

Gender Equity? Differences in Athletes Perceptions of Equity in Sport

Janet S. Fink
Donna L. Pastore
all correspondence to:
Donna L. Pastore
School of PAES • 455 Larkins Hall
337 W. 17th Ave.
The Ohio State University
Columbus, OH 43210
(W) (614) 292-0954 • (H) (614) 766-7861
(FAX) (614) 688-3432 • e-mail: pastore.3@osu.edu

Abstract

This study was undertaken to determine student-athletes perceptions toward gender equity. A total of 161 NCAA Division IA student-athletes responded to a questionnaire regarding equity issues. To verify the subscale structure of the questionnaire, item-to-total correlations and internal consistency measures (Cronbach's alpha; K-R 20s) were utilized. Multivariate analysis of variance (MANOVAs) were utilized to analyze the gender equity measures with three subgroups, female student-athletes, football players, and male student-athletes of nonrevenue sports. The results of the multivariate analysis of variance (MANOVAs) revealed significant differences in perceptions of gender-equity issues between the subgroups. Football players rated several areas significantly higher than female athletes and male athletes of nonrevenue sports.

The assessment of student-athletes perceptions toward gender equity may assist athletic departments in determining which areas of their sports programs are equitable and, in turn, be utilized to develop strategies that promote equity.

Gender equity is a prominent topic within the world of intercollegiate athletics. Though Title IX was passed over 25 years ago in an effort to curb discrimination based upon sex in any educational function, female student-athletes and coaches continue to file lawsuits claiming that discrimination exists within their intercollegiate athletic organizations (Wilde, 1995). According to Jacob and Mathes (1996, p. 34), in many recent cases (i.e., "Cohen v. Brown, 1992; Favia v. Indiana University of Pennsylvania, 1992; Howlett v. Gordon, 1992 and Roberts v. Colorado State University, 1993"), female

student-athletes have been successful in their bid to have their athletic teams reinstated. These favorable court decisions, coupled with the potential for compensatory damages as a remedy for Title IX violations (see Franklin v. Gwinnett County, 1992), have provided the impetus for intercollegiate athletic organizations to show concern for equity issues.

In 1991, the National Collegiate Athletic Association (NCAA) demonstrated its first real interest in gender equity issues with the development of a gender-equity task force ("NCAA Gender-Equity," 1993). Though there were stu-

dent-athletes represented on the task force, the majority of members were administrators and coaches ("NCAA Gender-Equity," 1993). While equity issues were studied and solutions were proposed, the task force proceeded with limited perspectives from student-athletes, those who would be most effected by any changes.

While the issue of gender equity has become paramount in intercollegiate athletics over the past five years, very few research efforts have been focused on the perceptions of student-athletes. In one of the few studies focusing on such perceptions, Jacob and Mathes (1996) surveyed 121 female student-athletes from a NCAA Division I institution to determine their knowledge of Title IX and perception of the institution's compliance with Title IX. The findings from their study indicated that the female student-athletes were "not extremely knowledgeable (mean correct response rate 63.7%) about various facets of Title IX" (Jacob & Mathes, 1996, p. 38). Furthermore, the perceptions of the female student-athletes toward Title IX compliance indicated "reasonable satisfaction, with most satisfaction on items related to student interest and least on those associated with financial aid" (Jacob & Mathes, 1996, p. 38).

Then, in 1993, the NCAA made equity issues part of the new NCAA certification process.

This process was designed to "ensure the NCAA's fundamental commitment to integrity in intercollegiate athletics" ("Division I," 1993, p. 5). The process requires all Division I athletic programs to proceed through certification every five years. In an effort to obtain a more accurate view of intercollegiate athletic programs, the certification process is comprised of two parts: (a) a self-study, which requires that all members of the university (i.e., faculty, staff, and students) be involved and (b) a peer review process in which Division I representatives, trained by the NCAA, evaluate the self-study in order to make one of three recommendations: (1) certification; (2) certification with conditions; or (3) non-certification. Those institutions that do not receive certification, or those that do not meet conditions within an allotted time period, can be stripped of their NCAA membership. Thus, non-certification carries a tough penalty and

equity was delegated as one of the four most important areas of concern, along with compliance/governance, academic integrity, and fiscal integrity. Further, this represented the NCAA's first real attempt to employ the perceptions of student-athletes into inquiries regarding gender-equity.

Therefore, this NCAA certification process provided the impetus for the current study. The major purpose of this study was to assess student-athletes' perceptions toward gender equity. The study categorized the student-athletes into three subgroups: (1) female student-athletes, (2) football players, and (3) male student-athletes of nonrevenue sports. Of the teams involved in this study, only the football team produced revenue. The perceptions of these subgroups were examined and analyzed for several reasons. First, traditionally, the experiences of male and female athletes have been different. If athletic departments are to improve conditions for female athletes, it is important to probe and identify their concerns regarding gender equity.

Second, many men's and women's teams do not produce revenue; thus, it was deemed important to determine if members of revenue and nonrevenue producing sports have different perceptions of equity within their program. Third, because many men's teams that do not produce revenue are being cut (Diegmüller, 1995; Zapler, 1995), while, at the same time female sports are being added, it was considered valuable to determine whether male athletes of non-revenue sports had similar perceptions to female student-athletes and football players. Finally, because football teams offer so many scholarships and wish to be excluded from Title IX ratios (Zapler, 1995), it was deemed important to examine whether differences existed between the perceptions of football players and the other subgroups.

Method

Subjects

The subjects for this study were student-athletes from a Division IA institution which offers a comprehensive intercollegiate athletic program (i.e., 15 women's sports and 17 men's

sports). All sports were included in the current study. A stratified random sample of 322 student-athletes was selected from the total population (N=508). This type of sampling was utilized to ensure gender representation. It should be noted that freshmen student-athletes were omitted from the study due to the fact that some would not have practiced and/or competed in their sport thus limiting their ability to evaluate

items on the survey accurately.

The surveys were given to the head coach of each sport who then distributed the surveys to their student-athletes. A total of 161 student-athletes responded to the survey for a response rate of 50%. Three of these responses were eliminated from further analyses due to incomplete responses. The final pool of subjects consisted of 112 male and 46 female student-athletes.

Table 1 highlights the number of athletes surveyed by each sport and the number of athletes who completed the survey.

The final pool of student-athletes consisted of 112 males (71%) and 46 females (29%). These percentages mirror the percentage of male and female student-athletes at the institution in which this study was conducted. The mean ages for both males and females was 20 years. In regard to athletic scholarships, 73% of the females in the study received a grant-in-aid compared to 59% of the male athletes. The percentage of athletes who had received a scholarship for 4 or more years was approximately 15% for both males and females.

Development of Scale

In order to assess student-athletes' perceptions toward equity, a survey was developed. An initial survey was taken from the Office for Civil Rights (OCR) which was comprised of 119 open-ended questions. To facilitate the data collection from the student-athletes, the survey was revised and put

Sport	Number of student-athletes surveyed	Number of returned surveys
Women's Sports (N=90)		
Basketball	8	6
Cross Country	6	-
Fencing	4	-
Field Hockey	7	5
Golf	3	3
Gymnastics	4	-
Pistol	4	-
Rifle	1	-
Soccer	9	5
Softball	7	8
Swimming	9	-
Synchronized Swimming	13	6
Tennis	4	4
Track	6	-
Volleyball	5	5
Men's Sports (N=210)		
Baseball	23	7
Basketball	7	-
Cross Country	4	-
Fencing	9	-
Football	50	40
Golf	7	5
Gymnastics	8	-
Ice Hockey	14	7
Lacrosse	23	18
Pistol	4	-
Rifle	2	2
Soccer	11	4
Swimming	12	5
Tennis	6	5
Track	10	-
Volleyball	7	7
Wrestling	13	12

into scaled items and yes/no responses. The athletes were then requested to place their answers on a scan sheet that was provided along with the survey. This format was utilized to reduce the time that it would take the student-athletes to answer the survey and to facilitate the statistical analyses.

As a first step, a comprehensive review of the initial survey was conducted. Items were identified that could be put into yes/no questions and 5-point Likert scale values. A total of 92 items were generated for inclusion on the survey. To determine the content and face validity of the survey, a panel of experts was utilized. The panel consisted of 12 individuals who were requested to determine the appropriateness of the survey by reviewing the items and instructions for clarity, length, order, and relevance. Based on feedback from the 8 of the 12 experts (2 sport management faculty members, 2 coaches, 1 athletic administrator, 1 lawyer, 1

student, and 1 former OCR compliance officer) several items were added, deleted, and/or modified. The final survey consisted of five sections and a total of 95 items.

The first section of the survey consisted of demographic information including gender, age, and type of athletic scholarship. All of the items in sections two through five of the survey attempted to glean information regarding the 13 categories the Office for Civil Rights (OCR) established as pertinent to Title IX investigations. Please refer to Table 2 for a list of these categories. The survey consisted of items which inquired about the extent of agreement, occurrence, and quality relating to these categories as the initial, open-ended survey developed by the OCR incorporated such responses.

In the second section of the survey, the student-athletes were requested to rate the extent to which they agreed with 20 items. These items were preceded by the statement "Referring only to the experiences of your team, please indicate your level of agreement or disagreement to the following items." The response format for each item was a 5-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"). The third section of the survey requested the student-athletes to indicate the level of occurrence of 27 items. The items were preceded by the statement "Please rate how often the following events occur according to the scale." The response format for each item was a 5-point Likert scale from 1 ("never") to 5 ("always"). The fourth section requested the student-athletes to rate the quality of 15 items. The items were preceded by the statement "Please rate the quality of the following items according to the scale. The response format was a 5-point Likert scale with the following values 1 ("very poor"), 2 ("poor"), 3 ("average"), 4 ("good"), and 5 ("excellent"). The last portion of the survey requested the student-athletes to indicate a yes/no response to 23 items.

Table 2
Office for Civil Rights Categories

Category
Equipment and Supplies
Game and Practice Schedules
Travel and Perdiem Allowances
Coaches and Tutors
Medical and Training Services
Housing and Dining Facilities/Services
Lockerrooms
Practice and Competitive Facilities
Publicity
Athletic Scholarships

Subscale Structure

In order to verify the subscale structure of the survey, item-to-total correlations and internal consistency estimates (Cronbach's alpha) were carried out for three sections of the survey (i.e., agreement, occurrence, and quality). An item was retained if the correlation with its own subscale was higher than its correlation with other subscales. It should be noted that in three cases, the items did not correlate the highest within their own subscale. However, these items were retained for conceptual reasons. After three iterations, 73 of the original items were retained.

When the researchers examined the items and their dimensions, they attempted to retain items that represented the original OCR categories. In several cases, the use of the original OCR category names were not representative of the dimension obtained through the statistical analyses. In these situations, the researchers renamed these dimensions which provided a higher level of conceptual appropriateness (see Table 3).

Section II - Agreement Questions

The results of the item-to-total correlations for the agreement questions in section II resulted in seven dimensions. Each dimension was labeled according to the OCR category that the items reflected. The dimensions were: (1) Equipment

and Supplies; (2) Interests and Accommodations; (3) Travel and Per Diem; (4) Coaching and Tutors; (5) Scheduling and Practice; (6) Practice and Competitive Facilities; and (7) Locker rooms. Please refer to Appendix A for the specific items, item-to-total correlations, and Cronbach's alphas. The internal consistency estimates

Table 3
Questionnaire Categories

OCR Categories Represented		Label of Category
Before Analyses	After Analyses	
Agreement		
Equipment/Supplies	Equipment/Supplies	Equipment/Supplies
Interests/Accommod.	Interests/Accommod.	Interests/Accommod.
Travel/Per Diem	Travel/Per Diem	Travel/Per Diem
Coaching and Tutors	Coaching/Tutors	Coaching/Tutors
Scheduling/Practice	Scheduling/Practice	Scheduling/Practice
Practice/Comp. Fac.	Practice/Comp. Fac.	Practice/Comp. Fac.
Lockerrooms	Lockerrooms	Lockerrooms
Occurrence		
Scheduling/Practice	Scheduling/Practice	Scheduling/Practice
Practice/Competive Facilities	Location	Location
Travel and Per Diem	Practice Times	Practice Times
Coaching and Tutors	Competitive Fac. Prob.	Competitive Fac. Prob.
Medical/Training	Warm-up Times	Warm-up Times
	Per Diem	Per Diem
	Coaching/Tutor Aval.	Coaching/Tutor Aval.
	Medical/Training Prob.	Medical/Training Prob.
	Training Avail.	Training Avail.
Quality		
Equipment/Supplies	Equipment/Supplies	Equipment/Supplies
Coaching and Tutors	Tutors	Tutors
Practice/Competitive Facilities	Facilities	Facilities
Lockerrooms	Lockerroom	Lockerroom
Medical/Training	Medical/Training	Medical/Training
Publicity	Weight-Cond. Fac.	Weight-Cond. Fac.
	Publicity	Publicity
Yes/No		
Interests and Accommodations	Interests and Accommodations	Interests and Accommodations
Lockerrooms	Travel	Travel
Housing/Dining	Per Diem	Per Diem
	Tutors	Tutors
	Study Tables	Study Tables
	Lockerrooms	Lockerrooms
	Housing/Dining	Housing/Dining

(Cronbach's alpha) with these items ranged from .71 to .93 (see Appendix A).

Section III - Occurrence Questions

The results of the item-to-total correlations resulted in nine dimensions: (1) Scheduling and Practice; (2) Location; (3) Practice times; (4) Competitive Facilities Problems; (5) warm-up Times; (6) Per Diem; (7) Coaching and Tutor Availability; (8) Medical and Training problems; and (9) Medical and Training Availability. Please refer to Appendix A for the specific items, item-to-total correlations, and Cronbach's alphas. The internal consistency estimates (Cronbach's alpha) with these items ranged from .62 to .88 (see Appendix A). Each dimension was labeled according to the OCR category when possible. Three dimensions were not labeled according to the OCR categories, and instead were renamed for conceptual appropriateness.

Section IV - Quality Questions

The results of the item-to-total correlations for the quality questions resulted in seven dimensions: (1) Equipment and Supplies; (2) Tutors; (3) Facilities; (4) Locker room; (5) Medical and Training; (6) Weight-Conditioning Facilities; and (7) Publicity. Please refer to Appendix A for the specific items, item-to-total correlations, and Cronbach's alphas. The internal consistency estimates (Cronbach's alpha) with these items ranged from .84 to .91 (see Appendix A). In three dimensions, only one item has been retained and internal consistency estimates were not reported. Five of the seven dimensions were labeled according to the original OCR category that the items reflect. Two dimensions were not labeled according to the OCR categories and instead were renamed for conceptual appropriateness.

Section V - Yes/No

For the last section of the survey, Kuder-Richardson's formula, K-R 20s are utilized to determine the internal consistencies of the dimensions since the variables in this section are dichotomous (Mueller, 1986). The results of the K-R 20s for the yes/no response section of the survey resulted in seven dimensions: (1) Interests and Accommodations; (2) Travel; (3) Per

Diem; (4) Study Tables; (5) Locker rooms; and (7) Housing and Dining. The K-R 20s with these items ranged from .69 to .81 (see Appendix A). Three dimensions were labeled according to the OCR category that the items reflected. Four dimensions were renamed for greater conceptual appropriateness.

Data Analyses

The mean of the scores on the items in a dimension was used as the dimensional score for each subject in the analyses. To identify group differences, Multivariate analysis of variance (MANOVAs) were utilized to analyze the gender equity measures with the three groups (i.e., female student-athletes, football players, and male student-athletes of nonrevenue sports). Three separate MANOVAs were carried out with the groups for part II (i.e., agreement), part III (i.e., occurrence) and part IV (i.e., quality) of the survey. This was followed by univariate analyses to identify the specific dimensions in which the groups differed. Scheffe's post hoc analyses were carried out when necessary to identify significant differences in the means. Means and standard deviations were computed for each dimension. Frequencies and percentages were compiled for the yes/no responses.

Results

The means and standard deviations for the agreement, occurrence, and quality dimensions are provided in Table 4.

The results of the MANOVAs and univariate analyses for the agreement, occurrence, and quality dimensions are presented in Table 5.

Agreement Dimensions

The multivariate effect was significant, multivariate $F(14, 286) = 3.68, p < .001$. Univariate analyses revealed significant differences for Equipment and Supplies, $F(2, 149) = 4.62, p < .05$; Interests and Accommodation, $F(2, 149) = 5.67, p < .01$; Travel and Per Diem, $F(2, 149) = 5.23, p < .01$, Coaching and Tutors, $F(2, 149) = 4.01, p < .05$; Practice and Competitive Facilities, $F(2, 149) = 4.74, p < .01$ and Lockerrooms, $F(2, 149) = 3.28, p < .05$. The Scheffe's post-hoc analyses revealed that foot-

Table 4
Means and Standard Deviations for Dimensions

Dimension	Football	Male Athletes (Nonrevenue Sports)	Female Athletes	Total
Agreement				
Equipment and Supplies	4.44 (.95)	4.08 (1.02)	3.83 (.96)	4.04 (1.01)
Interests and Accommod.	4.23 (1.04)	3.68 (.89)	3.69 (.99)	3.81 (1.01)
Travel and Per Diem	2.72 (1.49)	3.67 (1.37)	3.40 (1.20)	3.30 (1.35)
Coaching and Tutors	4.17 (.93)	4.02 (1.09)	3.65 (.98)	3.87 (1.02)
Scheduling and Practice	4.37 (1.11)	4.34 (1.06)	4.24 (.99)	4.27 (1.07)
Practice/Comp. Fac.	4.28 (1.18)	3.96 (1.04)	3.59 (1.19)	3.85 (1.19)
Lockerrooms	4.45 (.99)	4.17 (1.08)	3.97 (1.04)	4.12 (1.08)
Occurrence				
Scheduling and Practice	2.30 (.94)	2.82 (.65)	2.68 (.81)	2.62 (.82)
Location	4.32 (1.01)	3.95 (1.07)	3.59 (1.10)	3.86 (1.10)
Practice Times	3.52 (.92)	3.56 (.94)	3.63 (1.00)	3.57 (.96)
Comp. Fac. Prob.	2.13 (1.09)	1.87 (1.08)	2.57 (1.09)	2.29 (1.13)
Warm-up Times	4.07 (1.08)	4.19 (1.03)	3.96 (1.08)	4.04 (1.06)
Per Diem	3.93 (1.13)	2.37 (1.32)	2.20 (1.33)	2.69 (1.48)
Coaching/Tutors Avail.	4.36 (.70)	4.49 (.60)	4.27 (.74)	4.35 (.70)
Medical/Train. Prob.	2.07 (1.12)	1.89 (.88)	2.01 (.97)	2.00 (.99)
Medical/Train. Avail.	4.27 (.87)	3.59 (.77)	3.70 (.89)	3.82 (.89)
Quality				
Equipment/Supplies	4.46 (.75)	4.00 (1.09)	3.70 (.87)	3.99 (.96)
Tutors	4.20 (.96)	3.81 (.87)	3.89 (.94)	3.96 (.94)
Facilities	4.57 (.69)	3.87 (1.13)	3.42 (1.39)	3.86 (1.25)
Lockerroom	4.44 (.76)	3.98 (1.00)	3.43 (1.05)	3.84 (1.06)
Medical/Training	4.56 (.65)	4.27 (.63)	4.05 (.70)	4.25 (.70)
Weight-Cond. Fac.	4.39 (.86)	4.10 (1.04)	3.91 (.94)	4.08 (.96)
Public Services	4.20 (1.01)	3.12 (1.27)	2.79 (1.36)	3.25 (1.38)

Table 5
Multivariate and Univariate Significance Tests on the Dimensions

Agreement Dimensions		Occurrence Dimensions		Quality Dimensions	
Multivariate F (df)	3.68** (14, 286)	Multivariate F (df)	4.14*** (18,284)	Multivariate F (df)	
	4.14*** (14, 286)				
Univariate F					
Equipment and Supplies	4.62*	Scheduling/Practice	5.10**	Equipment/Supplies	8.13***
Interests and Accom.	5.67**	Location	8.61***	Tutors	1.36
Travel and Per Diem	5.23**	Practice Times	.45	Facilities	11.29***
Coaching and Tutors	4.01*	Competitive Fac. Prob.	3.11*	Lockerroom	14.09***
Scheduling and Practice	.85	Warm-up Times	.77	Medical/Training	8.57***
Practice/Compet. Fac.	4.74**	Per Diem	24.37**	Weight Cond. Fac.	4.51*
Lockerrooms	3.28*	Coaching/Tutors Avail.	1.01	Public Services	17.18***
		Medical/Training Prob.	1.52		
		Medical/Training Avail.	6.74**		

*p < .05, **p < .01, ***p < .01

ball players rated four of the dimensions (i.e., Equipment and Supplies, Interests and Accommodations, Coaching and Tutors, and Practice/Competitive Facilities) higher than the men's nonrevenue sports. However, football players rated only Interests and Accommodation higher than female athletes. In regard to the Travel and Per Diem dimension, football players rated this significantly lower than both female athletes and men's nonrevenue sports. Although the univariate analyses revealed significant differences for the Locker room dimension, the post-hoc analyses did not indicate significant differences between the mean scores.

Occurrence Dimensions

The multivariate effect was significant, multivariate $F(18, 284) = 4.14, p < .001$. Univariate analyses revealed significant differences for the Scheduling and Practice dimension, $F(2, 150) = 5.10, p < .01$; Location, $F(2, 150) = 8.61, p < .001$; Competitive Facilities Problems, $F(2, 150) = 3.11, p < .05$; Per Diem, $F(2, 150) = 24.37, p < .001$; and Medical and Training Availability, $F(2, 150) = 6.74, p < .01$. The Scheffe's post-hoc analyses revealed that football players rated three dimensions (i.e., Location, Per Diem, and Medical/Training Availability) higher than men's nonrevenue sports. In addition, football players rated Per Diem significantly higher than female athletes. However, female athletes rated Scheduling and Practice significantly higher than football players and Competitive Facilities Problems significantly higher than men's nonrevenue sports.

Quality Dimensions

The multivariate effect was significant, multivariate $F(14, 286) = 4.14, p < .001$. Univariate analyses revealed significant differences for Equipment and Supplies, $F(2, 149) = 8.13, p < .001$; Facilities, $F(2, 149) = 11.29, p < .001$; Locker room, $F(2, 149) = 14.09, p < .001$; Medical and Training, $F(2, 149) = 8.57, p < .001$; Weight-Conditioning Facilities, $F(2, 149) = 4.51, p < .05$; and Publicity Services, $F(2, 149) = 17.18, p < .001$. The Scheffe's post-hoc analyses revealed that football players rated each of the aforementioned dimensions significantly higher than the men's nonrevenue sports. Football play-

ers rated two dimensions (i.e., Weight-Conditioning Facilities and Publicity Services) significantly higher than the female athletes. In regards to Lockerrooms, men's nonrevenue sports rated ($M=3.98$) this dimension significantly higher than female athletes ($M=3.43$).

The frequencies and percentages to the yes/no items are presented by gender/revenue in Table 6. For three of the dimensions, that is "Interests and Accommodations," "Tutors," and "Housing and Dining," football players had a much higher percentage of yes responses when compared to the responses of female athletes and men's revenue sports. For the majority of dimensions, the percentages of yes/no responses for female athletes and men's nonrevenue sports are somewhat similar. Exceptions to this occurred with two items: (a) "I am provided with a per diem allowance when traveling to away games", and (b) "I am usually provided with money from the coach for meals when traveling to away games." The female athletes had a much higher percentage of yes responses to these items when compared to the men's nonrevenue sports.

Discussion and Recommendations

This study was concerned with assessing student-athletes' perceptions toward gender equity. The survey that was developed and utilized in the current study provides valuable information regarding student-athletes' perceptions and reveals some interesting differences between football players, male athletes of non-revenue sports, and female athletes.

It is interesting to note that in all four sections of the survey (i.e., agreement, occurrence, quality, and yes/no), there were a greater number of differences in perceptions of equity between football players and male players of non-revenue sports than between female athletes and either of the male athlete subgroups. In 8 of the 13 OCR categories, male athletes of non-revenue sports had significantly lower mean scores than football players. There may be two explanations for this finding. First, perhaps in the institution's quest toward gender equity, the increase in the quality of the women's athletic program has

Table 6
Responses for Yes/No Items by Gender/Revenue

Item	Football Players		Male Athletes		Female Athletes	
	Yes	No	Yes	No	Yes	No
D1 Interests and Accommodations						
The institution has made unsuccessful attempts to add sports for women.	17 (71%)	7 (29%)	24 (52%)	22 (48%)	10 (45%)	12 (55%)
The institution has made unsuccessful attempts to add sports for men.	11 (44%)	14 (56%)	14 (34%)	27 (66%)	4 (20%)	16 (80%)
D2 Travel						
The team travels overnight.	28 (80%)	7 (20%)	55 (80%)	14 (20%)	36 (95%)	2 (5%)
My team usually travels by bus/van/car.	8 (24%)	26 (76%)	64 (93%)	5 (7%)	24 (62%)	15 (38%)
Lodging is provided for the team.	35 (95%)	2 (5%)	68 (97%)	2 (3%)	40 (100%)	- —
D3 Per Diem						
I am provided with a per diem allowance when traveling to away games.	13 (39%)	20 (61%)	48 (74%)	17 (26%)	10 (27%)	27 (73%)
I usually pay for my own meals when traveling to away games.	2 (6%)	32 (94%)	8 (12%)	60 (88%)	- —	40 (100%)
The coach usually pays for meals when traveling to away games.	8 (24%)	25 (76%)	47 (70%)	20 (30%)	37 (95%)	2 (5%)
I am usually provided with money from the coach for meals when traveling to away games.	7 (23%)	24 (77%)	45 (66%)	23 (34%)	10 (25%)	30 (75%)
D4 Tutors						
I receive tutoring services.	32 (89%)	4 (11%)	35 (51%)	34 (49%)	18 (45%)	22 (55%)
I receive tutoring services that are not available to other students.	19 (61%)	12 (39%)	29 (49%)	30 (51%)	19 (49%)	20 (51%)
D5 Study Tables						
Study tables are available.	35 (97%)	1 (3%)	67 (97%)	2 (3%)	39 (100%)	- —
Study tables are mandatory.	25 (71%)	10 (29%)	25 (37%)	43 (63%)	14 (36%)	25 (64%)
Study tables are optional.	17 (49%)	18 (51%)	48 (74%)	17 (26%)	26(72%)	10 (28%)
D6 Lockerrooms						
The team has exclusive use of the lockerroom (i.e., not shared with other teams).	34 (92%)	3 (8%)	56 (81%)	13 (19%)	38 (93%)	3 (7%)
Each athlete has his/her own locker (i.e., not shared with other athletes).	36 (97%)	1 (3%)	63 (95%)	3 (5%)	40 (98%)	1 (2%)
D7 Housing and Dining						
I am provided with housing as a student-athlete.	32 (89%)	4 (11%)	9 (13%)	60 (87%)	13 (33%)	26 (67%)
Pre-game housing is provided for the team prior to home games.	31 (86%)	5 (14%)	4 (6%)	59 (94%)	7 (18%)	31 (82%)
Training tables are available in the dining halls.	33 (94%)	2 (6%)	6 (10%)	55 (90%)	12 (36%)	21 (64%)

been to the detriment of the male non-revenue sports.

Football at the institution in the current study is the greatest revenue-producing sport, thus, it is unlikely that efforts toward gender equity would result in any type of cutbacks in football, but may in less popular non-revenue men's sports. A second explanation may be that because female athletes have historically experienced athletic programs of lesser quality, they have lower expectations than their male counterparts. Thus, while they may have similar experiences to the male athletes of non-revenue sports, their perceptions of quality may be different.

It is hardly surprising that the female athletes rated the quality of the weight/conditioning facilities and publicity services lower than the football players. The football players at the current institution recently built a new training facility. In addition, the team has experienced a great deal of success in recent years, thus bringing them a great deal of press coverage and publicity. A difference which is more difficult to explain is the fact that female athletes scored significantly lower in the Interests and Accommodations category than football players. That is, female athletes at this institution were less likely to agree that their interests are being accommodated through the intercollegiate and club sport offerings. This particular institution offers a wide variety of sports for female athletes, but due to the implications for Title IX compliance issues, perhaps it would behoove the institution to explore this finding in greater detail.

Another interesting finding is the fact that football players were less likely to agree that they receive enough travel and per diem expenses compared to male athletes of non-revenue sports and female athletes, yet on the occurrence portion of the survey, the mean scores for football players were higher than both of the other groups. Thus, the football players received more in terms of travel and per diem, but less likely to agree that they received enough. Once again, this may be due to the football team's high profile on campus and in the surrounding community. Perhaps due to all of the attention they receive and success they have experienced in

recent years, they feel they deserve more.

It should also be noted, that while differences between groups were found, the student-athletes appear to be fairly satisfied with the conditions at this institution as the mean score for all groups in all sections of the survey were generally very high.

The findings of the current study allow a number of recommendations for further research. First, these findings are limited to student-athletes at one institution. It would be interesting and informative to study student-athletes' perceptions from a wide variety of institutions and note whether differences exist between divisions, conferences, and/or geographic locations. Second, it would be interesting to determine if similar findings would occur at institutions in which football does not produce revenue. Further, it would be interesting to note whether perceptions of equity are driven more by revenue status than by gender. An additional area for further inquiry would be to compare the student-athletes' perceptions to other groups at their institution. Sanger and Mathes (1997) surveyed athletic directors', faculty athletic representatives', and women's basketball coaches' "perceptions of their institutions compliance with the third component of the three prong test utilized by the courts — the accommodation of men and women student-athletes's interests and abilities" (p. 13). The inclusion of additional groups, such as athletic administrators, faculty athletic representatives, and coaches can provide valuable information regarding equity.

In conclusion, while differences in perceptions were found, they appear to be more the result of revenue status than gender. In addition, the student-athletes at this particular institution perceive a high level of equity as noted by the high scores on the survey. Results from this equity survey can be utilized to address specific areas in which differences in perceptions of equity are found and, in turn, provide institutions a guide in their quest toward gender equity in intercollegiate athletics. Lastly, the survey utilized in the current study may be of value for those institutions that are required to complete the NCAA certification process in the area

of equity.

References

- Diegmuller, K. (1995). Some men's sports hurt by O.C.R. interpretation of Title IX, critics say. *Education Week*, 14, 20.
- Division I Athletics Certification Handbook* (1993-94). Overland Park, KS: NCAA.
- Jacob, M., & Mathes, S. (1996). College women athletes' knowledge and perceptions of Title IX. *Journal of Legal Aspects of Sport*, 6 (1), 34-42.
- Mueller, D. J. (1986). *Measuring social attitudes: A handbook for researchers and practitioners*. New York: Columbia University Teacher's College Press.
- NCAA Gender-Equity Task Force Report* (1993). Overland Park, KS: NCAA.
- Sanger, K., & Mathes, S. (1997). Athletic directors, faculty athletic representatives, and women's basketball coaches perceptions of Title IX compliance at NCAA division III institutions. *Journal of Legal Aspects of Sport*, 7 (1), 12-23.

- Wilde, T. J. (1995). Seeking equitable distribution of opportunities for intercollegiate athletic participation between the sexes. *Journal of Sport Management*, 9, 300-316.
- Zapler, M. (1995a). Coaches of major football teams ask congress to help revamp enforcement of Title IX. *The Chronicle of Higher Education*, 41, A47.
- Zapler, M. (1995). Protecting men's sports. *The Chronicle of Higher Education*, 41, A43-44.

List of Court Cases

- Cohen v. Brown University, 809 F. Supp. 978 (D.R.I. 1992); Aff'd 991 F.2d 888 (1st Cir 1993).
- Favia v. Indiana University of Pennsylvania, 812 F. Supp. 578 (W.D. Pa.), Aff'd 7 F. 3d. 332 (3d cir. 1993) (W.D.Pa., November 2, 1992).
- Franklin v. Gwinnett County Public Schools, 112 S. Ct. 1028, 1038 (1992).
- Roberts v. Colorado State University, 814 F. Supp. 1507, 1512 (D. Colo., 1993), aff'd 998 F. 2d 824 (10 Cir. 1993), Cert denied, 114 S. Ct. 580 (1993).

Appendix A

Item-to-Total Correlations and Internal Consistency Estimates for Agreement Dimensions

Item	Dimensions							Alpha
	D1	D2	D3	D4	D5	D6	D7	
D1 Equipment and Supplies								.93
The team is provided with quality uniforms to meet practice needs.	.76	.51	.28	.44	.49	.44	.33	
The team is provided with quality equipment to meet practice needs.	.86	.51	.32	.57	.59	.47	.50	
The team is provided with quality uniforms to meet competitive needs.	.81	.58	.37	.51	.67	.60	.53	
The team is provided with quality equipment to meet competitive needs.	.88	.57	.40	.56	.71	.60	.54	
I have good access to equipment and supplies.	.78	.43	.30	.58	.60	.45	.45	
D2 Interests and Accommodations								.87
The interests and abilities of both sexes are being fulfilled effectively by the institution's current level of offerings in:								
Intercollegiate sports	.56	.77	.22	.42	.54	.49	.41	
Club and/or intramural sports	.54	.77	.18	.48	.56	.49	.47	

D3 Travel and Per Diem										.91
The team is provided with sufficient per diem arrangements.	.37	.21	.83	.33	.28	.33	.12			
The team is provided with sufficient meal money.	.35	.19	.83	.36	.27	.26	.12			
D4 Coaching and Tutors										.71
A sufficient number of coaches is available for the team.	.55	.38	.36	.55	.45	.41	.37			
The team receives quality coaching.	.51	.45	.27	.55	.50	.37	.34			
D5 Scheduling and Practice										
The team competes against competitive opponents.	.69	.58	.28	.54	—	.46	.50			
D6 Practice and Competitive Facilities										.89
The conditioning facilities for the team are conveniently located to the:										
locker room area	.51	.43	.24	.38	.36	.82	.62			
practice facility	.54	.47	.33	.43	.45	.86	.63			
The weight-conditioning facilities is conveniently located.	.53	.53	.25	.40	.48	.70	.61			
D7 Lockerrooms										.80
The lockerrooms are conveniently located to the:										
practice facility	.48	.44	.11	.34	.43	.64	.67			
competitive facility	.48	.40	.12	.40	.43	.59	.67			

Item-to-Total Correlations and Internal Consistency Estimates for Occurrence Dimensions

Item	Dimensions									Alpha	
	D1	D2	D3	D4	D5	D6	D7	D8	D9		
D1 Scheduling and Practice											.74
The team experiences scheduling conflicts between:											
practice hours and classes	.41	-.16	.01	.17	-.15	-.06	-.19	-.01	-.10		
practice hours and dining hours	.60	-.22	-.17	.26	-.15	-.12	-.24	.23	-.07		
games and classes	.47	-.31	-.11	.27	-.16	-.27	-.17	.14	-.07		
games and dining hours	.64	-.27	-.16	.26	-.19	-.21	-.27	.26	-.20		
D2 Location											
The team plays in locations and at times that permit reasonable opportunities to compete before an audience.	-.33	—	.15	-.28	.55	.16	.50	-.13	.18		

D3 Practice Times										.62
Practice times are convenient.	-.26	.14	.45	-.17	.11	-.06	.27	-.13	-.05	
Practice times are sufficient.	-.01	.11	.45	-.05	.20	-.06	.26	-.17	-.04	
D4 Competitive Facility Problems										.88
The team has encountered problems with our competitive facility:										
set-up	.29	-.18	-.12	.84	-.32	-.00	-.43	.44	-.00	
maintenance	.27	-.25	-.02	.77	-.23	-.16	-.35	.38	-.14	
availability	.32	-.32	-.22	.69	-.33	-.11	-.42	.33	-.10	
D5 Warm-up Times										
The team has sufficient warm-up times before away games.	-.22	.55	.19	-.33	—	-.03	.54	-.23	.06	
D6 Per Diem										
Meals/stipends are provided when the team is not traveling.	-.22	.16	-.07	-.10	-.03	—	-.05	.01	.40	
D7 Coaching and Tutors Availability										.79
My coaches are available for practices.	-.32	.48	.20	-.40	.57	.00	.51	-.31	.17	
My coaches are available for competition.	-.22	.37	.27	-.41	.45	-.06	.65	-.36	.20	
Tutoring services are available to the team.	-.22	.32	.24	-.28	.33	-.09	.66	-.31	.07	
Assistance in academic matters is readily available.	-.19	.40	.27	-.32	.36	-.04	.60	-.27	.11	
D8 Medical and Training Problems										.84
The team has encountered problems with:										
doctors	.25	-.16	-.16	.36	-.25	-.05	-.36	.79	-.16	
medical personnel	.19	-.12	-.18	.35	-.19	-.05	-.38	.80	-.14	
student insurance	.13	-.06	-.12	.40	-.16	.12	-.29	.55	.10	
D9 Medical and Training Availability										.78
A doctor/medical personnel are available:										
by appointment	-.14	.19	.04	-.17	.25	.17	.32	-.15	.40	
drop-in basis	-.09	.06	-.07	.00	-.06	.33	.12	.00	.62	
at home games	-.12	.20	-.01	-.15	.10	.27	.21	-.16	.71	
at away games	-.11	.11	-.09	.01	-.06	.44	-.04	.04	.64	

Item-to-Total Correlations and Internal Consistency Estimates for Quality Dimensions

Item	Dimensions							Alpha
	D1	D2	D3	D4	D5	D6	D7	
D1 Quality of Equipment and Supplies								.91
Team equipment	.84	.42	.45	.52	.50	.40	.36	
Team supplies	.84	.48	.49	.53	.50	.45	.37	
D2 Quality of Tutors								
Tutors	.47	—	.46	.50	.51	.41	.30	
D3 Quality of Facilities								.91
Practice facilities	.49	.48	.83	.58	.58	.42	.43	
Competitive facilities	.45	.40	.83	.56	.49	.46	.40	
D4 Quality of Locker room								.84
Appearance of locker room	.49	.50	.56	.73	.59	.51	.43	
Maintenance of locker room	.53	.44	.54	.73	.64	.49	.44	
D5 Quality of Medical and Training								.87
Appearance of training room	.38	.46	.54	.62	.70	.33	.35	
Maintenance of training room	.40	.43	.54	.59	.76	.41	.33	
Availability of training room	.39	.45	.50	.58	.76	.45	.38	
Services provided by trainers	.45	.36	.40	.51	.71	.52	.36	
Services provided by team doctors	.47	.37	.33	.39	.58	.41	.41	.87
D6 Quality of Weight-Conditioning Facilities								
Weight-conditioning Facility	.44	.41	.46	.54	.52	—	.41	
D7 Quality of Publicity Services								
Publicity services	.39	.30	.44	.47	.46	.41	—	—

K-R 20 Internal Consistency Estimates for Yes/No Items

Item	Dimensions							Alpha
	D1	D2	D3	D4	D5	D6	D7	
D1 Interests and Accommodations								.69
The institution has made successful attempts to add sports for women.	.53	.36	.15	.16	.27	.16	.18	
The institution has made successful attempts to add sports for men.	.53	.35	.28	.25	.28	.21	.21	

D2 Travel								.81
The team travels overnight.	.43	.61	.52	.44	.52	.57	.43	
My team usually travels by bus/van/car.	.29	.64	.65	.45	.59	.61	.15	
Lodging is provided for the team.	.29	.73	.63	.58	.66	.71	.51	
D3 Per Diem								.79
I am provided with a per diem allowance when traveling to away games.	.23	.59	.70	.40	.47	.52	.27	
I usually pay for my own meals when traveling to away games.	.29	.62	.59	.42	.56	.59	.32	
The coach usually pays for meals when traveling to away games.	.12	.59	.55	.38	.53	.55	.19	
I am usually provided with money from the coach for meals when traveling to away games.	.16	.45	.63	.25	.36	.40	.14	
D4 Tutors								.71
I receive tutoring services.	.25	.52	.43	.56	.53	.54	.64	
I receive tutoring services that are not available to other students.	.17	.49	.37	.56	.56	.54	.43	
D5 Study Tables								.75
Study tables are available.	.25	.75	.62	.60	.74	.82	.51	
Study tables are mandatory.	.29	.47	.41	.51	.49	.59	.51	
Study tables are optional.	.22	.49	.44	.41	.52	.56	.32	
D6 Lockerrooms								.87
The team has exclusive use of the locker room (i.e., not shared with other teams).	.20	.66	.53	.55	.74	.78	.52	
Each athlete has his/her own locker (i.e., not shared with other athletes).	.20	.72	.69	.61	.76	.78	.54	
D7 Housing and Dining								.84
I am provided with housing as a student-athlete.	.21	.47	.31	.55	.58	.56	.71	
Pre-game housing is provided for the team prior to home games.	.19	.40	.23	.51	.52	.57	.70	
Training tables are available in the dining halls.	.20	.24	.21	.51	.35	.35	.70	