a member of the National Collegiate Athletic Association and competes at their designated level of IA football. Member institutions have to sponsor at least seven sports for men and seven for women with two team sports for each gender. Division IA teams have to meet minimum attendance requirements (17,000 people in attendance per home game and have 30,000 permanent seats in their stadium). Division I schools must meet minimum financial aid awards for their athletics program, and there are maximum financial aid awards for each sport that a division I school cannot exceed. Another defining element is the number of football scholarships they are allowed to award, which is 85 at the division IA level (NCAA, 2000).

8. **Division IAA**- A higher education institution that is a member of the National Collegiate Athletic Association and competes at their designated level of IAA football. Division IAA teams do not need to meet minimum attendance requirements. At the division IAA level the schools are only allowed to award 63 full football scholarships. This is one of the main things that sets them apart from division IA schools. Division IAA schools are also smaller in the scope of their athletic programs than IA and generate less money (NCAA, 2000).

9. **Division IAAA**- A higher education institution that is a member of the National Collegiate Athletic Association and competes at their designed level of I in all sports, but does not sponsor football (NCAA, 2000).

10. **Division II**- A higher education institution that is a member of the National Collegiate Athletic Association and competes at their designed level of II. These institutions have to sponsor at least four sports for men and four for women, with two team sports for each gender. There are no attendance requirements at the division II level. These athletic programs are generally smaller in scope and the amount of revenue they generate than the division I programs (NCAA, 2000).

11. **Division III**- A higher education institution that is a member of the National Collegiate Athletic Association and competes at their designed level of III. These institutions have to sponsor at least four sports for men and four for women, with two team sports for each gender. Division III institutions do not award financial aid on the basis of athletic ability, only on the basis of need (NCAA, 2000).

ASSUMPTIONS

After presenting the research topic and expectations to a peer committee, the use of a questionnaire was determined to be the most appropriate method for obtaining the necessary data. In order to get most accurate results, it was concluded that the head athletic trainer at every institution would be the most appropriate individual to complete the survey. The assumption was made that the head athletic trainers know the NCAA divisional level and status (public/private) of the institution where they are employed. It was also assumed that the head athletic trainers at their prospective institutions were aware of the current salary of those athletic trainers working under them. In general the assumption was made that the head athletic trainers at the various universities/colleges

understood the survey in its entirety and completed the questionnaire as intended by the researcher.

The questionnaire was reviewed by a committee made up of current athletic trainers (both head and assistant ATC's), professors, statistician and the chair of an academic department in a division IA university with a CAAHEP accredited athletic training program. Suggestions were made as to its content and changes were made to provide better and more accurate results.

LIMITATIONS OF THE STUDY

1. This study was intended to be preliminary in nature due to the lack of literature concerning NCAA divisional comparisons of head athletic trainers.
2. This study did not represent all institutions of higher education. Since only NCAA division I (A, AA, AAA), II and III were included, results are not generalizable to other institutions belonging to different collegiate associations.
3. The validity of this study was limited in ways that are typical of all survey research that employ questionnaires;
    a) Not all questionnaires were returned. Therefore, there is the possibility that not all types of NCAA schools were represented in this study.
    b) There could have been misunderstandings or misinterpretations of certain aspects of the survey. This could stem from the different back grounds, educational experiences, and/or geographical location of the head athletic trainers involved in the study.

c) The data collected was self-reported data. The individual head athletic trainers may not have had knowledge regarding some of the questions presented in the survey (for example, the salary range of the assistant/associate athletic trainers at their institution).

d) Only a percentage of the population was surveyed. The questionnaires were only sent to 50% of the NCAA institutions because of financial constraints; therefore, there is the possibility that not all types of NCAA schools were represented in this study.

4. The study could have been influenced by mistakes or misunderstandings made by the respondents. For example, the return rate of 115% reported by division IA schools and the lower return rate of 24% reported by IAAA schools. This could be due to the mistake made by respondents at the IAAA level not realizing the NCAA divisional break (for example, institutions that compete at the division IA level in all their sports, but do not offer football are categorized as a division IAAA school according to NCAA rules).

CHAPTER II

REVIEW OF THE LITERATURE

One of the key decisions usually made early in an athletic training career is the setting in which one wants to work. There are several traditional settings including high school, college, and professional sports, as well as nontraditional settings such as clinics, hospitals, corporate, and industrial sites (Arnheim & Prentice, 2000). When faced with career decisions involving what type of setting or collegiate level one wants to work, factors such as salary, hours, and duties are important. When an athletic trainer has finished their clinical rotations in undergraduate school and become certified many times they still do not have a good idea about which setting is most appealing to them (Staurowsky & Scriber, 1998; Arnold et al., 1998).

Several studies pertaining to athletic training salaries, working conditions, employment characteristics, professional preparation, marketability, as well as clinical roles and responsibilities have been done (Staurowsky & Scriber, 1998; Lawton, 1993; Arnold et al., 1998; Lephart & Metz, 1990). Many of these studies compare the different settings such as high school, college, and clinical settings (Moss, 1992, 1994, 1996; Somerville & Stanwood, 1996; Arnold et al., 1998).

The NATA News recently published a study conducted by an Ohio based research and consulting firm (Hunt, 2001). The data was compiled using a questionnaire sent to 1,500 NATA members via mail and 1,500 members via e-mail. The surveys drew a 46 percent response rate for those who received a paper survey and 37 percent rate for those

who received an electronic survey. According to the survey, age, sex, education, and years of experience are the best predictors of salary. For example the survey reported an average salary of $10,000 less for females than their male counter parts. The estimated average income with benefits and bonuses for athletic trainers possessing a bachelors was $38,835, $47,028 for a masters, and $59,608 for those with their doctorate. Division I athletic training positions earned an estimated average of $49,9135, division II earned $42,938, while division III reported $46,105. This study shows salary ranges much higher than all past studies by a large margin. The article does not make reference to the number of questionnaires returned in each category, which could have skewed the results. Higher percentages of athletic trainers possessing higher degrees, college divisional affiliations (such as NAIA & NCAA), athletic trainer positions (such as head versus assistant), and employment setting are all factors that could have effected the results.

Staurowsky and Scriber (1998) in another recent survey, studied the retention, promotion, and salary levels of certified athletic trainers employed in accredited athletic training education programs. This study included 88 undergraduate accredited athletic training programs. Seventy-two percent of the participants (111 of 153) in the study shared information about salary ranges. Of those responding 91 (82%) had worked at least 7 years, and 52 (47%) had been employed for at least 13 years. The mean salary was $41,130 (+/- 13,960) with subjects appearing in all categories, from a low of less than $19,000 to a high between $75,000 and $79,999. The majority of all subjects annual salaries (56%) ranged from $25,000 to $39,000. Based on the data, workloads universally included some combination of teaching, service to the athletic department, and supervision of students. The mean breakdown demonstrated 40% of the workload as

teaching, while supervision and service to the athletic department each contributed 30% to the overall work load. This study also indicated that nearly all subjects received medical and retirement benefits. Over 70% of the respondents noted that they had access to dental and short-term disability insurance through their institution. Tuition support for family members varied, just over 74% indicated a provision for spouses to receive tuition assistance. It must be noted that this study included respondents that reported a history of working in the profession for at least seven years. However, the authors indicated that they did not include the type of schools surveyed or which divisional levels were involved.

The purpose of a study conducted by Dewald and Fuller (2000) was to determine the relationship between (athletic trainer educators) ATEs' salaries and their employment characteristics. Questionnaires were mailed to every program director of a NATA and CAAHEP accredited ATEP (n=98) and distributed to each NATA certified athletic trainer in their program who taught at least 1 athletic training course per year. A total of 147 questionnaires were returned by 52 ATEPs (53%). The average 1998-1999 annual salaries were $46,000 for males and $36,529 for females. Surprisingly, none of the females earned over $60,000, while 21% of the male educators did earn over $60,000. Those educators with their doctoral degree had a mean salary of $48,720 and those with their master's degree averaged $39,320. Most (36%) of the educators in this study were assistant professors with an average salary of $44,104. Associate and full professors earned $51,053 and $61,538, respectively.

Moss (1992, 1994, 1996) conducted several surveys, one in June of 1990 and 1991, another in 1992 and a third in 1994 on entry-level athletic trainer salaries. An

entry-level position was defined as an athletic trainer certified by the NATA with no full-time paid employment experience. The collegiate setting positions required a master's degree. Institutions with current job openings in June 1990 and 1991 returned 106 questionnaires (70%). Moss discovered that the highest paid entry-level athletic trainer was the high school teacher and trainer combination with a mean salary of $28,068. The college teacher and trainer combination was second at $25,833. Third was the clinical athletic trainer at $24,183, while the clinical high school combination athletic trainer earned $23,474. The college/university head athletic trainer placed fifth at $22,126 followed by the high school athletic trainer at $21,600, and finally the college/university assistant athletic trainer at $21,162. Results also showed no difference in salary for those possessing a master's degree.

In Moss's (1994) second survey conducted in 1992 there were 427 entry-level positions listed in the 'Placement Vacancy Notice' by the NATA, there were 234 hospital/clinic, 135 college/university, and 58 at high schools. A survey was designed and sent out to all of the positions. Overall, beginning salaries were $23,108 (+/- $3,309) for bachelors degree and $25,223 (+/- $3,794) for a masters degree. A stipend ($4,219 +/- $1,458) was included in most of the high school positions. The break down between the high school, clinical, and collegiate settings was similar to the 1990 study. Then again in 1994 Moss surveyed 432 entry-level positions and the mean salary range was within $500 of the 1992 survey. The return rate for the 1992 survey was only 36%, but in 1994 the return rate was much better at 63%. These studies conducted by Moss were strictly concerned with entry-level positions regarding only salary, which is apparent by the low salaries.

Somerville and Stanwood (1996) conducted research concerning salaries in 1994 of all 2,274 certified members of district two (Delaware, New Jersey, New York, and Pennsylvania). Comparisons were made of athletic trainer salaries regarding years of experience, educational level, and setting. According to the athletic training setting the lowest mean salary was $32,928 +/- $10,098 at the college or university level, and the highest was $59,778 +/- $48,803 at the professional sports level (Somerville & Stanwood, 1996). According to educational level, an athletic trainer possessing a bachelor's degree earned $30,132 +/- $9,580 while a athletic trainer with a master's degree earned $34,883 +/- $14,983. Those athletic trainers holding doctorate degrees reported salaries at $47,656 +/- $6,982. Athletic training salary according to years of experience was reported at 0-10 year of experience equaled a mean salary of $30,935 +/- $8,276, 11-20 years of experience reported a mean salary of $46,106 +/- 8,175, and 21+ years of experience reported a mean salary of $53,645 +/- $20,275. They found almost identical mean salaries for athletic trainers in the college setting at the division I ($31,142 +/- $8,548) and division III ($31,270 +/- $8,829) levels. Considering that division I athletic programs typically generate considerably more revenue than division III athletics, it is surprising the athletic trainers did not have high salaries. Somerville and Stanwood concluded that there is a need for further study to establish salary norms for athletic trainers across the country by making comparisons between districts as well as with other allied health professions.

The purpose of a 1994 study conducted at the University of Virginia was to determine 1) demographics and professional credentials of recently hired athletic trainers, 2) the association between these characteristics and the high school, clinical, and

collegiate setting, and 3) which of these factors best predicted salary (Arnold al et. 1996). A survey was sent to all prospective employers listed on the NATA job vacancy notices from January 1, 1994 to October 1, 1994. Of the 472 survey's mailed, 282 (60%) were returned. No association was found between the employment setting and gender, ethnicity, marital status, educational route, physical therapy, credential, or EMT certification. However, the study did list the mean salary for an athletic trainer with a bachelor's degree at $23,684 +/- $6,282 those with master's degrees earned $25,868 +/- $5,537 and athletic trainers having a doctorate earned $33,786 +/- $2,867. The employers were also asked to rate 35 employee characteristics (Arnold et al, 1998). In the collegiate setting 9 characteristics were rated more important than in the high school and clinical setting. From these 9 characteristics, it was possible to identify 3 major groupings. The first was advanced degrees and included possession of master's and doctoral degrees. The second was experience and included collegiate clinical experience, undergraduate and graduate degrees from different institutions, and program administration experience (Arnold et al, 1998). Research publications and presentations produced the third grouping. In addition to these characteristics, equal opportunity/affirmative action, computer literacy, and oral recommendations were given higher ratings of importance by collegiate employers (Arnold et al., 1998).

Lawton (1993) conducted a thesis study in which 500 NCAA member institutions were surveyed regarding athletic trainer salaries, training budget, education, duties, benefits, and course load. The mean salary for head athletic trainers was $34,973, while the assistant athletic trainers earned $28,328. Lawton further sub-divided the salaries by division and by region of the country. He found that division I-A head athletic trainers

had the highest average base salary earning $44,338 and division III with the lowest earning only $28,328. The assistant athletic trainers at the division I-A level were also the highest paid earning $30,829, while the division I-AAA were the lowest earning $26,750. Geographically speaking, head athletic trainer's earnings across all NCAA divisions where $39,983 in the West, $35,628 in the East, $33,135 in the South, and $33,025 in the Midwest.

When ranking their duties, head athletic trainers in NCAA divisions IA, IAA, and IAAA reported spending the majority of their time with administrative duties (Lawton, 1993). Division II head athletic trainers reported spending the majority of their time with rehabilitation and treatment of injured athletes. Division III head athletic trainers reported spending the most time supervising games and practice and traveling to competitions. Lawton felt this was due to the lower number of assistant and student athletic trainers present in the lower NCAA divisions as presented in this study also. Assistant athletic trainers in all divisions, except division III, spent most of their time on treatment and rehabilitation of injured athletes. Lawton's study also showed that benefits varied among institutions regardless of NCAA division. Fifty-one percent of head athletic trainers in division IA received the use of a courtesy car, while only 12% in division IAA. The availability of free athletic event tickets decreased in divisions II and III. The majority of head athletic trainers received health insurance (92.2%), dental and vision insurance (63.1%), along with a retirement plan (90.8%). A continuing education budget was given by most institutions for CEUs and national convention travel. Budgets ranged from $1,342 in division IA to $538 in division III. Certifications and degrees did not seem to be a significant predictor of salary in this study as well. Eighty-five percent

of head athletic trainers reported having earned master's degrees, while only 3% reported that they had earned a doctorate degree. Sixteen percent of athletic trainers working at division IA institutions reported that they also held registration as a physical therapist. Six percent of athletic trainers working at division IAA institutions reported physical therapy registration and less than 3% in the remaining three divisions. Other certifications held by the respondents included the certified strength coach (CSCS) (3%), Emergency Medical Technicians (EMT) (5%), and certification by the American College of Sports Medicine (ACSM) (6%). The data also indicated that 68.6% of head athletic trainers who responded to this study teach at the collegiate level.

Magnus, Golden, Tandy, and Koloskie (1992) examined employment characteristics of athletic trainers in colleges and universities in the Western United States. A written survey was completed by 105 (65%) head and assistant athletic trainers. Their results indicated that the athletic department employs the majority of college athletic trainers, with many also reporting dual funding with physical education department. The salary of head athletic trainers varied from a base of $31,000 to more than $40,000. Assistant athletic trainers reported earning $25,000 or less per year. Magnus et al. (1992) concluded that there are many different employment parameters for athletic trainers. They suggested that more research is needed to examine the employment of athletic trainers in the collegiate setting.

Laurenzi and Sellers (1991) conducted a survey on certified athletic trainers' salaries, job responsibilities, and hours worked. Surveys were completed by 126 athletic trainers in the eastern portion of the Midwest region of the united States (NATA District IV). The survey investigated several factors in the overall salary structure including base

salary, teaching responsibilities, job setting, degrees, certifications, summer employment, and years of experience. The mean salary regardless of setting was $30,158. The mean salary for an athletic trainer possessing a bachelor's degree was $26,170, while an athletic trainer with a master's degree earned $31,174. The study also compared years of training experience. Athletic trainers with 1 to 5 years experience and a bachelor's degree earned $24,895 while those with 10 years or more made $32,174. With 1 to 5 years experience and a master's degree earnings were $26,048 while athletic trainers with 10 years or more experience were making a mean salary of $38,233. Laurenzi and sellers also broke down the salaries by setting. The high school teacher and trainer combination were the highest paid at $35,696. Second was the clinical athletic trainer at $30,356 followed by the NCAA division II athletic trainer at $27,000. Division I salaries were $24,500, and division III athletic trainers earned $22,667. Athletic trainers also indicated by a 98% margin that they believe they are underpaid and 82% stated that the National Athletic Trainers Association should recommend a base salary range for the certified athletic trainer. Laurenzi and Sellers concluded that more research is needed to address these concerns.

The studies completed by Moss (1992) and Laurenzi & Sellers (1991) show some discrepancies. The data from the Laurenzi and Sellers study show salary ranges high by as much as $5,000. They also reported a $6,000 difference between those athletic trainers possessing a bachelor's degree to those holding a master's degree, whereas Moss found no difference in salary based on the academic degree held by the athletic trainer. A logical reason for this difference could be that Moss studied only entry-level positions while the Laurenzi and Sellers study was not limited to entry-level positions. The

Laurenzi and Sellers study did show a difference in salary for those athletic trainers with more experience in the profession.

Lephart and Metz (1990) conducted a study of division I athletic trainers in an attempt to identify financial and appointment trends. Division I athletic directors returned 70 surveys (78%). They found that there was no significant difference in the base salaries between those athletic trainers who were exclusively clinicians and those with combined responsibilities. The mean salary of the head athletic trainer/head football trainer combination was $38,630, the head basketball athletic trainer was $25,391, while the staff assistant athletic trainer earned $24,440. Additionally, it is significant to note that the authors found no difference in annual base salary relative to length of appointments, 9 vs. 12 months. Institutions that offered an athletic training curriculum offered additional benefits. Those benefits included 50% of the athletic training staffs receiving teaching stipends, 54% receiving complete travel expenses to national conferences, and 57% of the staffs having a courtesy car available.

Rankin (1992) conducted a study to determine the finances available to administer athletic training programs in college and high school settings. Questionnaires were sent to head athletic trainers in six groups: major football NCAA division IA, small football NCAA division IA, NCAA division IAA, NCAA division II, NCAA division III, and high schools. Questionnaires were returned by 143 head athletic trainers (57%). Expendable supplies (Tape, bandages, dressings & pharmaceuticals, etc.) and capital equipment (taping tables, treatment tables & modalities, etc.) budgets were examined and found to decrease by level of the institution. The greatest variability in money for expendables was in the major football division IA with a range of $40,000 to $205,000.

The lowest was NCAA division III at $11,717 +/- $4,011. Rankin also studied athletic trainers' salaries. He reported mean salaries of $30,706 at division IA major college football, $27,412 at division IA small college football, $32,375 at division IAA, $30,155 at division II, and $27,702 at division III. Rankin also noted that the number of full-time athletic trainers decreased with the level of the program. In the Rankin study athletic trainer salaries are much high than reported by Laurenzi and Sellers by as much as $3,000 in divisions I and II. Division II were higher by nearly $10,000. The differences could be due to the fact that the Laurenzi and Sellers study was confined to athletic trainers working in the Midwest (Laurenzi & Sellers, 1991).

Rankin (1992) also studied two athletic trainer benefits, which included professional dues and travel and professional meeting payment. The professional dues varied from $646 +/- $692 at the division IA major football to $107 +/- $141 at the division II level. Travel expenses were $5,232 +/- $2,624 at the division IA major football to $611 +/- $486 at the division III level.

The reason this study was included was because athletic trainers' salaries and benefits were studied, and also to show that an institutions budget is not a good indicator of athletic trainers' salary (Rankin, 1992). Division IA athletic trainers' mean salary range is lower in many of the studies, which can be attributed to the larger number of athletic trainers and the extremely low wages of the assistants compared with the head athletic trainers (Laurenzi & Sellers, 1991; Rankin, 1992; Lawton, 1993).

Capel (1990) conducted a study on the attrition of athletic trainers. Questionnaires were returned by 82 (37%) certified athletic trainers who were no longer practicing in the profession. Athletic trainers listed poor salary (29%) as the number one

reason for leaving the profession. When asked what aspect of their job was the least enjoyable, 37% reported long hours and 12% reported salary. Capel concluded that administrators need to look strongly at salary as a major factor of attrition in the athletic training profession.

SUMMARY

In summary, based on the data that is available concerning differences between NCAA divisional levels regarding duties and compensation, there is limited research reported in the literature. There have been several other studies on collegiate athletic training salaries, but none of these studies compares college salaries by NCAA divisions and salary differences (Moss, 1992; Hunt, 2001; Magnus et al., 1992). The studies reviewed were conducted in varying settings and regions of the country. The studies showed discrepancies in athletic trainers' salaries according to setting, degree, NCAA level, geographical region, and multiply other factors. Lawton addressed salary in regard to NCAA divisional level and duties, but the study was conducted in 1993. A recent study released in February, 2001, by an Ohio based firm has problems such as extremely low questionnaire return rate and no breakdown between athletic trainer positions within the collegiate setting. Past problems involving studies and conflicting results suggest the need for more information in order for the profession of athletic training to continue and prosper. According to Capel (1990), salary and long hours are the number one reason for leaving the profession. Further study is needed to make athletic trainers aware of current trends and to provide information to administrators about expectable salary ranges and

work conditions. Therefore, the need for this study was apparent and will provide a valuable resource for athletic trainers making career choices within the collegiate setting.

CHAPTER III

METHODS

This chapter presents the methodology used in completing this study. These methods include the description of the subjects, the study design and materials, procedures used in data collection, and statistical analysis of the data.

SUBJECTS

The subjects for this study consisted of head athletic trainers at the National Collegiate Athletic Association member institutions. The subjects were divided according to the NCAA division membership list and categorized by the NCAA as division IA, division IAA, division IAAA, division II, and division III. Based on the size and scope of their athletic program. The NCAA also bases the divisional breakdown by regulating financial assistance to the athlete and the number of sports sponsored. Division IA is the largest in scope and the divisions decrease in size to the smallest, division III (NCAA, 2000). As of July of 2000 the number of active member schools was 114 division IA, 122 division IAA, 82 division IAAA, 261 division II, and 393 division III (NCAA, 2000). The NCAA was contacted and a request was made for a list of address labels of all current head athletic trainers at each affiliated college or university. The labels were broken down into divisions according to The Blue Book Of College Athletics (Dees, 1999). Then fifty-percent of the schools from each division were chosen by using a random numbers table. Because of the high number of NCAA schools, it was determine that only fifty-percent of the total population would be surveyed due to financial constraints.

STUDY DESIGN

The questionnaire used in this study is presented in Appendix B. The questionnaire was to be completed by the head athletic trainer of each NCAA institution and returned in a reasonable amount of time. The questionnaire was developed to elicit responses that would lead to answers posed by the nullhypotheses.

The format of the study was developed to be short in length, easily able to complete, and returnable without cost to the individual. This was done by a review of current literature to formulate the basic outline of the information to be gained in the study and utilizing experts in the profession. A self-stamped return envelope was also included to help with costs. The questionnaire was then brought before a committee of my peers including current head and assistant athletic trainers, professors, and departmental personal who are also experts in the field. The questionnaire was also reviewed by a statistician for the purpose of data collection, processing, and to avoid any statistical problems. Changes were made according to the suggestions of all party's involved.

The questionnaire utilized for this study was divided into three sections. The first section of the questionnaire contained questions regarding the head athletic trainers' profile. Questions were formatted such that the individual only had to check boxes. The profile questions were concerned with the position, experience, education, age, and certifications of the respondent and institutional size and status. The second section contained questions regarding the respondents' duties including sports coverage, teaching, hours, and various duties that required them to enter an hourly amount to a list

of duties presented to them. The third and last section asked questions about base salary, benefits, insurance, and contract length.

PROCEDURES

The questionnaires were sent to 487 NCAA member institutions in an organized manner. Included with the questionnaire was a cover letter stating all of the factors involved in the research (see appendix B to view the cover letter and questionnaire). The cover letter explained the reasons behind the study and how it would benefit athletic trainers and further the profession. A statement insuring that all data collected would remain confidential and be strictly used for research purposes only and destroyed at the end of the study was included. Lastly, a contact name, phone number, e-mail address, and postal address was included in case there were any questions or concern about the study. In addition, a pre-paid return envelope was included to insure a better return rate.

STATISTICAL ANALYSIS

The statistical analysis was performed using the SAS (version 6) statistical package (SAS Institute Inc., 1994). Frequencies, means, standard deviations, analysis of variance, and correlations were calculated for all NCAA divisions. The level of significance for this study was set at $P<.05$ (95%).

CHAPTER IV

RESULTS

The purpose of this study was to compare the differences between the NCAA divisional levels of athletic training positions regarding duties and compensation. This chapter will present the data collected from the respondents of this study. Descriptive statistics were used to calculate means and standard deviations. The SAS software system was used to calculate frequencies, percentages, ANOVAs, Pearson correlation coefficients, and confidence levels (SAS, 1994).

Respondents

The head athletic trainers of fifty percent of all NCAA divisions I, II, and III member institutions were asked to complete and return a questionnaire. According to the NCAA and the College Blue Book of College Athletics the total number of member institutions equaled 976 making the total number of surveys mailed 487. Three hundred and thirty-three questionnaires were returned, giving the researcher an overall return rate of 68.3%. Of the 333 surveys returned to the researcher, there were 66 (115.7%) IA, 40 (65.5%) IAA, 10 (24.3%) IAAA, 89 (67.9%) II, and 128 (68.3%) III (Table 1). Of the 333 respondents, 167 (50.1%) were from public institutions, 165 (49.6%) were from private institutions and 1 (.3%) did not respond to the question. The return rate of all NCAA divisions was above the fifty percent mark except for IAAA, which was only 24.3% (see limitations of the study). The high response to this study indicates concern among athletic trainers regarding salaries, duties, and benefits.

Head Athletic Trainers' Salaries

Table 2 shows the mean and standard deviations of the salaries by division. The mean athletic trainers' salary regardless of NCAA division was $42,090. Head Athletic trainers ranged from a mean of $51,400 in division IA to a mean of $33,500 in division II, with division III showing a mean salary of $34,850. The data did not show an inverse relationship between head athletic trainers' salaries and the institutions NCAA divisional level. The order from high to low according to mean salary was shown to be division IA, IAAA, IAA, III, and II. The highest paid head athletic trainer was employed by a division IA institution earning $65,000 plus. The lowest paid head athletic trainer was in a division III school earning below $19,999. Many of the returned surveys with salary ranges at or below the $19,999 level indicated that they were part time employees. The highest percent (21.7%) of head athletic trainers indicated a salary range of $30,000-$34,999, while fifty-three percent fell below the $40,000 range. Table 3 shows the head athletic trainers' salary frequencies and percentages of all returned questionnaires without regard to division. Table 4 shows the number of head athletic trainers at each NCAA divisional level according to salary range. An ANOVA for the head athletic trainer's salaries across divisions indicated that there is a significant difference in head athletic trainer salaries between the NCAA divisions ($F= 39.70$; $P= .0001$). Therefore, nullhypothesis one is rejected because there was significant difference in salary between NCAA divisions.

Head Athletic Trainers' Salary by Institutional Status

Head athletic trainer salary differences between public and private institutions were also compared. The number of returned questionnaires was almost equal with public institutions returning 50.3% of the total and private institutions returning 49.7%. Table 5 shows the mean salary for head athletic trainers at both public and private institutions. Head athletic trainers at public institutions averaged about $7,000 more with a mean salary of $42,350 while private institutions paid $35,800. Therefore, nullhypothesis thirteen is rejected because a significant difference between public and private institutions was indicated.

Head Athletic Trainers' Salary by Education

Table 6 shows the mean salary of head athletic trainers broken down by their education such as bachelor's, master's, and doctorate. Of the questionnaires returned, 52 (15%) reported having attained only a bachelor's degree, 272 (81.9%) reported having earned a master's degree, and 8 (2.4%) hold a doctorate. The educational level showed a direct relationship to earned income. Those with a bachelor's degree reported a mean salary of $32,500, while those holding a master's degree earned a mean salary of $40,000. Head athletic trainers possessing their doctorate degree showed the highest salary with a mean of $53,300. All of the athletic trainers holding doctoral degrees except one indicated that they were also the program director at their institution.

Nullhypothesis fifteen is rejected because of significant differences in educational level and salaries.

Head Athletic Trainers' Salary by Years of Experience

Table 7 shows the head athletic trainers' mean years of experience reported according to NCAA divisional level. The data shows a range from 1 to 38 years with a majority falling below 12 years of experience. The athletic trainers from the division IA level reported the highest mean years of experience at 18.45 with a standard deviation of 8.74, and division II at the lowest with mean of 10.73 years of experience as a certified professional. The data indicated a direct relationship between years of experience and salary. Those athletic trainers with only 4.71 (+/- 3.59) years of experience reported earnings in the $20,000-$24,999 range, while trainers with 23.21 (+/- 8.08) earned in excess of $65,000 (Table 8). A correlation analysis also indicated a significant relationship between experience and salaries for head athletic trainers (R= .641; P= .0001). Nullhypothesis four and seven are rejected because years of experience are directly related to salary and NCAA divisional level.

Head Athletic Trainers' Salary by Gender

Table 9 shows mean head athletic trainers' salary broken down by gender. Of the head athletic trainers completing the questionnaires, 247 (74.2%) were male and 86 (25.8%) were female. Male head athletic trainers' mean salary without regard to NCAA divisional level was $40,200, while females earned only $35,950. This indicates about a $5,000 difference between males and females. The ANOVA also indicated no significant

differences between divisions regarding male and female salaries. However, nullhypothesis ten is rejected because overall males earned more than females. All divisions showed the same 74% male to 25% female ratio and 1% not reporting.

Head Athletic Trainers' Primary Sport Coverage

Table 10 shows the different primary sport coverage of the respondents. The highest percentage of the respondents --140 (42.4%)-- listed football as their primary sport assignment. The second largest category --102 (30.9%)-- were athletic trainers who had no primary sport coverage, but were responsible for all sports at their institution. There was an inverse relationship to primary sport coverage and NCAA divisional level. Most of the respondents at the division IA, IAA, and IAAA reported having a primary sport assignment, while at the lower divisions (II and III) athletic trainers reported they covered all sports.

Table 11 shows the mean salary by primary sport coverage. Head athletic trainers' salaries varied depending on primary sport covered. Those athletic trainers listing football as their primary sport had the highest mean salary of $42,750, while the lowest was those listing wrestling at $29,150. Athletic trainers who covered all sports at their perspective institution indicated a mean salary of $36,200.

The Significance Values showed that sport coverage does affect salary ranges. The ANOVA results were F= 4.24 and P= .0004. Nullhypothesis twelve is rejected because sport coverage is a related to salary.

Head Athletic Trainers' Contract Length

Table 12 shows the average contract length of head athletic trainers broken down by division. Division IA schools averaged the longest contract length with a mean reported contract of 11.8 (+/- 0.44) months. Division III schools reported the shortest contracts with a mean of 10.67 (+/- 1.1) months. Table 13 shows the exact numbers for each contract length reported by all divisions.

A significant correlation was found between the two variables of contract length and salary (R= 0.248; P= .0001). The differences were seen in division IA, IAA, and IAAA schools reporting longer contracts and higher salaries than division II and III schools. Nullhypothesis eleven is rejected.

Head Athletic Trainers' Certifications

Table 14 shows the certifications held by head athletic trainers by division. The CSCS from the NSCA was the most popular certification held by 11.7 percent of all the respondents. Second was the EMT certification held by 11.1 percent of the respondents. The third was physical therapy certification held by 3.6 percent of the respondents, most of whom were employed at IA institutions. An ANOVA indicated extra certifications were not significant in determining head athletic trainer salaries (F= 7.62; P= .0006).

Head Athletic Trainers' Teaching Requirements

Table 15 shows the hours of required teaching according a NCAA division. The data indicated that division II head athletic trainers were required to teach the most with

an average of 4.01 credit hour per week. Division IA were required to teach the least reporting only a mean of 1.01 hours per week. Teaching hours and salary ranges showed no significant correlation (R= -.102; P= .0635). Nullhypothesis fourteen is accepted because teaching is not a significant predictor of salary.

Head Athletic Trainers' Hours/Weekends

Table 16 shows the mean number of hours worked in a typical week according to division. Division IA reported the highest number of hours worked in a typical week with a mean of 61 hours and division III was the lowest at 53.6 hours per week. Without regard to division, the highest percent (43.9%) of the athletic trainers completing the questionnaire reported an average range of between 60-69 hours per-week (Table 17). The survey also asked about the number of weekends worked in a month with primary sport in season and out of season (Tables 18 & 19). The data indicated that when the athletic trainers' primary sport was in season, the majority (77.4%) worked four weekends per month. With their primary sport out of season, the majority (28.6%) still indicated working four weekends per month; however, 45.1% worked two or less weekends per month. This is much less considering only 7.6% reported working two or less weekends per month when in season.

Head Athletic Trainers' Insurance Coverage

Table 20 shows the frequency and percentage of insurance coverage as reported by the respondents of the survey without regard to divisional consideration. Health insurance ranked the highest with 95.8% of all schools offering it and optical insurance

ranked the lowest with only 52.0% of schools providing it. Table 21 shows the divisional break down of insurance coverage by institution. There was no significant difference between the divisions with insurance coverage. All schools offered about the same amount of coverage no matter what the divisional level, size, status, or contract length.

Table 22 shows the significant differences between the divisions regarding insurance coverage (ANOVAs). There were no significant differences regarding any of the insurance coverage between the divisions. Therefore, nullhypothesis seventeen is accepted. This survey was limited to only health, dental, optical, disability, liability insurance, and retirement plans.

Head Athletic Trainers' Benefits

Table 23 shows the frequency and percentage of benefit coverage as reported by the respondents without regard to divisional limitations. Payment of NATA yearly convention fees and travel was covered by 75.7% of all institutions while bonuses paid according to win/loss percentage was a benefit offered by only 4.5% of the schools. Table 24 shows the divisional differences in benefits offered. Division IA offered the highest percentage of benefits in all categories, except bonuses not based on win/loss percentage. Division IA, however, is the only group of institutions (22.7%) that reported paying bonuses based on win/loss percentages. Division IA also had the highest percent of courtesy cars offered to their trainers (41%), which is more than a 21% margin over the next closest division (Division II at 22.5%).

Table 25 shows the significance levels of benefits offered by the different NCAA divisional levels. ANOVA showed a significant difference in all the benefits except for payment of CEU's (F= 1.49; P= .205); therefore, nullhypothesis sixteen is rejected.

Head Athletic Trainers' Hours Spent on Specific Duties

Tables 26-33 show the various mean hours spent by head athletic trainers on the following duties: administrative activities, clinical supervision of SAT's, insurance billing, games/practices/travel, planning team travel & meals, strength & conditioning, and athlete doctor appointments. The highest amount of the hours spent by head athletic trainers across the board for all divisions was in the games/practice/travel category. They varied from a high of 22.78 (+/- 11.67) mean hours at the division II level to 14.40 (+/- 7.70) at division IAAA schools. The least amount of hours for all divisions was time spent on planning team meals and travel averaging only .55 (+/- 1.41) hours per week. The division IA, IAA, IAAA schools indicated spending less time on strength and conditioning compared to the lower divisions (II & III).

Table 34 shows the significance values for differences when duties were compared across divisions (ANOVAs). Significant ANOVA's were found for administrative duties, clinical supervision of SAT's, games/practice/travel, insurance billing, planning team travel and meals, and strength and conditioning duties. No significant differences were found in hours spent on doctor appointments and treatment/rehabilitation. Nullhypothesis three is rejected because not all duties were proven significantly different.

Predictors of Head Athletic Trainers' Salary

Table 35 shows ANOVAs to head athletic trainers salary and Table 36 show independent variable correlations to head athletic trainers' salary. The data indicated that division (Table 2), years experience (Table 8), education (Table 6), gender (Table 9), contract length (Table 13), primary sport covered (Table 11), and institutional status and size (Table 5), all play important roles in predicting salary. Factors such as credit hours taught (Table 15), hours worked (Table 16), and extra certifications (Table 14) played no role at all in determining the earning potential of head athletic trainers.

Assistant Athletic Trainers' Salaries

Table 37 shows the mean and standard deviations of assistant athletic trainers' salaries by division. The data indicated assistant athletic trainers' salaries vary greatly among divisions ranging from $31,100 at division IAAA to $25,600 at division II. The over-all mean salary was $28,350 across all divisions with a standard deviation of $6,600. Assistant athletic trainers in division IAAA earned higher salaries than those in divisions IA, IAA, II, and III, respectively. A wide range of assistant athletic trainers' salaries was reported. The divisional break down of assistant athletic trainers' salary from high to low was Division IAAA, IA, IAA, III, and II. The largest difference was shown in the division II schools with a standard deviation of $9,950. Table 38 shows the exact numbers and percentages of respondents in each salary range according to divisional level.

The assistant athletic trainers' salaries proved to be significantly different between divisions (F= 4.46; P= .0017), therefore, nullhypothesis two is rejected. Table 39 shows the percentages and frequencies of all returned questionnaires.

Full Time Athletic Trainers'

Table 40 shows the mean number of full time certified athletic trainers employed by NCAA division. Certified graduate assistants were not considered to hold full time athletic training positions in this study. The data indicated an inverse relationship between the divisional level of the college and the number of full time certified athletic trainers on staff. NCAA division IA institutions employed a mean of 5.03 full time staff athletic trainers while an average of only 1.80 were employed at the division III level. These staff positions ranged from 11 at division IA level to 0 at the division III level. Three of the surveys indicated that there was no full time paid position at their school, rather part time athletic trainers hired through clinics. The highest percentage of schools responding to the survey --98 (29.5%)-- retained only one full time certified athletic trainer. Coming in second with 26.5% were schools employing only two full time athletic trainers. All (100%) of the division IA schools indicated having three or more full time positions. The frequencies and percentages of full time certified athletic trainers according to the survey totals can be viewed in table 41.

An ANOVA of full time athletic trainers and NCAA division was significant (F= 60.96; P= .0001), indicating that head/assistant athletic trainers working on larger staffs earn more money. So, nullhypothesis five is rejected.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this study was to compare the different NCAA divisions regarding head athletic trainer duties and compensation. This chapter will discuss the results of this study and relate the data to the current literature.

DISCUSSION

Head Athletic Trainers' Salaries

The results of this study show a different trend compared to recent studies conducted on athletic trainers' salaries. The most recent study conducted by an Ohio based research firm listed division I mean salaries at $49,135, which is about $2,000 more than found in this data. The Ohio based firm did not break down division I into its perspective rankings (IA, IAA, and IAAA). According to the data, there is a $7,700 difference between the mean salary of division IA and IAA (Table 2), which is not accounted for in the Ohio based study. They also reported much higher salaries ($12,000) for the division II and III schools compared with the present study. The Ohio based firm did agree with the current study showing that division II salaries are lower than Division III salaries. This data doesn't agree with many of the previous studies up to this point. Pervious studies such as Lawton and Laurenzi & Sellers all showed an inverse relationship of salary and divisional level, the higher the division the higher the salary. Somerville and Stanwood (1994) reported almost identical mean salaries for division I and division III at $31,124 and $31,270, respectively. It should be noted that

the Lawton (1993), Laurenzi & Sellers (1991), and Somerville & Sellers (1994) studies are all about 10 years old. The fact that higher salaries are present in the current study and the one conducted by the Ohio based firm is consistent with growth of the profession and cost of living increases. Another reason for the differences in pervious studies and the present study is the subjects studied. Lawton's study was the only one to break down the divisions in all 5 categories and separate head and assistant salaries. The newest study completed by the Ohio based firm also did not specify if they studied NCAA or NAIA schools or what was the exact type of divisions studied (Hunt, 2001). It does seem, though that athletic trainers' salaries are on the rise.

Assistant Athletic Trainers' Salaries

This study showed that assistant athletic trainers' salaries are consistently lower than head athletic trainers by a considerable margin (Tables 2 & 15). The overall mean salary for assistant athletic trainers was $28,350 compared to head athletic trainers at $42,090. The margin of differences was from $20,000 at the division IA level to $5,000 at the division III level. Lawton reported assistant athletic trainers earning around $1,000 less at the division IAA, IAAA and III level than the current study, while approximately the same at the IA level. Lawton also reported division II assistant salaries at $6,000 more than the current study. Magnus, Golden, Tandy, and Koloskie (1992) reported assistant athletic trainers earning $25,000 or less per year than head positions, but did not study divisional differences. The other literature reviewed did not study assistant athletic trainers separate from head athletic trainers, but just grouped all athletic trainers by division or college versus other settings.

Head Athletic Trainers' Years of Experience

The data showed a direct relationship between a trainer's years of experience and their salary (Tables 7 & 8). The divisional level and the years of experience were not inversely related, but showed a direct relationship to mean salary. The trainers with the highest average years of experience (Division IA / 18.45 years) showed the highest earnings, while the trainers with the lowest average years (Division II / 10.73 years) showed the lowest earnings. The Ohio based firm also reported a direct relationship between experience and annual base salary (Hunt, 2001). They reported athletic trainers with 5 years or less earning $27,623 and those with 20 plus earning $62,075, although their study was not limited to head athletic trainers at the collegiate level (Hunt, 2001). Laurenzi and Sellers reported similar results showing that athletic trainers with 1 to 5 years experience earn $26,048 and those with 10 years or more earn $38,233. Both the Ohio firm (2001) and the Laurenzi and Sellers (1991) study did not limit their subjects to collegiate level trainers, but included all settings. According to the data, it can be assumed that an athletic trainers get more experience they move up to higher positions such as head athletic trainers versus assistant positions or higher divisional levels, thus showing the relationship in years of experiences and salary increases. Many positions also pay directly according to an athletic trainer's years of experience.

Head Athletic Trainers' Salary by Gender

This study is consistent with studies in the past on the subject of gender bias in athletic trainer salaries (Table 9). Mean salary ranges between males and females at the

head athletic trainer position showed a difference of nearly $5,000 with males earning $40,200 and females earning $35,950, respectively. Males were also the primary respondent to the survey with 74.2% of the total respondents being males. This would lead to the assumption that not only do females earn less at the head athletic trainer position, but they are all less likely to hold a head position. The Ohio based research and consulting firm and the Dewald and Fuller studies both reported that males earned $10,000 more than their female counter parts. The University of Virginia study reported that they found no association between gender and salary.

Head Athletic Trainers' Salary by Education

This study is consistent with other studies reporting a direct relationship between highest degree earned and salary (Table 6). Keep in mind that other factors influencing salary are not being considered such as certifications, experience, institutional size and status, and gender. The data indicated a jump of $8,000 from a bachelor's degree to a master's degree and a $13,000 increase for those possessing a doctorate. This study when compared to the Ohio based study reported salaries lower by an average margin of $6,000 to $7,000 (Hunt, 2001). This can be attributed to the fact that this study was limited to only collegiate positions and did not include higher paying positions such as the professional sports arena and professors. Other studies such as the Somerville and Stanwood (1996), Laurenzi and Sellers (1991), and the University of Virginia (1994) study all contain values that are within a few thousand dollars of the present study. Athletic trainers looking to work at the collegiate level should take into consideration the need for a master's degree. The survey indicated that most positions at the collegiate

level require a master's degree or higher. This is supported by the data showing that 81.9% of the respondents held master's degrees, while only 15% held a bachelor's degree (Table 6).

Head Athletic Trainers' Primary Sport Coverage

The research concerning primary sport coverage and salaries is almost nonexistent when considering divisional differences. The current study indicated that athletic trainers in the lower divisions usually do not have a primary sport to cover, but are responsible for all the sports as a whole. This is easy to understand when the number of fulltime athletic trainers is figured into the equation. The data indicated that the average division II and III school employs only two fulltime athletic trainers compared to the division I which averages between 3-5 (Table 40).

The data in this study indicated that head athletic trainers listing their primary sport as football had the highest mean salary at $42,750 (Table11). This is consistent with the Lephart and Metz (1990) study, which reported a difference in earnings according to sport coverage. They listed the head athletic trainer/football trainer as the highest paid combination earning $38,630. The current study found from high to low ranking the sports were football, hockey, women's basketball, baseball, men's basketball, then all sports. Comparisons were not made as to in which divisional level the trainers were who reported primary sport coverage, which could have skewed the results (for example, if more of the head athletic trainers at the division IA level listed women's basketball instead of men's basketball). The other studies in the literature review did not make any comparisons of sport coverage and salary.

Head Athletic Trainers' Contract Length and Certifications

The current study showed a direct relationship between contract length and the salary earnings of head athletic trainers (Table 35). The only other study to make this comparison was the study conducted by Lephart and Metz in 1990. Their findings showed no significant relationship between contract length and salary; however, Lephart and Metz studied only division I schools. The lower divisions reported shorter contracts and small salary ranges, which could lead to the conclusion that contract length is indeed a factor. There are, however, multiple factors that affect salaries being lower at the lower divisional institutions that have no bearing on contract length. So, there is still not sound evidence that contract lengths by themselves affect salary.

Extra certifications held by head athletic trainers showed no significant relevance when compared to salary (Table 34). The majority of the certifications were EMT and CSCS certifications, which made up about 22%, respectively (Table 14). Lawton (1993) reported a much higher percent of division IA athletic trainers holding a certificate as registered physical therapists(16%) compared to the 9.1% in the current study. The data also indicted a rise in CSCS certifications compared to Lawton, which can be attributed to athletic trainers' increased awareness of the importance of strength and conditioning issues. Lawton's results support the current study with regard to added certifications not showing a significant impact on salary predictability. The certifications were compared in and by themselves to the salary earning. Other factors could have affected the increased salary as well. This in no way lessens the importance of additional

certifications, especially when pursing a job. Many employers are now looking for athletic trainers who can also serve as strength and conditioning specialists as well.

Head Athletic Trainers Insurance and Benefits

This study is consistent with the literature in regard to insurance coverage. Lawton, and Staurowsky & Scriber all reported health insurance coverage in the 95% range and optical and dental lower in the 60-70% range across all divisions. There was no significant differences between division with regard to the insurance offered (Tables 21 & 22).

Benefits were significantly different across the NCAA divisions. Division IA reported 41% of their head athletic trainers had courtesy cars and division II reported 22.5% had courtesy cars while all other institutions were below 5%. Higher percentages of all surveyed benefits were reported at division IA institutions (Table 24). Division IA schools were also the only institutions to report bonuses paid to the head athletic trainers according to win/loss percentages. This is thought to be due to the much higher revenue generated by the division IA athletic programs (Rankin, 1992). The lower divisions only came close to division IA in the areas of CEU's, NATA convention travel and fees, and NATA dues.

Lephart and Metz (1990) reported a lower number (54%) of trainers received travel expenses to conventions compared to the current study, which indicated a 75.7% occurrence. However, they did report much higher use of courtesy cars at 54%. The difference seen here is probably due to the fact that in the Lephart and Metz study courtesy cars were listed as available for staff (i.e. doctor appointments and training room

activities) use versus just for head athletic trainers' personal use intended in the current study.

The current literature did not go into a great deal of depth as to the benefits offered to head trainers at the collegiate levels. Lawton (1993) simply stated in his study that most institutions provided money for CEU's and nation convention travel. Staurowsky and Scriber indicated in their study that 74% of surveyed institutions offered tuition assistance for spouses. The current study did not take into account tuition assistance when inquiring about benefits. The Rankin study took the next step and reported actual money amounts. Rankin reported professional dues varied from $646 at the division IA major football to $107 at the division II level. Travel expenses were $5,232 at the division IA major football to $611 at the division II level (Rankin, 1992).

Head Athletic Trainers' Duties and Hours

The data indicated that 34% of head athletic trainers work 60-69 hours in a typical work week (Table17). 14.5% of all head athletic trainers worked 70-79 and 5.1% said they worked 80-89 hours per week. Division IA reported the highest mean hours per week at 61 while division III reported the lowest at 53 hours per week (Table 16). This was not what was expected concerning hours between divisions. The higher number of athletic trainers employed at the higher divisions was thought to off set the total hours worked per athletic trainer. This, however, was not the case as reported by the respondents.

Weekend coverage of athletic events and general training room activities was reported by the number of weekends worked in season and out of season. Seventy seven percent of head athletic trainers reported working four weekends a month during in

season sport coverage compared to 28.6% during the off season (Tables 18 & 19). This is no real surprise to athletic trainers who are used to working long hours. No divisional differences in reference to hours or weekends were made during this study. There is currently no pervious studies of head athletic trainers' hours or weekends by which to make comparisons.

The current study reported significant differences between divisions regarding all duties except treatment/rehabilitation of athletes and doctor appointments (Table 34). Most head athletic trainers also reported little or no time spent on planning team travel and meals, which is likely due to a specific position filling these duties other than the trainers (Table31). Treatment/rehabilitation of student athletes averaged 15.48 to 17.20 hours across all divisions while time spent on doctor appointments averaged 3.17 hours per week. The data further indicated that division I schools spend more time on administrative duties than division II and III schools. These finding are consistent with Lawton's 1993 study, which also found administrative duties more time consuming at the higher divisions. Lawton reported division II and III head athletic trainers spending more of their time supervising games and practices than at the division I level. He attributed this to the increased responsibilities and organizational needed to run the bigger programs. Another explanation is due to the larger staffs at division I schools. This leaves the assistant trainers working more with athlete treatment, rehabilitation, game and practice coverage while the head athletic trainer has more administrative responsibilities. Game and practice coverage was then indicated as the most time consuming of all duties for head athletic trainers ranging from 17.18 at the division IA level to 22.78 at the division II level (Table 30).

Clinical supervision of student trainers was highest at the division IAA, IAAA, and II levels compared to the division IA and III levels. The hours for clinical supervision reported were about 9.5 at the division IA and III schools while divisions IAA, IAAA, and II reported 15.3 as an average (Table 27). This is easily explained by the larger staffs at division IA institutions, permitting assistant athletic trainers to work more with the students. At the division III level, many times there is just a single trainer working all the sports and student trainers are not involved or are on a internship basis for a larger school.

The last two duties covered in the survey were insurance billing, and strength and condition. It was hypothesized that division I head athletic trainers would spend less time with the strength and conditioning aspects because of the likely hood of a full time strength coach at the larger schools. The data indicated this trend showing 0.36 hours spent on strength and conditioning at the IA level compared to 2.13 at the division III level (Table 32). It was also hypothesized that insurance billing duties would follow the same trend because of the likelihood of an insurance coordinator being employed at the larger institutions. The data, however, indicated that divisions IA and III averaged close to the same amount of hours (2.33 hours) while divisions IAA, IAAA, and II showed almost double that, at about four hours (Table 29). There is no reasonable explanation for these results. No current literature was found on the strength and conditioning or insurance practices required of head athletic trainers at the collegiate level. Further research is needed to find out more about how insurance billing is conducted through the athletic programs at the various institutions.

SUMMARY AND CONCLUSIONS

This study examined the salaries, duties, and benefits of head athletic trainers at the NCAA divisional levels. The analysis provided information on the relationship of these variables to the different institutions. General factors, such as head and assistant athletic trainers' salaries, were found to correlate with NCAA divisional alignment of the institution. Head athletic trainers' salaries were primarily based on the institutions' divisional level and years of experience.

Eight main factors that were statistically significant in determining head athletic trainers' salaries were NCAA divisional level, education, experience, primary sport coverage, contract length, and institutional status. These findings are important because they can be directly compared to the athletic trainer's benefits and duties. Athletic trainers can then determine how much education they are willing to pursue and at what divisional level they want to work. These decisions are made easier if athletic trainers are aware of the duties and benefits offered at the different institutions, taking into consideration all the factors that affect athletic training salaries and the work environment when making important career decisions. Factors such as extra certifications and teaching responsibilities that were shown to be statistically insignificant can then be analyzed for their independent value. It is important to note that certification may help initially when acquiring a position.

Assistant athletic trainers' salaries were also shown to be directly related to NCAA division and much lower than head positions. This is important when looking at future job plans concerning goals and career advancement.

Head athletic trainers in IA, IIA, and IAAA spent the majority of their time with administrative duties. Their peers in division II spent the most time with treatment and

rehabilitation of athletic injuries, while division III head athletic trainers spent the most time with game and practice coverage and traveling to competitions.

Insurance and benefits are also important factors when determining the over all job satisfaction of athletic trainers. Insurance was not statistically significant between the divisions. Previous studies support the data in regard to insurance at the different divisions being equal. Benefits, however, were shown to be superior at division IA institutions.

Further research is needed to aid in the determination of a base line for athletic trainers' salaries. There is a wide gap in salaries of head and assistant athletic trainers at the different NCAA divisions and no real evidence why the different institutions' pay scales vary. Capel found in 1990 that athletic trainers leaving the profession listed long hours and poor salaries as the primary reasons. In order to maintain high quality athletic trainers in the profession, issues such as these need to be addressed and reasonable standards maintained. The ability of the NATA and its members to uphold a high level of respect and continued success depends on the interest of qualified and intelligent people. These kinds of people are not going to be interested in low paying jobs with long hours and no future. So, it is our duty as athletic trainers to continue to research and stay abreast of current and future trends within our profession. The primary reason for this study was to provide current data regarding head athletic training positions to make available a guide for athletic trainers when making career choices within the collegiate setting.

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APPENDIX A

TABLES

TABLES LIST

Table 1

Returned Questionnaires from NCAA Institutions by Division

Division	Sent	Received	Percent
IA	57	66	115.7
IAA	61	40	65.5
IAAA	41	10	24.3
II	131	89	67.9
III	197	128	64.9
Total	487	333	68.3

Table 2

Head Athletic Trainers' Salaries by NCAA Division

Division	# of Respondents	Mean	Standard Deviation	Minimum	Maximum
IA	63	$51,400	$10,850	$35,000	$65,000+
IAA	39	$43,700	$10,000	$25,000	$65,000+
IAAA	10	$47,000	$12,050	$30,000	$65,000+
II	88	$33,500	$10,200	>$20,000	$54,999
III	127	$34,850	$9,330	>$19,999	$44,999
Mean	327	$42,090	$10,486	$25,999	$58,999

Table 3

Head Athletic Trainers' Salary Frequencies and Percentages without regard to NCAA Division

Salary Range	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<19,999	5	1.5	5	1.5
20,000-24,999	7	2.1	12	3.7
25,000-29,999	33	10.1	45	13.8
30,000-34,999	71	21.7	116	35.5
35,000-39,999	58	17.7	174	53.2
40,000-44,999	55	16.8	229	70.0
45,000-49,999	11	3.4	240	73.4
50,000-54,999	37	11.3	277	84.7
55,000-59,999	13	4.0	290	88.7
60,000-64,999	10	4.3	304	93.0
>65,000	11	7.0	327	100.0

Table 4

Head Athletic Trainers' Salary Range by Division

Salary Range	IA Frequency	IA Percent	IAA Frequency	IAA Percent	IAAA Frequency	IAAA Percent	II Frequency	II Percent	III Frequency	III Percent
>$19,999	0	0.0	0	0.0	0	0.0	2	2.27	3	2.36
$20,000-$24,999	0	0.0	0	0.0	0	0.0	3	3.40	4	3.14
$25,000-$29,999	0	0.0	0	0.0	0	0.0	18	20.45	15	11.81
$30,000-$34,999	2	3.17	4	10.25	1	10.0	28	31.81	36	28.34
$35,000-$39,999	4	6.34	9	23.07	2	20.0	15	17.04	28	22.04
$40,000-$44,999	13	20.63	9	23.07	1	10.0	10	11.36	22	17.32
$45,000-$49,999	3	3.17	2	5.12	1	10.0	3	3.40	2	1.57
$50,000-$54,999	12	19.04	8	22.0	2	20.0	5	5.68	10	7.87
$55,000-$59,999	7	11.11	2	5.12	0	0.0	0	0.0	4	3.14
$60,000-$64,999	6	9.52	3	7.69	2	20.0	0	0.0	3	2.36
>$65,000	16	25.39	2	5.12	1	10.0	4	4.54	0	0.0

Table 5

Head / Assistant Athletic Trainers' Salaries by Institutional Status (Public Vs. Private)

Status	# of Respondents	Mean	Standard Deviation	Percent
Public	165	$42,350	$12,600	50.3
Private	162	$35,800	$10,800	49.7
Overall	332	$39,075	$11,700	100

Table 6

Head Athletic Trainers' Salary by Educational

Education	# or Respondents	Percent	Mean	Standard Deviation
Bachelor's	51	16.0	$32,500	$11,500
Master's	269	82.5	$40,000	$11,800
Doctorate	6	1.5	$53,300	$10,300
Total	326	100	$41,933	$11,200

Table 7

Head Athletic Trainers' Years of Experience by NCAA Division

Division	# of Respondents	Mean	Standard Deviation	Percent
IA	66	18.45	8.74	19.81
IAA	40	15.97	8.22	12.01
IAAA	10	13.80	5.13	3.00
II	87	10.73	7.23	26.12
III	127	11.11	6.89	38.13
Total	333	14.01	7.24	100

Table 8

Head Athletic Trainers' Salary Range by Years of Experience

Salary Range	# of Respondents	Mean Years of Experience	Standard Deviation
>$19,999	5	6.00	4.79
$20,000-$24,999	7	4.71	3.59
$25,000-$29,999	33	6.75	6.62
$30,000-$34,999	69	8.07	4.94
$35,000-$39,999	58	11.13	5.56
$40,000-$44,999	54	15.88	7.14
$45,000-$49,999	11	16.90	3.36
$50,000-$54,999	37	19.29	6.83
$55,000-$59,999	13	17.92	4.31
$60,000-$64,999	14	20.42	6.07
<$65,000	23	23.21	8.08

Table 9

Head Athletic Trainers' Salaries by Gender

Gender	# of Respondents	Percent	Mean	Standard Deviation
Male	244	75.0	$40,200	$12,450
Female	83	25.0	$35,950	$10,850
Total	327	100.0	$38,075	$11,650

Table 10

Head Athletic Trainers' Primary Sport Coverage Disregarding NCAA Divisional Level

Primary Sport	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Football	140	42.4	140	42.4
All Sports	102	30.9	242	73.3
Men's Basketball	44	13.6	286	86.9
Hockey	12	3.6	298	90.5
Women's Basketball	10	3.0	308	93.5
Men's Soccer	6	1.8	314	95.3
Baseball	6	1.8	320	97.1
Women's Soccer	4	1.2	324	98.3
Volleyball	4	1.2	328	99.4
Lacrosse	2	0.6	330	100.0

Table 11

Head Athletic Trainers' Salary by Primary Sport Coverage

Sport	# of Respondents	Mean	Standard Deviation
Football	140	$42,750	$12,350
Hockey	11	$40,450	$14,200
Women's Basketball	8	$38,100	$12,750
Baseball	5	$37,000	$12,000
Men's Basketball	44	$36,800	$10,700
All Sports	102	$36,200	$11,350
Men's Soccer	6	$29,150	$2,000
Total	316	$37,207	$10,792

Table 12

Head Athletic Trainers' Contract Length by NCAA Division

Division	# of Respondents	Mean Months	Standard Deviation
IA	62	11.88	0.44
IAA	40	11.85	1.09
IAAA	10	11.80	0.63
II	88	11.09	1.13
III	126	10.67	1.10
Total	326	11.45	0.87

Table 13

Survey Results According to Contract Length of Head Athletic Trainers' by NCAA Division

Division	9 month	10 month	11 month	12 month	Total # of Respondents
IA Frequency/Percent	0 / 0.0	3 / 4.8	1 / 1.6	58 /93.5	62
IAA Frequency/Percent	1 / 2.5	3 / 7.5	2 / 5.0	33 / 82.5	40
IAAA Frequency/Percent	0 / 0.0	1 / 10.0	0 / 0.0	9 / 90.0	10
II Frequency/Percent	9 / 10.2	25 / 28.4	3 / 3.4	51 / 57.9	88
III Frequency/Percent	14 / 11.0	61 / 48.3	3 / 2.8	48 / 38.0	126
Division Totals	**24 / 7.4**	**93 / 28.5**	**9 / 2.9**	**199 / 61.1**	**326**

Table 14

Certifications of Head Athletic Trainers' by NCAA Division

Certification	IA Frequency/Percent	IAA Frequency/Percent	IAAA Frequency/Percent	II Frequency/Percent	III Frequency/Percent	Division Totals Frequency/Percent
EMT	6 / 9.1	7 / 17.5	1 / 10.0	14 / 15.7	9 / 7.0	37 / 11.1
CSCS	4 / 6.7	5 / 12.5	3 / 30.0	14 / 15.7	13 / 10.2	39 / 11.7
PT	6 / 9.1	2 / 5.0	1 / 10.0	2 / 2.2	1 / 0.8	12 / 3.6
PT-A	1 / 1.5	1 / 2.5	0 / 0.0	1 / 1.1	0 / 0.0	3 / 0.9
ACSM	3 / 4.5	0 / 0.0	0 / 0.0	0 / 0.0	4 / 3.1	7 / 2.1
PA	0 / 0.0	0 / 0.0	0 / 0.0	0 / 0.0	0 / 0.0	0 / 0.0
EMT-P	0 / 0.0	1 / 2.5	0 / 0.0	0 / 0.0	0 / 0.0	1 / 0.3
Total # of Respondents	66 / 100.0	40 / 100.0	10 / 100.0	89 / 100.0	128 / 100.0	99 / 29.7

Table 15

Head Athletic Trainers' Teaching Requirements by NCAA Division

Division	# of Respondents	Mean Hours	Standard Deviation
IA	65	1.5	1.7
IAA	40	2.9	3.6
IAAA	10	2.8	3.3
II	89	4.0	3.3
III	128	2.5	2.6
Total	332	2.7	2.9

Table 16

Head Athletic Trainers' Total Hours Worked Per Week by Division

Division	# of Respondents	Mean	Standard Deviation
IA	65	61	9.6
IAA	40	58.7	9.1
IAAA	10	57	8.2
II	89	57.3	11.7
III	128	53	9.7
Total	332	57.5	9.6

Table 17

Head Athletic Trainers' Hours Worked in a Typical Work Week
(disregarding NCAA divisional level)

Hours	Frequency	Percent	Cumulative Frequency	Cumulative Percent
40-49	38	11.4	38	11.4
50-59	113	34.0	151	45.5
60-69	116	34.9	267	80.4
70-79	48	14.5	315	94.9
80-89	17	5.1	332	100

Table 18

Head Athletic Trainers' Weekends Worked Per Month
(Primary Sport in Season)

# of Weekends Per Month	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1 Weekend	1	0.3	1	.03
2 Weekends	24	7.3	25	7.6
3 Weekends	49	14.9	74	22.6
4 Weekends	254	77.4	328	100.0

Table 19

Head Athletic Trainers' Weekends Worked Per Month
(primary sport out of season)

# of Weekends Per Month	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0 weekends	1	0.4	1	0.4
1 Weekend	50	17.9	51	18.2
2 Weekends	75	26.8	126	45.0
3 Weekends	74	26.4	200	71.7
4 Weekends	80	28.6	280	100.0

Table 20

Head Athletic Trainer Insurance Coverage
(Out of 333 returned questionnaires)

Insurance	Frequency	Percent
Health	319	95.8
Dental	252	75.7
Optical	173	52.0
Disability	262	78.7
Liability	261	78.4
Retirement Plan	314	94.3

Table 21

The Number of Head Athletic Trainers by NCAA Division Receiving the Following Insurance Coverage

Insurance	IA Frequency	IA Percent	IAA Frequency	IAA Percent	IAAA Frequency	IAAA Percent	II Frequency	II Percent	III Frequency	III Percent
Health	64	97.0	39	97.5	10	100.0	85	95.5	121	94.5
Dental	54	81.8	31	77.5	8	80.0	66	74.1	93	72.7
Optical	33	50.0	22	55.0	5	50.0	52	58.0	61	48.0
Disability	48	73.0	34	85.0	8	80.0	65	73.0	107	83.5
Liability	50	76.0	30	75.0	9	90.0	71	80.0	101	79.0
Retirement Plan	62	94.0	39	97.5	10	100.0	82	92.0	121	94.5
Total # of Respondents	66	100.0	40	100.0	10	100.0	89	100.0	128	100.0

Table 22

ANOVA for Insurance Coverage Between Divisions

Insurance	F Value	P Value
Health	0.37	0.8327
Dental	0.56	0.6894
Optical	0.67	0.6120
Disability	1.48	0.2089
Liability	0.36	0.8367
Retirement	0.54	0.7081

* If $P<0.05$

Table 23

Head Athletic Trainers' Benefit Coverage
(333 returned questionnaires)

Benefit	Frequency	Percent
Courtesy Car	31	9.3
Meal Plan	33	9.9
NATA Convention Fee & Travel	252	75.7
CEU's	226	67.9
NATA Dues	249	74.8
Bonuses Based on Win/Loss	15	4.5
Clothing Contract	45	13.5
Bonuses	20	6.0

Table 24

The Number of Head Athletic Trainers by Division Receiving the Following Benefits

Benefit	IA Frequency	IA Percent	IAA Frequency	IAA Percent	IAAA Frequency	IAAA Percent	II Frequency	II Percent	III Frequency	III Percent
Courtesy Car	27	41.0	2	5.0	0	0.0	2	22.5	0	0.0
Meal Plan	16	24.0	5	12.5	0	0.0	5	5.6	7	5.5
NATA Convention Fee & Travel	63	95.4	34	85.0	9	90.0	56	62.9	90	70.3
Payment of CEU's	52	78.8	27	67.5	5	50.0	60	67.4	82	64.0
NATA Dues	62	93.9	28	70.0	9	90.0	59	66.3	91	71.0
Bonuses Based on Win/Loss %	15	22.7	0	0.0	0	0.0	0	0.0	0	0.0
Clothing Contract	24	36.4	3	7.5	0	0.0	7	7.9	11	8.6
Bonuses	7	10.6	3	7.5	0	0.0	8	9.0	2	1.6
Total # of Respondents	66	100.0	40	100.0	10	100.0	89	100.0	128	100.0

Table 25

ANOVAS for Benefits Between Divisions

Benefit	F Value	P Value
Courtesy Car	34.38	0.0001
Meal Plan	5.59	0.0002
NATA Convention Fee & Travel	7.20	0.0001
Payment of CEU's	1.49	0.205
NATA Dues	4.93	0.0007
Bonuses Based on Win/loss Percentage	19.34	0.0001
Clothing Contract	10.36	0.0001
Bonuses	2.32	0.0571

* If $P<0.05$

Table 26

Head Athletic Trainers' Hours Spent on Administrative Activities per Week

Division	# of respondents	Mean # of Hours	Standard Deviation
IA	66	14.60	11.50
IAA	40	13.82	9.27
IAAA	10	17.50	6.34
II	89	9.61	5.97
III	128	10.16	5.80
Total	333	13.13	7.77

Table 27

Head Athletic Trainers' Hours Spent on Clinical Supervision of Student Athletic Trainers' Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	9.21	9.95
IAA	40	12.30	12.48
IAAA	10	17.60	27.86
II	89	13.44	10.26
III	128	9.97	10.39
Total	333	12.5	14.18

Table 28

Head Athletic Trainers' Hours Spent on Treatment/Rehabilitation of Athletes per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	15.48	10.18
IAA	40	15.7	8.52
IAAA	10	16.5	7.09
II	89	17.20	9.28
III	128	16.43	8.83
Mean	333	16.26	8.78

Table 29

Head Athletic Trainers' Hours Spent on Insurance Billing Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	2.53	4.44
IAA	40	4.07	5.38
IAAA	10	3.30	2.98
II	89	3.68	3.66
III	128	2.13	3.54
Total	333	3.14	4.0

Table 30

Head Athletic Trainers' Hours Spent on Games/Practice/Travel Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	17.18	11.51
IAA	40	18.07	12.50
IAAA	10	14.40	7.70
II	89	22.78	11.67
III	128	20.17	10.59
Total	333	18.52	10.79

Table 31

Head Athletic Trainers' Hours Spent on Planning Team Travel and Meals Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	0.86	1.69
IAA	40	0.47	1.35
IAAA	10	1.00	2.10
II	89	0.31	1.05
III	128	0.12	0.88
Total	333	0.55	1.41

Table 32

Head Athletic Trainers' Hours Spent on Strength and Conditioning Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	0.36	1.43
IAA	40	0.37	1.02
IAAA	10	1.40	1.83
II	89	1.83	4.13
III	128	2.13	4.04
Total	333	1.21	2.49

Table 33

Head Athletic Trainers' Hours Spent on Athlete Doctor Appointments and Travel Per Week

Division	# of Respondents	Mean # of Hours	Standard Deviation
IA	66	3.22	3.14
IAA	40	3.55	2.84
IAAA	10	3.00	3.55
II	89	3.38	3.28
III	128	2.71	2.52
Total	333	3.17	3.06

Table 34

ANOVA for Duties between Divisions
(Differences based on hours worked)

Duties	**F Value**	**P Value**
Administration	7.29	0.0001*
Clinical supervision of SAT's	2.62	0.0348*
Treatment/ Rehab.	0.39	0.8135
Games/Practice/Travel	3.31	0.0112*
Insurance Billing	3.05	0.0173*
Planning team travel/meals	4.67	0.0011*
Strength & Conditioning	4.26	0.0022*
Doctor Appointments	1.01	0.4010

*P<.05

Table 35

ANOVA for Head Athletic Trainers' Salary
(predictors)

Predictor	F Value	P Value
Gender	7.64	0.006
Education	13.10	0.0001
Status of Institution (public/Private)	25.66	0.0001
Primary Sport Coverage	4.24	0.0004
Certifications	7.62	0.0006
Divisions	39.70	0.0001

*If P>0.05

Table 36

Independent Variable Correlation's to Head Athletic Trainers' Salary

Predictor	R Value	P Value
Experience	0.641	0.0001
Teaching	-0.102	0.0635
Contract Length	0.248	0.0001
Institutional Size	0.587	0.0001

* P>0.05

Table 37

Assistant Athletic Trainers' Salaries by NCAA Division

Division	# of Respondents	Mean	Standard Deviation	Minimum	Maximum
IA	64	$30,150	$4,750	$20,000	$54,999
IAA	36	$28,450	$5,150	$20,000	$49,999
IAAA	9	$31,100	$7,400	$25,000	$59,999
II	55	$25,600	$9,950	>$19,999	$34,999
III	79	$26,450	$6,600	>$19,999	$34,999
Total	243	$28,350	$6,770	$20,999	$46,999

Table 38

The Percent of Assistant Athletic Trainers' at each NCAA Divisional Level According to Salary Range as Reported by this Survey

Salary Range	IA Frequency	IA Percent	IAA Frequency	IAA Percent	IAAA Frequency	IAAA Percent	II Frequency	II Percent	III Frequency	III Percent
>$19,999	0	0.0	0	0.0	0	0.0	13	23.63	9	11.39
$20,000-$24,999	2	5.0	3	8.33	0	0.0	8	14.54	10	12.65
$25,000-$29,999	17	26.56	15	41.66	4	44.44	17	30.90	27	34.17
$30,000-$34,999	27	42.18	10	27.77	2	22.22	7	12.72	20	25.31
$35,000-$39,999	13	20.31	6	16.66	1	11.11	5	9.09	8	10.12
$40,000-$44,999	5	7.81	2	5.55	1	11.11	2	3.63	5	6.32
$45,000-$49,999	0	0.0	0	0.0	1	11.11	0	0.0	0	0.0
$50,000-$54,999	0	0.0	0	0.0	0	0.0	1	1.80	0	0.0
$55,000-$59,999	0	0.0	0	0.0	0	0.0	1	1.80	0	0.0
$60,000-$64,999	0	0.0	0	0.0	0	0.0	1	1.80	0	0.0
<$65,000	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 39

Assistant Athletic Trainers' salary frequencies and percentages

Assistant Salary Range	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<19,999	22	9.1	22	9.1
20,000-24,999	23	9.5	45	18.5
25,000-29,999	80	32.9	125	51.4
30,000-34,999	66	27.2	191	78.6
35,000-39,999	33	13.6	224	92.2
40,000-44,999	15	6.2	239	98.4
45,000-49,999	1	0.4	240	98.8
50,000-54,999	1	0.4	241	99.2
55,000-59,999	1	0.4	243	99.6
60,000-64,999	1	0.4	243	100.0
<65,000	0	0.0		

Of the 333 returned surveys only 243 schools indicated having a assistant athletic training position

Table 40

Full Time Staff Athletic Trainers by Division

Division	# of Respondents	Mean	Standard Deviation
IA	66	5.03	2.19
IAA	40	3.25	1.54
IAAA	10	2.60	0.84
II	88	2.03	1.34
III	128	1.80	0.95
Total	332	2.94	1.37

Table 41

Full Time Staff Athletic Trainers' Frequencies and Percentages
(disregarding NCAA divisional level)

# of Staff	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	3	0.9	3	0.9
1	98	29.5	101	30.4
2	88	26.5	189	56.9
3	68	20.5	257	77.4
4	25	7.5	282	84.9
5	18	5.4	300	90.4
6	14	4.2	314	94.6
7	8	2.4	322	97.0
8	4	1.2	326	98.2
9	3	0.9	329	99.1
10	2	0.6	331	99.7
11	1	0.3	332	100.0

APPENDIX B

COVER LETTER AND QUESTIONNIARE

December 4, 2000

Dear: Head Athletic Trainer,

I am a graduate student in the physical education program at Marshall University and am conducting research for my thesis. The purpose of this study is to compile current data concerning athletic trainer duties and compensation at the different NCAA divisional levels. Duties such as teaching, salary, sports coverage, hours worked, weekend coverage, SAT supervision, insurance billing etc.

It is my goal to make available a guide for athletic trainers to help them better understand the workloads and demands of the different divisional levels as well as benefits when making career choices. This research will enable athletic trainers to be aware of current trends when negotiating for terms of employment thereby making educated decisions. This survey is anonymous and will not identify individuals or schools. All information will be kept strictly confidential and will be destroyed once the study is complete. Please direct questions or concerns regarding this project toward: Dr. Daniel Martin, Associate Professor/Program Director, Division of Exercise Science, Sport, and Recreation, Marshall University - (304) 696-2412 or Martind@marshall.edu

Please take a few minutes to complete the questionnaire and return it today in the envelope provided. Thank you.

Sincerely,

Lance Markham, BS, ATC, CSCS

THESIS SURVEY

Comparison of NCAA division I, II, & III athletic training positions regarding duties and compensation

Research conducted by Marshall University
Division of Exercise Science, Sport, and Recreation
Principle investigator: Lance Markham, ATC, CSCS

Section I – Profile

Pleases check the appropriate box(s) or fill in the blank

1. What is the title of your position?
   [ ] Head ATC [ ] Assistant ATC [ ] Staff ATC
   [ ] Program director [ ] Program director/Head ATC [ ] Other _____

2. Years of full time experience as a certified athletic trainer? _____

3. What is your highest level of education?
   [ ] B.S./B.A [ ] M.S./M.A [ ] Ph.D./EdD

4. Sex?
   [ ] Male [ ] Female

5. What is your age?
   [ ] 20-29 [ ] 30-39 [ ] 40-49 [ ] 50-59 [ ] 60-69

6. What is your marital status?
   [ ] Married [ ] Not married

7. What other certifications do you hold? (check all that apply)

	Yes	No	
EMT	[ ]	[ ]	Other _____
CSCS	[ ]	[ ]	
PT	[ ]	[ ]	
PT-A	[ ]	[ ]	
ACSM	[ ]	[ ]	
PA	[ ]	[ ]	
EMT/P	[ ]	[ ]	

8. How many full-time ATC's does your institution employ? _____

9. What NCAA divisional level is your school?
   [ ] I-A [ ] I-AA [ ] I-AAA [ ] II [ ] III

10. Is your institution an accredited undergraduate/graduate athletic academic training program?
    Undergraduate [ ] Yes [ ] No
    Graduate [ ] Yes [ ] No

11. What is the size your institution according to student population?
[ ] <1,000 [ ] 1,000-5,999 [ ] 6,000-10,999 [ ] 11,000-15,999 [ ] 16,000-20,999
[ ] 21,000-25,999 [ ] 26,000-30,999 [ ] 31,000-35,999 [ ] 36,000-40,999 [ ] 41,000-45,999
[ ] 46,000-50,999 [ ] 51,000-55,999 [ ] 56,000+

12. What is the status of your institution?
[ ] Public [ ] Private

Section II - Duties

Please check the appropriate box(s) and fill in the blanks

13. What is your primary sport coverage? (list only one)
[ ] Football [ ] Men's Basketball [ ] Volleyball [ ] Baseball [ ] Women's Basketball
[ ] Softball [ ] Wrestling [ ] Men's Soccer [ ] Tennis [ ] Diving
[ ] Golf [ ] Women's Soccer [ ] Rugby [ ] Swimming [ ] lacrosse
[ ] Hockey [ ] Track & Field [ ] X Country [ ] All Sports _____

14. How many credit hours are you required to teach per week?
[ ] 1-3 Credits [ ] 4-6 Credits [ ] 7-9 Credits [ ] 10-12 Credits [ ] None

15. How many hours do you average in a typical work week during the school year?
[ ] 40-49 hours [ ] 50-59 hours [ ] 60-69 hours [ ] 70-79 hours [ ] 80-89 hours

16. How many weekends do you work a month?
Primary sport in season [ ] 1 [ ] 2 [ ] 3 [ ] 4
Primary sport out of season [ ] 1 [ ] 2 [ ] 3 [ ] 4

17. Please enter the number of hours per week spent on the following tasks.
____ Administration
____ Clinical supervision of student athletic trainers
____ Treatment/Rehabilitation of athletes
____ Games/practice/travel
____ Insurance billing
____ Planning team travel & meals
____ Strength & conditioning
____ Athlete doctor appointments & travel to/from

Section III – Compensation

Please check the appropriate box(s) and fill in the blanks

18. What is your current salary as head athletic trainer?
[ ]<19,999 [ ] 20,000-24,999 [ ] 25,000-29,999 [ ] 30,000-34,999 [ ] 35,000-39,999
[ ] 40,000-44,999 [ ] 45,000-49,999 [ ] 50,000-54,999 [ ] 55,000-59,999
[ ] 60,000-64,999 [ ] 65,000+

19. What is the average salary for your certified assistant/associate athletic trainers?
[ ]<19,999 [ ] 20,000-24,999 [ ] 25,000-29,999 [ ] 30,000-34,999 [ ] 35,000-39,999
[ ] 40,000-44,999 [ ] 45,000-49,999 [ ] 50,000-54,999 [ ] 55,000-59,999
[ ] 60,000-64,999 [ ] 65,000+

20. Which of the following are you provided with by your employer?

	Yes	No	
Health Insurance	[ ]	[ ]	Other _____
Dental Insurance	[ ]	[ ]	
Optical Insurance	[ ]	[ ]	
Disability Insurance	[ ]	[ ]	
Liability Insurance	[ ]	[ ]	
Retirement plan	[ ]	[ ]	

21. How many days of paid vacation time do you receive per year? _____

22. What is the length of your contract?

[ ] 9 months [ ] 10 months [ ] 11 months [ ] 12 months

23. Please indicate what other benefits you receive as head athletic trainer?

	Yes	No
Courtesy car	[ ]	[ ]
Meal plan	[ ]	[ ]
NATA yearly convention fee & travel	[ ]	[ ]
Payment of CEU's	[ ]	[ ]
NATA Dues	[ ]	[ ]
Bonuses based on win/loss percentage	[ ]	[ ]
Clothing contract	[ ]	[ ]
Yearly Bonus not based on win/loss percentage	[ ]	[ ]

other _____

Thank you for filling out this survey!
Results of this study plan to be published

20. Which of the following are you provided with by your employer?

	Yes	No	
Health Insurance	[ ]	[ ]	Other _____
Dental Insurance	[ ]	[ ]	
Optical Insurance	[ ]	[ ]	
Disability Insurance	[ ]	[ ]	
Liability Insurance	[ ]	[ ]	
Retirement plan	[ ]	[ ]	

21. How many days of paid vacation time do you receive per year? _____

22. What is the length of your contract?
[ ] 9 months [ ] 10 months [ ] 11 months [ ] 12 months

23. Please indicate what other benefits you receive as head athletic trainer?

	Yes	No
Courtesy car	[ ]	[ ]
Meal plan	[ ]	[ ]
NATA yearly convention fee & travel	[ ]	[ ]
Payment of CEU's	[ ]	[ ]
NATA Dues	[ ]	[ ]
Bonuses based on win/loss percentage	[ ]	[ ]
Clothing contract	[ ]	[ ]
Yearly Bonus not based on win/loss percentage	[ ]	[ ]

other _____

Thank you for filling out this survey!
Results of this study plan to be published