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**STATUS OF VOLUNTARY PHYSICAL EDUCATION IN SELECTED
ILLINOIS STATE-SUPPORTED UNIVERSITIES
AND COMMUNITY COLLEGES**

Donald Gordon Scoles


**A dissertation presented to the
Graduate Faculty of Middle Tennessee State University
in partial fulfillment of the requirements
for the degree Doctor of Arts**

December, 1976


STATUS OF VOLUNTARY PHYSICAL EDUCATION IN SELECTED
ILLINOIS STATE-SUPPORTED UNIVERSITIES
AND COMMUNITY COLLEGES


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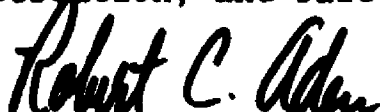

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ABSTRACT

STATUS OF VOLUNTARY PHYSICAL EDUCATION IN SELECTED ILLINOIS STATE-SUPPORTED UNIVERSITIES AND COMMUNITY COLLEGES

by Donald Gordon Scoles

The purpose of this study was to investigate the status of voluntary physical education in selected Illinois state-supported universities and community colleges with regard to the change from an involuntary to a voluntary basic instruction program in 1972.

Seven universities and 22 community colleges, all state supported and located in Illinois, participated in the study. These institutions represented 70.00 percent of the universities and 78.57 percent of the community colleges that originally agreed to participate. Physical education administrators at the participating institutions completed and returned a questionnaire similar to those used previously by Wayne E. Nelson in 1970 in a study of six western colleges and universities and by Jerry R. Thomas and others in 1971 to study the status of physical education in 116 southern junior colleges.

Data from the fall academic term of 1975 were compared with those from the corresponding term of 1971 and

a two-tailed chi-square test was used to determine significant differences between observed and expected frequencies in certain specific areas after the change to a voluntary basic instruction program in physical education.

These related areas were:

1. Enrollment of students.
2. Number of faculty members.
3. Participation in activity classes.
4. Physical education, intercollegiate athletics, and intramural sports budgets.
5. Construction of facilities.

The findings of this study resulted in the following conclusions with regard to the institutions that participated in the study:

1. Over 80 percent of the universities and 70 percent of the community colleges showed significant decreases in enrollment of students in basic instruction classes after the change to a voluntary program in physical education.

2. There was no significant difference in the combined total of faculty members at the universities and community colleges after changing to a voluntary basic instruction program.

3. There was a significant decrease in participation in activity classes based upon the number of sections of classes offered after changing to voluntary programs.

4. There was a significant increase in community college physical education, intercollegiate athletics, and intramural sports budgets after the change to voluntary physical education. To conclude that these budget increases, although significant, were adequate in light of increased national economic inflation rates and an accompanying recession during the period, however, is questionable and possibly misleading.

5. No significant differences were found in the construction of facilities at the universities and community colleges after changing to voluntary basic instruction programs of physical education.

DEDICATION

This dissertation is dedicated to the memory of
Don W. Scoles.

ACKNOWLEDGEMENTS

The writer wishes to express his sincere appreciation to those individuals who have been of assistance during this study, especially to Dr. A. H. Solomon, major professor, whose guidance and assistance were of immeasurable value. Special acknowledgement is due Dr. Stanley Hall who generously gave of his time and wisdom throughout the entire project.

The writer is grateful to other members of his doctoral committee for their suggestions leading to the completion of the study. These individuals are Dr. Donald Lau of the Department of Education and Dr. William Penrod of the Department of Psychology.

Appreciation is extended to the department heads of the Illinois universities and community colleges who participated in the study and to Dr. Glenn Reeder who contributed valuable suggestions.

The writer is especially indebted to his mother for her continuous inspiration and sacrifice and to his wife, Joann, and daughters, Kristin and Molly, whose loyalty and devotion made the entire effort worthwhile.

TABLE OF CONTENTS

| | Page |
|----------------------------------------------|------|
| LIST OF TABLES | viii |
| LIST OF APPENDIXES | xi |
| Chapter | |
| 1. INTRODUCTION | 1 |
| STATEMENT OF THE PROBLEM | 5 |
| HYPOTHESES | 5 |
| IMPORTANCE OF THE STUDY | 6 |
| LIMITATIONS OF THE STUDY | 7 |
| DEFINITIONS OF TERMS | 7 |
| 2. REVIEW OF RELATED LITERATURE | 9 |
| UNIVERSITIES | 9 |
| COMMUNITY COLLEGES | 34 |
| 3. METHODS AND PROCEDURES | 45 |
| SUBJECTS | 45 |
| SELECTION OF THE INSTRUMENT | 46 |
| COLLECTION OF DATA | 48 |
| STATISTICAL ANALYSIS | 49 |
| 4. ANALYSIS OF DATA AND DISCUSSION | 50 |
| INSTITUTION ENROLLMENT | 50 |
| Universities | 50 |
| Community Colleges | 51 |

| Chapter | Page |
|------------------------------------------------------------------------------------------------------------|------|
| EFFECTS OF THE IBHE MANDATE ON DEPARTMENT MERGERS AND DISCONTINUANCE OF PHYSICAL EDUCATION | 53 |
| Universities | 53 |
| Community Colleges | 55 |
| LENGTH OF PREVIOUS PHYSICAL EDUCATION REQUIREMENTS AND STATUS OF CURRENT REQUIREMENTS | 55 |
| Universities | 55 |
| Community Colleges | 58 |
| STATUS OF THE FACULTY | 61 |
| Universities | 61 |
| Community Colleges | 69 |
| TEACHING LOAD | 75 |
| Universities | 75 |
| Community Colleges | 75 |
| GRADUATE ASSISTANTS | 78 |
| Universities | 78 |
| Community Colleges | 78 |
| COACHES IN THE BASIC INSTRUCTION PROGRAM . . | 78 |
| Universities | 78 |
| Community Colleges | 79 |
| TEACHER/STUDENT RATIO, CLASS SIZE, AND CREDIT HOUR PRODUCTION | 82 |
| Universities | 82 |
| Community Colleges | 83 |

| Chapter | Page |
|-------------------------------------------------------------------------|------|
| ADMINISTRATION OF THE BASIC INSTRUCTION OR SERVICE PROGRAM | 84 |
| Universities | 84 |
| Community Colleges | 87 |
| ENROLLMENT IN THE BASIC INSTRUCTION PROGRAM | 90 |
| Universities | 90 |
| Community Colleges | 96 |
| COURSE CREDIT AND GRADING | 104 |
| Universities | 104 |
| Community Colleges | 106 |
| ACTIVITY CLASSES | 110 |
| Universities | 110 |
| Community Colleges | 120 |
| PARTICIPATION IN ACTIVITY CLASSES | 123 |
| Universities | 123 |
| Community Colleges | 126 |
| Combined University and Community College Participation | 127 |
| EVALUATION PROCEDURES | 133 |
| Universities | 133 |
| Community Colleges | 137 |
| COSTS OF OPERATION | 137 |
| Universities | 137 |
| Community Colleges | 145 |

| Chapter | Page |
|--------------------------------------------------------|------|
| INTERCOLLEGIATE ATHLETICS | 158 |
| Universities | 158 |
| Community Colleges | 158 |
| INTRAMURAL SPORTS AND FREE PLAY | 164 |
| Universities | 164 |
| Community Colleges | 166 |
| PHYSICAL EDUCATION FACILITIES | 177 |
| Universities | 177 |
| Community Colleges | 180 |
| 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS | 186 |
| SUMMARY | 186 |
| CONCLUSIONS | 187 |
| RECOMMENDATIONS | 195 |
| APPENDIXES | 198 |
| BIBLIOGRAPHY | 229 |

LIST OF TABLES

| Table | Page |
|-----------------------------------------------------------------------------------------|------|
| 1. University Enrollment Data | 51 |
| 2. Community College Enrollment Data | 52 |
| 3. Effect of IBHE Mandate on Departmental Mergers | 53 |
| 4. Anticipated Time of Discontinuance-- Universities | 54 |
| 5. Anticipated Time of Discontinuance-- Community Colleges | 56 |
| 6. Length of Previous Requirement | 57 |
| 7. Universities that Presently Require Physical Education | 57 |
| 8. Colleges that have Reinstated the Requirement | 58 |
| 9. Departments that Presently Require Physical Education | 59 |
| 10. Academic Areas that Require Physical Education | 60 |
| 11. Size of Faculty for Involuntary and Voluntary Programs | 62 |
| 12. Full-Time Physical Education Faculty Members--Universities | 64 |
| 13. Rank of Physical Education Faculty Members--Universities | 66 |
| 14. Faculty Members Teaching Professional Physical Education--Universities | 68 |
| 15. Full-Time Physical Education Faculty Members--Community Colleges | 71 |

| Table | Page |
|-------------------------------------------------------------------------------------------------------|------|
| 16. Rank of Physical Education Faculty Members--Community Colleges | 72 |
| 17. Faculty Members Teaching Professional Physical Education--Community Colleges | 74 |
| 18. Teaching Loads and Graduate Assistants-- Universities | 76 |
| 19. Community College Teaching Loads | 77 |
| 20. Coaches in the Basic Instruction Program--Universities | 80 |
| 21. Coaches in the Basic Instruction Program--Community Colleges | 81 |
| 22. Teacher/Student Ratio, Class Size, and Credit Hour Production--Universities | 83 |
| 23. Teacher/Student Ratio, Class Size, and Credit Hour Production--Community Colleges | 85 |
| 24. Faculty Member Supervises Program-- Universities | 88 |
| 25. Faculty Member Supervises Program-- Community Colleges | 89 |
| 26. Enrollment in Basic Instruction or Service Program--Universities | 91 |
| 27. Analysis of Enrollment in Basic Instruction Programs--Universities | 94 |
| 28. Enrollment in Basic Instruction or Service Program--Community Colleges | 97 |
| 29. Analysis of Enrollment in Basic Instruction Programs--Community Colleges | 101 |
| 30. Course Credit and Grading--Universities | 107 |
| 31. Course Credit and Grading--Community Colleges | 111 |

| Table | Page |
|----------------------------------------------------------------------------------------------------------------|------|
| 32. Activity Classes--Universities | 118 |
| 33. Preferred Times for Classes--Universities | 119 |
| 34. Activity Classes--Community Colleges | 121 |
| 35. Preferred Times for Classes--Community Colleges | 124 |
| 36. Participation in Basic Instruction Programs According to Numbers of Sections of Activities | 129 |
| 37. Evaluation Procedures--Universities | 135 |
| 38. Evaluation Procedures--Community Colleges | 138 |
| 39. Cost of Operations for Universities | 146 |
| 40. Cost of Operations for Community Colleges | 149 |
| 41. University Intercollegiate Athletics | 159 |
| 42. Community College Intercollegiate Athletics | 162 |
| 43. Intramural Sports and Free Play-- Universities | 165 |
| 44. University Student Intramural Sports Participation | 166 |
| 45. Intramural Sports and Free Play-- Community Colleges | 168 |
| 46. Community College Intramural Activities | 170 |
| 47. Community College Intramural Sports Participation | 173 |
| 48. Adequacy of Physical Education University Facilities | 178 |
| 49. Adequacy of Physical Education Community College Facilities | 181 |
| 50. Effect of Voluntary Programs on Facility Construction Projects | 184 |

LIST OF APPENDIXES

| Appendix | Page |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| A. Letter to Dr. Wayne E. Nelson | 199 |
| B. Letter from Dr. Wayne E. Nelson | 201 |
| C. Letter to Dr. Jerry R. Thomas | 203 |
| D. Letter from Dr. Jerry R. Thomas | 205 |
| E. Survey of Status of Programs of Voluntary and Involuntary Physical Education in Illinois State-Supported Universities and Community Colleges | 207 |
| F. Cover Letter to Department Heads | 220 |
| G. Copy of the Return Card | 222 |
| H. Prospectus | 224 |
| I. Second Letter Requesting the Return of all Questionnaires | 227 |

Chapter 1

INTRODUCTION

A critical issue in higher education in recent years has been justification of various programs. An unstable economy, the shrunken tax dollar, a reduced area of space for campus expansion, the rise in the costs of construction and maintenance, the competition for students' time, and the challenge of course relevance have all been contributing factors to the situation.

According to Dressel and DeLisle, "the college system must place the student and his needs first rather than focusing on academic subjects."¹ The essential nature of courses such as English, mathematics, language, basic sciences, and other general education courses has been seriously challenged at colleges and universities throughout this country.² Requirements for physical education are

¹Paul L. Dressel and Francis H. DeLisle, Undergraduate Curriculum Trends (Washington, D.C.: American Council on Education, 1969), p. 47.

²Joseph B. Oxendine, "Physical Education in Four-Year Colleges and Universities: 1971-72," College Physical Education: The General Program, ed. Helen M. Hietmann (Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973), p. 125.

among courses being reevaluated, and many physical educators fear the loss of their requirement.³

Although physical educators have in the past cited the ancient Greeks as the ideal for theoretical support of their programs,⁴ recent philosophers in physical education take a more skeptical viewpoint. Some feel that when Plato discussed gymnastics he was speaking of something quite different from what we call physical education today.⁵ The modern concept of physical education actually evolved around the turn of the twentieth century out of a conflict between the various systems employed in schools.⁶ In 1892, at the national convention of the American Association for the Advancement of Physical Education, Baron Nils Posse, a Swede, stated:

. . . If the American nation consists chiefly of Germans, by all means teach the German system. If it is made up of Swedes, teach the Swedish, but if the chief bulk is made up of Americans, teach them gymnastics

³Wayne E. Nelson, "Need We Fear Voluntary Physical Education?", Journal of Health, Physical Education, Recreation, XLIII (January, 1972), 63.

⁴Jesse Feiring Williams, The Organization and Administration of Physical Education (2nd ed.; New York: The Macmillan Company, 1925), p. 2.

⁵Harold J. Vanderzwaag, Toward a Philosophy of Sport (Reading, Mass.: Addison-Wesley Publishing Company, 1972), pp. 16-17.

⁶Vanderzwaag, p. 17.

based on the laws of the nation; and if you need a prefix to the system, call it "American."⁷

In 1893, Thomas D. Wood, an early American advocate of the new physical education set forth what he felt should be the aims of the profession when he said "physical education must have an aim as broad as education itself, and as noble and inspiring as human life."⁸

The philosophy of Thomas D. Wood and other early leaders such as Clark Hetherington and Luther Gulick was carried into the twentieth century primarily by Jesse F. Williams at Columbia University and Jay B. Nash at New York University.⁹ The philosophy of these latter two leaders has influenced American physical education to the present time.¹⁰ From 1861, when the first college program of physical education was established in this country at Amherst College by Dr. William A. Stearns, president of the institution, and Edward Hitchcock, Professor of Hygiene and

⁷Mabel Lee and Bruce Bennett, "This Is Our Heritage--Part I: 1885 to 1900 A Time of Gymnastics and Measurement," Journal of Health, Physical Education, Recreation, XXXI (April, 1960), 29.

⁸Arthur Weston, The Making of American Physical Education (New York: Meredith Publishing Company, 1962), pp. 150-158.

⁹Daryl Siedentop, Physical Education: Introductory Analysis (Dubuque, Iowa: Wm. C. Brown Company, Publishers, 1972), p. 69.

¹⁰Siedentop, p. 70.

Physical Education,¹¹ until recently, requirements of physical education for college students grew in number, nurtured largely by the philosophy of Wood, Gulick, Hetherington, and Nash.

With the challenge during this past decade to the physical education requirement has come a great deal of debate from leaders within the profession as to the merits of maintaining a required basic instruction program.¹² Because many students go to college lacking a good background in physical education, some feel that too great a proportion of funds that should rightly go to physical education is instead channeled to intercollegiate athletics. Still others feel that an elective, or voluntary program, promotes better teaching and is more in line with current thought which allows students to make their own decisions.

In view of the present educational climate, this writer agrees with Nelson that "this trend of questioning, reduction of requirements and finally, total elimination of the physical education requirement will continue. . . ." ¹³

¹¹Kenneth D. Miller, "Stearns, Hitchcock, and Amherst College," Journal of Health, Physical Education, Recreation, XXVIII (May-June, 1957), 29-30.

¹²John E. Nixon and Ann E. Jewett, An Introduction to Physical Education (7th ed.; Philadelphia: W. B. Saunders Company, 1969), pp. 193-194.

¹³Wayne E. Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities" (Doctoral dissertation, The University of New Mexico, 1970), pp. 2-3.

STATEMENT OF THE PROBLEM

The purpose of this study was to investigate the status of voluntary physical education in selected Illinois state-supported universities and community colleges with regard to the change from an involuntary to a voluntary basic instruction program in 1972.

The study attempted to determine whether there were any differences in certain specific areas after a change to a voluntary basic instruction program in physical education. These related areas were:

1. Enrollments
2. Physical education facilities
3. Basic instruction programs
4. Costs of operation
5. Intramural sports and free play
6. Intercollegiate athletics
7. Physical education facilities.

HYPOTHESES

For the purpose of this study, the following hypotheses have been developed:

1. There will be no significant difference in enrollment of students in basic instruction classes as a result of the change to a voluntary program in physical education.

2. There will be no significant difference in the number of faculty members after changing to a voluntary basic instruction physical education program.

3. There will be no significant difference in participation in activity classes after changing to a voluntary program.

4. There will be no significant difference in physical education, intercollegiate athletics, and intramural sports budgets.

5. There will be no significant difference in the use of facilities nor a decrease or halt in expansion of physical education facilities.

IMPORTANCE OF THE STUDY

Since the adoption of the voluntary program of physical education in 1972 at state-supported Illinois universities and community colleges, the various institutions have responded to the situation in many different ways. Such a change has a widespread effect on factors such as budgetary considerations, course offerings, curriculum content, personnel hiring and retention policies, instructional methods, and the relationship of physical education to the total institutional structure.

For these reasons, a study of the status of voluntary physical education can be important to those

institutions and departments affected and to other institutions and departments possibly facing a similar change.

LIMITATIONS OF THE STUDY

This study was limited to the status of voluntary physical education programs in selected, state-supported universities and community colleges in Illinois.

The study was further limited to those specific areas included in the survey instrument (see Appendix E).

DEFINITIONS OF TERMS

Activity class. A physical education class devoted to instruction, practice, and play in some type of sport or physical activity.¹⁴

Facilities. Indoor and outdoor spaces which are essential for the effective functioning of the physical education, intramural sports, free play, and intercollegiate athletic programs.¹⁵

¹⁴Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities," p. 13.

¹⁵Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities," p. 13.

Questionnaire. A written survey tool used for the purpose of obtaining data concerning present status practices or opinions regarding a selected institution.¹⁶

Involuntary physical education. A university or college regulation requiring all students to enroll in one or more physical education classes for a specified number of credit hours.

Voluntary physical education. Students may elect on their own to enroll in physical education classes for a predetermined number of credit hours where no university or college requirement exists.¹⁷

¹⁶Ester French, "Typical Research Tools in Education," Research Methods in Health, Physical Education, and Recreation, ed. M. Gladys Scott (Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1959), p. 100.

¹⁷Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities," p. 15.

Chapter 2

REVIEW OF RELATED LITERATURE

UNIVERSITIES

With the inauguration of Dr. William A. Stearns as fourth president of Amherst College in 1854, physical education was introduced into the college curriculum.¹ Under the leadership and guidance of President Stearns, Amherst assumed early and significant leadership in the field. Disappointed in the work of Colonel Luke Lyman who had replaced Dr. John W. Hooker, Stearns and the college's board of trustees appointed, as Professor of Hygiene and Physical Education, Edward Hitchcock in 1861.² Hitchcock's name is well established in the profession as a pioneer and early leader in the use of exercise adapted to the individual needs of college students.

Over the years, physical education has come to be accepted as a part of the college and university curriculum, but the acceptance has not been easy nor has it necessarily

¹Kenneth D. Miller, "Stearns, Hitchcock, and Amherst College," Journal of Health, Physical Education, Recreation, XXVIII (May-June, 1957), 29.

²Miller, pp. 29-30.

been a permanent one. Part of the difficulty can perhaps be attributed to the apparent "non-academic" nature of some aspects of physical education as viewed by other members of the academic community, while a portion of the problem rests with the members of the profession who have questioned what should be the focal point of physical education.³

Emphasis on certain aspects of physical education has varied over the years from gymnastics to sports and games to physical fitness. At times, opponents of inter-collegiate athletics have denounced the alleged emphasis placed upon these popular activities as not contributing to the educational aims of higher education.

Certain physical educators, however, are quite firm in their outlook of the matter. Cogan has said that:

The most important part of physical education is basic instruction. It serves as a foundation for intramurals, voluntary recreation, extramurals, and varsity athletics. It is the only segment of physical education dedicated to serving all students regardless of ability.⁴

In his book, Toward a Philosophy of Sport, Vanderzwaag expressed the viewpoint that earlier leaders in physical education have felt obligated to justify their

³T. J. Sheehan, "Sport: The Focal Point of Physical Education," Quest, X (May, 1968), 65.

⁴Max Cogan, "The Interdisciplinary Approach," College Physical Education: The General Program, ed. Helen M. Heitmann (Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973), p. 109.

programs by relating them to external purposes. On the other hand, sport has never been questioned nor required to justify its existence since most people accept it at face value. In contrast, physical education has been searching constantly for justification. "This may be primarily attributed to the efforts and problems in establishing physical education as a bona fide part of the school curriculum."⁵

Dressel and DeLisle feel that physical education requirements deal basically with two dimensions of interest by stating that, "One is the amount of work required, and the other relates to whether grades and/or degree credits are given."⁶ They further note that there has been a tendency toward eliminating credit but no increase toward eliminating grades for physical education. In their study they noted a mild trend of dropping the requirements despite national fitness programs which suggested to them "that there is widespread doubt that physical education requirements really achieve the goals which originally led to their introduction."⁷

⁵Harold J. Vanderzwaag, Toward a Philosophy of Sport (Reading, Mass.: Addison-Wesley Publishing Company, 1972), p. 193.

⁶Paul L. Dressel and Francis H. DeLisle, Undergraduate Curriculum Trends (Washington, D.C.: American Council on Education, 1969), p. 26.

⁷Dressel and DeLisle, p. 27.

A decade earlier, Shea stated that "the status of the physical education requirement in the general programs of colleges and universities . . . has been quite firmly established."⁸ College physical education programs should be concerned with transmitting skills, appreciations, and knowledges through body movement. A two-year physical education requirement could ensure the development of a variety of leisure-time activities and motivate students toward continuing their activity until and past graduation. The maintenance of physical fitness was looked upon as both a personal need and a social need for the community and nation. The role of the colleges and universities was viewed as being important since "the welfare of community, state, and nation depends upon the physical and mental fitness of all our people."⁹

At the 64th Annual College Physical Education Association Meeting held in Washington, D.C., in 1960, Donald Mallett, Executive Dean of Purdue University, predicted that the basic instruction program in physical education would soon be replaced on the campuses of American

⁸Edward J. Shea, "The Status and Role of Physical Education as a College and University Requirement," Journal of Health, Physical Education, Recreation, XXIX (December, 1958), 31.

⁹Shea, p. 64.

colleges and universities. Mallett noted that it was "obvious that the place of the service courses on virtually all American campuses has been going through a very significant change in the last 15 years."¹⁰

Citing the drastic reduction or complete elimination of physical education requirements, Mallett observed that the trend would continue and that pressure for further elimination of required physical education would increase in the future. Due to the knowledge explosion and subsequent revisions in the curriculum and limits placed on future budgets, Mallett predicted that physical education programs would operate on smaller budgets in the years ahead. As an alternative to the radically changed basic instruction physical education programs, the dean suggested that the void left by these programs be filled by the intramural program.¹¹

During this same period, Stanley and Leavitt, speaking of some of the basic issues confronting physical education, asked seven prominent physical educators if they believed physical education should be required, and, if so,

¹⁰Donald R. Mallett, "An Educator Views the Contribution of Campus Intramural Sport Programs," 64th Annual Proceedings of the College Physical Education Association (1960), p. 95.

¹¹Mallett, p. 95.

at what levels?¹² Two responded that physical education should be required for grades kindergarten through twelfth grade; one felt that it should be mandatory for grades five through eight; and four expressed the belief that the requirement should extend from kindergarten through college.

Among those favoring the latter requirement, one of the respondents suggested that:

. . . until evidence to the contrary disproves the value of systematic physical education in terms of physical, emotional, and social outcomes, we dare not be stampeded into dropping our present hard-won position in the curriculum. Our survival as a free nation may well depend on it.¹³

A survey of students at the University of Iowa, in 1960, revealed that 85 to 90 percent of the students favored retaining the Physical Education Skills requirement.¹⁴ For four years the required program had been challenged by members of the faculty and reviewed by several committees. Although the program successfully passed the review by the Liberal Arts faculty, Casady pointed out that grading

¹²D. K. Stanley and Norma Leavitt, eds., "Basic Issues," Journal of Health, Physical Education, Recreation, XXX (November, 1959), 8, 10.

¹³Stanley and Leavitt, p. 8.

¹⁴Don Casady, "Evaluation of the Required Program in Physical Education at the State University of Iowa," 64th Annual Proceedings of the College Physical Education Association (1960), p. 75.

procedures and the counting of physical education grades in the grade point average were questioned.¹⁵

As education moved into the 1960's, institutions of higher education tended to pass onto the students a greater proportion of responsibility for determining their own educational goals and programs. Colleges and universities were faced with the challenge of providing more flexible programs to meet the self-determined needs of students.¹⁶

Rogers recommended that basic instruction programs provide a number of different ways for students to achieve the goals set for them by physical education. Specifically, the author stated that a reduction in requirements as far as specificity of courses or skills thus permitting more options would be appropriate to reaching certain goals.¹⁷

Rogers further suggested that the lock-step curriculum was obsolete and that requirements in physical education should be viewed in terms of standards of development rather than in time spent in participation. The practice of relegating instruction to the basic instruction courses to graduate assistants was questioned since

¹⁵Casady, p. 75.

¹⁶Martin H. Rogers, "A New and Hard Look at College Physical Education," 70th Annual Proceedings of the National College Physical Education Association for Men (1967), pp. 53-55.

¹⁷Rogers, pp. 53-55.

. . . the skills and understandings of physical education and sports activities should receive quality instructors just as much as the basic skills in languages and sciences.¹⁸

Admitting the difficulty of defending required physical education on the basis of cause and effect, Fraleigh and Gustafson observed that evidence in the area of exercise physiology provided justification for retaining the requirements. The authors further noted that, although vigorous physical activity was not the only value of physical education, it was nevertheless unique to the field and to be understood as meeting the criterion of essentiality.¹⁹

An investigation by Lawson of elective programs in physical education in American universities revealed that the transition from required to elective programs was related to the general indefensibility of physical education requirements. Due largely to unsubstantiated claims concerning the outcomes of involuntary programs, institutions were found to be able to attract student enrollments in an elective program if such programs are

¹⁸Rogers, p. 55.

¹⁹Warren P. Fraleigh and William F. Gustafson, "Can We Defend Required Programs?", Journal of Health, Physical Education, Recreation, XXXV (February, 1964), 32.

properly supported by the university and conducted by the physical education department.²⁰

Hartman reported that overcrowded classes, inadequate facilities, and poor student response contributed to the dropping of the two-year requirement for physical education at Rutgers University. Intending to eliminate the distasteful aspects of the program, classes were made available to all students, faculty, and staff members, while teachers were scheduled into their areas of interest by choice with students who enrolled in the courses on a voluntary basis.²¹

In defense and maintenance of the required program at Emory University, Partin stated that the results of a questionnaire administered by the Division of Health, Physical Education, and Athletics revealed that 57 percent of the freshmen male respondents felt that physical education should be elective, while 51 percent of the freshmen females favored a required program.

The study further indicated that 67 percent of sophomore males and 60 percent of sophomore females favored a required physical education program. With regard to

²⁰Hal A. Lawson, "The Evolution of Elective Programs of Physical Education in American Universities" (Doctoral dissertation, University of Michigan, 1969).

²¹Robert N. Hartman, "Go Voluntary," Journal of Health, Physical Education, Recreation, XLI (November-December, 1970), 22.

grading systems, a majority of students indicated a preference for pass-fail or pass-fail option over letter grades.²²

Cogan's survey of 166 institutions in 1969 showed that the loss of the physical education requirement was not necessarily a result of an attack on physical education, but rather in response to large enrollments, limited funds, limited facilities, and to general attacks on all requirements, some schools were forced to either lower or drop the physical education requirement.²³ The author indicated that, if there were a trend toward dropping required physical education, the trend was only moderate since several of the schools said they were making plans to broaden programs once more favorable conditions developed. From this Cogan theorized "that many physical education departments are meeting the challenge of change and seeking new ways to gain acceptance and respect from colleagues and students."²⁴

Cogan's study summarized that college and university physical education departments utilized the following innovative methods in meeting the challenge of change:

²²Clyde Partin, "Required Physical Education Who Needs It? We Do!", 70th Annual Meeting of the National College Physical Education Association for Men (1967), pp. 124-125.

²³Cogan, pp. 132-134.

²⁴Cogan, pp. 133-134.

1. Emphasis was placed on instruction and methods and methods of teaching were improved.

2. Specialists and part-time experts were hired to teach certain activity courses.

3. Increased use of television and instant replay was used to assist in the development of skills and to instruct in the intellectual aspects of physical education.

4. Attributes concerning physical education deemed necessary were obtained through the use of polls that involved students, faculty, and alumni.

5. Flexible scheduling in order to provide more class time was used and many schools offered the opportunity for students to test out of all or part of the requirement.

6. More attention was devoted to public relations between the department and faculty and community.

7. There was an increase in the number of both on- and off-campus sports clubs and the offering of instruction at various levels in activities to provide for beginning, intermediate, and advanced students.

8. Lifetime sports and individual fitness programs were increasingly emphasized along with the intellectual content in physical education.

9. There was a tendency to increase the number of coeducational activities and to make men's and women's requirements more similar.

10. To encourage and increase participation, pass-fail or a choice of pass-fail or grades was used.²⁵

Regardless of what methods were used to add innovation and creativity to the program, Cogan concluded that

. . . the program of prescribing the same activities for all students is dying. Many permit students complete freedom of choice within the requirement, others permit free choice as soon as the student demonstrates certain competencies.²⁶

During this period of innovation, criticism of the traditional grading systems was increasingly heard, to the extent that schools permitted students to fulfill a portion of their general education requirements on an elective pass-fail grading basis.²⁷ Although this alternative method of grading was lauded as offering "the most practical approach for physical education,"²⁸ Glass found that, when compared to traditional grading, pass-fail did not increase skill levels or attitudes and did not reduce anxiety among students enrolled in basic instruction activity classes.²⁹

²⁵Cogan, pp. 134-135.

²⁶Cogan, p. 134.

²⁷John B. Shea, "The Pass-Fail Option and Physical Education," Journal of Health, Physical Education, Recreation, XLII (May, 1971), 19.

²⁸Shea, p. 19.

²⁹Allen Franklin Glass, "A Comparison of the Traditional and Pass/Fail Grading Systems in Selected University Physical Courses" (Doctoral dissertation, Middle Tennessee State University, 1973).

An early study by Montebello involving five schools which had reviewed their required undergraduate physical education programs forecast issues concerning the basic instruction program that have passed the test of time. The late 1950's showed faculties concerned with the amount of time spent by students in physical education classes, the difficulty in scheduling classes in other departments that conflicted with those of the physical education department. The issue of poor teaching, particularly by athletic coaches, was raised in addition to the repulsive idea of requiring anything in a free society, especially physical education.³⁰

An analysis of beliefs and practices underlying the general physical education programs in higher education by Pelton concerned itself with the responses obtained from three different groups representing 123 four-year, American colleges and universities. Group one consisted of 55 people (25 women and 30 men) selected on the basis of their awareness of the overall physical education program. Group two was a jury made up of seven college and university physical educators who were selected on the basis of their contributions to the overall field of physical education. Group three included 61 deans of instruction of four-year

³⁰Robert A. Montebello, "Should Physical Education Be Required During the Undergraduate Program?", Journal of Health, Physical Education, Recreation, XXX (December, 1959), 35-36, 49.

undergraduate institutions who were selected as an alternate data source outside physical education.

Findings indicated that, when asked if the general college program of physical education were as important as any other professional area of the department of physical education, 74.5 percent of group one felt it was; 85.7 percent of group two agreed it was; and 62.3 percent of the deans agreed with the position.³¹

Those believing that enrollments would drop if the requirement were dropped and an elective program substituted and that the quality of the elective program would probably be the determining factor affecting student enrollments were as follow: 65.5 percent of group one; 57.1 percent of group two; and 39.3 percent of group three.³²

Results of the study demonstrated the divergence in thinking among groups of selected physical educators and academic deans and their outlooks upon the general physical education program. The opinions expressed by those educators outside the field of physical education appeared to differ markedly from those within the profession.

³¹Barry Clifton Pelton, "A Critical Analysis of Current Practices and Beliefs Underlying General Physical Education Programs in Higher Education," Research Quarterly, XXXVIII (December, 1967), 678-685.

³²Pelton, pp. 678-685.

After surveying 192 large state-supported universities and colleges, Chase³³ drew the following conclusions within the limitations of his survey:

1. The trend of the required service program is different as evidenced by a drop in percentage of the required programs in the universities and colleges across the United States.

2. The requirement in the service program is becoming less demanding in terms of time, as evidenced by an increase in the one-year requirement over the two-year requirement. A 19 percent change or shift was evidenced from 1968 and 24 percent over the 1969 study.

3. Coeducational classes have increased in numbers.

4. Proficiency test scheduling has increased almost twice to what it was in 1968.

5. The number of credits given has shifted solidly to one. This is shown by a 19 percent increase to 76 percent of all reporting institutions allowing one credit per class.

6. There is a desire to move farther toward elective programs, on a continuum, as this survey showed that 33 percent of the institutions surveyed preferred elective to required programs. And as reported, 71 percent

³³David D. Chase, "The Trend of Required Physical Education 1971," 75th Annual Proceedings of the National College Physical Education Association for Men (1972), p. III.

of the respondents have required physical education. This would indicate that this percentage would decline in future years. As additional support of this conclusion, only 49 percent of the institutions involved in this survey preferred a required to the elective program.³⁴

The fear of voluntary physical education was discovered by Nelson to be largely unfounded among six institutions that changed from required to elective programs. The majority of faculty members at the schools expressed the opinion that the voluntary program was superior to the former involuntary program, and that advantages such as better instruction, smaller classes, more activities, and improved student interest were characteristics of the changed programs.³⁵

In comparing the two types of programs, Nelson further noted that in a voluntary program:

1. Activities were added rather than curtailed.
2. With the exception of one school, there was no significant reduction in participation in activity classes.
3. The number of physical education faculty members was not reduced.

³⁴Chase, pp. 113-114.

³⁵Wayne E. Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities" (Doctoral dissertation, The University of New Mexico, 1970), p. 63.

4. The budgets of the physical education, athletic, and intramural departments were not significantly reduced.

5. Use of facilities was not reduced nor the expansion of physical education facilities stopped.³⁶

Nationally, Oxendine³⁷ described the status and practices of general instructional programs of 788 colleges and universities. In this often-cited study, the author reported the following findings:

1. Programs in physical education for the general college student were offered in 95 percent of the responding institutions.

2. All the students at 74 percent of the schools were required to take physical education.

3. A 10 to 15 percent decrease in the number of institutions requiring physical education occurred in the previous four years, with most of these changes taking place within the previous two years of the study.

4. Although most of the institutions maintained a two-year physical education requirement, a trend toward a one-year requirement was observed.

³⁶Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities," pp. 104-105.

³⁷Joseph B. Oxendine, "Physical Education in Four-Year Colleges and Universities: 1971-72," College Physical Education: The General Program, ed. Helen M. Heitmann (Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973), p. 126.

5. At those schools where the requirement had been discontinued, approximately 25 percent of the students elected to take physical education. The survey indicated that this figure increases after one year.

6. More flexible present-day programs permit more student and faculty options with regard to independent study, honors courses, competency examinations, dress, grading, and general class routine.

7. An increasing tendency to grant academic credit and to count physical education in the grade point average was observed.

8. Team sports showed a decrease as participation in recreational activities or lifetime sports grew.

9. The majority of physical education classes were found to be coeducational.

10. Noting improved programs and general student attitudes in elective programs, some colleges and universities expressed satisfaction with the elimination of physical education requirements.³⁸

The decade of the 1970's has witnessed the increased trend started two decades ago toward the establishment of voluntary basic instruction physical education programs in an ever-increasing number of colleges and universities. The apparent benefits of improved instruction, wider range of

³⁸Oxendine, pp. 129-130.

course offerings, reduced financing, and lack of substantive evidence to support involuntary programs have all contributed greatly to the increased acceptance of voluntary programs.

As institutions adopt voluntary physical education, however, problems concerning factors related to the programs such as evaluation and standards arise. Although innovative courses, lower teacher-student ratios, and better instruction are cited, most basic instruction units, possibly because of the tight economy, appear to focus their programs on student head count, growth rate, and the extent "to which enrollment in the elective program approximates that in the discarded required program."³⁹

Operating in an educational climate of recession has caused many physical education departments to identify various program priorities. With regard to the voluntary program, the issue is seen as being threefold. Departments can (1) expand the basic instruction program in an effort to promote maximum head count; (2) restrict quantitative growth and direct resources toward the development of a quality program; or (3) steer resources toward other areas of the

³⁹ Jack E. Razor and Florence D. Grebner, "Elective PE Programs: Expansion vs. Limitation," Journal of Physical Education and Recreation, XLVI (June, 1975), 23.

program which may affect both the quantity and quality of the basic instruction program.⁴⁰

In order to expand the voluntary program, physical education departments must devote time, effort, and funds to its development. Attracting students to the program requires the departments to base the programs on the needs and interests of students and not to depend upon state or university legislation.

A limited voluntary program permits judicious scheduling of course offerings and makes facilities for leisure and competitive pursuits more readily available to the members of the institution. The continuous reordering of program priorities is the basis for reallocating financial and departmental resources in a sound, limited voluntary basic instruction program.⁴¹

A study of 131 institutions offering voluntary physical education programs showed that such programs are more educationally sound than required programs and that the change to voluntary physical education "is not as traumatic an experience for institutions and departments as they think."⁴² Emphasis in these elective programs appeared to

⁴⁰Razor and Grebner, p. 23.

⁴¹Razor and Grebner, p. 24.

⁴²James L. Wittenauer, "Voluntary Physical Education: A Sound Practice," Journal of Physical Education and Recreation, XLVI (May, 1975), 23.

be placed on lifetime sports and physical fitness according to Wittenauer. Activities such as tennis, golf, bowling, swimming, skiing, and dance were listed as being popular among students, although tennis ranked first in popularity in 75 percent of the schools.⁴³

A task force of physical educators under the auspices of the College and University Physical Education Council, Executive Committee of the National Association for Sport and Physical Education, developed standards for guidance and direction of basic instruction programs. Provided for the purpose of generating thought and discussion within the profession, these sixteen standards reflect the different purposes which the general program serves in higher education.

Included among these recommended standards are:

1. The general physical education program should be compatible with the philosophy of the university.
2. The curriculum should meet the needs and interests of a diverse student population.
3. The program is concerned with all aspects of movement.
4. The basic instruction program has a unique opportunity to create an environment for the development of personal life skills.

⁴³Wittenauer, p. 23.

5. The program should be sensitive to the needs and interests of incoming students as well as to those already on campus.

6. Procedures to encourage non-participants on campus should be adopted.

7. The department of physical education should make itself and its resources available to other university groups and student programs.

8. Cognitive, affective, and motor skills should be assessed in grading students.

9. Program offerings should reflect input from students.

10. Courses, instructional methods, and student achievement should be periodically evaluated.

11. The financial support of the program should be consistent with the institutional support for other educational programs.

12. Community and school facilities should be utilized for the conduct of activities.

13. The equipment used should be of sufficient quality and quantity to ensure the safety of students, facilitate the potential for learning, and to generate enthusiasm for the activity.

14. Faculty members in the program should be competent, interested, and dedicated. A quality program

will not be adversely affected by a diverse faculty, but it should not be overwhelmingly staffed by graduate teaching assistants.

15. Faculty in the basic instruction program should be assigned, supervised, evaluated and rewarded on the same basis as those who have assignments in other units of the department. Retooling on the part of experienced faculty members should be expected, if not obligatory.

16. The program should be recognized, funded, and evaluated by the institution on the basis of its contribution and faculty.⁴⁴

Regardless of whether a physical education department adopts a voluntary program or not, such a decision has most commonly been effected by action on the part of the faculty senate or a similar group. Because of the enormous costs of education, however, institutions have increasingly relied on public finances for their support. This growing dependence on public funds has brought with it an increased demand for accountability to the public or governmental authority.⁴⁵

⁴⁴College and University Physical Education Council, Executive Committee of the National Association for Sport and Physical Education, "Standards for the General College Physical Education Program," Journal of Physical Education and Recreation, XLVI (September, 1975), 24-28.

⁴⁵James A. Perkins, "The Drive for Coordination," Higher Education: From Autonomy to Systems, ed. James A. Perkins (New York: International Council for Educational Development, 1972), p. 4.

The increase in accountability has been accompanied by a change in the role of local autonomy in universities and community colleges. With an increase in the number of students attending college as well as increasing costs, traditional independence and institutional autonomy have given way to state and national coordinating bodies.⁴⁶

According to Perkins:

At the state and regional levels, efforts have been made to coordinate educational activities. These systems of coordination have been, in the main, systems applying to universities themselves. Coordination on the basis of subject matter is rare, but general institutional matters such as budget, personnel, or purchases are far more typical areas of state-wide activity.⁴⁷

As rare as coordination on the basis of subject matter from the state level might be, however, it has occurred in recent times. At the January, 1972, meeting of the Illinois Board of Higher Education (the master coordinating body for state-supported universities and community colleges), the announcement was made that a program priority review had culminated in a list of "higher priorities and a companion list of lower priorities many of which will free up dollars, as they are phased out, to

⁴⁶ James A. Perkins, "The Conditions for Autonomy," Emerging Patterns in American Higher Education, ed. Logan Wilson (Washington, D.C.: American Council on Education, 1965), p. 12.

⁴⁷ Perkins, "The Conditions for Autonomy," p. 12.

support the higher priority activities."⁴⁸ Among the lower program priorities was that "pertaining to involuntary physical education requirements."⁴⁹

Further rationale given at the state level for the decision to eliminate the involuntary physical education requirement was that

. . . this recommendation responds to the changing needs and values of today's students; it shifts the responsibility for the healthy physical development of students from the institutions of higher education to the student. As students become full fledged citizens at the age of eighteen, they, like all citizens, carry a greater burden for their own activities, physical or otherwise. This initiative on the part of students is being shown by the widespread student interest and participation in intramural sports on a voluntary basis.⁵⁰

At the regional level, specifically at a Board of Regents (a governing body for three Illinois state-supported universities) meeting, similar feelings to those of the higher board were expressed. One member of the Board of Regents claimed "that the PE requirements were not removed

⁴⁸ Executive Director, Report #101 of Reports of the Executive Director (Springfield: State of Illinois Board of Higher Education, 1972), p. 2.

⁴⁹ Executive Director, Report #103 of Reports of the Executive Director (Springfield: State of Illinois Board of Higher Education, 1972), p. 5.

⁵⁰ Report #103 of the Executive Director, p. 20.

to save money, but rather because they were academically unsound and economically indefensible."⁵¹

In a survey of 10,000 students at five major universities in Illinois, 85 percent of the respondents indicated they would participate in physical education for credit. General comments did not favor a no-credit physical education program, although many students said they would participate in intramural sports.⁵²

As noted previously, saving money was not given as a reason for discontinuing the involuntary physical education requirement. The IBHE, however, reduced budgets in the senior public sector by \$1.5 million, and proposed that no state financing be provided to support credit hours generated in required physical education in the community college system.⁵³

COMMUNITY COLLEGES

The junior or community college concept has captured the imagination of the American public with a philosophy that traces its roots to the deepest traditions of this country. Until the emergence of the land grant institutions in post-Civil War America, European influences of an English nature dominated the college system in the United States.

⁵¹Proceedings of the Board of Regents of the State of Illinois, July 1, 1971-June 30, 1972 (Springfield: The State of Illinois, 1972), pp. 113-117.

⁵²Proceedings of the Board of Regents . . ., p. 117.

⁵³Report #103 of the Executive Director, p. 20.

The land grant institution, however, "combined lofty idealism with hard practicality and is a true forerunner of our community colleges today."⁵⁴

Around the turn of the century, however, university presidents such as Henry P. Tappan of Michigan, William Watts Folwell of Minnesota, and William Rainey Harper of Chicago were concerned that American higher education consisted primarily of study in the liberal arts. Although a limited elective system was noticed in higher education by 1900, most of the training was cultural with an aim toward producing gentlemen.⁵⁵

As first president of the new University of Chicago, William Rainey Harper relegated freshmen and sophomore courses to "academic colleges" which he called "junior colleges." The purpose of these junior colleges was to provide the general education for students and to relieve the upper division (junior and senior years) "university colleges" from the burden of dealing with "unprepared adolescents."⁵⁶

⁵⁴Earl V. Pullias, "A Historical Perspective: The Land Grant Concept and the Community College Philosophy," Community College Review, III (June, 1975), 45, 49.

⁵⁵Gregory L. Goodwin, "The Nature and Nurture of the Community College," Community College Frontiers, IV (Spring, 1976), 5.

⁵⁶Goodwin, p. 6.

In addition to the junior college placed within the setting of the university, Harper encouraged the establishment of three other kinds of such institutions. Bradley Polytechnic Institute located in Peoria, Illinois (now Bradley University), and Lewis Institute of Chicago (now Illinois Institute of Technology) were founded as private institutions, although both later grew to four-year schools. Harper further encouraged junior college development by urging small, financially squeezed four-year colleges to discontinue their upper division work.⁵⁷

The third way Harper stimulated junior college development was through his efforts and those of his staff to persuade local school boards to add two years of post-secondary work to their high school programs.⁵⁸

In 1899, Joliet Township High School, located in northern Illinois, became a cooperating school with the University of Chicago. Joliet's superintendent, J. Stanley Brown, and long-time friend of Harper was no doubt influenced by the Chicago president's philosophy, but was himself a major factor in the establishment of the first public American junior college.⁵⁹ School board minutes from

⁵⁷William S. Griffith, "Harper's Legacy to the Public Junior College," Community College Frontiers, IV (Spring, 1976), 15-16.

⁵⁸Griffith, p. 16.

⁵⁹Goodwin, p. 6.

a December, 1900, meeting indicated that five students were scheduled to begin postgraduate studies in February, 1901, in the newly constructed Joliet Township High School. Although the name Joliet Junior College was not officially adopted until 1916, historians generally recognize the authenticity of the 1901 beginning of Joliet.⁶⁰

The growth and development of community colleges in the past three-quarters of a century have permitted thousands of students who would not otherwise have been able to obtain a college education. The institution has prepared skilled workers and transfer students in addition to providing a variety of vocational and cultural offerings to adults in the community.⁶¹ Not neglecting the physical development of its students, community colleges have offered physical education courses to their constituents for a number of years. Since many students hold full- or part-time jobs, the community college physical education program should assist these people in selecting recreational activities.⁶²

⁶⁰Harold D. McAninch, "Joliet: 75 Years the Community College," Community and Junior College Journal, XLVI (October, 1975), 14.

⁶¹Goodwin, p. 13.

⁶²Demie J. Mainieri, "Physical Education in Community Junior Colleges," 70th Annual Proceedings of the National College Physical Education Association for Men (1967), p. 70.

Many community college physical educators, however, have come from either high school or college teaching positions and tend to imitate these other programs.

Mainieri suggests when comparing community college students with those in high school or four-year colleges, those in the two-year schools are unique in the following ways:

1. The wider variations in the age of the students.
2. The great number of young married students.
3. The large number of employed students.
4. The large number of adults.
5. The wide divergence of interests between the regular day students and the evening students.⁶³

In Illinois in the mid-1960's, the basic instruction physical education requirement was generally the same for the universities; however, a basic activities course was required in at least three universities. Some schools permitted a student to select from as many as 39 activities or as few as four. The problems posed for the community college were complicated by this situation when programs attempted to meet the needs of the transfer student while at the same time serving the occupational student population.⁶⁴

⁶³Mainieri, pp. 70-73.

⁶⁴John J. Swalec, "Illinois Junior College Physical Education Programs and Their Articulation with Four-Year Institutions," 70th Annual Proceedings of the National College Physical Education Association for Men (1967), p. 75.

During this same period, community college physical educational programs suffered from a lack of facilities and consequently were forced to share space with local high schools. Certain leaders at the time felt that the community college-university philosophy of basic instruction needed to be clarified and unified to permit the community colleges to be directed toward a program rather than selecting from several.⁶⁵

Among other difficulties faced by community college physical education programs has been that associated with their intercollegiate athletic programs. Unlike several universities that now maintain separate departments for the two areas, most community colleges administer both programs from the same office. Rue has called attention to what former University of Chicago president Robert M. Hutchins called "athleticism and its development in certain community colleges." Hutchins pointed out that athletics was physical education and, in this role, was a proper function of the institution as long as it was carried on for the welfare of the students. Athleticism, according to Hutchins, was not physical education but sports promotion that was carried on

⁶⁵Swalec, p. 77.

for monetary profit through the entertainment of the public.⁶⁶

Additional problems associated with community college athletic programs deal with the eligibility of students, particularly those who attend school on a part-time basis and are not considered eligible for intercollegiate competition under the national association's rules. With the number of full-time students decreasing and the number of part-time students increasing, Haggerty believes a great number of potential athletes who are part-time students are being excluded from participation in the intercollegiate program. A change in national rules would do much to rectify this situation and broaden the range of participants, according to the author.⁶⁷

Much like those for four-year institutions, a number of recent studies concerning community college physical education programs have been conducted on the national, regional, and state levels. In a survey of 448 two-year American colleges, Yarnall found that, in 1970, physical education was required in over 81 percent of the responding

⁶⁶Robert N. Rue, "The Hoopla-Cheerleader-Gladiator Syndrome," Community and Junior College Journal, XLVI (April, 1976), II.

⁶⁷John Haggerty, "The Community Athletic Program," Community and Junior College Journal, XLVI (April, 1976), 8.

institutions. Academic credit was granted for physical education in over 71 percent of the schools and over 72 percent of the institutions had their own gymnasiums. Yarnall concluded that, owing to the high percentage of community colleges with credit-granting basic instruction programs, the majority of colleges limited to the survey consider physical education as an integral part of the college curriculum.⁶⁸

A later survey by Hodges of 172 public community colleges in twelve Midwestern states indicated that a basic instruction program was offered at 73 percent of the institutions. Voluntary service programs were conducted in 51 percent of the schools and 45 percent of the students enrolled in at least one physical education activity. Innovation and change were a part of the basic instruction programs at many colleges with such ideas as independent study, contract teaching, modular scheduling, mini-courses, closed circuit television, and proficiency testing being utilized. Specialists from the community were employed by 56 percent of the institutions and they were used as instructors in such courses as judo, karate, backpacking, canoeing, skiing, and cycling.

⁶⁸Douglas Yarnall, "A Survey of Physical Education in Two-Year Colleges," Journal of Health, Physical Education, Recreation, XLII (April, 1971), 81-82.

The average number of faculty members in the departments of the respondents average four (three men, one woman), with each teaching an average of 17 contact hours per week. Local community facilities were used by 53 percent of the schools and 38 percent used local high school facilities. Fifty-six percent of those in the survey indicated they had their own facilities.⁶⁹

Intramural sports programs were offered at 84 percent of the colleges and 89 percent of the community colleges fielded an average of seven (five men, two women) intercollegiate athletic teams. Among men, the most popular intercollegiate sports were basketball, baseball, and football, while, among women, basketball, volleyball, and tennis ranked as favorites.⁷⁰

The investigator concluded that physical education in Midwestern public community colleges was considered an integral part of the total school curriculum.

Projecting beyond the specific findings of this and other related studies, it is apparent that physical education in our country's two-year colleges is here to stay, and its potential impact should be fully realized before it is too late.⁷¹

⁶⁹Patrick B. Hodges, "Status and Structure of Physical Education in Public Two-Year Colleges of the Midwest," Journal of Health, Physical Education, Recreation, XLV (June, 1974), 13-15.

⁷⁰Hodges, pp. 13-15.

⁷¹Hodges, pp. 13-15.

Thomas and his associates examined the status of physical education in 116 southern junior colleges and found that only 69 percent of the state institutions required physical education for graduation. The study further revealed that activities classified as recreational (lifetime or individual and dual sports) had increased, while team sports had decreased in recent years. Conclusions reached indicated that physical education programs for community colleges in the southern district of the AAHPER (American Association of Health, Physical Education and Recreation) appeared to be receiving increased emphasis in both the public and private sectors.⁷²

At the state level, Goodson found that 106 (100.00%) adult males ranging in age from 40 through 65 who were registered at three Tennessee state-supported community colleges did not show favorable attitudes toward physical activities, based on the results obtained from the McPherson-Yuhasz Attitude Inventory. The researcher recommended that, for improvement of adult physical education programs, community colleges should include individually prescribed activities, individual sports, orientation toward the

⁷²Jerry R. Thomas and others, "Status of Physical Education in Junior Colleges in the AAHPER Southern District," Journal of Health, Physical Education, Recreation, XLIV (February, 1973), 18-19, 22.

benefits of physical exercise, team games, and improve rapport with industry.⁷³

A regional status study of six selected Tennessee public community colleges to evaluate the status of men's physical education programs revealed that instructional staff at the schools was above average, but that poor facilities and program activities existed when evaluated by the Neilson-Comer-Allsen Score Card.⁷⁴

⁷³Ewing Marsh Goodson, "The Implications of an Attitudinal Survey of Adult Male Community College Students Toward Physical Activity" (Doctoral dissertation, Middle Tennessee State University, 1975).

⁷⁴Herbert J. Robinson, "An Evaluation of the Men's Physical Education Programs in Selected State Community Colleges in Eastern and Middle Tennessee" (Doctoral dissertation, Middle Tennessee State University, 1975).

Chapter 3

METHODS AND PROCEDURES

SUBJECTS

Seven state-supported universities and 22 state-supported community colleges located in Illinois participated in this study. Enrollments in the universities ranged from 12,000 students to 35,000 students, and in the community colleges enrollment figures ranged from 1,000 to 20,000 students. The institutions were all coeducational, well established in the areas they served, and representative of the five types of institutions under the authority of the Illinois Board of Higher Education (IBHE). With the exception of one university, all the responding institutions had discontinued their involuntary basic instruction programs in physical education under the 1972 mandate of the IBHE. All had initiated voluntary physical education programs in place of the former involuntary programs. Anonymity was granted each school participating in the study.

SELECTION OF THE INSTRUMENT

This study was concerned with the status of voluntary physical education in Illinois state-supported universities and community colleges. To adequately gather the desired information, the writer chose a questionnaire as the primary research technique.¹

A review of the literature provided the writer with an instrument previously used by Nelson to determine the past status of a required physical education program as opposed to the present status of an elective one in six western institutions.² A letter was sent to Dr. Wayne E. Nelson requesting a copy of his instrument and permission to use it in this study. Permission was granted and conveyed by mail along with the instrument. Copies of these letters may be found in Appendixes A and B, respectively.

Upon receipt of Nelson's instrument, the writer determined that modifications and additions relating to the areas concerned with community colleges should be made. The

¹Anna S. Espenschade and G. Lawrence Rarick, "Descriptive Research," Research Methods in Health, Physical Education, and Recreation, ed. Alfred W. Hubbard (3rd rev. ed.; Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1973), p. 272.

²Wayne E. Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities" (Doctoral dissertation, The University of New Mexico, 1970).

literature revealed that Thomas and others had surveyed a similar population on a much larger scale.³ Dr. Thomas was written a letter requesting a copy of his questionnaire and permission to use parts of it in the study. Thomas granted permission and forwarded the instrument to the writer by mail. Copies of these letters may be found in Appendixes C and D, respectively.

Personal ideas of the writer, those of his major professor, Dr. A. H. Solomon, and the two previously mentioned instruments were combined to construct the questionnaire used in this survey. The questionnaire was designed to elicit information regarding the status of the involuntary physical education program for the fall semester of or quarter of 1971 and the status of the voluntary program for the equivalent academic term in 1975. Items selected for comparison were similar to those used previously by Nelson⁴ and Thomas and others⁵ and included: (1) physical education faculty, (2) basic instruction program, (3) enrollments, (4) costs of operation,

³Jerry R. Thomas and others, "Status of Physical Education in Junior Colleges in the AAHPER Southern District," Journal of Health, Physical Education, Recreation, XLIV (February, 1973).

⁴Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities."

⁵Thomas and others.

(5) intercollegiate athletics, (6) intramural sports and free play, and (7) physical education facilities. A copy of the modified instrument is found in Appendix E.

COLLECTION OF DATA

Ten universities and 41 community colleges, all state-supported in Illinois, were contacted by mail requesting their participation in the study. All institutions were found in The Blue Book of College Athletics for 1975-1976.⁶ A cover letter requesting participation in the study and a 3"x5" card indicating participation or not, along with an enclosed, stamped, self-addressed envelope, were mailed to the appropriate department heads of each institution on March 15, 1976. A copy of the cover letter is found in Appendix F. A copy of the return card is found in Appendix G.

Thirty-eight institutions replied favorably toward participation in the study; six schools indicated they could not participate; and seven did not reply to the request. On March 28, 1976, 38 questionnaires, a prospectus briefly outlining the study (see Appendix H), and stamped, self-addressed envelopes were mailed to 10 universities and 28 community colleges. The date of April 10, 1976, was

⁶The Blue Book of College Athletics for 1975-1976 (45th ed.; Cleveland, Ohio: The Rohrich Corporation, 1975).

requested as the date for the return of all the completed instruments. By April 20, 1976, 4 universities and 20 community colleges had returned the questionnaires. On May 10, 1976, another letter requesting the return of all questionnaires, along with another copy of the instrument, were mailed to the institutions who had not responded. A copy of this letter is found in Appendix I. By May 28, 1976, three additional universities and two community colleges had returned the completed questionnaires.

STATISTICAL ANALYSIS

Data in the study were analyzed according to percentages, numerical differences, and totals. Due to the nature of the data and the design of the questionnaire, the chi-square test to compare observed frequencies with expected frequencies was employed.⁷ Differences, when found in the study, were compared with the two-tailed significance limits of the chi-square distribution tables.⁸

⁷Henry E. Garrett, Elementary Statistics (2d ed.; New York: David McKay Company, Inc., 1962), pp. 139-154.

⁸Konrad Diem, ed., Documenta Geigy Scientific Tables (6th ed.; Ardsley, New York: Geigy Pharmaceuticals, Division of Geigy Chemical Corporation, 1962), p. 36.

Chapter 4

ANALYSIS OF DATA AND DISCUSSION

The data analyzed were obtained by administering a questionnaire (see Appendix E) to physical education department administrators in 7 state-supported universities and 22 state-supported community colleges in the state of Illinois. The data were secured during March, April, and May of the 1975-1976 academic year.

Within the state of Illinois, 38 institutions replied favorably to a written request to participate in the study. Seven universities and 22 community colleges returned usable questionnaires. Thus, 76.32 percent of the population responded within the time limits established for the study. Seven of the 10 universities returned completed questionnaires. Among the community colleges, 22 of 28 (78.57%) furnished completed instruments.

INSTITUTION ENROLLMENT

Universities

Enrollment figures for six universities for the fall terms of 1971 and 1975, respectively, were reported. Total 1971 enrollment in the universities was 125,327 students,

with a mean average of 20,887.83 per institution. Enrollment figures for 1975 were 128,524 students, for a mean average per institution of 21,420.66. The rate of increase for the four-year period was 2.55 percent (see Table 1).

Table 1
University Enrollment Data

| Institution Symbol | Enrollment Fall, 1971 | Enrollment Fall, 1975 |
|--------------------|-----------------------|-----------------------|
| UA | 34,352 | 35,000 |
| UB | 22,819 | 24,812 |
| UC | 24,000 | 21,000 |
| UD | 18,000 | 20,500 |
| UE | 13,300 | 15,000 |
| UF | 12,856 | 12,212 |
| UG ^{na} | _____ | _____ |
| Total | 125,327 | 128,524 |
| \bar{x} | 20,887 | 21,420 |

^{na}Information not available

Community Colleges

Twenty-two community colleges showed total enrollments of 68,728 students for a mean average of 3,124 students for each school in 1971. The total enrollment for

1975 was reported to be 124,746, an increase of 56,018 (81.51%) from the previous date. Average enrollment at the community colleges for the 1975 fall term was 5,670.27 (see Table 2).

Table 2
Community College Enrollment Data

| Institution Symbol | Enrollment Fall, 1971 | Enrollment Fall, 1975 |
|-----------------------|--------------------------|--------------------------|
| CA | 9,312 | 20,000 |
| CB | 8,000 | 16,000 |
| CC | 3,965 | 12,243 |
| CD | 6,000 | 10,000 |
| CE | 8,700 | 7,800 |
| CF | 3,020 | 6,532 |
| CG | 3,952 | 5,914 |
| CH | 2,330 | 5,537 |
| CI | 427 | 5,300 |
| CJ | 3,000 | 4,200 |
| CK | 3,000 | 4,100 |
| CL | 1,890 | 3,852 |
| CM | 2,856 | 3,784 |
| CN | 1,800 | 3,500 |
| CO | 1,500 | 3,100 |
| CP | 933 | 1,000 |
| CQ | 2,654 | 2,952 |
| CR | 989 | 2,732 |
| CS | 1,200 | 1,700 |
| CT | 1,000 | 1,600 |
| CU | 1,000 | 1,500 |
| CV | 1,200 | 1,400 |
| Total | 68,728 | 124,746 |
| \bar{x} | 3,124 | 5670.27 |

EFFECTS OF THE IBHE MANDATE ON DEPARTMENT
MERGERS AND DISCONTINUANCE OF
PHYSICAL EDUCATION

Universities

Five (71.43%) institutions reported that the Illinois Board of Higher Education (IBHE) decision to discontinue involuntary physical education had resulted in no mergers between men's and women's physical education departments. One (14.29%) school indicated that the IBHE mandate had affected a merger, and one (14.29%) stated that its department had always been merged (see Table 3).

Table 3
Effect of IBHE Mandate on
Departmental Mergers

| Institution | Response |
|-------------|--------------------|
| UA | No |
| UB | No |
| UC | No |
| UD | No |
| UE | No |
| UF | Always Combined |
| UG | Yes |

Explanations for the responses to the above statement indicated that plans were already under way for the merger of the two departments prior to the IBHE mandate.

When asked if in the absence of a mandate from the IBHE whether the schools would have discontinued the involuntary physical education program within one to five years or would not have dropped the requirement, one (14.29%) institution stated the program would have been discontinued within two years; two (28.57%) would have dropped requirements within three years; three (42.86%) universities responded that the involuntary program would not have been discontinued; and one (14.29%) reported that a voluntary program was being used at the time of the IBHE mandate (see Table 4).

Table 4

Anticipated Time of Discontinuance--Universities

| Institution | Anticipated Time |
|-------------|-------------------|
| UA | 2 Years |
| UB | WNHD ^a |
| UC | WNHD ^a |
| UD | 3 Years |
| UE | 3 Years |
| UF | WNHD ^a |
| UG | AD ^b |

^aWould not have dropped

^bAlready dropped

Community Colleges

Twenty-two (100.00%) community colleges reported that physical education departments were never divided into men's and women's departments, but were combined from the beginning of their institutions.

Of the 20 (90.91%) schools responding to the question concerning the discontinuance of the involuntary physical education programs in the absence of an IBHE mandate, one (5.00%) felt it would have dropped the program within one year; one (5.00%) reported that the program would have been discontinued within three years; another (5.00%) reported plans to drop the requirement within four years; 16 (80.00%) institutions stated they would not have dropped the involuntary program; and one (5.00%) school had no previous physical education requirement (see Table 5).

LENGTH OF PREVIOUS PHYSICAL EDUCATION REQUIREMENTS AND STATUS OF CURRENT REQUIREMENTS

Universities

In response to the question concerning the length of time of the previous physical education requirement, seven (100.00%) universities reported two years of physical education were required of each student (see Table 6).

Seven (100.00%) of the institutions stated that there were still colleges within the universities that

Table 5

Anticipated Time of Discontinuance--Community Colleges

| Time | CA | CB | CC | CD | CE | CF | CG | CH | CI | CJ | CK | CL | CM | CN | CO | CP | CQ | CR | CS | CT | CU | CV |
|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 Year | | | | | | | | | | | | | | | | | X | | | | | |
| 2 Years | | | | | | | | | | | | | | | | | | | | | | |
| 3 Years | | | | | | | | | | | | | | | | | | | | | | X |
| 4 Years | | | | | | | | | | | | | | | | | | | X | | | |
| 5 Years | | | | | | | | | | | | | | | | | | | | | | |
| Would not have dropped | X | | X | X | X | X | | X | X | X | X | X | X | X | X | X | | X | | X | | |
| No requirement | | X | | | | | | | | | | | | | | | | | | | | |
| No response | | | | | | | X | | | | | | | | | | | | | | | X |

Table 6
Length of Previous Requirement

| Institution | Length |
|-------------|---------|
| UA | 2 Years |
| UB | 2 Years |
| UC | 2 Years |
| UD | 2 Years |
| UE | 2 Years |
| UF | 2 Years |
| UG | 2 Years |

require physical education. In all instances, these departments maintaining the physical education requirement were those which prepare teachers for state certification (see Table 7).

Table 7
**Universities that Presently Require
Physical Education**

| Institution | Response |
|-------------|----------|
| UA | Yes |
| UB | Yes |
| UC | Yes |
| UD | Yes |
| UE | Yes |
| UF | Yes |
| UG | Yes |

Seven (100.00%) universities reported that no college within the university had reinstated the physical education requirement (see Table 8).

Table 8
Colleges that have Reinstated the Requirement

| Institution | Response |
|-------------|----------|
| UA | No |
| UB | No |
| UC | No |
| UD | No |
| UE | No |
| UF | No |
| UG | No |

Community Colleges

Eight (36.36%) institutions reported that there were still departments within the community college that required physical education. Thirteen (59.09%) schools indicated that no physical education requirements existed within departments at their institutions and one (4.55%) was not sure as to the present requirement of individual departments at the community college (see Table 9).

Table 9
 Departments that Presently Require
 Physical Education

| Institution | Yes | No | Not Sure |
|-------------|-----|----|----------|
| CA | | X | |
| CB | | X | |
| CC | X | | |
| CD | | X | |
| CE | X | | |
| CF | X | | |
| CG | | X | |
| CH | | X | |
| CI | | X | |
| CJ | | X | |
| CK | | X | |
| CL | X | | |
| CM | X | | |
| CN | X | | |
| CO | | X | |
| CP | | X | |
| CQ | | X | |
| CR | X | | |
| CS | X | | |
| CT | | X | |
| CU | | X | |
| CV | | | X |

Among the institutions that had departments maintaining a physical education requirement, nursing, recreation, education, health and related areas, and law enforcement headed the list (see Table 10).

Table 10
Academic Areas that Require
Physical Education

| Institution | Academic Areas |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CC | Nursing (A.A. Degree) and Recreation |
| CE | Physical Education and Recreation |
| CF | Health Careers, Law Enforcement, Fire Science, Biology |
| CL | Vo-tech. Turf Management and Physical Education |
| CM | Education, Physical Education, Recreation, and Child Care |
| CN | Recreation Leadership, Recreation Areas and Facilities, Elementary and Secondary Education, Physical Education, Law Enforcement, Stable Management, and Therapeutic Recreation |
| CR | Education |
| CS | Not sure which ones |

Twenty two (100.00%) institutions reported that no departments within the community colleges had reinstated the requirement for physical education.

STATUS OF THE FACULTY

Universities

In response to the item concerning the number of full-time physical education faculty members, six (85.71%) institutions reported that 225 faculty were employed in 1971, while there were 278 in 1975. These figures indicate a significant increase in total faculty of 53 (23.56%) from 1971 to 1975. The increase for men teachers was from 142 to 153, or 11 (7.75%). This increase was not found to be significant among the institutions reporting. The number of women employed full-time in physical education changed from 83 in 1971 to 125 in 1975, or 42 (50.60%). This increase in women physical education faculty members was found to be significant (see Table 11).

These findings regarding the number of university physical education faculty members tend to support the previous research by Nelson who indicated the change to voluntary physical education did not result in a reduction in the number of faculty members.¹

According to degrees held by men faculty members, the number with earned doctorates increased from 51 in 1971 to 58 in 1975 for a total increase of 13.73 percent. Women

¹Wayne E. Nelson, "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities" (Doctoral dissertation, The University of New Mexico, 1970), pp. 104-105.

Table 11
Size of Faculty for Involuntary and Voluntary Programs

| Institution | | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-----------------------|-------|------------------|--------------|---------------------------|---|----|--------------------|
| Universities | Men | 142 ^d | 153 | 11 (7.75) ^e | 1 | 1 | .338 ^a |
| | Women | 83 | 125 | 42 (50.60) | 1 | 1 | 8.082 ^b |
| | Total | 225 | 278 | 53 (23.56) | 1 | 1 | 5.376 ^c |
| Community Colleges | Men | 98 | 85 | 13 (13.27) | 1 | 1 | .786 ^a |
| | Women | 41 | 32 | 9 (21.95) | 1 | 1 | .876 ^a |
| | Total | 139 | 117 | 22 (15.83) | 1 | 1 | 1.722 ^a |
| Combined | Men | 240 | 238 | 2 (.83) | 1 | 1 | .002 ^a |
| | Women | 124 | 157 | 33 (26.61) | 1 | 1 | 3.664 ^a |
| | Total | 364 | 395 | 31 (8.52) | 1 | 1 | 1.186 ^a |

^aNot significant

^bSignificant at the .005 level

^cSignificant at the .05 level

^dN in table

^ePercent in table

with doctorates increased by 20 (57.14%), from 35 to 55 for this period. Men with a master's degree decreased by 9 (11.11%), from 81 in 1971 to 72 in 1975. Women in this category, however, showed an increase of 12 (26.09%), from 46 to 58. Men with a bachelor's degree increased 5 (50.00%), from 10 in 1971 to 15 in 1975, while women with a bachelor's degree increased by 10 (500.00%), from 2 in 1971 to 12 in 1975. Men holding other degrees increased from 0 in 1971 to 8 in 1975, while the women reported none in this category for either year (see Table 12).

The total combined men and women holding doctorate degrees showed an increase of 27 (31.40%), from 86 in 1971 to 113 in 1975. A like comparison for those with a master's degree indicated an increase of 3 (2.36%), or 127 to 130. The total number of bachelor's degrees more than doubled from 12 in 1971 to 27 in 1975, for an increase of 125.00 percent (see Table 12).

Distribution of university men faculty holding the rank of professor showed an increase of 5 (25.00%), from 20 in 1971 to 25 in 1975. The number of women professors changed from 8 to 20 during this period, for a total increase of 12 (150.00%). The total increase for professors when men and women were combined was 17 (60.71%), from 28 in 1971 to 45 in 1975 (see Table 13).

The number of men holding the rank of associate professor increased from 19 in 1971 to 25 in 1975 for a

Table 12
Full-Time Physical Education Faculty
Members--Universities

| University Faculty | Degree | 1971 | 1975 | Change # | Change % |
|--------------------|-----------|------|------|----------|----------|
| Men | Doctors | 51 | 58 | 7 | 13.73 |
| | Masters | 81 | 72 | 9 | 11.11 |
| | Bachelors | 10 | 15 | 5 | 50.00 |
| | Other | 0 | 8 | 8 | |
| | Total | 142 | 153 | 11 | 7.75 |
| Women | Doctors | 35 | 55 | 20 | 57.14 |
| | Masters | 46 | 58 | 12 | 26.09 |
| | Bachelors | 2 | 12 | 10 | 500.00 |
| | Other | 0 | 0 | 0 | 0.00 |
| | Total | 83 | 125 | 42 | 50.60 |
| Combined | Doctors | 86 | 113 | 27 | 31.40 |
| | Masters | 127 | 130 | 3 | 2.36 |
| | Bachelors | 12 | 27 | 15 | 125.00 |
| | Other | 0 | 8 | 8 | |
| | Total | 225 | 278 | 53 | 23.56 |

total increase of 6 (31.58%), while women demonstrated an increase of 12 (100.00%), from 12 to 24. The total increase of combined men and women associate professors was 18 (58.06%) from 1971 to 1975 (see Table 13).

The rank of assistant professor among men showed a slight increase of 1 (2.50%) from a 1971 figure of 40 to that of 41 in 1975. For this rank, women showed an increase of 9 (32.14%) when the 1971 total of 28 was compared with the 1975 total of 37. The total increase for the period for combined men and women assistant professors was 14.71 percent (see Table 13).

A decrease of 22 (44.90%) men instructors during this period was indicated by the study, while women in this rank showed a gain of 2 (6.67%). Total combined change in the instructor rank showed that there were 79 instructors in 1971 and 59 in 1975, a reduction of 25.32 percent in the rank (see Table 13).

During 1971 neither men nor women reported having any full-time faculty members in ranks other than the traditional. Data for 1975, however, showed that 23 men and 5 women had joined this rank (see Table 13).

In response to the question concerning full-time faculty members teaching professional physical education courses, a total decrease for men of 12 (15.00%) was indicated. Eighty men were involved with professional

Table 13
Rank of Physical Education Faculty
Members--Universities

| University Faculty | Rank | 1971 | 1975 | Change # | Change % |
|--------------------|----------------------|------|------|----------|----------|
| Men | Professors | 20 | 25 | 5 | 25.00 |
| | Associate Professors | 19 | 25 | 6 | 31.58 |
| | Assistant Professors | 40 | 41 | 1 | 2.50 |
| | Instructors | 49 | 27 | 22 | 44.90 |
| | Others | 0 | 23 | 23 | _____ |
| | Total | 128 | 141 | 13 | 10.16 |
| Women | Professors | 8 | 20 | 12 | 150.00 |
| | Associate Professors | 12 | 24 | 12 | 100.00 |
| | Assistant Professors | 28 | 37 | 9 | 32.14 |
| | Instructors | 30 | 32 | 2 | 6.67 |
| | Others | 0 | 5 | 5 | _____ |
| | Total | 78 | 118 | 40 | 51.28 |
| Total | Professors | 28 | 45 | 17 | 60.71 |
| | Associate Professors | 31 | 49 | 18 | 58.06 |
| | Assistant Professors | 68 | 78 | 10 | 14.71 |
| | Instructors | 79 | 59 | 20 | 25.32 |
| | Others | 0 | 28 | 28 | _____ |
| | Total | 206 | 259 | 53 | 25.73 |

physical education courses in 1971, while, in 1975, there were 68. The number of men professors decreased from 17 to 14 (17.65%); associate professors increased from 14 to 19 (35.71%); assistant professors dropped from 29 to 20 (31.03%); instructors decreased from 15 to 8 (46.67%); and those in ranks classified as others went from 5 to 7 for an increase of 2 (40.00%) (see Table 14).

Concerning women and rank there was a total increase of 43 from 1971 to 1975. All ranks showed increases with the number of professors changing from 3 to 11 (266.67%); associate professors increasing by 7 (87.50%); assistant professors changing from 10 to 23 (130.00%); instructors increasing to 17 in 1975 from 3 in 1971 (466.67%); and those ranked as others added 1 where none were listed for 1971 (see Table 14).

Combined members of men and women professors indicated an increase of 25.00 percent from 1971 to 1975, while the ranks of associate professors, assistant professors, instructors, and others showed increases of 54.55 percent, 10.26 percent, 38.89 percent, and 60.00 percent, respectively. The total change for all ranks in professional physical education was 31 (29.81%) faculty members, with the increase in the number of women offsetting the decrease in the ranks of the men (see Table 14).

Table 14

**Faculty Members Teaching Professional
Physical Education--Universities**

| University Faculty | Rank | 1971 | 1975 | Change # | Change % |
|-----------------------|-------------------------|------|------|-------------|-------------|
| Men | Professors | 17 | 14 | 3 | 17.65 |
| | Associate Professors | 14 | 19 | 5 | 35.71 |
| | Assistant Professors | 29 | 20 | 9 | 31.03 |
| | Instructors | 15 | 8 | 7 | 46.67 |
| | Others | 5 | 7 | 2 | 40.00 |
| | Total | 80 | 68 | 12 | 15.00 |
| Women | Professors | 3 | 11 | 8 | 266.67 |
| | Associate Professors | 8 | 15 | 7 | 87.50 |
| | Assistant Professors | 10 | 23 | 13 | 130.00 |
| | Instructors | 3 | 17 | 14 | 466.67 |
| | Others | 0 | 1 | 1 | _____ |
| | Total | 24 | 67 | 43 | 179.17 |
| Combined | Professors | 20 | 25 | 5 | 25.00 |
| | Associate Professors | 22 | 34 | 12 | 54.55 |
| | Assistant Professors | 39 | 43 | 4 | 10.26 |
| | Instructors | 18 | 25 | 7 | 38.89 |
| | Others | 5 | 8 | 3 | 60.00 |
| | Total | 104 | 135 | 31 | 29.81 |

Community Colleges

Twenty-two community colleges reported that, in 1971, 139 faculty members were employed as full-time members of their various physical education departments. In 1975, the number of full-time faculty had decreased by 15.83 percent from 1971. This decrease, however, was not found to be significant. For the period of 1971 to 1975, the number of men decreased by 13, while the number of women dropped from 41 to 32 (19.51%). Neither reduction among men and women physical educators was found to be significant for those institutions participating in the study (see Table 11).

Though not significant, the reduction among the number of community college faculty members does not support previous findings by Nelson who, in his study of six western colleges and universities, found the number of physical education faculty members was not reduced after a change to voluntary physical education.² The possibility exists, however, that the reduction could have been significant had it not been for the tremendous growth in school enrollment.

With regard to degrees held by men faculty members, the number with doctor's increased from 2 in 1971 to 6 in

²Nelson, pp. 104-105.

1975 (200.00%); the number holding masters' degrees changed from 90 to 76 (15.56%); those with a bachelor's degree dropped by 3 (50.00%); and there were no faculty listed as having other degrees for either 1971 or 1975 (see Table 15).

Women physical educators holding a doctor's degree were nonexistent in both 1971 and 1975 among participating institutions, while the categories for masters', bachelors', and other degrees indicated respective percentage decreases of 16.67%, 50.00%, and 100.00% for the period (see Table 15).

When combined totals for men and women for 1971 and 1975 were compared, an increase of 4 doctorates, a decrease of 20 masters' degrees, a decrease of 5 bachelors' degrees, and a reduction by 1 for those having other degrees were observed (see Table 15).

Distribution of community college male professors remained unchanged from the 4 who were reported for 1971. The ranks of associate professors increased by 2 (13.33%) for the period, while the rank of assistant professor decreased from 14 in 1971 to 10 in 1975 (28.57%). The decreases for the ranks of instructor and no rank, a common category for community colleges, were 30.30 percent and 19.23 percent, respectively (see Table 16).

Distribution of female professors in the community colleges increased from 3 to 4 (33.33%) after the change to voluntary physical education, while rank of associate professor increased by 3 (60.00%). Decreases of 3 (37.50%)

Table 15

**Full-Time Physical Education Faculty
Members--Community Colleges**

| Community College Faculty | Degree | 1971 | 1975 | Change # | Change % |
|------------------------------|-----------|------------|------------|-------------|--------------|
| Men | Doctors | 2 | 6 | 4 | 200.00 |
| | Masters | 90 | 76 | 14 | 15.56 |
| | Bachelors | 6 | 3 | 3 | 50.00 |
| | Other | 0 | 0 | 0 | 0.00 |
| | Total | <u>98</u> | <u>85</u> | <u>13</u> | <u>13.27</u> |
| Women | Doctors | 0 | 0 | 0 | 0.00 |
| | Masters | 36 | 30 | 6 | 16.67 |
| | Bachelors | 4 | 2 | 2 | 50.00 |
| | Other | 1 | 0 | 1 | 100.00 |
| | Total | <u>41</u> | <u>32</u> | <u>8</u> | <u>19.51</u> |
| Combined | Doctors | 2 | 6 | 4 | 200.00 |
| | Masters | 126 | 106 | 20 | 15.87 |
| | Bachelors | 10 | 5 | 5 | 50.00 |
| | Other | 1 | 0 | 1 | 100.00 |
| | Total | <u>139</u> | <u>117</u> | <u>22</u> | <u>15.83</u> |

Table 16
 Rank of Physical Education Faculty
 Members--Community Colleges

| Community College Faculty | Rank | 1971 | 1975 | Change # | Change % |
|------------------------------|-------------------------|------------|------------|-------------|--------------|
| | Professors | 4 | 4 | 0 | 0.00 |
| | Associate Professors | 15 | 17 | 2 | 13.33 |
| Men | Assistant Professors | 14 | 10 | 4 | 28.57 |
| | Instructors | 33 | 23 | 10 | 30.30 |
| | Others | 26 | 21 | 5 | 19.23 |
| | Total | <u>92</u> | <u>75</u> | <u>17</u> | <u>18.48</u> |
| | Professors | 3 | 4 | 1 | 33.33 |
| | Associate Professors | 5 | 8 | 3 | 60.00 |
| Women | Assistant Professors | 8 | 5 | 3 | 37.50 |
| | Instructors | 14 | 8 | 6 | 42.86 |
| | Others | 10 | 5 | 5 | 50.00 |
| | Total | <u>40</u> | <u>30</u> | <u>10</u> | <u>25.00</u> |
| | Professors | 7 | 8 | 1 | 14.29 |
| | Associate Professors | 20 | 25 | 5 | 25.00 |
| Combined | Assistant Professors | 22 | 15 | 7 | 31.82 |
| | Instructors | 47 | 31 | 16 | 34.04 |
| | Others | 36 | 26 | 10 | 27.78 |
| | Total | <u>132</u> | <u>105</u> | <u>27</u> | <u>20.45</u> |

for assistant professors; 6 (42.86%) for instructors; and 5 (50.00%) for the category of no rank were reported for the remaining female faculty members.

The total change of faculty ranks when men and women were combined revealed the following changes (see Table 16).

1. Professor--increased from 7 to 8.
2. Associate Professor--increased from 20 to 25.
3. Assistant Professor--decreased from 22 to 15.
4. Instructor--decreased from 47 to 31.
5. No Rank--decreased from 37 to 26.

Examination of community college faculty involved in teaching professional physical education indicated that among men there was an increase of one professor and two associate professors, and decreases for the remaining ranks of assistant professor, instructor, and no rank (see Table 17).

A similar change among women who were engaged in professional physical education during the change from involuntary to voluntary programs was also noted. The number of professors increased by 33.33 percent and associate professors by 40.00 percent, while the reduction in assistant professors was 50.00 percent, instructors 22.22 percent, and no rank 50.00 percent (see Table 17).

A comparison of combined totals for men and women indicated that while the ranks of professor and associate professor increased the remaining ranks all decreased by at least 22.86 percent (see Table 17).

Table 17

**Faculty Members Teaching Professional Physical
Education--Community Colleges**

| Community College Faculty | Rank | 1971 | 1975 | Change # | Change % |
|------------------------------|-------------------------|------------|-----------|-------------|--------------|
| | Professors | 3 | 4 | 1 | 33.33 |
| | Associate Professors | 15 | 17 | 2 | 13.33 |
| Men | Assistant Professors | 13 | 7 | 6 | 46.15 |
| | Instructors | 26 | 20 | 6 | 23.08 |
| | No Rank | 18 | 14 | 4 | 22.22 |
| | Total | <u>75</u> | <u>62</u> | <u>13</u> | <u>17.33</u> |
| | Professors | 3 | 4 | 1 | 33.33 |
| | Associate Professors | 5 | 7 | 2 | 40.00 |
| Women | Assistant Professors | 6 | 3 | 3 | 50.00 |
| | Instructors | 9 | 7 | 2 | 22.22 |
| | No Rank | 8 | 4 | 4 | 50.00 |
| | Total | <u>31</u> | <u>25</u> | <u>6</u> | <u>19.35</u> |
| | Professors | 6 | 8 | 2 | 33.33 |
| | Associate Professors | 20 | 24 | 4 | 20.00 |
| Combined | Assistant Professors | 19 | 10 | 9 | 47.37 |
| | Instructors | 35 | 27 | 8 | 22.86 |
| | No Rank | 26 | 18 | 8 | 30.77 |
| | Total | <u>106</u> | <u>87</u> | <u>19</u> | <u>17.92</u> |

TEACHING LOAD

Universities

Data in response to the question regarding the average number of contact hours taught per week were incomplete with only 2 (28.57%) institutions reporting complete information. Among most ranks, it was observed that teaching based upon contact hours taught per week tended to remain the same or to decrease slightly (see Table 18).

Community Colleges

Eighteen (81.82%) community colleges responded to the item concerning teaching loads. In 17 (94.44%) of these institutions, no change in the teaching load based upon average number of contact hours per week was reported. Community college CJ reported a change from 15 hours per week in 1971 to 18 hours per week in 1975 (see Table 19).

These findings regarding the teaching loads of community college physical educators appear to support the previous work done by Hodges who found similar teaching loads among faculty members in public two-year colleges in the Midwest.³

³Patrick B. Hodges, "Status and Structure of Physical Education in Public Two-Year Colleges of the Midwest," Journal of Health, Physical Education, Recreation, XLV (June, 1974), 13-15.

Table 18

Teaching Loads and Graduate Assistants--Universities

| Institution | Teaching Load | | | | Graduate Assistants | | | |
|-------------|---------------|--------------|--------------|--------------|---------------------|--------------|-----------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | na | na | 8 | 8 | 46 ^a | 44 | 46 ^a | 27 |
| UB | 6-10 | 6-10 | na | na | 10 | 8 | na | na |
| UC | 15 | 15 | na | 18 | 15 | 10 | na | 8 |
| UD | na | na | na | na | 0 | 0 | 0 | 0 |
| UE | 16 | 16 | 18 | 16 | na | na | 4 | 7 |
| UF | 8-12 | 8-12 | 12 | 12 | 4 | 3 | 0 | 1 |
| UG | na | na | na | na | 7 | 6 | 4 | 6 |

^aCombined figures for men and women

na Information not available

Table 19
Community College Teaching Loads

| Institution | Men | | Women | |
|-------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CA | 18 | 18 | 18 | 18 |
| CB | 18 | 18 | 18 | 18 |
| CC | 30 | 30 | 30 | 30 |
| CD | 16 | 16 | 16 | 16 |
| CE | 16 | 16 | 16 | 16 |
| CF | 20 | 20 | 20 | 20 |
| CG | 16 | 16 | 16 | 16 |
| CH | 20 | 20 | 20 | 20 |
| CI | 20 | 20 | 20 | 20 |
| CJ | 15 | 18 | 15 | 18 |
| CK | 16 | 16 | 16 | 16 |
| CL | 30 | na | 30 | na |
| CM | 16 | 16 | 16 | 16 |
| CN | 15-17 | 15-17 | 15-17 | 15-17 |
| CO | 16 | 16 | 16 | 16 |
| CP | 18 | 18 | 18 | 18 |
| CQ | na | 15 | na | 15 |
| CR | 18 | 18 | 18 | 18 |
| CS | na | na | na | na |
| CT | na | na | na | na |
| CU | 18 | 18 | 18 | 18 |
| CV | 16 | 16 | 16 | 16 |

^{na}Information not available

GRADUATE ASSISTANTS

Universities

Six (85.71%) universities had graduate assistants in the physical education departments during both the involuntary and voluntary periods. Institution UD reported that it did not have graduate assistants either in 1971 or in 1975. Little change in the total number of graduate assistants was noted after universities initiated voluntary physical education programs (see Table 18).

Community Colleges

Due to the scope of two-year community colleges, the question regarding the number of graduate assistants in the physical education department did not apply to these institutions.

COACHES IN THE BASIC INSTRUCTION PROGRAM

Universities

Seven (100.00%) institutions reported that coaches taught in the basic instruction program before the change to voluntary physical education. With the exception of the men's department at institution UC, all universities continued the practice of utilizing coaches as teachers in the basic instruction program after the change to voluntary physical education (see Table 20).

Figures regarding the number of coaches involved in the basic instruction program both in the fall of 1971 and 1975 indicated that a decrease of 7 occurred after the adoption of voluntary physical education (see Table 20).

Community Colleges

Seventeen (77.27%) of 22 schools used coaches in the basic instruction program both in the fall of 1971 and 1975. At institutions CI, CJ, and CV, women coaches were used as teachers in the fall of 1975, while they had not been used in that capacity in 1971. At only two schools, CJ and CQ, men were not used in the voluntary program. School CQ discontinued intercollegiate athletics after the adoption of voluntary physical education in 1972, thus explaining the reason for its coaches no longer teaching. Institutions CO, CP, CS, and CT did not have women coaches either in the fall of 1971 or 1975 (see Table 21).

The number of coaches who taught in the basic instruction program during both the involuntary and voluntary physical education programs revealed that overall reductions occurred after the change to voluntary programs. Due to the size of most community college physical education and intercollegiate athletic programs and the practice of coaches teaching and coaching, a corresponding reduction in coaches and teachers, as previously revealed, would be expected (see Table 21).

Table 20

Coaches in the Basic Instruction Program--Universities

| Institution | Coaches Teach | | | | Number of Coaches | | | |
|-------------|---------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | Yes | Yes | Yes | Yes | 1 | 3 | 1 | 4 |
| UB | Yes | Yes | na | Yes | 19 | 16 | na | na |
| UC | Yes | Yes | No | Yes | 9 | 0 | na | 6 |
| UD | Yes | Yes | Yes | Yes | 15 | 6 | 5 | 10 |
| UE | Yes | Yes | Yes | Yes | na | na | 11 | 8 |
| UF | Yes | Yes | Yes | Yes | 6 | 6 | 1 | 2 |
| UG | Yes | Yes | Yes | Yes | <u>na</u> | <u>na</u> | <u>na</u> | <u>na</u> |
| | | | | Total | 50 | 31 | 18 | 30 |

^{na}Information not available

Table 21
Coaches in the Basic Instruction Program--
Community Colleges

| Institution | Coaches Teach | | | | Number of Coaches | | | | |
|-------------|---------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|----|
| | Men | | Women | | Men | | Women | | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | |
| CA | Yes | Yes | Yes | Yes | 5 | 4 | 2 | 1 | |
| CB | Yes | Yes | Yes | Yes | 8 | 9 | 2 | 2 | |
| CC | Yes | Yes | Yes | Yes | 10 | 8 | 2 | 2 | |
| CD | Yes | Yes | Yes | Yes | 6 | 4 | 1 | 1 | |
| CE | Yes | Yes | Yes | Yes | 8 | 7 | 2 | 2 | |
| CF | Yes | Yes | Yes | Yes | 6 | 1 | 0 | 1 | |
| CG | Yes | Yes | Yes | Yes | 6 | 4 | 2 | 1 | |
| CH | Yes | Yes | Yes | Yes | 1 | 1 | 1 | 1 | |
| CI | Yes | Yes | No | Yes | 1 | 1 | 0 | 2 | |
| CJ | Yes | Yes | No | Yes | 3 | 1 | 0 | 1 | |
| CK | Yes | Yes | Yes | Yes | 5 | 5 | 2 | 2 | |
| CL | Yes | Yes | Yes | Yes | 2 | 3 | 2 | 2 | |
| CM | Yes | Yes | Yes | Yes | 5 | 2 | 0 | 1 | |
| CN | Yes | Yes | Yes | Yes | 4 | 4 | 0 | 1 | |
| CO | Yes | Yes | No | No | 3 | 3 | 0 | 0 | |
| CP | Yes | Yes | No | No | 2 | 2 | 0 | 0 | |
| CQ | Yes | No | No | No | 2 | 0 | 0 | 0 | |
| CR | Yes | Yes | Yes | Yes | 2 | 1 | 1 | 1 | |
| CS | Yes | Yes | No | No | 1 | 1 | 0 | 0 | |
| CT | Yes | Yes | No | No | 1 | 1 | 0 | 0 | |
| CU | Yes | Yes | No | No | 1 | 4 | 0 | 0 | |
| CV | Yes | Yes | No | Yes | 2 | 2 | 0 | 1 | |
| | | | | | Total | 84 | 68 | 17 | 22 |

TEACHER/STUDENT RATIO, CLASS SIZE, AND
CREDIT HOUR PRODUCTION

Universities

Based upon the completion of the item pertaining to the ratio of basic instruction teaching personnel to students, analysis for comparing figures from the fall terms of 1971 and 1975 was difficult. Two (28.57%) of the institutions did not provide information, while two (28.57%) furnished only partial information. Data gathered from the three (42.86%) participating schools indicated that the ratio increased in one and remained the same at the others (see Table 22).

Average class size in the basic instruction program remained constant in three (42.86%) institutions after the voluntary program was initiated, while at two (28.57%) other universities the average class size decreased. The men's department at institution UB showed a slight reduction in average class size in the fall of 1975, while the women's department at institution UE showed a slightly greater decrease (see Table 22).

No information concerning average credit hour production per semester or quarter was available for four (57.14%) universities. Complete data gathered from institutions UD and UF indicated no change and a slight change, respectively. Information regarding credit hour

Table 22

Teacher/Student Ratio, Class Size, and Credit Hour Production--Universities

| Institution | Teacher/Student Ratio | | | | Class Size | | | | Credit Hour Production | | | |
|-------------|-----------------------|--------------|--------------|--------------|--------------|------------------|--------------|------------------|------------------------|-------------------|-------------------|-------------------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | 215 | 420 | 228 | 420 | 96 | 109 ^a | 74 | 109 ^a | na | na | na | na |
| UB | na | na | na | na | 30 | 28 | na | na | na | na | na | na |
| UC | 30 | 25 | na | 25 | 25 | 25 | 25 | 25 | 220 | na | 180 | na |
| UD | 125 | 125 | 125 | 125 | 25 | 25 | 25 | 25 | 14 | 14 | 14 | 14 |
| UE | na | na | 30 | 25 | na | na | 30 | 25 | na | na | na | na |
| UF | 25 | 25 | 25 | 25 | 23 | 18 | 23 | 18 | 2064 ^a | 2036 ^a | 2064 ^a | 2036 ^a |
| UG | na | na | na | na | 20 | 20 | 20 | 20 | na | na | na | na |

^a Combined figures for men and women

na Information not available

production at school UC showed a decline from the fall of 1971 to the fall of 1975 (see Table 22).

Community Colleges

Examination of data gathered from 19 (86.36%) community colleges indicated that the ratio of basic instruction teaching personnel to students increased at 4 (21.05%) schools, remained the same at 7 (36.84%) institutions, and declined at 8 (42.11%) schools after voluntary physical education (see Table 23).

The average size of classes in the basic instruction programs increased at only 3 (14.29%) institutions, remained the same at 8 (38.10%) schools, and was reduced at 10 (47.62%) community colleges (see Table 23).

Credit hour production per semester or quarter for community colleges participating in the study reflected changes similar to those for average class size. Four (22.22%) schools each indicated an increase and no change, respectively, for this category, while at 10 (55.55%) institutions, there was a decrease in the average credit hour production (see Table 23).

ADMINISTRATION OF THE BASIC INSTRUCTION OR SERVICE PROGRAM

Universities

Data gathered from the seven institutions regarding the specific division of the university directly responsible

Table 23

Teacher/Student Ratio, Class Size, and Credit Hour
Production--Community Colleges

| Institution | Teacher/Student Ratio | | | | Class Size | | | | Credit Hour Production | | | |
|-------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|-------------------|-------------------|-------------------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CA | 250 | 176 | 250 | 176 | 30 | 22 | 30 | 22 | 986 ^a | 755 ^a | 986 ^a | 755 ^a |
| CB | 22 | 24 | 22 | 30 | na | na | na | na | 9 ^a | 9 ^a | 9 ^a | 9 ^a |
| CC | 30 | 24 | 24 | 30 | 30 | 30 | 30 | 30 | 16 | 11 | 6 | 6 |
| CD | 150 | 150 | 150 | 150 | 35 | 35 | 35 | 35 | 80 | 115 | 80 | 115 |
| CE | 38 | 30 | 35 | 30 | 38 | 30 | 35 | 30 | 2 | 2 | 2 | 2 |
| CF | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 2400 ^a | 1200 ^a | 2400 ^a | 1200 ^a |
| CG | 9 | 5 | 9 | 5 | 9 | 5 | 9 | 5 | 1503 ^a | 1407 ^a | 1503 ^a | 1407 ^a |
| CH | 20 | 25 | 15 | 20 | 20 | 25 | 15 | 20 | 150 | 160 | 138 | 150 |
| CI | 16 | 25 | 16 | 25 | 16 | 25 | 16 | 25 | na | na | na | na |
| CJ | 25 | 20 | 25 | 20 | 25 | 12 | 25 | 12 | 1800 ^a | 1740 ^a | 1800 ^a | 1740 ^a |
| CK | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 270 | 240 | 250 | 220 |

Table 23 (Continued)

| Institution | Teacher/Student Ratio | | | | Class Size | | | | Credit Hour Production | | | |
|-------------|-----------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------------------|-----------------|-----------------|-----------------|
| | Men | | Women | | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CL | 20 | 15 | 25 | 15 | 25 | 15 | 25 | 18 | 45 | 40 | 45 | 30 |
| CM | 16 | 20 | 16 | 20 | 20 | 25 | 20 | 25 | 80 | 48 | 48 | 32 |
| CN | na | na | na | na | 30 | 20 | 30 | 20 | 57 ^a | 46 ^a | 57 ^a | 46 ^a |
| CO | na | na | na | na | 24 | 24 | 24 | 24 | na | na | na | na |
| CP | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | na | na | na | na |
| CQ | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | na | na | na | na |
| CR | 30 | 12 | 30 | 12 | 20 | 10 | 20 | 10 | 6 | 8.5 | 6 | 8.5 |
| CS | na | na | na | na | 28 | 20 | 28 | 20 | 7 | 8 | 7 | 8 |
| CT | 25 | 15 | 25 | 15 | 15 | 15 | 15 | 15 | 150 | 80 | 100 | 50 |
| CU | 25 | 30 | 25 | 30 | 25 | 25 | 25 | 25 | 16 | 16 | 16 | 16 |
| CV | 25 | 18 | 25 | 18 | 25 | 18 | 25 | 18 | 16 | 16 | 16 | 16 |

^aCombined figures for men and women

na Information not available

for the physical education program showed little change after the adoption of voluntary physical education. At school UA the program was administered under the College of Physical Education in 1971-1972, while, in 1975-1976, the College of Applied Life Studies had responsibility for the physical education program.

In the fall of 1975, a faculty member was assigned to administer the program of voluntary physical education in all the men's departments, but in two schools no one was assigned to the women's programs. Information from the fall of 1971 revealed one women's department that did not assign a person to administer the basic instruction program (see Table 24).

Community Colleges

Four (18.18%) community colleges noted a change in the division directly responsible for the program of voluntary physical education.

A slight change in the number of institutions that assigned a faculty member to administer the program of voluntary physical education was noted in the comparison of the fall of 1971 to the fall of 1975. Sixteen (72.73%) schools made this assignment when involuntary programs were in effect, while 14 (63.64%) assigned a faculty administrator in the fall of 1975 (see Table 25).

Table 24
Faculty Member Supervises Program--Universities

| Institution | Men | | Women | |
|-------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | Yes | Yes | Yes | Yes |
| UB | Yes | Yes | Yes | Yes |
| UC | Yes | Yes | Yes | Yes |
| UD | Yes | Yes | Yes | No |
| UE | Yes | Yes | No | No |
| UF | Yes | Yes | Yes | Yes |
| UG | Yes | Yes | Yes | Yes |

Table 25
Faculty Member Supervises Program--
Community Colleges

| Institution | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
|-------------|--------------|--------------|--------------|--------------|
| CA | No | No | No | No |
| CB | Yes | No | Yes | No |
| CC | Yes | No | Yes | No |
| CD | Yes | Yes | Yes | Yes |
| CE | Yes | Yes | Yes | Yes |
| CF | Yes | Yes | Yes | Yes |
| CG | Yes | Yes | Yes | Yes |
| CH | No | No | No | No |
| CI | Yes | Yes | Yes | Yes |
| CJ | Yes | Yes | Yes | Yes |
| CK | Yes | Yes | Yes | Yes |
| CL | Yes | Yes | Yes | Yes |
| CM | No | No | No | No |
| CN | No | No | No | No |
| CO | Yes | Yes | Yes | Yes |
| CP | Yes | Yes | Yes | Yes |
| CQ | No | No | No | No |
| CR | Yes | Yes | Yes | Yes |
| CS | Yes | Yes | Yes | Yes |
| CT | No | No | No | No |
| CU | Yes | Yes | Yes | Yes |
| CV | Yes | Yes | Yes | Yes |

ENROLLMENT IN THE BASIC INSTRUCTION PROGRAM

Universities

During the fall term of 1971, 13,265 men at five reporting institutions were enrolled in basic instruction physical education classes. This figure represented 11.84 percent of the total student enrollment of 112,027 for these universities. Five universities provided data that revealed 9,526 women enrolled in basic instruction classes for the same period. Of the 102,508 in these reporting universities, 9.29 percent of the women were enrolled in at least one physical education class. Total combined information for men and women was available from four universities, and it indicated that, of the total enrollment of 89,208 students, 19,394 (21.74%) were enrolled in basic instruction classes (see Table 26).

In the fall term of 1975, four years after the change to voluntary physical education, five schools reported that 7,725 (6.01%) men took physical education classes. Similar figures were revealed for women at five universities. Out of 102,508 total students, 4.75 percent of the women elected to participate in voluntary physical education courses. Combined data for men and women reported by four institutions indicated that 11.45 percent of 88,712 students enrolled in basic instruction physical education

Table 26

Enrollment in Basic Instruction or Service Program--Universities

| Institution | Total School Enrollment During the Involuntary Program | Students Enrolled in Basic Instruction Classes During Involuntary Program | | | Percent of Students Enrolled in Basic Instruction Classes During Involuntary Program | | | Total School Enrollment During the Voluntary Program |
|------------------|--------------------------------------------------------|---------------------------------------------------------------------------|-------|--------|--------------------------------------------------------------------------------------|-------------------|--------------------|------------------------------------------------------|
| | | Men | Women | Total | Men | Women | Total | |
| UA | 34,352 | 6,205 | 4,339 | 10,544 | 18.06 | 12.63 | 30.69 | 35,000 |
| UB | 22,819 | 1,810 | na | na | 7.93 | na | na | 24,812 |
| UC | 24,000 | 2,500 | 2,000 | 4,500 | 10.42 | 8.33 | 18.75 | 21,000 |
| UD | 18,000 | 2,500 | 1,500 | 4,000 | 13.89 | 8.33 | 22.22 | 20,500 |
| UE | 13,300 | na | 1,587 | na | na | 11.93 | na | 15,000 |
| UF | 12,856 | 250 | 100 | 350 | 1.94 | .78 | 2.72 | 12,212 |
| UG ^{na} | | | | | | | | |
| Total | 125,327 | 13,265 | 9,526 | 19,394 | 11.84 ^a | 9.29 ^b | 21.74 ^c | 128,524 |

Table 26 (Continued)

| Institution | Students Enrolled in Basic Instruction Classes During Voluntary Program | | | Percent of Students Enrolled in Basic Instruction Classes During Voluntary Program | | | Change in Number and Percent of Students Enrolled in Voluntary Program as Compared to Number and Percent Enrolled in the Involuntary Program | | | | | |
|------------------|-------------------------------------------------------------------------|-------|--------|------------------------------------------------------------------------------------|-------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|--------------------|--------------------|--------------------|
| | Men | Women | Total | Men | Women | Total | Number | | | Percent | | |
| | | | | | | | Men | Women | Total | Men | Women | Total |
| UA | 3,871 | 1,573 | 5,444 | 11.06 | 4.49 | 15.55 | 2,334 | 2,776 | 5,100 | 37.61 | 63.75 | 48.37 |
| UB | 1,064 | na | na | 4.29 | na | na | 746 | na | na | 41.22 | na | na |
| UC | 1,500 | 1,000 | 2,500 | 7.14 | 4.76 | 11.90 | 1,000 | 1,000 | 2,000 | 40.00 | 50.00 | 44.44 |
| UD | 1,000 | 800 | 1,800 | 4.88 | 3.90 | 8.78 | 1,500 | 700 | 2,200 | 60.00 | 46.67 | 55.00 |
| UE | na | 1,376 | na | na | 9.17 | na | na | 211 | na | na | 13.30 | na |
| UF | 290 | 120 | 410 | 2.37 | .98 | 3.36 | 40 | 20 | 60 | 16.00 | 20.00 | 17.14 |
| UG ^{na} | | | | | | | | | | | | |
| Total | 7,725 | 4,869 | 10,154 | 6.80 ^d | 4.75 ^c | 11.45 ^f | 5,620 | 4,697 | 9,360 | 42.37 ^g | 49.31 ^h | 48.26 ⁱ |

^{na}Information not available

^aBased on total school enrollment of 112,027

^bBased on total school enrollment of 102,508

^cBased on total school enrollment of 89,208

^dBased on total school enrollment of 113,524

^eBased on total school enrollment of 102,508

^fBased on total school enrollment of 88,712

^gBased on 1971 enrollment of 13,265

^hBased on 1971 enrollment of 9,526

ⁱBased on 1971 enrollment of 19,394

classes, a decrease of 48.26 percent from 1971 (see Table 26).

Due to the incomplete nature of total enrollment figures and the variance in reporting from school to school, the decision was made to analyze the changes for each school for comparison of the effects of voluntary physical education on enrollment in basic instruction classes (see Table 27).

Six reporting institutions reported significant changes in enrollment. Five schools showed significant decreases in enrollment after changing from an involuntary to a voluntary basic instruction program. One university reported a significant increase in enrollment after adopting voluntary physical education (see Table 27).

Although previous work by Nelson indicated a slight, but not significant, reduction in basic instruction class enrollment after a change to voluntary physical education,⁴ this writer feels that, on the basis of the findings of this study, the reduction in basic instruction class enrollment can pose a serious threat to physical education departments in an era when funding is based largely on student head count and credit hour production.

⁴Nelson, pp. 104-105.

Table 27

Analysis of Enrollment in Basic Instruction Programs--Universities

| University | | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------|-------|---------------------|--------------|------------------|---|----|------------------------|
| | Men | 6,205 | 3,871 | 2,334 (37.61) | 1 | 1 | 540.184 ^a |
| UA | Women | 4,339 | 1,573 | 2,766 (63.75) | 1 | 1 | 1,293.170 ^a |
| | Total | 10,544 ^d | 5,444 | 5,100 | 1 | 1 | 1,626.208 ^a |
| UB | Men | 1,810 | 1,064 | 766 (41.22) | 1 | 1 | 193.120 ^a |
| | Men | 2,500 | 1,500 | 1,000 (40.00) | 1 | 1 | 249.500 ^a |
| UC | Women | 2,000 | 1,000 | 1,000 (50.00) | 1 | 1 | 332.666 ^a |
| | Total | 4,500 | 2,500 | 2,000 (44.44) | 1 | 1 | 570.856 ^a |
| | Men | 2,500 | 1,000 | 1,500 (60.00) | 1 | 1 | 642.000 ^a |
| UD | Women | 1,500 | 800 | 700 (46.67) | 1 | 1 | 212.436 ^a |
| | Total | 4,000 | 1,800 | 2,200 (55.00) | 1 | 1 | 833.724 ^a |

Table 27 (Continued)

| University | | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------------|-------|--------------|--------------|----------------|---|----|---------------------|
| UE | Women | 1,587 | 1,376 | 211 (13.30) | 1 | 1 | 14.884 ^a |
| | Men | 250 | 290 | 40 (16.00) | 1 | 1 | 2.816 ^b |
| UF | Women | 100 | 120 | 20 (20.00) | 1 | 1 | 1.640 ^b |
| | Total | 350 | 410 | 60 (17.14) | 1 | 1 | 4.580 ^c |
| UG ^{na} | | | | | | | |

^aSignificant at .005 level

^bNot significant

^cSignificant at .05 level

^dN in all tables

^ePercent in all tables

^{na}Information not available

Community Colleges

Complete information regarding basic instruction enrollment for the fall of 1971 was provided by 17 (77.27%) of the community colleges. For this period, a total of 14,088 (20.50%) students were enrolled in involuntary physical education classes (see Table 28).

Data from 18 (81.82%) community colleges were provided for the fall of 1975. Based upon a total school enrollment of 111,374 students, 10.64 percent of the students elected to participate in voluntary physical education programs. Compared with percentage figures from the fall of 1971, this represents a decrease of 9.86 percent in physical education enrollment (see Table 28).

Further analysis of the data revealed that no significant changes occurred at two (11.11%) institutions, while significant increases were observed at three (16.67%) schools. Thirteen (72.22%) institutions had significant decreases in the enrollment in basic instruction classes after changing from an involuntary to a voluntary physical education program (see Table 29).

The total decrease for 17 community colleges from 14,088 students in the fall of 1971 to 11,846 in 1975 represented a 15.91 percent change that was found to be significant (see Table 29).

The significant decrease in community college basic instruction enrollment after the discontinuance of

Table 28

Enrollment in Basic Instruction or Service Program--Community Colleges

| Community College | Total School Enrollment During the Involuntary Program | Students Enrolled in Basic Instruction Classes During Involuntary Program | Percent of Students Enrolled in Basic Instruction Classes During Involuntary Program | Total School Enrollment During the Voluntary Program |
|-------------------|--------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|
| CA | 9,312 | 1,572 | 16.88 | 20,000 |
| CB | 8,000 | 1,400 | 17.50 | 16,000 |
| CC | 3,965 | 1,350 | 34.05 | 12,423 |
| CD | 6,000 | 1,500 | 25.00 | 10,000 |
| CE | 8,700 | na | na | 7,000 |
| CF | 3,020 | 1,800 | 59.60 | 6,532 |
| CG | 3,952 | 897 | 22.70 | 5,914 |
| CH | 2,330 | 234 | 10.04 | 5,537 |
| CI | 427 | na | na | 5,300 |
| CJ | 3,000 | 700 | 23.33 | 4,200 |
| CK | 3,000 | 520 | 17.33 | 4,100 |
| CL | 1,890 | 659 | 34.87 | 3,852 |
| CM | 2,856 | 848 | 29.70 | 3,784 |

Table 28 (Continued)

| Community College | Total School Enrollment During the Involuntary Program | Students Enrolled in Basic Instruction Classes During Involuntary Program | Percent of Students Enrolled in Basic Instruction Classes During Involuntary Program | Total School Enrollment During the Voluntary Program |
|-------------------|--------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|
| CN | 1,800 | na | na | 3,500 |
| CO | 1,500 | 712 | 47.47 | 3,100 |
| CP | 933 | na | na | 1,000 |
| CQ | 2,654 | na | na | 2,952 |
| CR | 989 | 300 | 30.33 | 2,732 |
| CS | 1,200 | 1,000 | 83.33 | 1,700 |
| CT | 1,000 | 45 | 4.50 | 1,600 |
| CU | 1,000 | 100 | 10.00 | 1,500 |
| CV | 1,200 | 451 | 37.58 | 1,400 |
| Total | 68,728 | 14,088 | 20.50 ^a | 124,126 |

Table 28 (Continued)

| Community College | Students Enrolled in Basic Instruction Classes During Voluntary Program | Percent of Students Enrolled in Basic Instruction Classes During Voluntary Program | Change in the Number and Percent of Students Enrolled in Voluntary Program as Compared to Number and Percent Enrolled in the Involuntary Program | |
|-------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| | | | Number | Percent |
| CA | 725 | 3.63 | 847 | 53.88 |
| CB | 1,800 | 11.25 | 400 | 28.57 |
| CC | 672 | 5.41 | 678 | 50.22 |
| CD | 2,200 | 22.00 | 700 | 46.67 |
| CE | 1,260 | 18.00 | na | na |
| CF | 1,000 | 15.31 | 800 | 44.44 |
| CG | 472 | 7.98 | 425 | 47.38 |
| CH | 270 | 4.88 | 36 | 15.38 |
| CI | na | na | na | na |
| CJ | 550 | 13.10 | 150 | 21.43 |
| CK | 230 | 5.61 | 290 | 55.77 |
| CL | 478 | 12.41 | 181 | 27.47 |
| CM | 540 | 14.27 | 308 | 36.32 |

Table 28 (Continued)

| Community College | Students Enrolled in Basic Instruction Classes During Voluntary Program | Percent of Students Enrolled in Basic Instruction Classes During Voluntary Program | Change in the Number and Percent of Students Enrolled in Voluntary Program as Compared to Number and Percent Enrolled in the Involuntary Program | |
|-------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | Number | Percent |
| CN ^{na} | | | | |
| CO | 354 | 11.42 | 358 | 50.28 |
| CP ^{na} | | | | |
| CQ ^{na} | | | | |
| CR | 190 | 6.95 | 110 | 36.67 |
| CS | 575 | 33.82 | 425 | 42.50 |
| CT | 30 | 1.88 | 15 | 33.33 |
| CU | 140 | 9.33 | 40 | 40.00 |
| CV | 360 | 25.71 | 91 | 20.18 |
| Total | 11,846 | 10.64 | 2,242 | 15.91 |

^{na} Information not available

Table 29

Analysis of Enrollment in Basic Instruction Programs--Community Colleges

| Community College | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------------|--------------------|-----------|----------------|---|----|----------------------|
| CA | 1,572 ^e | 725 | 847 (53.88) | 1 | 1 | 311.586 ^a |
| CB | 1,400 | 1,800 | 400 (28.57) | 1 | 1 | 49.750 ^a |
| CC | 1,350 | 672 | 678 (50.22) | 1 | 1 | 226.672 ^a |
| CD | 1,500 | 2,200 | 700 (46.67) | 1 | 1 | 132.054 ^a |
| CE ^{na} | | | | | | |
| CF | 1,800 | 1,000 | 800 (44.44) | 1 | 1 | 228.000 ^a |
| CG | 897 | 472 | 425 (47.38) | 1 | 1 | 131.320 ^a |
| CH | 234 | 270 | 36 (15.38) | 1 | 1 | 2.430 ^b |
| CI ^{na} | | | | | | |

Table 29 (Continued)

| Community College | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------------|-----------|-----------|----------------|---|----|----------------------|
| CJ | 700 | 550 | 150 (21.43) | 1 | 1 | 17.600 ^a |
| CK | 520 | 230 | 290 (55.77) | 1 | 1 | 111.362 ^a |
| CL | 659 | 478 | 181 (27.47) | 1 | 1 | 28.496 ^a |
| CM | 848 | 540 | 308 (36.32) | 1 | 1 | 67.902 ^a |
| CN ^{na} | | | | | | |
| CO | 712 | 354 | 358 (50.28) | 1 | 1 | 119.558 ^a |
| CP ^{na} | | | | | | |
| CQ ^{na} | | | | | | |
| CR | 300 | 190 | 110 (36.67) | 1 | 1 | 24.246 ^a |
| CS | 1,000 | 575 | 425 (42.50) | 1 | 1 | 114.144 ^a |

Table 29 (Continued)

| Community College | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------------|-----------|-----------|------------------|---|----|----------------------|
| CT | 45 | 30 | 15 (33.33) | 1 | 1 | 2.614 ^b |
| CU | 100 | 140 | 40 (40.00) | 1 | 1 | 6.338 ^c |
| CV | 451 | 360 | 91 (20.18) | 1 | 1 | 9.988 ^d |
| Total | 14,088 | 11,846 | 2,242 (15.91) | 1 | 1 | 193.648 ^a |

^aSignificant at .0005 level

^bNot significant

^cSignificant at .01 level

^dSignificant at .001 level

^eN in table

^fPercent in table

^{na}Information not available

involuntary physical education could indicate the difficulty of two-year schools with small faculties meeting the diverse needs of the community college student body. Without a requirement and due to the unlikely possibility of adding staff members, community college departments face the reality of a greatly reduced role in future years.

COURSE CREDIT AND GRADING

Universities

All seven universities reported that no changes in granting course credit for physical education occurred after the adoption of voluntary physical education programs (see Table 30).

Previous research by Dressel and DeLisle which claimed there was a tendency toward eliminating credit for physical education is not supported by the findings of this study.⁵ The results of this study do, however, concur with those of Oxendine who, in a national survey of physical education programs, noted an increasing tendency to grant academic credit for physical education classes.⁶

⁵Paul L. Dressel and Francis H. DeLisle, Undergraduate Curriculum Trends (Washington, D.C.: American Council on Education, 1969), p. 27.

⁶Joseph B. Oxendine, "Physical Education in Four-Year Colleges and Universities: 1971-72," College Physical Education: The General Program, ed. Helen M. Heitmann (Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973), pp. 129-130.

A slight increase in pass/fail and other non-traditional grades was noted after the change to voluntary physical education, and one (14.29%) school reported that the percentages of A and B letter grades were higher in the voluntary program than they were in the involuntary program. Four (57.14%) universities stated that no change toward higher A and B letter grades occurred, and one (14.29%) institution did not respond to the question (see Table 30).

No change in permitting physical education to be taken for non-credit was observed from the involuntary to the voluntary programs in the six responding institutions. Under both programs, two (33.33%) schools did not permit this practice, while four (66.67%) did permit physical education to be taken for non-credit (see Table 30).

No change in the practice of permitting a student to meet a college requirement or earn credits by taking a proficiency test in lieu of actual course work was observed after voluntary physical education. Also, while all universities reported applying physical education credits toward the total number of units required for graduation during the fall of 1971, none noted a change for the fall of 1975 (see Table 30).

Little change was detected for schools allowing students to receive credits toward a degree for

participation on athletic teams. Five (71.43%) institutions did not permit this practice under either the involuntary system or the voluntary system. The men's physical education departments at schools UC and UE permitted credit for athletic participation during both periods and the women's department at institution UE, though not granting this credit in the fall of 1971, did so during the fall of 1975 (see Table 30).

All universities allowed grades in physical education to be applied to the student's grade point average during both the involuntary and voluntary programs (see Table 30).

Studies conducted earlier by Dressel and DeLisle⁷ and Oxendine⁸ are supported by the findings of this study with regard to the trend toward counting physical education in the grade point average.

Community Colleges

All community colleges permitted course credit to be granted for physical education in involuntary and voluntary programs (see Table 31). This finding is in agreement with Yarnall who indicated earlier that over 71 percent of the

⁷Dressel and DeLisle, p. 27.

⁸Oxendine, pp. 129-130.

Table 30
Course Credit and Grading--Universities

| | UA | | UB | | UC | | UD | |
|-----------------------------------------|------------------|--------------|------------------|--------------|------------------|--------------|-----------------------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M | W | M | W | M | W | M | W |
| Type of Grade for Physical Education | Letter or P/F | | Letter or P/F | | Letter or P/F | | Letter, P/F, or Audit | |
| Physical Education for Non-credit | No | | Yes | | Yes | | No | |
| Proficiency Test | Yes | Yes | Yes | Yes | No | na | No | na |
| Credits Applied to Graduation | Yes | | Yes | | Yes | | Yes | |
| Credit for Athletics | No | | No | | Yes | No | Yes | No |
| Grades Apply to GPA | Yes | | Yes | | Yes | | Yes | |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 30 (Continued)

| | UE | | UF | | UG | |
|-----------------------------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M W | M W | M W | M W | M W | M W |
| Type of Grade for Physical Education | Letter | Letter or P/F | Letter or P/F | Letter or P/F | Letter | Letter or P/F |
| Physical Education for Non-credit | Audit | Audit | Yes | Yes | na | na |
| Proficiency Test | No Yes | No Yes | Yes Yes | Yes Yes | na na | Yes Yes |
| Credits Applied to Graduation | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit for Athletics | Yes No | Yes Yes | No No | No No | No No | No No |
| Grades Apply to GPA | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes |

^{na}Information not available

participating two-year colleges granted academic credit for physical education.⁹

As with the universities, slight increases in the giving of non-traditional grades in voluntary physical programs was observed, while 50 percent of the schools reported that the percentages of A and B letter grades were higher in the voluntary program than in the involuntary program (Table 31).

An increase from 11 (50.00%) to 16 (72.73%) in the number of institutions allowing physical education to be taken for non-credit was indicated when programs changed from involuntary to voluntary (see Table 31).

Changes were observed in permitting students to meet a college requirement or earn credits by taking a proficiency test in lieu of actual course work in physical education. In the fall of 1971, five (22.73%) schools allowed students to take proficiency tests, while, in the fall of 1975, eight (36.36%) permitted these tests to be given (see Table 31).

In the involuntary program, one (4.55%) community college did not apply physical education credits toward the total number of units required for graduation. In the fall

⁹Douglas Yarnall, "A Survey of Physical Education in Two-Year Colleges," Journal of Health, Physical Education, Recreation, XLII (April, 1971), 81-82.

of 1975, all schools reported that physical education credits could be applied toward graduation (see Table 31).

Slight changes in students receiving degree credits for participation on athletic teams were reported after the adoption of voluntary physical education. Six (27.27%) institutions gave credit to both men and women athletes in the fall of 1975. During the fall of 1971, five (22.73%) schools gave credit to men for athletic participation and four (18.18%) gave credit to women for these activities (see Table 31).

Twenty-one (95.45%) institutions applied physical education grades to the students' grade point averages during both the involuntary and voluntary physical education programs (see Table 31).

ACTIVITY CLASSES

Universities

The number of periods per week that basic instruction or service classes met during the involuntary period changed little after voluntary programs were established. All universities, except for school UF, met classes two times per week under both types of programs (see Table 32).

The times that classes were offered during the school day were not affected at three (42.86%) schools.

Table 31

Course Credit and Grading--Community Colleges

| | CA | | CB | | CC | | CD | |
|-----------------------------------------|--------------|--------------|--------------|------------------|------------------|------------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M | W | M | W | M | W | M | W |
| Type of Grade for Physical Education | Letter | Letter | Letter | Letter or P/F | Letter or P/F | Letter or P/F | Letter | Letter |
| Physical Education for Non-credit | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| Proficiency Test | na | na | Yes | Yes | Yes | Yes | No | No |
| Credits Applied to Graduation | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes |
| Credit for Athletics | No | No | No | No | Yes | Yes | No | No |
| Grades Apply to GPA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 31 (Continued)

| | CE | | CF | | CG | | CH | | | |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|------------------|--------------|--------------|----|----|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | | |
| | M | W | M | W | M | W | M | W | | |
| Type of Grade for Physical Education | Letter | Letter | Letter | Letter | Letter | Letter or P/F | Letter | Letter | | |
| Physical Education for Non-credit | No | No | Yes | Yes | No | Yes | No | No | | |
| Proficiency Test | Yes | Yes | Yes | Yes | No | No | Yes | Yes | No | No |
| Credits Applied to Graduation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | |
| Credit for Athletics | No | No | Yes | Yes | No | No | No | No | No | No |
| Grades Apply to GPA | Yes | na | Yes | Yes | Yes | Yes | Yes | Yes | | |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | |

Table 31 (Continued)

| | CI | | CJ | | CK | | CL | |
|--------------------------------------|--------------|--------------|--------------|------------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M | W | M | W | M | W | M | W |
| Type of Grade for Physical Education | Letter | Letter | Letter | Letter or P/F | Letter | Letter | Letter | Letter |
| Physical Education for Non-credit | No | Yes | No | Yes | No | No | Yes | Yes |
| Proficiency Test | No | No | No | No | No | No | Yes | Yes |
| Credits Applied to Graduation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit for Athletics | No | No | No | No | No | Yes | No | No |
| Grades Apply to GPA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 31 (Continued)

| | CM | | CN | | CO | | CP | |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M | W | M | W | M | W | M | W |
| Type of Grade for Physical Education | Letter | Letter | Letter | Letter | Letter | Letter | Letter | Letter |
| Physical Education for Non-credit | No | No | Yes | Yes | No | Yes | Yes | Yes |
| Proficiency Test | No | No | No | No | Yes | Yes | No | No |
| Credits Applied to Graduation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit for Athletics | Yes | Yes | No | No | No | No | No | No |
| Grades Apply to GPA | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 31 (Continued)

| | CQ | | CR | | CS | | CT | |
|-----------------------------------------|--------------|--------------|--------------|------------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M W | M W | M W | M W | M W | M W | M W | M W |
| Type of Grade for Physical Education | Letter | Letter | Letter | Letter or P/F | Letter | Letter | Letter | Letter |
| Physical Education for Non-credit | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Proficiency Test | No No | No No | No No | No No | No No | Yes Yes | No No | No No |
| Credits Applied to Graduation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit for Athletics | No No | No No | Yes Yes | Yes Yes | Yes Yes | No No | Yes No | No No |
| Grades Apply to GPA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Credit Granted | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Table 31 (Continued)

| | CU | | | | CV | | | |
|--------------------------------------|-----------|----|-----------|----|-----------|----|-----------|----|
| | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | |
| | M | W | M | W | M | W | M | W |
| Type of Grade for Physical Education | Letter | | Letter | | Letter | | Letter | |
| Physical Education for Non-credit | Yes | | Yes | | Yes | | Yes | |
| Proficiency Test | No | No | No | No | No | No | No | No |
| Credits Applied to Graduation | Yes | | Yes | | Yes | | Yes | |
| Credit for Athletics | No | No | No | No | No | No | No | No |
| Grades Apply to GPA | Yes | | Yes | | Yes | | Yes | |
| Credit Granted | Yes | | Yes | | Yes | | Yes | |

Three others claimed that times were affected, and institution UC indicated that, while men's classes were not affected, those offered to women were.

Slight changes were observed concerning student surveys on a regular basis by the physical education department with regard to specific courses the students wanted made available to them. Three (42.86%) institutions did not survey students under either involuntary or voluntary physical education. Two (28.57%) schools in which neither the men's nor women's departments formerly conducted student surveys did so in voluntary programs. The men's department in institution UB discontinued the practice of surveying students and, while the men's department at school UC conducted surveys under both systems, the women's department did not (see Table 32).

Improved voluntary physical education programs at the universities in this study could possibly result if the various departments would increase activity in the area of surveys regarding courses the students would like made available to them. The college and University Physical Education Council, sponsored by the National Association for Sport and Physical Education, has recommended that program offerings should reflect input from students.¹⁰

¹⁰College and University Physical Education Council, Executive Committee of the National Association for Sport and Physical Education, "Standards for the General College Physical Education Program," Journal of Physical Education and Recreation, XLVI (September, 1975), 24-28.

Table 32

Activity Classes--Universities

| Institution | Periods Per Week | | | | Students Regularly Surveyed | | | |
|-------------|------------------|--------------|--------------|--------------|-----------------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | 2 | 2 | 2 | 2 | No | No | No | No |
| UB | 2 | 2 | 2 | 2 | Yes | No | na | na |
| UC | 2 | 2 | 2 | 2 | Yes | Yes | No | No |
| UD | 2 | 2 | 2 | 2 | No | No | No | No |
| UE | 2 | 2 | 2-3 | 2-3 | No | Yes | No | Yes |
| UF | 2 | 2 | 2 | 2 | No | Yes | No | Yes |
| UG | 2 | 2 | na | na | No | No | No | No |

^{na}Information not available

Data pertaining to whether students would take classes that were offered during the first period in the morning, during the lunch hour, or after 3:00 p.m. as readily under the voluntary program as under the involuntary program were gathered from seven institutions. Four (57.14%) schools claimed that students would not participate as readily in activity classes during the first period, while three (42.86%) said they would. All universities stated that students would take classes during the lunch hour, while only two (28.57%) responded that their students were not as ready to take classes after 3:00 p.m. in the voluntary program (see Table 33).

Table 33

Preferred Times for Classes--Universities

| Institution | First Period Morning | During Lunch Hour | After 3:00 p.m. |
|-------------|----------------------|-------------------|-----------------|
| UA | No | Yes | Yes |
| UB | No | Yes | Yes |
| UC | Yes | Yes | Yes |
| UD | Yes | Yes | Yes |
| UE | No | Yes | No |
| UF | Yes | Yes | No |
| UG | No | Yes | Yes |

Community Colleges

Under both involuntary and voluntary physical education programs, institutions most often offered basic instruction classes two periods per week. In the fall of 1971, 20 (90.91%) of the schools taught classes that met two hours per week, and, in the fall of 1975, 18 (81.82%) of the respondents met classes twice each week. Three (13.64%) community colleges met classes three periods weekly during the voluntary program, while only one (4.55%) had done this under the involuntary program (see Table 34).

In the fall of 1971, students at 13 (59.09%) community colleges were surveyed by the physical education departments on a regular basis with regard to specific courses they wanted made available to them. This figure rose slightly to 15 (68.18%) after voluntary programs were started (see Table 34). This trend toward the increased use of student surveys is encouraging and perhaps necessary in light of reductions in both faculty members and class enrollments at the community colleges of Illinois.

Opinion regarding the effect of voluntary physical education on the times that classes were offered was almost evenly divided among the responding community colleges. Ten (45.45%) felt that times had been affected, while 11 (50.00%) schools did not feel that the times that classes were offered were affected.

Table 34

Activity Classes--Community Colleges

| Institution | Periods Per Week | | | | Students Regularly Surveyed | | | |
|-------------|------------------|--------------|--------------|--------------|-----------------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CA | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CB | 2 | 2 | 2 | 2 | No | No | No | No |
| CC | 2 | 2 | 2 | 2 | No | No | No | No |
| CD | 2 | 3 | 2 | 3 | No | Yes | No | Yes |
| CE | 2 | 3 | 2 | 3 | No | na | No | na |
| CF | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CG | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CH | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CI | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CJ | 2 | 2 | 2 | 2 | No | Yes | No | Yes |
| CK | 3 | 3 | 3 | 3 | No | No | No | No |
| CL | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |

Table 34 (Continued)

| Institution | Periods Per Week | | | | Students Regularly Surveyed | | | |
|-------------|------------------|--------------|--------------|--------------|-----------------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CM | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CN | 1 | 1-2 | 1 | 1-2 | Yes | Yes | Yes | Yes |
| CO | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CP | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CQ | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CR | 2 | 2 | 2 | 2 | No | No | No | No |
| CS | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CT | 2 | 2 | 2 | 2 | No | No | No | No |
| CU | 2 | 2 | 2 | 2 | Yes | Yes | Yes | Yes |
| CV | 2 | 2 | 2 | 2 | No | No | No | No |

^{na} Information not available

Information regarding the readiness of students taking classes offered during the first period in the morning, during the lunch hour, or after 3:00 p.m. under the voluntary program indicated that at 15 (68.18%) schools students would not take first hour classes. A slightly larger number (72.73%) also stated that students did not like to take classes offered after 3:00 p.m. Students at 15 (68.18%) institutions would, however, take classes offered during the lunch hour (see Table 35).

PARTICIPATION IN ACTIVITY CLASSES

Universities

The effect of voluntary basic instruction programs on student participation was measured by data gathered on the approximate number of sections for various activities offered at the institutions.

Under the category of team sports, there was a 61.27 percent decrease in participation in those activities after the change to voluntary physical education. This change was determined to be significant (see Table 36).

Activities labeled as racquet sports suffered a decrease of 16.05 percent in the voluntary programs, although this shift was not found to be significant (see Table 36).

Rhythms and dance classes showed a slight but not significant increase of 3.92 percent in participation after

Table 35
Preferred Times for Classes--Community Colleges

| Institution | First Period Morning | During Lunch Hour | After 3:00 p.m. |
|-----------------|-------------------------|----------------------|--------------------|
| CA | No | Yes | No |
| CB ^b | | | |
| CC | No | Yes | No |
| CD | Yes | Yes | No |
| CE | No | Yes | No |
| CF | No | Yes | No |
| CG | Yes | Yes | No |
| CH ^a | | | |
| CI | No | Yes | Yes |
| CJ | No | No | No |
| CK | No | Yes | No |
| CL | No | Yes | No |
| CM | Yes | Yes | Yes |
| CN | No | Yes | No |
| CO | No | No | Yes |
| CP | No | No | No |
| CQ | Yes | Yes | Yes |
| CR | No | No | No |
| CS | No | Yes | No |
| CT | No | Yes | No |
| CU | No | No | No |
| CV | Yes | Yes | No |

^aAlways voluntary

^bNo response

the discontinuance of involuntary physical education, while aquatic activities experienced a significant decrease of 47.42 percent in the number of sections offered during the fall of 1975 (see Table 36).

Conditioning-type activities such as weight training and jogging and fitness classes were both offered in fewer sections in voluntary programs than in involuntary programs. A decrease of 33.33 percent in the number of sections of weight training classes was not significant, although the decrease of 76.92 percent in jogging and fitness classes was found to be significant (see Table 36).

Individual sports participation decreased slightly but not significantly during voluntary physical education, while the ice and winter sports decreased significantly from 28 sections offered in the fall of 1971 to 8 in the fall of 1975. The number of sections of corrective or adapted activities remained unchanged at the universities during both the involuntary and voluntary programs (see Table 36).

The total change in the approximate number of sections of activity classes offered at the universities responding to this item was found to be significant. A decrease from 618 sections in the fall of 1971 to 405 in the fall of 1975 represented a total decrease of 34.47 percent in student participation (see Table 36).

The findings of this study support those of Oxendine regarding a decrease in participation in team sports,¹¹ but do not substantiate the work of Nelson who found that after the adoption of voluntary physical education activities were added rather than curtailed.¹²

Community Colleges

Though not as great as at the universities, participation in team sports activity classes based upon the approximate number of sections offered decreased significantly among community colleges. A 28.85 percent decrease from the fall of 1971 to the fall of 1975 was observed in responding institutions (see Table 36).

Racquet sports increased significantly from 56 to 85 sections under voluntary programs, while rhythms and dance activities rose slightly but not significantly by 6.90 percent during this same period (see Table 36).

The number of sections offered in aquatics, weight training, and jogging and fitness also increased slightly under voluntary physical education programs, but these increases were not found to be significant (see Table 36).

Participation in individual sports increased by 4.07 percent after voluntary physical education and the number of

¹¹Oxendine, pp. 129-130.

¹²Nelson, pp. 104-105.

sections increased by 30.00 percent for ice and winter sports during the same period. Neither increase in participation in these activities, however, was found to be significant (see Table 36).

A decrease of 86.67 percent in the number of sections of corrective or adapted activities was reported by community colleges. This decrease after going to voluntary physical education was found to be significant (see Table 36).

Total participation in activity classes at community colleges increased slightly by 1.45 percent four years after the change from involuntary to voluntary physical education. This increase was not found to be significant (see Table 36).

Contrary to the effects of voluntary physical education on student participation in the universities of this study, the community colleges noted slight increases in activity class participation. A possible explanation for this increase could be the added efforts by community college physical educators to add a variety of classes in an attempt to attract more students and thus bolster sagging enrollment figures.

Combined University and Community College Participation

The approximate number of sections of activity classes reported by universities and community colleges for the fall of 1971 and the fall of 1975 were combined to

present a total picture for comparison of the effects of voluntary and involuntary physical education upon student participation.

The decrease of 47.56 percent in participation in team sports at both types of institutions was found to be significant, while the increase from 137 sections of racquet sports offered in the fall of 1971 to 153 for the fall of 1975 was not significant (see Table 36).

The 5.00 percent increase in the total combined sections of rhythms and dance classes offered at the schools was not significant, while the 28.48 percent decrease in aquatics was not significant, participation was significant (see Table 36).

Weight training activities decreased slightly but not significantly at universities and community colleges, although a similar decrease in jogging and fitness was significant (see Table 36).

Combined university and community college participation in individual sports decreased by only one section, from 257 in the fall of 1971 to 256 in the fall of 1975, and this decrease was not found to be significant (see Table 36).

The decrease in the number of sections offered in ice and winter sports and corrective or adapted activities was significant when combined university and community college totals for the involuntary period were compared with those of the voluntary period (see Table 36).

Table 36

Participation in Basic Instruction Programs According to
Numbers of Sections of Activities

| Activity | Institution | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------------------------|-----------------------|------------------|--------------|----------------------------|---|----|---------------------|
| | Universities | 142 ^f | 55 | 87 (61.27) ^g | 1 | 1 | 37.542 ^a |
| Team Sports | Community Colleges | 104 | 74 | 30 (28.85) | 1 | 1 | 4.724 ^b |
| | Combined | 246 | 129 | 117 (47.56) | 1 | 1 | 35.882 ^a |
| | Universities | 81 | 68 | 13 (16.05) | 1 | 1 | .966 ^c |
| Racquet Sports | Community Colleges | 56 | 85 | 29 (51.79) | 1 | 1 | 5.560 ^b |
| | Combined | 137 | 153 | 16 (11.68) | 1 | 1 | .776 ^c |
| | Universities | 51 | 53 | 2 (3.92) | 1 | 1 | .010 ^c |
| Rhythms and Dance Classes | Community Colleges | 29 | 31 | 2 (6.90) | 1 | 1 | .016 ^c |
| | Combined | 80 | 84 | 4 (5.00) | 1 | 1 | .054 ^c |

Table 36 (Continued)

| Activity | Institution | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------------------|-----------------------|--------------|--------------|---------------|---|----|---------------------|
| | Universities | 97 | 51 | 46 (47.42) | 1 | 1 | 13.682 ^a |
| Aquatics | Community Colleges | 61 | 62 | 1 (1.64) | 1 | 1 | 0.000 ^c |
| | Combined | 158 | 113 | 45 (28.48) | 1 | 1 | 7.144 ^d |
| | Universities | 39 | 26 | 13 (33.33) | 1 | 1 | 2.216 ^c |
| Weight Training | Community Colleges | 46 | 53 | 7 (15.22) | 1 | 1 | .364 ^c |
| | Combined | 85 | 79 | 6 (7.06) | 1 | 1 | .152 ^c |
| | Universities | 39 | 9 | 30 (76.92) | 1 | 1 | 17.520 ^a |
| Jogging and Fitness | Community Colleges | 40 | 43 | 3 (7.50) | 1 | 1 | .048 ^c |
| | Combined | 79 | 52 | 27 (34.18) | 1 | 1 | 5.160 ^b |

Table 36 (Continued)

| Activity | Institution | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|--------------------------|-----------------------|--------------|--------------|---------------|---|----|---------------------|
| | Universities | 134 | 128 | 6 (4.48) | 1 | 1 | .096 ^c |
| Individual Sports | Community Colleges | 123 | 128 | 5 (4.07) | 1 | 1 | .064 ^c |
| | Combined | 257 | 256 | 1 (.39) | 1 | 1 | .000 ^c |
| | Universities | 28 | 8 | 20 (71.43) | 1 | 1 | 10.028 ^e |
| Ice and Winter Sports | Community Colleges | 10 | 13 | 3 (30.00) | 1 | 1 | .174 ^c |
| | Combined | 38 | 21 | 17 (44.74) | 1 | 1 | 4.338 ^b |
| | Universities | 7 | 7 | 0 (0.00) | 1 | 1 | 0.000 ^c |
| Corrective or Adapted | Community Colleges | 15 | 2 | 13 (86.67) | 1 | 1 | 8.470 ^e |
| | Combined | 22 | 9 | 13 (59.10) | 1 | 1 | 4.646 ^b |

Table 36 (Continued)

| Activity | Institution | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|----------|-----------------------|--------------|--------------|----------------|---|----|---------------------|
| Total | Universities | 618 | 405 | 213 (34.47) | 1 | 1 | 44.348 ^a |
| | Community Colleges | 484 | 491 | 7 (1.45) | 1 | 1 | .050 ^c |
| | Combined | 1,102 | 896 | 206 (18.69) | 1 | 1 | 21.238 ^a |

^aSignificant at .0005 level

^bSignificant at .05 level

^cNot significant

^dSignificant at .01 level

^eSignificant at .005 level

^fN in table

^gPercent in table

A comparison of combined totals revealed that 1,102 sections of activity classes were offered in the fall of 1971 and that this figure decreased to 896 (18.69%) in the fall of 1975. The reduction in participation in activity classes as measured by the approximate number of sections offered for each period was found to be significant (see Table 36).

EVALUATION PROCEDURES

Universities

Little change among universities was observed concerning schools requiring written final examinations for all basic instruction courses. No change occurred at four (57.14%) schools, while institution UF, which had previously maintained such requirements in both the men's and women's departments during involuntary physical education, discontinued the practice after voluntary programs were established. No data were provided for the involuntary period at institution UA, but under the voluntary system no written examinations were required. At school UG, the women's department required written examinations during both periods, while the men started this requirement after the establishment of voluntary physical education (see Table 37).

No changes for universities requiring physical performance examinations (fitness and/or skills) were

reported after the change to voluntary basic instruction programs (see Table 37).

Five (71.43%) men's physical education departments reported that they had a policy regarding student evaluation of instructors under the voluntary program. Data provided for the involuntary period indicated that, for the six schools responding to the question, all except institution UF had previously had this policy. Institution UG did not provide information for the fall of 1971 (see Table 37).

Six (100.00%) reporting women's departments indicated that their departments had a policy concerning student evaluation of instructors during the fall of 1975. All except school UF had also maintained this policy in the fall of 1971 (see Table 37).

Information concerning the use of faculty evaluations by students by the physical education departments indicated that only institution UG used them in the fall of 1975 after having not used them in the fall of 1971. Two universities practiced this policy under both programs, while a like number did not in either period. The women's department at institution UE used these evaluations in determining the faculty members' annual merit rating in both periods, and school UB's men's department did not (see Table 37).

Table 37

Evaluation Procedures--Universities

| | UA | | UB | | UC | | UD | | | | | | |
|----------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----|-----|-----|-----|-----|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | | | | | |
| | M | W | M | W | M | W | M | W | | | | | |
| Required Written Final Exams | na | na | No | No | Yes | na | Yes | No | Yes | Yes | Yes | No | No |
| Physical Performance Exams Required | na | na | No | No | No | na | No | na | Yes | Yes | Yes | Yes | Yes |
| Student Evaluation of Instructors | Yes | Yes | Yes | Yes | No | na | No | na | Yes | Yes | Yes | Yes | Yes |
| Evaluations Used in Merit Rating | Yes | Yes | Yes | Yes | No | na | No | na | Yes | Yes | Yes | Yes | No |

Table 37 (Continued)

| | UE | | | | UF | | | | UG | | | | |
|-------------------------------------|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----|
| | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | | |
| | M | W | M | W | M | W | M | W | M | W | M | W | |
| Required Written Final Exams | No | No | No | No | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes |
| Physical Performance Exams Required | No | No | No | No | No | No | No | No | na | Yes | Yes | Yes | Yes |
| Student Evaluation of Instructors | No | Yes | No | Yes | No | No | Yes | Yes | na | na | Yes | Yes | Yes |
| Evaluations Used in Merit Rating | na | Yes | na | Yes | No | No | No | No | No | No | Yes | Yes | Yes |

^{na}Information not available

Community Colleges

A trend away from requiring written final examinations for all basic instruction courses under voluntary physical education programs was observed in 11 (50.00%) reporting community colleges. Under the involuntary programs, 14 (63.64%) institutions had maintained this requirement (see Table 38).

Little change was reported regarding the requirement of physical performance examinations in all basic instruction courses after the adoption of voluntary physical education. Sixteen (72.73%) schools required fitness and/or skills tests in the fall of 1975 (see Table 38).

The number of institutions whose physical education departments had a policy regarding student evaluation of instructors increased from 7 (31.82%) in the fall of 1971 to 14 (63.64%) in the fall of 1975. Although there was an increase in the number of schools having the policy of faculty evaluations by students, 81.82 percent of the schools stated that they were not used by the department in determining the faculty members' annual merit rating in the fall of 1975 (see Table 38).

COSTS OF OPERATION

Universities

The costs of operation for physical education, intercollegiate athletics, and intramural sports for both

Table 38

Evaluation Procedures—Community Colleges

| | CA | | CB | | | | CC | | | | CD | | | | | |
|--------------------------------------------|-----------|-----|-----------|-----|-----------|----|-----------|----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | |
| | M | W | M | W | M | W | M | W | M | W | M | W | M | W | M | W |
| Required Written Final Exams | Yes | Yes | Yes | Yes | No | No | No | No | No | No | No | No | No | No | No | No |
| Physical Performance Exams Required | Yes | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Student Evaluation of Instructors | No | No | Yes | Yes | No | No | No | No | No | No | No | No | No | No | Yes | Yes |
| Evaluations Used in Merit Rating | na | na | Yes | Yes | No | No | No | No | No | No | No | No | No | No | No | No |

Table 38 (Continued)

| | CE | | CF | | CG | | CH | | | | | | | |
|-------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----|-----|-----|-----|----|----|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | | | | | | |
| | M | W | M | W | M | W | M | W | | | | | | |
| Required Written Final Exams | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | | |
| Physical Performance Exams Required | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | |
| Student Evaluation of Instructors | na | na | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | | |
| Evaluations Used in Merit Rating | na | na | No | No | No | No | na | na | No | No | Yes | Yes | No | No |

Table 38 (Continued)

| | CI | | CJ | | CK | | CL | |
|----------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| | M | W | M | W | M | W | M | W |
| Required Written Final Exams | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Physical Performance Exams Required | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Student Evaluation of Instructors | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Evaluations Used in Merit Rating | Yes | Yes | Yes | Yes | No | No | No | No |

Table 38 (Continued)

| | CM | | CN | | CO | | CP | | | | | | | | | |
|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | | | | | | | | |
| | M | W | M | W | M | W | M | W | | | | | | | | |
| Required Written Final Exams | Yes | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes | Yes | No | No | No | No |
| Physical Performance Exams Required | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Student Evaluation of Instructors | Yes | Yes | Yes | Yes | No | No | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Evaluations Used in Merit Rating | No | No | No | No | No | No | No | No | na | na | No | No | No | No | No | No |

Table 38 (Continued)

| | CQ | | CR | | CS | | CT | | | | | | |
|----------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----|-----|----|----|----|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | | | | | |
| | M | W | M | W | M | W | M | W | | | | | |
| Required Written Final Exams | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | |
| Physical Performance Exams Required | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No |
| Student Evaluation of Instructors | Yes | Yes | Yes | Yes | No | No | No | No | No | No | No | No | No |
| Evaluations Used in Merit Rating | No | No | No | No | No | No | No | No | na | na | na | na | No |

Table 38 (Continued)

| | CU | | | | CV | | | |
|-------------------------------------|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| | Fall 1971 | | Fall 1975 | | Fall 1971 | | Fall 1975 | |
| | M | W | M | W | M | W | M | W |
| Required Written Final Exams | Yes | Yes | Yes | Yes | No | No | No | No |
| Physical Performance Exams Required | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Student Evaluation of Instructors | No | No | No | No | No | No | No | No |
| Evaluations Used in Merit Rating | No | No | No | No | No | No | No | No |

^{na} Information not available

men and women were received from only one (14.29%) university. Two (28.57%) institutions did not respond to the item, and partial data were collected from the remaining four (57.14%) schools. Due to the incomplete data, the decision was made to analyze each category on a school-to-school basis rather than according to totals reported by all schools.

The physical education budget at institution UA was reduced significantly from \$55,810 in 1971-1972 to \$43,905 in 1975-1976. No information concerning intercollegiate athletics or intramural sports was provided (see Table 39).

The budget for men's intercollegiate athletics at school UB was reduced by 15.38 percent in 1975-1976 from figures reported for the earlier period. This reduction of \$100,000 was found to be significant. No other information for this university was available for analysis (see Table 39).

Institution UC reported a significant reduction of 26.67 percent in the physical education budget under the voluntary physical education program. Data concerning intercollegiate athletics and intramural sports were not provided (see Table 39).

Both the physical education and intercollegiate athletic budgets for the men's department at school UD showed significant increases of 15.38 percent and 25.00 percent, respectively, in the fall of 1975. Intramural

sports budget data were not provided for examination (see Table 39).

Schools UE and UG did not respond to any items, but institution UF provided complete information for all categories except men's physical education. Increases in budgets for all categories were found to be significant, with large increases in intercollegiate athletics and intramural sports (see Table 39).

Community Colleges

A comparison of changes in physical education budgets after voluntary physical education revealed that, for 18 (81.82%) community colleges reporting information, 16 (88.89%) noted increases, 1 (5.56%) observed no changes, and 1 (5.56%) reported a budget decrease. All budget increases were found to be significant as was the one budget decrease (see Table 40).

The category for intercollegiate athletics was analyzed whenever possible according to men's budgets, women's budgets, and combined men's and women's budgets. Data revealed that at nine schools 77.78 percent had significant budget increases in 1975-1976 as compared to 1971-1972. Two (22.22%) reported significant decreases for the same period (see Table 40).

Table 39
Cost of Operations for Universities

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|-------------------------------------|------------------------|--------------|-----------------------------------|---|----|------------------------|
| | Physical Education | \$ 55,810 ^b | \$ 43,905 | \$ 11,905 (21.33) ^c | 1 | 1 | 1,421.102 ^a |
| UA | Athletics ^{na} | | | | | | |
| | Intramurals ^{na} | | | | | | |
| | Physical Education ^{na} | | | | | | |
| UB | Athletics— Men | 650,000 | 550,000 | 100,000 (15.38) | 1 | 1 | 8,333.166 ^a |
| | Intramurals ^{na} | | | | | | |
| | Physical Education | 30,000 | 22,000 | 8,000 (26.67) | 1 | 1 | 1,230.462 ^a |
| UC | Athletics ^{na} | | | | | | |
| | Intramurals ^{na} | | | | | | |

Table 39 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | X ² |
|------------------|------------------------------|--------------|--------------|----------------------|---|----|-------------------------|
| | Physical Education--Men | \$650,000 | \$750,000 | \$100,000 (15.38) | 1 | 1 | 7,142.714 ^a |
| UD | Athletics--Men | 280,000 | 350,000 | 70,000 (25.00) | 1 | 1 | 7,556.924 ^a |
| | Intramurals ^{na} | | | | | | |
| UE ^{na} | | | | | | | |
| | Physical Education--Women | 15,455 | 22,615 | 7,160 (46.33) | 1 | 1 | 1,346.238 ^a |
| UF | Athletics--Men | 350,000 | 482,311 | 132,311 (37.80) | 1 | 1 | 21,032.926 ^a |
| | Athletics--Women | 0 | 45,593 | | 1 | 1 | 45,591.000 ^a |
| | Athletics--Total | 350,000 | 527,904 | 177,904 (50.83) | 1 | 1 | 36,051.182 ^a |
| | Intramurals | 13,500 | 74,894 | 61,394 (454.77) | 1 | 1 | 42,639.778 ^a |
| UG ^{na} | | | | | | | |

^aSignificant at .0005 level

^bN in table in dollars

^cPercent in table

^{na}Information not available

Women's intercollegiate athletic budgets increased at eight responding institutions, with seven (87.50%) of the increases found to be significant (see Table 40).

Information for total intercollegiate athletic budgets was analyzed from data gathered from 17 schools. At institution CD, no change in the budget between the fall of 1971 and 1975 was observed. No community colleges reported total budget decreases for the 1975 period, while 16 (94.12%) of those reporting total budget data for intercollegiate athletics noted significant increases (see Table 40).

The budgets of intramural sports (see Table 40) at the 14 community colleges that provided data were significantly increased after the adoption of voluntary physical education.

The contention by Nelson that budgets for physical education, athletic, and intramural departments are not reduced after the change to voluntary physical education was supported by these findings with regard to community colleges. Speculation that reported budget increases did not keep pace with school enrollment increases and economic inflation may, however, be justified on the basis of these latter extraneous factors.

Table 40

Cost of Operations for Community Colleges

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|---------------------------|------------------------|--------------|---------------------------------|---|----|------------------------|
| | Physical Education | \$118,216 ^e | \$126,750 | \$ 8,534 ^f (7.22) | 1 | 1 | 297.234 ^a |
| CA | Athletics | 62,852 | 95,900 | 33,048 (52.58) | 1 | 1 | 6,879.720 ^a |
| | Intramurals | 8,020 | 8,500 | 480 (5.99) | 1 | 1 | 13.888 ^a |
| | Physical Education | 10,000 | 19,000 | 9,000 (90.00) | 1 | 1 | 2,792.482 ^a |
| CB | Athletics | 35,000 | 65,000 | 30,000 (85.71) | 1 | 1 | 8,999.400 ^a |
| | Intramurals | 2,500 | 8,500 | 6,000 (240.00) | 1 | 1 | 3,271.636 ^a |
| | Physical Education | 26,319 | 27,210 | 891 (3.39) | 1 | 1 | 14.798 ^a |
| CC | Athletics ^{na} | | | | | | |
| | Intramurals ^{na} | | | | | | |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|---------------------------|--------------|--------------|---------------------|---|----|------------------------|
| CD | Physical Education | \$ 5,000 | \$ 9,000 | \$ 4,000 (80.00) | 1 | 1 | 1,142.286 ^a |
| | Athletics--Men | 20,000 | 17,000 | 3,000 (15.00) | 1 | 1 | 243.082 ^a |
| | Athletics--Women | 0 | 3,000 | 3,000 (3,000.00) | 1 | 1 | 2,998.000 ^a |
| | Athletics--Total | 20,000 | 20,000 | 0 | 1 | 1 | 0.000 ^b |
| CE | Intramurals ^{na} | | | | | | |
| | Physical Education | 9,400 | 11,800 | 2,400 (25.53) | 1 | 1 | 271.472 ^a |
| | Athletics--Men | 9,000 | 25,000 | 16,000 (177.78) | 1 | 1 | 7,528.470 ^a |
| | Athletics--Women | 100 | 2,400 | 2,300 (2,300.00) | 1 | 1 | 2,114.160 ^a |
| | Athletics--Total | 9,100 | 27,400 | 18,300 (201.10) | | | 9,174.060 ^a |
| | Intramurals | 700 | 1,400 | 700 (100.00) | 1 | 1 | 232.666 ^a |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|---------------------------|--------------|--------------|---------------------|---|----|------------------------|
| | Physical Education | \$ 2,000 | \$ 3,500 | \$ 1,500 (75.00) | 1 | 1 | 408.546 ^a |
| CF | Athletics | 29,000 | 59,000 | 30,000 (103.45) | 1 | 1 | 10,226.59 ^a |
| | Intramurals ^{na} | | | | | | |
| | Physical Education | 8,900 | 10,227 | 1,327 (14.91) | 1 | 1 | 91.926 ^a |
| CG | Athletics--Men | 30,490 | 31,765 | 1,275 (4.18) | 1 | 1 | 26.072 ^a |
| | Athletics--Women | 2,354 | 2,435 | 81 (3.44) | 1 | 1 | 1.336 ^b |
| | Athletics--Total | 32,844 | 34,200 | 1,356 (4.13) | 1 | 1 | 27.386 ^a |
| | Intramurals | 3,200 | 3,761 | 561 (17.53) | 1 | 1 | 45.050 ^a |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------------|-----------------------|--------------|--------------|---------------------|---|----|------------------------|
| | Physical Education | \$ 5,812 | \$ 10,742 | \$ 4,930 (84.82) | 1 | 1 | 1,467.672 ^a |
| CH | Athletics | 23,105 | 31,655 | 8,550 (37.00) | 1 | 1 | 1,334.65 ^a |
| | Intramurals | 2,600 | 5,000 | 2,400 (92.31) | 1 | 1 | 757.262 ^a |
| CI ^{na} | Physical Education | 115,000 | 127,000 | 12,000 (10.43) | 1 | 1 | 594.942 ^a |
| CJ | Athletics | 45,000 | 60,000 | 15,000 (33.33) | 1 | 1 | 2,142.570 ^a |
| | Intramurals | 1,000 | 2,000 | 1,000 (100.00) | 1 | 1 | 332.668 ^a |
| | Physical Education | 4,000 | 3,000 | 1,000 (25.00) | 1 | 1 | 142.572 ^a |
| CK | Athletics—Men | 9,000 | 8,000 | 1,000 (11.11) | 1 | 1 | 58.706 ^a |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|---------------------------|--------------|--------------|------------------------|---|----|-------------------------|
| | Athletics--Women | \$ 500 | \$ 6,000 | \$ 5,500 (1,100.00) | 1 | 1 | 4,652.154 ^a |
| | Athletics--Total | 9,500 | 14,000 | 4,500 (47.37) | 1 | 1 | 861.320 ^a |
| | Intramurals | 700 | 200 | 500 (71.43) | 1 | 1 | 276.668 ^a |
| | Physical Education | 48,906 | 99,909 | 51,003 (104.29) | 1 | 1 | 17,479.448 ^a |
| CL | Athletics | 30,964 | 35,517 | 4,553 (14.70) | 1 | 1 | 311.678 ^a |
| | Intramurals ^{na} | | | | | | |
| | Physical Education | 4,000 | 5,000 | 1,000 (25.00) | 1 | 1 | 110.890 ^a |
| CM | Athletics | 19,421 | 22,611 | 3,190 (16.43) | 1 | 1 | 241.952 ^a |
| | Intramurals | 1,500 | 2,300 | 800 (53.33) | 1 | 1 | 168.000 ^a |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|------------------|-----------------------|--------------|--------------|--------------------|---|----|------------------------|
| | Physical Education | \$ 6,000 | \$ 6,000 | 0 (0.00) | 1 | 1 | 0.000 ^b |
| CN | Athletics | 8,000 | 21,000 | 13,000 (162.50) | 1 | 1 | 5,826.690 ^a |
| | Intramurals | 3,000 | 4,500 | 1,500 (50.00) | 1 | 1 | 298.000 ^a |
| CO ^{na} | | | | | | | |
| | Physical Education | 1,000 | 1,500 | 500 (50.00) | 1 | 1 | 99.600 ^a |
| CP | Athletics--Men | 1,000 | 1,500 | 500 (50.00) | 1 | 1 | 99.600 ^a |
| | Intramurals | 500 | 600 | 100 (20.00) | 1 | 1 | 8.910 ^c |
| CQ ^{na} | | | | | | | |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|-------------------------------------|--------------|--------------|---------------------|---|----|-------------------------|
| | Physical Education | \$ 4,500 | \$ 6,600 | \$ 2,100 (46.67) | 1 | 1 | 396.920 ^a |
| | Athletics--Men | 8,000 | 14,697 | 6,697 (83.71) | 1 | 1 | 1,975.434 ^a |
| CR | Athletics--Women | 0 | 5,908 | 5,908 | 1 | 1 | 5,906.000 ^a |
| | Athletics Total | 8,000 | 20,605 | 12,605 (157.56) | 1 | 1 | 5,553.604 ^a |
| | Intramurals | 300 | 937 | 637 (212.33) | 1 | 1 | 326.998 ^a |
| | Physical Education ^{na} | | | | | | |
| CS | Athletics | 30,000 | 73,000 | 43,000 (143.33) | 1 | 1 | 17,950.622 ^a |
| | Intramurals ^{na} | | | | | | |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | χ^2 |
|-------------|-----------------------|--------------|--------------|-------------------|---|----|------------------------|
| CT | Physical Education | \$ 600 | \$ 1,000 | \$ 400 (66.67) | 1 | 1 | 99.500 ^a |
| | Athletics--Men | 12,000 | 17,500 | 5,500 (45.83) | 1 | 1 | 1,025.050 ^a |
| | Athletics--Women | 0 | 3,000 | 3,000 | 1 | 1 | 2,998.000 ^a |
| | Athletics--Total | 12,000 | 20,500 | 8,500 (70.83) | 1 | 1 | 2,222.554 ^a |
| | Intramurals | 1,000 | 1,200 | 200 (20.00) | 1 | 1 | 18.000 ^a |
| CU | Physical Education | 6,000 | 10,000 | 4,000 (66.67) | 1 | 1 | 999.500 ^a |
| | Athletics--Men | 5,500 | 8,500 | 3,000 (54.55) | 1 | 1 | 642.428 ^a |
| | Athletics--Women | 4,000 | 7,000 | 3,000 (75.00) | 1 | 1 | 817.636 ^a |
| | Athletics--Total | 9,500 | 15,500 | 6,000 (63.16) | 1 | 1 | 1,439.520 ^a |
| | Intramurals | 1,000 | 2,000 | 1,000 (100.00) | 1 | 1 | 332.668 ^a |

Table 40 (Continued)

| Institution | Department | Fall 1971 | Fall 1975 | Change | N | df | X ² |
|-------------|-----------------------|--------------|--------------|--------------------|---|----|------------------------|
| CV | Physical Education | \$ 2,620 | \$ 2,800 | \$ 180 (6.87) | 1 | 1 | 5.912 ^d |
| | Athletics--Men | 11,000 | 16,548 | 5,548 (50.44) | 1 | 1 | 1,116.930 ^a |
| | Athletics--Women | 0 | 8,000 | 8,000 | 1 | 1 | 7,998.000 ^a |
| | Athletics--Total | 11,000 | 24,548 | 13,548 (123.16) | 1 | 1 | 5,162.632 ^a |
| | Intramurals | 200 | 500 | 300 (150.00) | 1 | 1 | 131.716 ^a |

^aSignificant at .0005 level

^bNot Significant

^cSignificant at .005 level

^dSignificant at .05 level

^eN in talbe in dollars

^fPercent in table

^{na}Information not available

INTERCOLLEGIATE ATHLETICS

Universities

The role of intercollegiate athletics for the universities was analyzed according to the number of different athletic teams offered to students under involuntary and voluntary physical education.

During the 1971-1972 school year, a total of 65 men's teams were reported as competing in various intercollegiate athletic activities. In 1975-1976, this figure had been reduced to 58 (10.77%). Among the activities that were discontinued between the two periods was one team each for football, wrestling, fencing, and golf. Three (100.00%) water polo teams were discontinued at this time. No universities added new men's intercollegiate teams (see Table 41).

A growth of 35.48 percent, from 31 teams in 1971-1972 to 42 in 1975-1976, was observed in women's intercollegiate athletic teams. All athletic teams increased except fencing, which was discontinued at two schools (see Table 41).

Community Colleges

A slight increase of 3.03 percent was observed at the community college level in the area of men's intercollegiate athletics. During the 1971-1972 academic year, 132 teams competed, while 136 did so in 1975-1976. Cross-country

Table 41

University Intercollegiate Athletics

| Sport | Men | | | | Women | | | |
|---------------|---------|---------|--------|---------|---------|---------|--------|---------|
| | Year | | Change | | Year | | Change | |
| | 1971-72 | 1975-76 | Number | Percent | 1971-72 | 1975-76 | Number | Percent |
| Football | 5 | 4 | 1 | 20.00 | 0 | 0 | 0 | 0.00 |
| Cross-country | 6 | 6 | 0 | 0.00 | 0 | 1 | 1 | |
| Soccer | 4 | 4 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Field Hockey | 0 | 0 | 0 | 0.00 | 4 | 4 | 0 | 0.00 |
| Basketball | 6 | 6 | 0 | 0.00 | 4 | 5 | 1 | 25.00 |
| Volleyball | 0 | 0 | 0 | 0.00 | 4 | 4 | 0 | 0.00 |
| Swimming | 5 | 5 | 0 | 0.00 | 2 | 4 | 2 | 100.00 |
| Wrestling | 6 | 5 | 1 | 16.67 | 0 | 0 | 0 | 0.00 |
| Gymnastics | 5 | 5 | 0 | 0.00 | 2 | 4 | 2 | 100.00 |
| Water Polo | 3 | 0 | 3 | 100.00 | 0 | 0 | 0 | 0.00 |
| Badminton | 0 | 0 | 0 | 0.00 | 2 | 3 | 1 | 50.00 |
| Fencing | 2 | 1 | 1 | 50.00 | 2 | 0 | 2 | 100.00 |

Table 41 (Continued)

| Sport | Men | | | | Women | | | |
|-----------------|---------|---------|--------|---------|---------|---------|--------|---------|
| | Year | | Change | | Year | | Change | |
| | 1971-72 | 1975-76 | Number | Percent | 1971-72 | 1975-76 | Number | Percent |
| Baseball | 6 | 6 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Softball | 0 | 0 | 0 | 0.00 | 4 | 5 | 1 | 25.00 |
| Tennis | 5 | 5 | 0 | 0.00 | 3 | 4 | 1 | 33.33 |
| Golf | 6 | 5 | 1 | 16.67 | 2 | 4 | 2 | 100.00 |
| Track and Field | 6 | 6 | 0 | 0.00 | 2 | 4 | 2 | 100.00 |
| Others | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Total | 65 | 58 | 7 | 10.77 | 31 | 42 | 11 | 35.48 |

participation decreased at three (20.00%) schools, while swimming was dropped at two (40.00%) schools (see Table 42).

A dramatic increase in intercollegiate athletics for women occurred between 1971-1972 and 1975-1976. The number of basketball, volleyball, and softball teams increased by 11 (220.00%), 12 (240.00%), and 10 (333.33%), respectively, during this period. The total increase in the number of women's teams was 56 (266.67%) for the period (see Table 42).

Previous findings by Hodges regarding the popularity of basketball, baseball, and football, among men, and basketball, volleyball, and tennis, among women, at the community college level were closely substantiated by this study.¹³ Wrestling and tennis, for men, and gymnastics and softball, for women, were also found to be popular intercollegiate sports in this study. The outstanding feature, however, in both the universities and community colleges that participated in this study was the increase in activity among women's sports. The effects of Title IX no doubt played an important role in this growth.

¹³Hodges, pp. 13-15.

Table 42

Community College Intercollegiate Athletics

| Sport | Men | | | | Women | | | |
|---------------|---------|---------|--------|---------|---------|---------|--------|---------|
| | Year | | Change | | Year | | Change | |
| | 1971-72 | 1975-76 | Number | Percent | 1971-72 | 1975-76 | Number | Percent |
| Football | 8 | 8 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Cross-country | 15 | 12 | 3 | 20.00 | 1 | 2 | 1 | 100.00 |
| Soccer | 2 | 4 | 2 | 100.00 | 0 | 0 | 0 | 0.00 |
| Field Hockey | 0 | 0 | 0 | 0.00 | 2 | 0 | 2 | 100.00 |
| Basketball | 21 | 21 | 0 | 0.00 | 5 | 16 | 11 | 220.00 |
| Volleyball | 1 | 2 | 1 | 100.00 | 5 | 17 | 12 | 240.00 |
| Swimming | 5 | 3 | 2 | 40.00 | 0 | 2 | 2 | |
| Wrestling | 12 | 13 | 1 | 8.33 | 0 | 0 | 0 | 0.00 |
| Gymnastics | 2 | 3 | 1 | 50.00 | 2 | 6 | 4 | 200.00 |
| Water Polo | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Badminton | 0 | 0 | 0 | 0.00 | 0 | 2 | 2 | |
| Fencing | 0 | 0 | 0 | 0.00 | 1 | 1 | 0 | 0.00 |

Table 42 (Continued)

| Sport | Men | | | | Women | | | |
|-----------------|---------|---------|--------|---------|---------|---------|--------|----------|
| | Year | | Change | | Year | | Change | |
| | 1971-72 | 1975-76 | Number | Percent | 1971-72 | 1975-76 | Number | Percent |
| Baseball | 20 | 20 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| Softball | 0 | 0 | 0 | 0.00 | 3 | 13 | 10 | 333.33 |
| Tennis | 15 | 18 | 3 | 20.00 | 1 | 14 | 13 | 1,330.00 |
| Golf | 17 | 17 | 0 | 0.00 | 1 | 3 | 2 | 200.00 |
| Track and Field | 11 | 11 | 0 | 0.00 | 0 | 1 | 1 | |
| Ice Hockey | 3 | 4 | 1 | 33.33 | 0 | 0 | 0 | 0.00 |
| Total | 132 | 136 | 4 | 3.03 | 21 | 77 | 56 | 266.67 |

INTRAMURAL SPORTS AND FREE PLAY

Universities

The average number of hours per day that intramural sports and free play facilities were available to students was observed to have risen during voluntary physical education programs. Institutions UA and UG did not provide information, but data gathered from four (57.14%) schools indicated increases in the availability of facilities at three (75.00%) and no change at one university (see Table 43).

Supervision was provided during free play and non-competitive activities for both men and women during the involuntary and voluntary periods. Institution UA did not respond to the item. In most schools, the supervision was provided by students hired by the intramural departments, graduate students, or recreation department personnel (see Table 43).

No institutions provided complete data concerning specific activities offered during the school year, while two (28.57%) schools provided information regarding the number of students who participated in the intramural sports programs during 1971-1972 and 1975-1976. Examination of the data revealed increases at both universities (see Table 44).

Only two (28.57%) institutions responded to the item dealing with the resolution of the problem of meeting

Table 43

Intramural Sports and Free Play--Universities

| Institution | Hours/Day Facilities Available | | | | Supervision Provided | | | |
|-------------|--------------------------------|--------------|--------------|--------------|----------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | na | na | na | na | Yes | Yes | Yes | Yes |
| UB | 6 | 6 | 6 | 6 | Yes | Yes | na | na |
| UC | na | na | na | 8 | No | No | No | No |
| UD | 4 | 6 | 4 | 6 | No | No | No | No |
| UE | 8 | 12 | ^a | 15.5 | Yes | Yes | No | Yes |
| UF | 4 | 12 | 4 | 12 | No | No | No | No |
| UG | na | na | na | na | Yes | Yes | Yes | Yes |

^aNo facilities

na Information not available

faculty and student demands for activities and facilities that are difficult to meet. Institution UE noted a conflict with boys wanting to play basketball and girls wanting a variety of activities. A lack of indoor tennis and racquetball courts was also cited as being a problem at school UE. Institution UF stated a need for a permanent building as the chief problem for adding new activities to the program.

Table 44
University Student Intramural
Sports Participation

| Institution | 1971-72 | | 1975-76 | |
|------------------|---------|-------|---------|-------|
| | Men | Women | Men | Women |
| UA ^{na} | | | | |
| UB ^{na} | | | | |
| UC | na | na | na | 5,000 |
| UD | 5,000 | 150 | 7,000 | 700 |
| UE ^{na} | | | | |
| Uf | 2,372 | 165 | 3,500 | 1,100 |
| Total | 7,372 | 315 | 10,500 | 6,800 |

^{na}Information not available

Community Colleges

Institutions were observed to have generally increased the average number of hours per day that facilities were available to students (see Table 45).

A slight increase in supervision for free play and non-competitive activities was indicated after the establishment of voluntary physical education. Ten (45.45%) responding institutions provided supervision in 1971-1972 and 11 (50.00%) offered supervision in 1975-1976 (see Table 45). Intramural personnel and physical education instructors were most often mentioned as providing the supervision for these activities.

A comparison of data for 1971-1972 and 1975-1976 revealed that, at the community college level, those who responded to the item concerning activities offered during the school year noted increases from a total of 169 activities to 273 (see Table 46).

Participation in the intramural sports programs increased by 53.16 percent under voluntary physical education. Male participation rose by 69.73 percent and female participation by 39.41 percent during this time (see Table 47).

The observed trend toward increased participation in intramural sports and the simultaneous decrease in participation in basic instruction classes in community colleges apparently adds support to Mallett's earlier prediction that intramural programs would fill the void left

Table 45

Intramural Sports and Free Play--Community Colleges

| Institution | Hours/Day Facilities Available | | | | Supervision Provided | | | |
|-------------|--------------------------------|----------------|----------------|----------------|----------------------|--------------|--------------|--------------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CA | 5 | 3 | 5 | 3 | Yes | Yes | Yes | Yes |
| CB | 1 | 1 | 1 | 1 | No | Yes | No | Yes |
| CC | 10 | 10 | 10 | 10 | na | na | na | na |
| CD | 10 | 14 | 10 | 14 | Yes | Yes | Yes | Yes |
| CE | 2 | 1 | 2 | 2 | Yes | Yes | Yes | Yes |
| CF | a | 3 | a | 3 | na | No | na | No |
| CG | 2.5 | 4 | 2.5 | 4 | No | No | No | No |
| CH | 3 | 3 | 3 | 3 | Yes | Yes | Yes | Yes |
| CI | na | 1 | na | 1 | Yes | Yes | Yes | Yes |
| CJ | 4 | 4 | 4 | 4 | No | No | No | No |
| CK | 1 ^a | 1 ^a | 1 ^a | 1 ^a | Yes | Yes | Yes | Yes |
| CL | 3 | 6-7 | 3 | 6-7 | No | No | No | No |

Table 45 (Continued)

| Institution | Hours/Day Facilities Available | | | | Supervision Provided | | | |
|-----------------|--------------------------------|-----------|-----------|-----------|----------------------|-----------|-----------|-----------|
| | Men | | Women | | Men | | Women | |
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CM | 5 | 8 | 5 | 8 | No | No | No | No |
| CN | 5 | 5 | 5 | 5 | Yes | Yes | Yes | Yes |
| CO | a | 3 | a | 3 | na | na | na | na |
| CP | 5 | 5 | 5 | 5 | Yes | Yes | Yes | Yes |
| CQ | na | na | na | na | na | na | na | na |
| CR | a | 3 | a | 3 | na | No | na | No |
| CS | No | No | No | No | No | No | No | No |
| CT ^b | | | | | | | | |
| CU | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| CV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

^aNo program

^bNo facilities

^{na}Information not available

Table 46

Community College Intramural Activities

| Activity | 1971-1972 | | | 1975-1976 | | |
|----------------|-----------|-------|-------|-----------|-------|-------|
| | Men | Women | Total | Men | Women | Total |
| Soccer | 2 | 0 | 2 | 3 | 1 | 4 |
| Touch Football | 5 | 0 | 5 | 5 | 0 | 5 |
| Golf | 7 | 4 | 11 | 9 | 7 | 16 |
| Tennis | 8 | 5 | 13 | 16 | 14 | 30 |
| Basketball | 15 | 5 | 20 | 19 | 11 | 30 |
| Billiards | 1 | 1 | 2 | 3 | 3 | 6 |
| Bowling | 6 | 7 | 13 | 9 | 8 | 17 |
| Softball | 12 | 8 | 20 | 14 | 12 | 26 |
| Track | 4 | 2 | 6 | 3 | 2 | 5 |
| Volleyball | 10 | 12 | 22 | 15 | 16 | 31 |
| Weight Lifting | 2 | 0 | 2 | 2 | 1 | 3 |
| Badminton | 5 | 5 | 10 | 5 | 5 | 10 |
| Fitness | 0 | 1 | 1 | 1 | 1 | 2 |

Table 46 (Continued)

| Activity | 1971-1972 | | | 1975-1976 | | |
|----------------------|-----------|-------|-------|-----------|-------|-------|
| | Men | Women | Total | Men | Women | Total |
| Wrestling | 2 | 0 | 2 | 7 | 0 | 7 |
| Flag Football | 6 | 0 | 6 | 7 | 3 | 10 |
| Swimming | 3 | 1 | 4 | 6 | 4 | 10 |
| Free Throw | 2 | 2 | 4 | 4 | 4 | 8 |
| Turkey Trot | 1 | 1 | 2 | 2 | 2 | 4 |
| Archery | 2 | 2 | 4 | 2 | 2 | 4 |
| Table Tennis | 7 | 7 | 14 | 9 | 8 | 17 |
| Arm Wrestling | 1 | 0 | 1 | 2 | 0 | 2 |
| Floor Hockey | 1 | 0 | 1 | 2 | 0 | 2 |
| Cross-country | 1 | 0 | 1 | 3 | 0 | 3 |
| Gymnastics | 0 | 1 | 1 | 1 | 2 | 3 |
| Powder Puff Football | 0 | 1 | 1 | 0 | 0 | 0 |
| Football Skills | 1 | 0 | 1 | 0 | 0 | 0 |
| Water Polo | 0 | 0 | 0 | 1 | 0 | 1 |

Table 46 (Continued)

| Activity | 1971-1972 | | | 1975-1976 | | |
|---------------------------|-----------|-------|-------|-----------|-------|-------|
| | Men | Women | Total | Men | Women | Total |
| Water Basketball | 0 | 0 | 0 | 1 | 0 | 1 |
| Tumbling | 0 | 0 | 0 | 0 | 1 | 1 |
| Dance | 0 | 0 | 0 | 0 | 1 | 1 |
| One-on-one Basketball | 0 | 0 | 0 | 3 | 0 | 3 |
| Chess | 0 | 0 | 0 | 2 | 1 | 3 |
| Hole-in-one Golf | 0 | 0 | 0 | 1 | 1 | 2 |
| Three-on-three Basketball | 0 | 0 | 0 | 1 | 0 | 1 |
| Racquet Ball | 0 | 0 | 0 | 1 | 1 | 2 |
| Tennis Doubles | 0 | 0 | 0 | 1 | 1 | 2 |
| Foosball | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 104 | 65 | 169 | 161 | 112 | 273 |

Table 47

Community College Intramural Sports Participation

| Institution | Men | | | | Women | | | |
|------------------|-----------|-----------|---------------|----------------|-----------|-----------|---------------|----------------|
| | Fall 1971 | Fall 1975 | Change Number | Change Percent | Fall 1971 | Fall 1975 | Change Number | Change Percent |
| CA | 550 | 300 | 250 | 45.45 | 300 | 150 | 150 | 50.00 |
| CB ^{na} | | | | | | | | |
| CC ^{na} | | | | | | | | |
| CD | 100 | 500 | 400 | 400.00 | 50 | 150 | 100 | 200.00 |
| CE ^a | | | | | | | | |
| CF | na | 500 | na | na | na | 200 | na | na |
| CG | 220 | 800 | 580 | 263.64 | 50 | 70 | 20 | 40.00 |
| CH | 300 | 400 | 100 | 33.33 | 60 | 100 | 40 | 66.67 |
| CI | 150 | 250 | 100 | 66.67 | 30 | 60 | 30 | 100.00 |
| CJ ^b | | | | | | | | |
| CK | 100 | 50 | 50 | 50.00 | 50 | 25 | 25 | 50.00 |
| CL | 100 | 150 | 50 | 50.00 | 80 | 50 | 30 | 37.50 |

Table 47 (Continued)

| Institution | Men | | | | Women | | | |
|------------------|-----------|-----------|---------------|----------------|-----------|-----------|---------------|----------------|
| | Fall 1971 | Fall 1975 | Change Number | Change Percent | Fall 1971 | Fall 1975 | Change Number | Change Percent |
| CM | 350 | 500 | 150 | 42.86 | 50 | 100 | 50 | 100.00 |
| CN ^{na} | | | | | | | | |
| CO ^{na} | | | | | | | | |
| CP | 60 | 60 | 0 | 0.00 | 20 | 15 | 5 | 25.00 |
| CQ ^{na} | | | | | | | | |
| CR | 150 | 250 | 100 | 66.67 | 25 | 100 | 75 | 300.00 |
| CS | 150 | 250 | 100 | 66.67 | 40 | 30 | 10 | 25.00 |
| CT | 100 | 100 | 0 | 0.00 | 25 | 25 | 0 | 0.00 |
| CU | 200 | 220 | 20 | 10.00 | 50 | 50 | 0 | 0.00 |
| CV | 80 | 100 | 20 | 25.00 | 20 | 60 | 40 | 200.00 |
| Total | 2,610 | 4,430 | 1,820 | 69.73 | 850 | 1,185 | 335 | 39.41 |

Table 47 (Continued)

| Institution | Fall | Fall | Change | |
|------------------|------|------|--------|---------|
| | 1971 | 1975 | Number | Percent |
| CA | 850 | 450 | 400 | 47.06 |
| CB ^{na} | | | | |
| CC ^{na} | | | | |
| CD | 150 | 650 | 500 | 333.33 |
| CE | 250 | 250 | 0 | 0.00 |
| CF | na | 700 | 700 | |
| CG | 270 | 870 | 600 | 227.22 |
| CH | 360 | 500 | 140 | 38.89 |
| CI | 180 | 310 | 130 | 72.22 |
| CJ | 250 | 200 | 50 | 20.00 |
| CK | 150 | 75 | 75 | 50.00 |
| CL | 180 | 200 | 20 | 11.11 |

Table 47 (Continued)

| Institution | Total | | | |
|------------------|--------------|--------------|------------------|---------|
| | Fall 1971 | Fall 1975 | Change Number | Percent |
| CM | 400 | 600 | 200 | 50.00 |
| CN ^{na} | | | | |
| CO ^{na} | | | | |
| CP | 80 | 75 | 5 | 6.25 |
| CQ ^{na} | | | | |
| CR | 175 | 350 | 175 | 100.00 |
| CS | 190 | 280 | 90 | 47.37 |
| CT | 125 | 125 | 0 | 0.00 |
| CU | 250 | 270 | 20 | 8.00 |
| CV | 100 | 160 | 60 | 60.00 |
| Total | 3,960 | 6,065 | 2,105 | 53.16 |

^a Separate figures for men and women not reported

^b Separate figures for men and women not reported

^{na} Information not available

by voluntary basic instruction programs.¹⁴ Inroads toward the IBHE goal of increased intramural activity were indicated by this study.¹⁵

Thirteen (59.09%) community colleges responded to the item concerning the solution to the problem of meeting demands of faculty and students for activities and facilities that are difficult to meet. Three (23.08%) schools indicated they have no problems. The responses from the other ten (76.92%) institutions ranged from renting community facilities and sharing high school facilities to utilizing a first-come, first-serve system.

PHYSICAL EDUCATION FACILITIES

Universities

Three (42.86%) institutions indicated that existing facilities were not adequate to accommodate present programs either under involuntary or voluntary physical education programs. School UA stated that adequate facilities existed during both periods, while the men's department at institution UB also noted the presence of adequate

¹⁴Executive Director, Report #103 of Reports of the Executive Director (Springfield: State of Illinois Board of Higher Education, 1972), p. 20.

¹⁵Donald R. Mallett, "An Educator Views the Contribution of Campus Intramural Sport Programs," 64th Annual Proceedings of the College Physical Education Association (1960), p. 95.

facilities. School UG indicated that it had adequate facilities in 1971-1972, but did not in 1975-1976.

University UE did not have facilities for women in 1971-1972, but otherwise indicated that existing facilities were adequate to accommodate programs during both involuntary and voluntary physical education programs (see Table 48).

Table 48
Adequacy of Physical Education
University Facilities

| Institution | Men | | Women | |
|-------------|-----------|-----------|-----------|-----------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| UA | Yes | Yes | Yes | Yes |
| UB | Yes | Yes | na | na |
| UC | No | No | No | No |
| UD | No | No | No | No |
| UE | Yes | Yes | No | Yes |
| UF | No | No | No | No |
| UG | Yes | No | Yes | No |

^{na}Information not available

Those institutions having inadequate facilities indicated that specific areas such as racquet sports, golf, track and field, and aquatics were limited because of the

poor facilities. Only school UD, however, responded that community facilities were not used to supplement their programs. Community facilities such as golf courses, stables, ball diamonds, ice rinks, and high school gymnasiums were listed as being most commonly used by the universities for physical education activities.

Findings in this study indicate that the universities generally conform to the recommendations by the College and University Physical Education Council recommendations that community facilities should be utilized for the conduct of activities.¹⁶

Four (57.14%) schools indicated a need for additional facilities in the future to replace antiquated buildings, to accommodate varied activity programs and expanded athletic programs, and to obtain an intramural building and permanent indoor facility. Institutions indicated, however, the budget and campus priorities, a freeze on building, and the state legislature prohibit the construction of additional facilities.

Provisions for new facilities were included in the master plan at school UC and were on the boards at both institutions UC and UF.

¹⁶College and University Physical Education Council, Executive Committee of the National Association for Sport and Physical Education, "Standards for the General College Physical Education Program," Journal of Physical Education and Recreation, XLVI (September, 1975), 24-28.

Three institutions mentioned that projects were either under construction or scheduled for construction during the 1975-1976 academic year. Included among these projects were:

1. School UA--classrooms for men and women and research space.
2. School UC--remodeling, gymnasium, swimming pool, tennis courts, and handball courts.
3. School UF--classrooms.

Community Colleges

Seventeen (77.27%) community colleges indicated that facilities were inadequate to accommodate programs in 1971-1972. Data for 1975-1976, however, indicated that 13 (59.09%) schools felt facilities were inadequate (see Table 49). Among the areas most often mentioned as being inadequate during both periods were gymnasiums, swimming pools, and outside play fields. In 1971-1972, 11 (50.00%) institutions claimed that all facilities were inadequate, while, in 1975-1976, 6 (27.27%) schools cited this problem.

Specific activities listed as being restricted by inadequate facilities under both involuntary and voluntary physical education were:

1. Aquatics
2. Track and field
3. Tennis

Table 49
Adequacy of Physical Education Community
College Facilities

| Institution | Men | | Women | |
|-------------|--------------|--------------|--------------|--------------|
| | Fall 1971 | Fall 1975 | Fall 1971 | Fall 1975 |
| CA | No | No | No | No |
| CB | No | No | No | No |
| CC | No | No | No | No |
| CD | No | Yes | No | Yes |
| CE | No | No | No | No |
| CF | No | Yes | No | Yes |
| CG | No | No | No | No |
| CH | No | No | No | No |
| CI | Yes | No | Yes | No |
| CJ | Yes | Yes | Yes | Yes |
| CK | No | No | No | No |
| CL | Yes | Yes | Yes | Yes |
| CM | No | Yes | No | Yes |
| CN | No | No | No | No |
| CO | No | No | No | No |
| CP | Yes | Yes | Yes | Yes |
| CQ | No | No | No | No |
| CR | No | No | No | No |
| CS | No | Yes | No | Yes |
| CT | No | No | No | No |
| CU | No | Yes | No | Yes |
| CV | Yes | Yes | Yes | Yes |

4. Golf
5. Weight training
6. Basketball
7. Baseball
8. Softball
9. Gymnastics
10. Football.

All institutions indicated that community facilities were used to supplement physical education programs. Among these facilities were: bowling alleys, tennis courts, swimming pools, high school gymnasiums, athletic fields, ball parks, and city parks.

This study indicated that, among the Illinois community colleges surveyed by the writer, the proportion of schools utilizing community facilities was considerably higher than that noted by Hodges in his examination of Midwest public two-year colleges.¹⁷

Among reasons given by community colleges for needing additional facilities in the future were increased enrollments, increased student interest, possible unavailability of off-campus facilities, need for swimming pools, and a limited overall program. Money, low priority of physical education, lack of campus space for expansion,

¹⁷Hodges, pp. 13-15.

and low enrollment were often cited as prohibiting the construction of these additional, needed facilities.

Ten (45.45%) schools indicated that no provisions had been made for new facilities, while six (27.27%) universities and nine (40.91%) community colleges either had projects on the boards or included in the master plan.

Only one (4.55%) community college stated that all facility projects were cancelled after the IBHE mandate to abolish involuntary physical education. Three (13.64%) schools indicated that some projects were cancelled, while one (4.55%) institution reported construction projects were delayed. Seventeen (77.27%) institutions indicated that no projects were cancelled after the abolishment of involuntary physical education (see Table 50).

Four (18.18%) schools reported that projects were either under construction or scheduled for construction during the 1975-1976 academic year. Among these projects, institution CN listed intramural fields and school CR mentioned softball fields. At school CT, all facilities used for physical education activities were either being built or scheduled for construction, while, at institution CU, tennis courts were being built or scheduled for construction during the 1975-1976 school year.

The effect of voluntary physical education programs on facility construction projects either cancelled or delayed is given in Table 50. No significant reductions

Table 50

Effect of Voluntary Programs on Facility Construction Projects

| Institution | None Cancelled | All Cancelled | Some Cancelled | Delayed | N | df | χ^2 |
|--------------------|-----------------------------------------|---------------|----------------|-------------|---|----|---------------------|
| Universities | 6 ^c (100.00) ^d | 0 (0.00) | 0 (0.00) | 0 (0.00) | 4 | 3 | 0.000 ^a |
| Community Colleges | 17 (77.27) | 1 (4.55) | 3 (13.64) | 1 (4.55) | 4 | 3 | 28.550 ^b |
| Total | 23 (82.14) | 1 (3.57) | 3 (10.71) | 1 (3.57) | 4 | 3 | 44.713 ^b |

^aNot significant

^bSignificant at .0005 level

^cN in table

^dPercent in table

were observed for universities, community colleges, or combined universities and community colleges based upon the cancellation or delay of facility construction projects. These findings support those forwarded earlier by Nelson who noted that the adoption of voluntary physical education by six western colleges and universities did not result in the reduction in the use of facilities or a halt in the expansion of physical education facilities.¹⁸

¹⁸Nelson, pp. 104-105.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to investigate the status of voluntary physical education in selected Illinois state-supported universities and community colleges with regard to the change from an involuntary to a voluntary basic instruction program in 1972.

Data from the fall academic term of 1975 were compared with those from the corresponding term of 1971 and a two-tailed Chi square test was used to determine significant differences between observed and expected frequencies in certain specific areas after the change to a voluntary basic instruction program in physical education. These related areas were:

1. Enrollment of students.
2. Number of faculty members.
3. Participation in activity classes.
4. Physical education, intercollegiate athletics, and intramural sports budgets.
5. Construction of facilities.

Seven universities and 22 community colleges, all state-supported and located in Illinois, participated in the study. These institutions represented 70.00 percent of the universities and 78.57 percent of the community colleges that originally agreed to participate.

The status survey technique through the use of a questionnaire was used to gather the data. Physical education administrators completed and returned the questionnaire. Complete anonymity was guaranteed to all participants. The instrument used in the study was a modification of previous instruments used by Wayne E. Nelson in 1970 in a study of 6 western colleges and universities and one used by Jerry R. Thomas and others in 1971 to study the status of physical education in 116 southern junior colleges.

Analysis of data gathered through comparisons of specific areas during both involuntary and voluntary physical education programs resulted in a number of tables which described the status of voluntary physical education in selected Illinois state-supported universities and community colleges.

CONCLUSIONS

The findings of this study, with regard to the hypotheses stated at the beginning of the study, resulted

in the following conclusions with regard to the participating institutions:

1. Over 80 percent of the universities and over 70 percent of the community colleges showed significant decreases in enrollment of students in basic instruction classes after the change to a voluntary program in physical education. Based upon these findings, the decision was made to not accept the stated hypothesis that there would be no significant difference.

2. There was no significant difference in the combined total of faculty members at the universities and community colleges after changing to a voluntary basic instruction program. Women faculty members in universities did show a significant increase. This significant gain was possibly due to Title IX and similar policies in hiring women rather than to the adoption of voluntary physical education. Results of these findings tend to support the hypothesis that there would be no significant difference in the number of faculty members after changing to voluntary physical education. Without the previously mentioned legislation, however, an overall significant reduction could have been shown in this study.

3. There was a significant difference in participation in activity classes based upon the number of sections of classes offered to students in universities after changing to voluntary programs. Participation in

community colleges indicated a slight, but not significant, increase of 1.45 percent based upon the approximate number of sections offered. Compared with the total community college enrollment increase of 81.51 percent, which would account for the participation increase in physical education, one could speculate that physical education proportionately failed to maintain pace with overall student growth. Combined university and community college participation revealed a decrease of 18.69 percent. This total difference in participation was found to be significant. The stated hypothesis that there would be no significant difference in participation was, therefore, not accepted on the basis of these findings.

4. Budget data for university physical education, intercollegiate athletics, and intramural sports were incomplete, thus making it difficult to treat these institutions on a combined basis. Increases and decreases in the budgets for the universities were almost equally divided. Sixteen (88.89%) of 18 community colleges responding to the item reported significant increases in physical education budgets. Among 17 reporting institutions, 16 (94.12%) showed significant budget increases for intercollegiate athletics, and 14 (100.00%) of those community colleges responding to the item regarding intramural sports budgets revealed significant increases. Although results of budget information for

universities and community colleges appear to not support the hypothesis that there would not be a significant difference, such a conclusion, in light of increased national economic inflation rates and an accompanying recession during this period, makes such a conclusion tenuous.

5. No significant difference in the construction of facilities occurred after the change to voluntary physical education at those universities and community colleges included in the study. The hypothesis that there would be no significant difference was accepted on the basis of the information provided to the researcher.

Within the limitations of this study, the following additional conclusions were reached:

1. Total institutional enrollments indicated that community colleges increased by 81.51 percent from 1971 to 1975, while for the same period university growth was 2.55 percent.

2. The Illinois Board of Higher Education decision to discontinue involuntary physical education had little effect on later mergers between men's and women's physical education departments in the universities.

3. Community colleges more than universities indicated that physical education requirements would not have been discontinued in the absence of an Illinois Board of Higher Education mandate.

4. Universities unanimously reported that there were still colleges (usually those involved in teacher certification) that required physical education after the change to voluntary programs, while only eight community colleges reported some departments that maintained physical education requirements after the change.

5. Following the guidelines of the Illinois Board of Higher Education mandate, no universities nor community colleges that had discontinued involuntary physical education had reinstated a physical education requirement as part of the general education requirements.

6. There was a significant increase in the number of faculty members, particularly among women, in the universities, while the size of community college physical education faculties decreased by 15.83 percent after the change to voluntary physical education. Though not significant, this decrease could have been greater had it not been for the overall growth in community college enrollments.

7. Teaching loads for faculty members tended to remain unchanged after the adoption of voluntary physical education.

8. The frequency of university athletic coaches teaching in the basic instruction program increased slightly after the abolishment of involuntary physical education while the number of coaches decreased. In community

colleges, however, there was a reduction in the number of coaches teaching in the basic instruction program.

9. There was a reduction in the average class size at both universities and community colleges after changing to a voluntary physical education program.

10. Average credit hour production for physical education departments indicated a trend toward decreasing more at community colleges than at universities.

11. Student enrollments in basic instruction classes decreased by 48.26 percent in the universities and by 15.91 percent in the community colleges after the change to voluntary physical education.

12. A majority of universities indicated that the percentages of A and B letter grades were not higher in voluntary programs, while 50.00 percent of the community colleges observed that grades were higher during voluntary physical education.

13. No change in the granting of course credit for physical education, in permitting physical education to be taken for non-credit, nor in permitting credit to be earned by taking a proficiency test were observed in universities after the adoption of voluntary physical education.

14. Community colleges noted increases in allowing physical education to be taken for non-credit and in permitting students to earn credits through proficiency tests.

15. Changes regarding the time of day when students would take basic instruction classes were observed in universities and community colleges. Students from both types of institutions would not take classes as readily during the first period in the morning in voluntary programs as in involuntary programs. University students, however, more readily took classes offered at 3:00 p.m. than did community college students.

16. Decreases in participation based upon the number of sections of classes offered indicated decreases at both universities and community colleges in activities such as team sports after voluntary physical education. Increases, or only slight decreases, were shown for participation in activities such as rhythms and dance and individual sports.

17. Total participation for combined universities and community colleges decreased significantly by 18.69 percent after the change to voluntary physical education.

18. Little change was indicated in the number of universities and community colleges requiring physical performance examinations after the change from involuntary physical education.

19. Community college budgets for physical education, intercollegiate athletics, and intramural sports showed a greater tendency to be increased after the change to voluntary physical education than did universities. In

lieu of rising costs and inflation, such increases could possibly be expected and perhaps had little to do with the change to voluntary physical education.

20. A reduction in the number of men's inter-collegiate athletic teams at universities occurred after the adoption of voluntary physical education. Increases in university women's and community college men's and women's teams were observed. Dramatic growth was observed, particularly among the number of teams for community college women.

21. Increases in the number of hours per day that facilities were available to students and in the number of students participating in intramural sports were observed for both universities and community colleges after the change to voluntary physical education. These increases, however, may be attributed to the growth in student enrollments rather than to the change to voluntary physical education.

22. Both universities and community colleges continued to use all types of community facilities after changing to voluntary programs.

23. Community colleges more than universities indicated that facilities were inadequate to accommodate programs under both involuntary and voluntary physical education, although a trend toward improving the situation was observed.

24. Few universities or community colleges indicated that construction projects were either delayed or cancelled after the change to voluntary physical education.

RECOMMENDATIONS

The following recommendations may be made as a result of this study:

1. Make a concerted departmental effort to place basic instruction teachers in those activities in which they have both the desire and training to teach.
2. Survey students on a regular basis with regard to the kinds of activities in which they wish to participate.
3. Increase on a departmental level the amount of in-service, clinic, and workshop opportunities for basic instruction teachers.
4. Organize course content on a skill or competency basis for the purpose of student motivation and as a way to reduce the subjective aspects of grading procedures.
5. Encourage cooperation among those in physical education, intercollegiate athletics, and intramural sports with regard to personnel, equipment, and facilities.
6. Periodically reevaluate the basic instruction program with a concern for keeping curricular content updated.

7. Institutions that currently have involuntary programs should prepare themselves for a possible change to a voluntary program.

8. Locate and investigate institutions with similar enrollments that have changed to voluntary physical education and conduct a study similar to this one.

9. Initiate research that compares the effects of voluntary physical education on both universities and community colleges with regard to specific course offerings and instructional methods.

10. Study the effects of local, state, and national economies on the various aspects of voluntary physical education.

11. Determine whether factors as important to human well-being as health and physical activity are more effectively dealt with in voluntary rather than involuntary physical education programs.

12. Study whether the percentage of the student body rather than simply the number of students enrolled in physical education classes is significantly less in voluntary programs when comparing enrollments in voluntary and involuntary programs.

13. Investigate if voluntary programs improve in any way the fitness and skill levels of the student population as a whole when compared with those where physical education is involuntary.

14. Conduct research to determine if there is enough supportive evidence to justify the reinstatement of involuntary physical education in schools that offer or are considering voluntary physical education programs.

APPENDIXES

APPENDIX A

LETTER TO DR. WAYNE E. NELSON

December 22, 1975

Dr. Wayne E. Nelson
Associate Professor
Department of Physical Education
and Health
California State College, Stanislaus
Turlock, California

Dear Dr. Nelson:

I am writing you to request the use of the questionnaire used in your study of the effects of the discontinuance of the physical education requirement in six western colleges and universities. I am currently working toward a doctorate in physical education and have chosen to study the status of voluntary physical education in Illinois state-supported universities and community colleges.

Any help you can give me will be greatly appreciated. Thank you very much for your consideration.

Sincerely yours,

/s/

Gordon Scoles
Assistant Professor

APPENDIX B

LETTER FROM DR. WAYNE E. NELSON

CALIFORNIA STATE COLLEGE, STANISLAUS

800 Monte Vista Avenue,
Turlock, California 95380

1-5-76

Mr. Gordon Scoles
Dept. of Physical Education
Northern Illinois University
DeKalb, Illinois 60115

Dear Gordon,

You have my permission to use and revise the questionnaire used in my 1970 study. I will appreciate seeing your results.

Enclosed is a copy of the questionnaire. When using this instrument I sat down with the Department Chairman, Athletic Director and Intramural Director and asked all questions myself and recorded the responses. This being a lengthy questionnaire, I would highly recommend you do this on an individual basis.

Good luck with your study.

Sincerely,

/s/

Dr. Wayne Nelson
Associate Professor
Department of Physical
Education and Health

APPENDIX C

LETTER TO DR. JERRY R. THOMAS

December 22, 1975

Dr. Jerry R. Thomas
Division of HPER
Georgia Southern College
Statesboro, Georgia 30458

Dear Dr. Thomas:

I am currently working on my dissertation as a doctoral student at Middle Tennessee State University. My topic involves the status of voluntary physical education in selected Illinois state-supported universities and community colleges and I have been informed that you conducted a study involving junior colleges located in the Southern District of the AAHPER in 1972. Would you please forward me a copy of the instrument used in the study and grant me permission to use all or parts of the questionnaire in my study?

Please be assured that the results of my study will be forwarded to you and credit given to you in the study. Thank you very much for your consideration.

Sincerely yours,

/s/

Gordon Scoles
Assistant Professor

APPENDIX D

LETTER FROM DR. JERRY R. THOMAS

College of Education
Area of Professional and
Clinical Programs

The Florida State University
Tallahassee, Florida 32306

January 12, 1976

Mr. Gordon Scoles
Department of Physical Education
and Athletics for Men
Northern Illinois University
DeKalb, Illinois 60115

Dear Mr. Scoles:

Enclosed is a copy of the questionnaire you requested from my article in JOHPER. You have my permission to use it or parts of it.

I suggest you give some thought to how you will process the information from your questionnaire as we found it very time consuming to process from this one.

Sincerely,

/s/

Jerry R. Thomas
Director, Motor
Development Laboratory

APPENDIX E

**SURVEY OF STATUS OF PROGRAMS OF VOLUNTARY AND INVOLUNTARY
PHYSICAL EDUCATION IN ILLINOIS STATE-SUPPORTED
UNIVERSITIES AND COMMUNITY COLLEGES**

**SURVEY OF STATUS OF PROGRAMS OF VOLUNTARY AND INVOLUNTARY
PHYSICAL EDUCATION IN ILLINOIS STATE-SUPPORTED
UNIVERSITIES AND COMMUNITY COLLEGES**

Name of Institution: _____
 Address: _____
 Head of Department: _____ (if combined)
 Men: _____ (if separate)
 Women: _____ (if separate)

Enrollment of Institution: Fall - 1971 Fall - 1975
 Total: _____ _____

PHYSICAL EDUCATION FACULTY

1. If your department has been created from a merger with the men's and women's departments since 1971, do you feel that the IBHE decision affected this merger?

YES [] NO []

2. In a sentence or two, please explain your answer to the question above:

3. Do you feel that, in the absence of a mandate from the IBHE, your institution would have discontinued the involuntary physical education program within 1 - 2 - 3 - 4 - 5 years, or "would not have dropped"? Please circle the appropriate response.

4. Was the previous physical education requirement for 1 - 2 - 3 - 4 years at your institution? Please circle the appropriate response.

5. Are there still colleges within the university or departments within the community college that require physical education?

YES [] NO []

If yes, which ones?

- 1.
- 2.
- 3.
- 4.
- 5.

6. Are there any colleges within the university or departments within the community college that have reinstated the physical education requirement?

YES [] NO []

If yes, which ones?

- 1.
- 2.
- 3.
- 4.
- 5.

7. Number of full-time physical education faculty members:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|------------|--------------------|-------------|--------------------|-------------|
| Doctors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Masters : | Men _____ | Women _____ | Men _____ | Women _____ |
| Bachelors: | Men _____ | Women _____ | Men _____ | Women _____ |
| Others : | Men _____ | Women _____ | Men _____ | Women _____ |

8. Distribution of full-time faculty members according to rank:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|----------------|--------------------|-------------|--------------------|-------------|
| Professors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Assoc. Profs.: | Men _____ | Women _____ | Men _____ | Women _____ |
| Asst. Profs. : | Men _____ | Women _____ | Men _____ | Women _____ |
| Instructors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Others : | Men _____ | Women _____ | Men _____ | Women _____ |

9. Number of full-time faculty members teaching professional physical education courses:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|----------------|--------------------|-------------|--------------------|-------------|
| Professors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Assoc. Profs.: | Men _____ | Women _____ | Men _____ | Women _____ |
| Asst. Profs. : | Men _____ | Women _____ | Men _____ | Women _____ |
| Instructors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Others : | Men _____ | Women _____ | Men _____ | Women _____ |

10. Teaching load--average number of contact hours taught per week:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|----------------|--------------------|-------------|--------------------|-------------|
| Professors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Assoc. Profs.: | Men _____ | Women _____ | Men _____ | Women _____ |
| Asst. Profs. : | Men _____ | Women _____ | Men _____ | Women _____ |
| Instructors : | Men _____ | Women _____ | Men _____ | Women _____ |
| Others : | Men _____ | Women _____ | Men _____ | Women _____ |

11. Number of graduate assistants in the physical education department:

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|-------|--------------------|-------|
| Men | _____ | Women | _____ |
| Men | _____ | Women | _____ |

12. Do coaches teach in the basic instruction or service program?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|---------|--------------------|---------|
| Men : | YES [] | NO [] | YES [] |
| | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] |
| | NO [] | YES [] | NO [] |

13. Number of coaches in the basic instruction or service program:

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|-------|--------------------|-------|
| Men | _____ | Women | _____ |
| Men | _____ | Women | _____ |

14. Ratio of basic instruction teaching personnel to students:

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|----------|--------------------|----------|
| Men: | 1: _____ | Men: | 1: _____ |
| Women: | 1: _____ | Women: | 1: _____ |

15. What is the average class size in the basic instruction program?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|-------|--------------------|-------|
| Men | _____ | Women | _____ |
| Men | _____ | Women | _____ |

16. What is the average credit hour production per semester or quarter for your department?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|-------|--------------------|-------|
| Men | _____ | Women | _____ |
| Men | _____ | Women | _____ |

BASIC INSTRUCTION OR SERVICE PROGRAM

1. Administration

- a. What division of the university or community college is directly responsible for the program of physical education?

1971-72:

1975-76:

- b. Is a faculty member assigned to administer the program of voluntary physical education?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|--------|--------------------|--------|
| YES [] | NO [] | YES [] | NO [] |

2. Enrollment in basic instruction or service program:

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|-------------|--------------------|-------------|
| Men _____ | Women _____ | Men _____ | Women _____ |

3. Physical education course credit:

- a. Is course credit granted for physical education?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|--------|--------------------|--------|
| YES [] | NO [] | YES [] | NO [] |

- b. What type of grade is given in physical education? Please check:

| | <u>Fall - 1971</u> | <u>Fall - 1975</u> |
|-----------------|--------------------|--------------------|
| Letter | _____ | _____ |
| Pass/fail | _____ | _____ |
| Other (specify) | _____ | _____ |

- c. Are the percentages of A and B letter grades higher in the voluntary program than they were in the involuntary program?

YES [] NO []

- d. May physical education be taken for non-credit?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|--------|--------------------|--------|
| YES [] | NO [] | YES [] | NO [] |

- e. Are students permitted to meet a college requirement or earn credits by taking a proficiency test in lieu of actual course work in physical education?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

- f. Are physical education credits applied toward the total number of units required for graduation?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|--------|--------------------|--------|
| YES [] | NO [] | YES [] | NO [] |

- g. Do students receive degree credits for participating on athletic teams?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

- h. If grades are given in physical education, do they apply to the student's grade point average?

| <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------------------|--------|--------------------|--------|
| YES [] | NO [] | YES [] | NO [] |

- i. How many periods per week do basic instruction or service classes meet?

| | <u>Fall - 1971</u> | <u>Fall - 1975</u> |
|--------|--------------------|--------------------|
| Men : | _____ | _____ |
| Women: | _____ | _____ |

- j. Have the times that classes are offered been affected by the change to voluntary physical education?

YES [] NO []

- k. Will students take classes that are offered during the first period in the morning as readily under the voluntary program?

YES [] NO []

During the lunch hour?

YES [] NO []

After 3:00 p.m.?

YES [] NO []

1. Are students surveyed by the physical education department on a regular basis with regard to specific courses they would like to have made available to them?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

4. Activity classes: please indicate the APPROXIMATE NUMBER OF SECTIONS offered during the appropriate quarter or semester.

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|-----------------------------|--------------------|-------------|--------------------|-------------|
| a. Team sports | Men _____ | Women _____ | Men _____ | Women _____ |
| b. Racquet sports | Men _____ | Women _____ | Men _____ | Women _____ |
| c. Rhythms & dance | Men _____ | Women _____ | Men _____ | Women _____ |
| d. Aquatics | Men _____ | Women _____ | Men _____ | Women _____ |
| e. Weight training | Men _____ | Women _____ | Men _____ | Women _____ |
| f. Jogging & fitness | Men _____ | Women _____ | Men _____ | Women _____ |
| g. Ind. sports | Men _____ | Women _____ | Men _____ | Women _____ |
| h. Ice & winter sports | Men _____ | Women _____ | Men _____ | Women _____ |
| i. Corrective or adapted | Men _____ | Women _____ | Men _____ | Women _____ |

5. Evaluation procedures:

- a. Written final examinations are required for all basic instruction courses?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

- b. Physical performance examinations (fitness and/or skill) are required in all basic instruction courses:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

- c. Does your department have a policy regarding student evaluation instructors?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

- d. If you have such an instructor evaluation policy, are the evaluations used by the department in determining the faculty member's annual merit rating?

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|--------|--------------------|--------|--------------------|--------|
| Men : | YES [] | NO [] | YES [] | NO [] |
| Women: | YES [] | NO [] | YES [] | NO [] |

COSTS OF OPERATION

Approved annual budgets for appropriate operational year:

| | <u>Fall - 1971</u> | | <u>Fall - 1975</u> | |
|-----------------------------|--------------------|-------------|--------------------|-------------|
| Physical education: | Men _____ | Women _____ | Men _____ | Women _____ |
| Intercollegiate athletics : | Men _____ | Women _____ | Men _____ | Women _____ |
| Intramural sports : | Men _____ | Women _____ | Men _____ | Women _____ |

INTERCOLLEGIATE ATHLETICS

What varsity sports do you offer and how many teams for each sport?

| | <u>1971-72</u> | | <u>1975-76</u> | |
|---------------|----------------|-------------|----------------|-------------|
| Football | Men _____ | Women _____ | Men _____ | Women _____ |
| Cross-country | Men _____ | Women _____ | Men _____ | Women _____ |
| Soccer | Men _____ | Women _____ | Men _____ | Women _____ |
| Field Hockey | Men _____ | Women _____ | Men _____ | Women _____ |
| Basketball | Men _____ | Women _____ | Men _____ | Women _____ |
| Volleyball | Men _____ | Women _____ | Men _____ | Women _____ |
| Swimming | Men _____ | Women _____ | Men _____ | Women _____ |
| Wrestling | Men _____ | Women _____ | Men _____ | Women _____ |

Men _____ Women _____ Men _____ Women _____
 Men _____ Women _____ Men _____ Women _____
 Men _____ Women _____ Men _____ Women _____
 Men _____ Women _____ Men _____ Women _____
 Men _____ Women _____ Men _____ Women _____

3. How many students participate during the year in the intramural sports program?

1971-72

1975-76 (estimate)

Men _____ Women _____ Men _____ Women _____

4. Is supervision provided during free-play and non-competitive activities?

1971-72

1975-76

Men : YES [] NO [] YES [] NO []

Women: YES [] NO [] YES [] NO []

5. If supervision is provided, who does it? Briefly explain:

6. If there are demands of faculty and students for activities and facilities that you cannot meet, briefly describe how this problem is resolved.

PHYSICAL EDUCATION FACILITIES

1. Are existing facilities adequate to accommodate your present program?

1971-72

1975-76

Men : YES [] NO [] YES [] NO []

Women: YES [] NO [] YES [] NO []

2. If inadequacies exist in your facilities, please specify the areas:

1971-72

1975-76

- | | |
|----------|----------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

3. What specific activities, if any, are restricted in your program because of inadequate facilities?

1971-72

1975-76

- | | |
|----------|----------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

4. Do you use community facilities to supplement your program?

YES [] NO []

If yes, what facilities?

1971-72

1975-76

- | | |
|----------|----------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

5. List some reasons why your institution will need additional facilities in the future:

| <u>Men</u> | <u>Women</u> |
|------------|--------------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

6. List the factors you feel prohibit the construction of additional facilities at your institution:

| <u>Men</u> | <u>Women</u> |
|------------|--------------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

7. What provisions, if any, have been made for new facilities? Please check:

- a. Master plan _____
- b. On the boards _____
- c. None _____
- d. Other _____

8. What facility construction projects were cancelled after the IBHE mandate to abolish involuntary physical education? Please list:

| <u>Men</u> | <u>Women</u> |
|------------|--------------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

9. What projects are now under construction or are scheduled for construction within the present school year? Please check:

| | | |
|-----------------|-----------|-------------|
| Gymnasiums | Men _____ | Women _____ |
| Swimming pools | Men _____ | Women _____ |
| Tennis courts | Men _____ | Women _____ |
| Handball courts | Men _____ | Women _____ |
| Classrooms | Men _____ | Women _____ |
| Others: | | |

| | | |
|-------|-----------|-------------|
| _____ | Men _____ | Women _____ |
| _____ | Men _____ | Women _____ |
| _____ | Men _____ | Women _____ |

10. If there is anything you would like to say that has not been covered and that you feel might be helpful to the study, please comment below:

THANK YOU AGAIN FOR YOUR COOPERATION.

Gordon Scoles

/s/

APPENDIX F

COVER LETTER TO DEPARTMENT HEADS

March 15, 1976

Dear _____:

I am currently working toward a doctorate in physical education at Middle Tennessee State University and have selected as the topic for my dissertation a study concerning the status of voluntary physical education in selected Illinois state-supported universities and community colleges. I have devised a questionnaire that requires detailed information regarding various aspects of your programs including budgets, student enrollments, types and numbers of activities, faculty numbers, ranks, and degrees.

Should you decide to participate in this study, please return the enclosed, stamped, self-addressed card at your earliest possible convenience. Please be assured that complete anonymity will be granted should you decide to complete and return the questionnaire.

Thank you very much for your cooperation and assistance.

Sincerely yours,

/s/

Gordon Scoles
Assistant Professor

APPENDIX G

COPY OF THE RETURN CARD

PLEASE CIRCLE THE APPROPRIATE RESPONSE:

- YES I am willing to participate in your survey of
voluntary physical education in Illinois.
- NO My schedule will not permit me to participate
in your survey.

PLEASE PRINT YOUR NAME, POSITION, AND SCHOOL
ADDRESS BELOW:

Thank you very much for your cooperation!
Gordon Scoles /s/

APPENDIX H

PROSPECTUS

SURVEY OF STATUS OF PROGRAMS OF VOLUNTARY AND INVOLUNTARY
PHYSICAL EDUCATION IN ILLINOIS STATE-SUPPORTED
UNIVERSITIES AND COMMUNITY COLLEGES

PROSPECTUS

Dear _____:

Recently you returned a card indicating that you will participate in a study I am conducting as a part of my doctoral dissertation which deals with the status of programs of voluntary and involuntary physical education in Illinois state-supported universities and community colleges for the years 1971 and 1975. The response to my request has been tremendous and it goes without saying that I am very appreciative of your concern for this important matter. As mentioned earlier, your participation in this project will be kept strictly confidential and, upon completion, you will receive a copy of the final results.

Briefly, this study will survey, through the use of a questionnaire, the present and past status of basic instruction (service) physical education programs in Illinois. Such factors as enrollments, faculties, course offerings, costs of operation, intercollegiate athletics, intramural sports, and facilities will be examined and compared in an effort to determine the direction this important aspect of our physical education programs has taken in the past few years. With budget cutbacks in an ever-tightened economy, governing boards and institutions carefully scrutinize each and every program in the educational curriculum, including physical education. Although other states have not followed the action of Illinois in turning to voluntary programs, several have studied the situation closely, and could do so in the near future. For these reasons and others not mentioned, this study can be important to administrators of physical education programs.

Directions. Because of the scope of this survey, it has not been possible to arrange personal interviews with all of you; so, wherever possible, questions have been limited to yes-no type answers. Please place an X in the appropriate space for these questions when answering. For items dealing with data from the fall of 1971, be as accurate as possible with regard to dollar figures, faculties, activities, class sizes, ratios, and teaching loads. For areas such as intramural sports and intercollegiate athletics, which may

not be under your supervision, please feel free to pass along the instrument to those in charge of these programs if you feel it will add to the study. Many of the categories are divided into two parts, one for men and the other for women. If separate departments have not been maintained during the period being studied, or if the departments have been merged between 1971 and 1975, please indicate beside your response. When data are unavailable, a response indicating this will be greatly appreciated. Finally, your responses to the open-ended questions may be as brief or as elaborate as you desire. Please feel free to use the back side of the page if more room is needed to adequately express your viewpoint.

I am aware that we are all entering a very busy time of the year and, because of this, would ask that you attempt to return the completed questionnaire in the enclosed, stamped and self-addressed envelope by APRIL 10, 1976. A prompt return of all questionnaires will mean a great deal to the successful completion of this study.

Thank you very much for your cooperation and assistance.

Yours very truly,

/s/

Gordon Scoles
Assistant Professor
Northern Illinois University
DeKalb, Illinois 60115

APPENDIX I

**SECOND LETTER REQUESTING THE RETURN
OF ALL QUESTIONNAIRES**

May 10, 1976

Dear _____:

In March, a questionnaire entitled "A Survey of Status of Programs of Voluntary and Involuntary Physical Education in Illinois State-supported Universities and Community Colleges" was mailed to you. The response thus far has been most gratifying. There are still a few, however, that have not yet been returned. I am sure you are aware how important it is to receive as many responses as possible in order to complete the study.

In the event that you have already returned the instrument, please disregard this letter, and accept my thanks for your prompt response. If you are still in possession of the questionnaire, it would be greatly appreciated if you could return it by May 30, 1976. A prompt return of all questionnaires would mean a great deal to the successful completion of this study.

Thank you very much for your cooperation and assistance.

Sincerely yours,

/s/

Gordon Scoles
Assistant Professor

BIBLIOGRAPHY

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A. BOOKS

- The Blue Book of College Athletics for 1975-1976, 45th ed., Cleveland, Ohio: The Rohrich Corporation, 1975.
- Diem, Konrad, ed. Documenta Geigy Scientific Tables. 6th ed. Ardsley, New York: Geigy Pharmaceuticals, Division of Geigy Chemical Corporation, 1962.
- Dressel, Paul L., and Francis H. DeLisle. Undergraduate Curriculum Trends. Washington, D.C.: American Council on Education, 1969.
- Garrett, Henry E. Elementary Statistics. 2d ed. New York: David McKay Company, Inc., 1962.
- Heitmann, Helen M., ed. College Physical Education: The General Program. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973.
- Hubbard, Alfred W., ed. Research Methods in Health, Physical Education, and Recreation. 3d rev. ed. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1973.
- Nixon, John E., and Ann E. Jewett. An Introduction to Physical Education. 7th ed. Philadelphia: W. B. Saunders Company, 1969.
- Perkins, James A., ed. Higher Education: From Autonomy to Systems. New York: International Council for Educational Development, 1972.
- Scott, M. Gladys, ed. Research Methods in Health, Physical Education, and Recreation. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1959.
- Siedentop, Daryl. Physical Education: Introductory Analysis. Dubuque, Iowa: Wm. C. Brown Company, Publishers, 1972.

Vanderzwaag, Harold J. Toward a Philosophy of Sport.
Reading, Mass.: Addison-Wesley Publishing Company,
1972.

Weston, Arthur. The Making of American Physical Education.
New York: Meredith Publishing Company, 1962.

Williams, Jesse Feiring. The Organization and Administration of Physical Education. 2d ed. New York: The Macmillan Company, 1925.

Wilson, Logan A., ed. Emerging Patterns in American Higher Education. Washington, D.C.: American Council on Education, 1965.

B. PERIODICALS

College and University Physical Education Council, Executive Committee of the National Association for Sport and Physical Education. "Standards for the General College Physical Education Program," Journal of Physical Education and Recreation, XLVI (September, 1975), 24-28.

Fraleigh, Warren P., and William F. Gustafson. "Can We Defend Required Programs?", Journal of Health, Physical Education, Recreation, XXXV (February, 1964), 32.

Griffith, William S. "Harper's Legacy to the Public Junior College," Community College Frontiers, IV (Spring, 1976), 15-16.

Goodwin, Gregory L. "The Nature and Nurture of the Community College," Community College Frontiers, IV (Spring, 1976), 5.

Haggerty, John. "The Community Athletic Program," Community and Junior College Journal, XLVI (April, 1976), 8.

Hartman, Robert N. "Go Voluntary," Journal of Health, Physical Education, Recreation, XLI (November-December, 1970), 22.

Hodges, Patrick B. "Status and Structure of Physical Education in Public Two-Year Colleges of the Midwest," Journal of Health, Physical Education, Recreation, XLV (June, 1974), 13-15.

- Lee, Mabel, and Bruce Bennett. "This Is Our Heritage--Part I: 1885 to 1900 A Time of Gymnastics and Measurement," Journal of Health, Physical Education, Recreation, XXXI (April, 1960), 29.
- McAninch, Harold D. "Joliet: 75 Years the Community College," Community and Junior College Journal, XLVI (October, 1975), 14.
- Miller, Kenneth D. "Stearns, Hitchcock, and Amherst College," Journal of Health, Physical Education, Recreation, XXVIII (May-June, 1957), 29-30.
- Montebello, Robert A. "Should Physical Education Be Required During the Undergraduate Program?", Journal of Health, Physical Education, Recreation, XXX (December, 1959), 35-36, 49.
- Nelson, Wayne E. "Need We Fear Voluntary Physical Education?", Journal of Health, Physical Education, Recreation, XLIII (January, 1972), 63.
- Pelton, Barry Clifton. "A Critical Analysis of Current Practices and Beliefs Underlying General Physical Education Programs in Higher Education," Research Quarterly, XXXVIII (December, 1967), 678-685.
- Pullias, Earl V. "A Historical Perspective: The Land Grant Concept and the Community College Philosophy," Community College Review, III (June, 1975), 45, 49.
- Razor, Jack E., and Florence D. Grebner. "Elective PE Programs: Expansion vs. Limitation," Journal of Physical Education and Recreation, XLVI (June, 1975), 23.
- Rue, Robert N. "The Hoopla-Cheerleader-Gladiator Syndrome," Community and Junior College Journal, XLVI (April, 1976), 11.
- Shea, Edward J. "The Status and Role of Physical Education as a College and University Requirement," Journal of Health, Physical Education, Recreation, XXIX (December, 1958), 31.
- Shea, John B. "The Pass-Fail Option and Physical Education," Journal of Health, Physical Education, Recreation, XLII (May, 1971), 19.

- Sheehan, T. J. "Sport: The Focal Point of Physical Education," Quest, X (May, 1968), 65.
- Stanley, D. K., and Norma Leavitt, eds. "Basic Issues," Journal of Health, Physical Education, Recreation, XXX (November, 1959), 8, 10.
- Thomas, Jerry D., and others. "Status of Physical Education in Junior Colleges in the AAHPER Southern District," Journal of Health, Physical Education, Recreation, XLIV (February, 1973), 18-19, 22.
- Wittenauer, James L. "Voluntary Physical Education: A Sound Practice," Journal of Physical Education and Recreation, XLVI (May, 1975), 23.
- Yarnall, Douglas. "A Survey of Physical Education in Two-Year Colleges," Journal of Health, Physical Education, Recreation, XLII (April, 1971), 81-82.

C. PROCEEDINGS AND REPORTS

- College Physical Education Association. 64th Annual Proceedings, 1960.
- National College Physical Education Association for Men. 70th Annual Proceedings, 1967.
- National College Physical Education Association for Men. 75th Annual Proceedings, 1972.
- Proceedings of the Board of Regents of the State of Illinois, July 1, 1971-June 30, 1972. Springfield: The State of Illinois, 1972.
- Report #101 of Reports of the Executive Director. Springfield: State of Illinois Board of Higher Education, 1972.
- Report #103 of Reports of the Executive Director. Springfield: State of Illinois Board of Higher Education, 1972.

D. DISSERTATIONS

- Glass, Allen Franklin. "A Comparison of the Traditional and Pass/Fail Grading Systems in Selected University Physical Education Courses." Doctoral dissertation, Middle Tennessee State University, 1973.
- Goodson, Ewing Marsh. "The Implications of an Attitudinal Survey of Adult Male Community College Students Toward Physical Activity." Doctoral dissertation, Middle Tennessee State University, 1975.
- Lawson, Hal A. "The Evolution of Elective Programs of Physical Education in American Universities." Doctoral dissertation, University of Michigan, 1969.
- Nelson, Wayne E. "Effects of the Discontinuance of the Physical Education Requirement in Selected Colleges and Universities." Doctoral dissertation, The University of New Mexico, 1970.
- Robinson, Herbert J. "An Evaluation of the Men's Physical Education Programs in Selected State Community Colleges in Eastern and Middle Tennessee." Doctoral dissertation, Middle Tennessee State University, 1975.