

A COMPARISON OF TWO INITIAL ELIGIBILITY RULES: PROPOSITIONS 48 AND 16

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ABSTRACT

Two NCAA initial eligibility rules were compared to determine which was more restrictive in terms of the overall number of student-athletes declared ineligible to compete and which was more accurate in identifying future graduates. The sample consisted of 164 freshman student-athletes enrolled at Clarion University of PA in 1989. A standard decision table was employed to classify the subjects. Results found Proposition 16, which will be implemented in 1996, to be significantly more restrictive than Proposition 48, the current rule. The new rule also rejected significantly more future graduates than the current rule, but no other statistically significant results were obtained.

REVIEW OF THE LITERATURE

Loss of Integrity

Since the turn of the century, conflict has persisted over the co-existence of academics and athletics at collegiate institutions. Cramer (1986) testifies to this fact, citing a football game between Princeton and Rutgers in 1896 which was canceled because the faculties of those two institutions feared overemphasis. That fear has grown to new levels in the modern era, spurred greatly by, among other things, multi-million dollar contracts between television networks and universities. Macintosh (1990) notes that in 1989 a trip to the Final Four of the NCAA championship men's basketball tournament was worth \$41.3 million in television revenues. Brownlee and Linnon (1990) found that for the same year college football bowl participants shared more than \$55

million. Schools that shared in bowl revenues generally finished in the Top 20 rankings.

Many intercollegiate athletic departments need the income that the big money sports can provide to support the expenses of other sports programs. Some argue that this financial pressure to win entices athletic directors and coaches to engage in activities, with respect to recruiting and maintaining student-athletes, that compromise the integrity of their institutions. Brownlee and Linnon (1990) reported the findings of a 1989 survey which showed that over 85 percent of college presidents felt that the pressure to win interfered with the primary mission of American schools. Even the coaches themselves were skeptical of abuses committed by colleagues. Cullen, Latessa, and Byrne (1990) surveyed close to 200 Division I coaches. According to the survey results, the coaches estimated that nearly one third of Division I programs cheated regularly and that while coaches knew cheating was occurring, they overlooked it. Further, most of the respondents felt that the primary cause of rules infractions was the pressure to win, which is inherent in the position of head coach.

Over the past two decades, the exploitation of student-athletes who lacked the credentials for academic success upon entrance into college has been well documented. Brownlee and Linnon (1990) note that between 1973 and 1983 the Memphis State men's basketball program graduated only 10 percent of its players. Cramer (1986) found similar results at North Carolina State University, where only 2 of 80 football players who entered school between 1976 and 1978 were able to graduate. In 1984 this same university signed a blue chip men's basketball prospect who revealed later, while on trial for various criminal charges, that his combined score on the SAT was 470. In another celebrated case, Billy Don Jackson, a 1980 football signee at UCLA, revealed while on trial for murder that he was functionally illiterate. Jackson maintained eligibility for competition until his junior year.

In addition to these examples of the enrollment of unqualified student-athletes, stories of recruiting violations, under-the-table payments, and point shaving bombarded newspapers across the country, painting a picture of American collegiate sports as being out of control. Over the past decade, the National Collegiate Athletic Association (NCAA) has responded to the widespread criticism with a series of legislative reforms. The new regulations cover a variety of areas including limitations on practice hours, reductions in coaching staffs, restrictions on recruiting, and public accountability. The legislation reviewed here will focus only on the development of rules affecting initial and continuing eligibility standards.

Recent History of Initial Eligibility Legislation

At the 1983 NCAA convention, a highly controversial initial eligibility regulation (Proposition 48) was adopted. It required student-athletes who entered college in Fall 1986 or after to achieve at least a 2.00 grade point

average (GPA) in a core curriculum of at least 11 academic courses, as well as a combined score of at least 700 on the SAT or a composite score of at least 15 on the ACT. Before this time, a 2.00 overall GPA was required. The regulation was later amended to require an ACT composite score of at least 17, effective as of October 28, 1989. Proposition 48, now Bylaw 14.3, was viewed by many as racially discriminatory. Clark, Horton, and Alford (1986) surveyed presidents and chancellors of historically black colleges and found that 80 percent of the respondents were not in favor of the legislation. Clark, Horton, and Alford noted that a biased racial impact was anticipated by many because 51 percent of black males and 60 percent of black females at that time were scoring lower than 700 on the SAT. Another common complaint was that the selection of the cut-off points for the standardized tests was made arbitrarily for the NCAA regulation. The methods employed by various committees in 1983 to arrive at the cut-off points were not documented by NCAA Research Report 91-04 (Benson, 1991d).

Others who opposed the rule argued that newly implemented continuing eligibility legislation would make the restrictive initial eligibility criteria unnecessary. The 1983 convention amended the satisfactory progress rule (adopted in 1981) to require that hours earned by student-athletes must be credit hours toward their specific degree programs. No longer would student-athletes be able to accumulate meaningless credits in slack courses in order to remain eligible. Student-athletes were further required to designate a specific baccalaureate degree prior to their third year and meet the progress requirements stated by that degree program.

Proponents of Proposition 48 spouted rhetoric like, "Put the emphasis back on 'student' in the term student-athlete." Bryant (1992) typified this sentiment by stating in an NCAA newsletter, "College is for the academically elite. If you don't fall in that category, you don't deserve to be there" (p. 4). Many backers of the increased standards, like Bryant, thought that the rule would be successful on the simple premise that higher academic expectations would motivate student-athletes to greater achievement. This conviction has been maintained over time. According to R. Gerald Turner, former chair of the NCAA Presidents Commission, ". . . if a 1.50 is what's required that's what some of them will make. If a 2.00 is required, that's what some will make. And they'll make the 2.50 and be better prepared for having done it" (Tucker, p. 4, 1992). In *The NCAA News*, Scanlan (1991) added this commentary: ". . . the most obvious beneficiaries of rules such as Proposition 42 are the hundreds or thousands of college student-athletes for whom such rules provide the incentive to prepare academically in order to meet the required standards" (p. 4).

NCAA Research Findings

In 1983 the NCAA formed the Special Committee on Academic Research. This committee employed the services of Advanced Technology of Reston, Virginia, to study the impact of Proposition 48 standards on student-athletes who entered Division I institutions between 1977 and 1982. The results

of that study suggested that the legislation would have a greater adverse effect on black student-athletes (Summers, 1991). This spurred the NCAA's Special Committee to take a closer look at the academic performance of student-athletes beginning in 1985. This research yielded the Academic Performance Study (APS), a series of ongoing reports. The APS research has provided longitudinal data on a large sample of Division I student-athletes nationwide, initially in an attempt to settle the controversy over Proposition 48. Subsequent findings provided support for those on both sides of the issue.

NCAA Research Report 93-01 (Benson, 1994a) revealed that the percentage of black student-athletes initially experienced a noticeable drop following implementation of Proposition 48. The 1984 level (25.6 percent) was reduced to 17.9 percent by 1986. The percentages rebounded in 1987 (20.6 percent) and again in 1988 (21.8 percent) but failed to reach the initial level of 1984. On the other hand, overall graduation rates improved significantly, as did standardized test scores and core grade point averages (Benson, 1993).

In April 1994 the NCAA published APS Report 91-07 (Benson, 1994b), which extracted twenty findings from APS Reports 91-01 through 91-06. Eight of these findings were supportive of either the current rule or its successor. The following is a brief description of the APS findings, plus three additional findings which do not support either of the two rules:

Finding 1. Core grade point averages (CGPA) and national test scores were found to be significant predictors of college graduation. This result supports both rules, since each utilizes CGPA and standardized test scores (Benson, 1991a; 1991b).

Finding 2. Test score was the strongest predictor of college graduation, but CGPA and test scores combined were better than either variable alone. Both Proposition 48 and Proposition 16 combine the CGPA and test score variables. However, this finding favors Proposition 48 because it places an increased emphasis on the test score variable. With Proposition 48 standards, the test score cut-off point (700) falls one standard deviation below the national mean score, while the CGPA minimum (2.00) falls two standard deviation units below the national mean (Benson, 1991b).

Finding 3. An equally weighted combination of the CGPA and test score variables was the single best predictor of college graduation. This finding favors Proposition 16 because it employs an index with equal emphasis on the two variables (Benson, 1991b).

Finding 4. Average rules, which place equal emphasis on the CGPA and test score variables and do not employ cut-off points, lead to fewer false negative errors and less negative impact on minority student-athletes than both the current and new rules (Benson, 1991c).

In APS Research Report 91-03 (Benson, 1991c), the current and new initial eligibility rules were applied to a sample of more than 3000 student-athletes to compare four outcomes: (1) overall percent ineligible; (2) percent

declared ineligible who graduated (false negatives); (3) percent declared eligible who graduated (true positives); and (4) percent declared ineligible who failed to graduate (true negatives). The outcomes for these two rules are presented below.

Finding 5. The current rule was less restrictive in terms of overall percent ineligible (27.0) than Proposition 16 (31.7 percent) (Benson, 1991c).

Finding 6. The current rule made fewer errors in terms of false negatives (5.3 percent) than Proposition 16 (6.3 percent) (Benson, 1991c).

Finding 7. The current rule was more accurate in terms of true positives (88.4 percent) than Proposition 16 (86.2 percent) (Benson, 1991c).

Finding 8. Proposition 16 was more accurate in terms of true negatives (46.8 percent) than the current rule (39.9 percent) (Benson, 1991c).

Finding 9. Rules which place the most emphasis on graduation led to an increasingly stringent cut-off point. Maximum value for rules which emphasize graduation were found closest to the Proposition 16 rule (Benson, 1992).

Finding 10. Rules which place the most emphasis on minority graduation suggest the elimination of cut-off points (Benson, 1992).

Finding 11. Rules which place equal emphasis on increased graduation and minority impacts suggest cut-off points lower than either the current rule or the new rule (Benson, 1992).

The NCAA Academic Requirements Committee, in response to a 1991 directive, developed legislation to strengthen requirements for initial and continuing eligibility. The committee recommended that incoming student-athletes be required to achieve a score of at least 700 on the SAT (17 on the ACT) and a 2.50 grade point average in 13 core courses. Additionally, a sliding scale could be applied to allow compensation of lower test scores with higher GPAs, or vice versa. Subsequently, the Presidents Commission sponsored legislation modifying that proposal to include minimum grade point limits (2.00) and minimum test score limits (700 or 17) on the index. That legislation (Proposition 16) will be implemented at the Division I level in 1996.

Summary

In reaction to widespread media reports of paltry graduation rates among student-athletes at some major collegiate institutions, the NCAA adopted legislation which significantly raised initial eligibility standards. In 1986 the NCAA implemented Proposition 48, which came under fire as being racially discriminatory. Subsequent research found that the rule did have a biased racial impact with respect to the opportunity for freshman minority student-athletes to compete and earn athletic grants-in-aid. In addition, no empirical evidence was available to support the selected cut-off points of the

rule, which placed a heavier emphasis on standardized test scores than on core grade point averages. The NCAA Academic Requirements Committee responded in 1991 with a sliding scale index that placed equal emphasis on the test and CGPA variables. The NCAA Presidents Commission added minimum cut-off points to the scale. The commission's legislation (Proposition 16) was adopted at the 1992 convention and will be implemented in 1996.

Since that time, NCAA research has found that average rules which place equal weight on test and grade point variables without employing cut-off scores have less negative impact on minority students and lead to fewer false negative errors than the current and new rules. In addition, studies by the NCAA showed unfavorable results for Proposition 16 in comparison with the current rule and the average rules on three of four variables, including percent ineligible, false negatives, and true positives. Proposition 16 was more accurate with respect to true negatives.

According to the research examined here, Proposition 16 is clearly less accurate than the other proposals examined, including the current rule. Despite the reality that more minority freshman student-athletes will be ineligible to compete and earn athletic grants-in-aid, and further that more student-athletes with the ability to graduate will be declared ineligible, the NCAA electorate voted to implement this rule. Before the vote, NCAA President Joseph Crowley stated that the goal of the association was to strike a balance between academic standards and educational opportunity (Initial Eligibility Question, 1994). Research suggests, however, that this goal was not achieved for two reasons. First, rules with equal emphasis on graduation and minority impacts suggest lowering of standards beyond current levels. Second, rules primarily concerned with graduation find maximum value with cut-off points almost identical to the standards of Proposition 16.

This study traces the recent historical development of NCAA initial eligibility legislation. In addition, the current rule (Proposition 48) and its successor (Proposition 16) are compared with respect to graduation and eligibility outcomes. The sample was not broken down by race, but the findings do hold implications for the interests of minority student-athletes.

PURPOSE

Five hypotheses were developed for examination in this study:

(H1) There is no significant statistical difference between Propositions 48 and 16 with respect to the overall percentage of student-athletes declared ineligible. Alpha level is set at .05.

(H2) There is no significant statistical difference in the error rate of Propositions 48 and 16 with respect to declaring student-athletes ineligible who later went on to graduate. Alpha level is set at .05.

(H3) There is no significant statistical difference in the error rate of Propositions 48 and 16 with respect to declaring student-athletes eligible who later failed to graduate. Alpha level is set at .05.

(H4) There is no significant statistical difference in the accuracy rate of Propositions 48 and 17 with respect to declaring student-athletes ineligible who later failed to graduate. Alpha level is set at .05.

(H5) There is no significant statistical difference in the accuracy rate of Propositions 48 and 17 with respect to declaring student-athletes eligible who later went on to graduate. Alpha level is set at .05.

METHODS

Subjects

This study examined the high school academic records and graduation outcomes of 164 freshman student-athletes who enrolled at Clarion University of PA (CUP) in Fall 1989. The sample includes all freshman student-athletes who enrolled during that semester, with the exception of 14 who did not submit SAT scores to the university. The sample includes both academic qualifiers and non-qualifiers, as well as scholarship athletes, non-scholarship athletes, and walk-ons. Clarion University is a state-funded institution that participates at the Division II level in all sports except wrestling, in which it competes at the Division I level.

Procedures

A representative from the university's Office of Admissions retrieved data for the sample with respect to high school CGPA and SAT scores. Graduation outcomes were provided by the institution's Computer Services Center in conjunction with the Office of Admissions. The Office of Admissions also coded the names of all student-athletes to ensure confidentiality.

Variables

The four variables examined in this study are the following:

(V1) **High School Core GPA (CGPA).** This grade point average was based on the 11 high school core courses required by the NCAA under Proposition 48. Scores were obtained for 100 percent of the student-athletes in the study.

(V2) **Precollege Test Scores (TEST).** This variable reflects only SAT scores. None of the student-athletes in this study took the ACT.

(V3) **Equally Weighted Average.** The NCAA used the numerical average of the CGPA Z-score and the TEST Z-score to establish an index (i.e., sliding scale).

(V4) **College Graduation.** The student-athletes were counted as graduates only if they obtained their degrees from CUP within a five-year period. This study does not determine the reasons for non-graduation. Student-athletes who transferred, continued beyond the five-year period, or left in good academic standing were all considered dropouts.

Eligibility Rules

The two eligibility rules in this study (i.e., Propositions 48 and 16) are composed of one or more of the first three variables mentioned above, plus cut-off scores (see Table 1).

(R1) **Proposition 48.** This rule sets minimum scores for CGPA and TEST scores. Student-athletes who surpass the TEST score must also be above the CGPA minimum in 13 core courses to be considered eligible. This rule is in effect until August 1996.

(R2) **Proposition 16.** This rule applies TEST and CGPA results to an index, which is based upon equally weighted averages for these two criteria. The index allows the TEST score to compensate for a low CGPA, and vice versa. Cut-off points are established for both CGPA (2.00) and TEST variables (700 SAT or 17 ACT).

Table 1

Comparison of Initial Eligibility Standards in Propositions 48 and 16

Proposition 48 (R1)		Proposition 16 (R2)	
SAT	GPA	SAT	GPA
700+	2.00+	900	2.00
		860	2.10
		820	2.20
		780	2.30
		740	2.40
		700	2.50

Data Analysis

Student-athletes were classified as graduates or non-graduates (within a five-year period) in comparison with their status as eligible or not eligible as defined by one of two specific eligibility rules. Four classifications were developed as follows:

(TN) True Negatives are those who would have been declared not eligible by the specific rule and later did not graduate.

(FN) False Negatives are those who would have been declared not eligible by the specific rule but later did graduate.

(TP) True Positives are those who would have been declared eligible by the specific rule and later graduated.

(FP) False Positives are those who would have been declared eligible by the specific rule but later did not graduate.

Table 2 displays the graduation and eligibility outcomes from the 1989 student-athlete date under Proposition 48 (R1) as well as the graduation and eligibility outcomes from the same data as if Proposition 16 (R2) were in effect. The numbers have been converted into percentages to allow for a comparison of accuracy between the rules. Accurate decisions are considered to be both true negatives and true positives, while errors are considered to be false negatives and false positives.

Table 2
Projected Outcomes of Initial Eligibility Rules

Rule	% Ineligible	%FN	%FP	%TN	%TP
Prop 48 (R1)	10.4	17.6	53.0	82.3	46.9
Prop 16 (R2)	30.5	31.1	51.2	68.8	48.7

Chi-square analysis was applied to the following sets of data to determine statistical significance: overall percentage ineligible for R1 vs. R2; false negatives; false positives; true negatives; and true positives (see Table 3). Expected frequencies were determined as the average of the percentage sums of the two rules. Since percentages were used, chi-square results were increased by multiplying these figures by 1.64, or the sample size (n = 164) divided by 100.

RESULTS

Percentage Ineligible

The eligibility standards of the current and new rules were applied to the sample to determine the overall percentage of student-athletes who would have been declared ineligible if each of these rules were in effect. Proposition 48 (R1) was found to be less restrictive (10.4%) than Proposition 16 (R2 = 30.5%). Chi-square analysis was applied to determine statistical significance.

Table 3
Chi Square Analyses of Proposition 48 versus Proposition 16

Variable	Number of Observations	Chi-Square	Degrees of Freedom	Significance Level
Overall Percentage Ineligible	41	9.8(1.64)=16	1	.05
False Negatives	49	3.7(1.64)=6.0	1	.05
False Positives	104	.03(1.64)=.049	1	.05
True Negatives	151	1.20(1.64)=1.96	1	.05
True Positives	96	.03(1.64)=.049	1	.05

The two rules were found to be statistically different with respect to overall percentage ineligible, with chi-square equal to 16.0 (alpha = .05, 1df). Thus, H1 was rejected.

Error Rate Comparisons

Error Rate percentages included both false negatives and false positives. Proposition 48 (R1) was found to make fewer errors with respect to false negatives than Proposition 16 (R2 = 31.1%). A significant statistical difference was found for the two rules, with chi-square equal to 6.0 (alpha = .05, 1df). Thus, H2 was rejected.

With respect to false positives, Proposition 16 (R2) was found to make fewer errors (51.2%) than Proposition 48 (R1 = 53.0%). No significant statistical difference was found for the two rules, with chi-square equal to .049 (alpha = .05, 1df). Thus, H3 was not rejected.

Accuracy Rate Comparisons

Accuracy Rate comparisons included both true negatives and true positives. Proposition 48 (R1) was found to be more accurate (82.3%) with respect to true negatives than Proposition 16 (R2 = 68.8%). No significant statistical difference was found for the two rules, with chi-square equal to 1.96 (alpha = .05, 1df). Thus, H4 was not rejected.

With respect to true positives, Proposition 16 (R2) was found to be more accurate (48.7%) than Proposition 48 (R1 = 46.9%). No significant

statistical difference was found for the two rules, with chi-square equal to .049 ($\alpha = .05$, 1df). Thus, H_5 was not rejected.

DISCUSSION

The purpose of this study was to determine differences in accuracy and restrictiveness between Propositions 48 and 16. The results obtained with respect to the overall percentage of student-athletes who would be declared ineligible under each rule were consistent with previous research conducted by the NCAA. Proposition 16 was found to be significantly more restrictive than the current rule. Slightly more than 20 percent of the sample declared ineligible under Proposition 48 would also have been denied eligibility if the new rule had been in place when the student-athletes entered college. Error rate comparisons showed results similar to those found by previous NCAA research. With respect to false negatives (students declared ineligible who graduated), Proposition 16 was significantly less accurate than the current rule. The percentage of false negatives allowed by the current rule has been the focal point of major criticism. NCAA research determined that average rules, which employ a sliding scale index but do not employ cut-off points, reduce the number of false negatives produced by the current rule. Proposition 16 uses a sliding scale, but the addition of cut-off points makes this rule more prone to errors than Proposition 48.

The two rules were separated by less than two percent with respect to false positives (student-athletes declared eligible who failed to graduate). Because of its increased standards, Proposition 16 was the more accurate rule in its identification of future graduates. However, many will argue that the small gap between Propositions 16 and 48 with respect to true positives and false positives does not compensate for the rules' negative impact on overall eligibility and the number of false negative errors. Further, Proposition 16 was less accurate with respect to true negatives (student-athletes declared ineligible who did not graduate). A difference of more than 13 percent was found between the two rules. These results were not statistically significant and were not supported by the NCAA's research, which found Proposition 16 to be slightly more accurate than the current rule.

LIMITATIONS

The design employed by this study has several limitations. First, five-year graduation was the only academic outcome considered, and precollege test scores and core grade point averages were the only indices of academic input. One outcome to be considered for possible future study is persistence rates. Second, precollege data were used for student-athletes who were in compliance with the standards of Proposition 48. It is unknown what effect the new rule would have had on their academic performance in high school or college. Third, the sample represents only one institution. Results may be generalized to similar state-run universities but not on the national scale for which NCAA initial

eligibility rules are mandated. Conversely, this study avoided validity issues familiar to previous research which sampled colleges across the country.

CONCLUSION

The results of this study found Proposition 16 to be more restrictive and less accurate than Proposition 48. While only two of the outcomes measured were statistically significant, it must be remembered that the other percentages represent thousands of student-athletes whose lives will be negatively affected by the new rule. Further, these findings were consistent with previous research at the national level.

While Proposition 16 effectively raises eligibility standards over the current rule, its impact on the academic performance of high school student-athletes cannot be measured at this time. The positive response to the last raising of initial eligibility standards suggests that student-athletes will adapt, and college graduation rates will continue to climb.

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