

A Review and Evaluation of Doctoral Programs 2000-2004 by the American Academy of Kinesiology and Physical Education

Jerry R. Thomas and T. Gilmour Reeve

The results from a U.S. national survey of doctoral programs in kinesiology and physical education covering the years 2000-2004 are presented. The survey was conducted by the American Academy of Kinesiology and Physical Education with all 61 institutions with doctoral programs (32 institutions provided complete data, 52%) invited to participate. Results of the survey included an overall final T-score used for ranking of institutions. Quantitative data on faculty (weighted 66% in the scoring) and student indices (weighted 34% in the scoring) were used to develop the final T-scores as well as T-scores for component data. In addition, average data for all variables are presented by the T-score categories of 60 and above, 50-59, 40-49, and below 40. The American Academy of Kinesiology and Physical Education plans to conduct this survey and reporting process at 5-year intervals.

Rankings of higher education institutions have been conducted for about 100 years (Massengale, 1987). The best known of the national surveys involving doctoral programs in the United States is likely the National Research Council's (NRC) evaluation that was last reported in 1995; however, the field of kinesiology and physical education was not included in that survey. The American Academy of Kinesiology and Physical Education (AAKPE) leadership has been working for several years to have the field included in the NRC evaluation. NRC is just beginning (2005-06) that process again, and negotiations are ongoing, but whether kinesiology will be included is not yet decided. Also, surveys are conducted by *U.S. News and World Reports* (annually) for institutions and for some disciplines.

Individuals from our field have reported a number of surveys over the years (e.g., Hasbrook & Loy, 1983; Massengale & Sage, 1982; Massengale, 1987; Siedentop, 1987; Spirduso, 1987) but no systematic survey with plans to continue at regular intervals has ever been reported prior to this one. Thomas, Morrow, and Stevermer (2004) reported the plan of the AAKPE to conduct a national evaluation of doctoral programs in kinesiology. The planning and pilot work for this process

Jerry R. Thomas (AAKPE Fellow #299) is with the Department of Health and Human Performance at Iowa State University, Ames, IA. E-mail: jrthomas@iastate.edu. T. Gilmour Reeve is Director of Strategic Planning, Texas Tech University, Lubbock. E-mail: Gilmour.Reeve@ttu.edu

has been ongoing within AAKPE for over 10 years. In this paper, we report the results of that national survey and evaluation. AAKPE plans to conduct this survey and report at 5-year intervals.

Depending on the criteria used for inclusion, the count of doctoral programs varies. Based on our survey, there are 61 universities in the U.S. that offer doctoral programs in some aspect of kinesiology/physical education (Thomas et al., 2004). Some of these universities have more than a single department offering the doctoral programs in different aspects of kinesiology/physical education, resulting in a total of 69 separate programs. Because of recent changes in departmental focus, a few of the traditional departments in kinesiology no longer consider themselves to be within our discipline, often focusing on physiology in a more general sense. In fact, several of these departments have changed their names, a frequent choice being integrative physiology. Departments that have moved away from a focus on kinesiology include those at the University of Colorado, University of Oregon, and University of Southern California.

The purpose of this report is to provide an overview of the evaluation process and the final ranking of the doctoral programs that participated in the national evaluation. Additionally, considerable supporting information is included about the doctoral programs in kinesiology through a quantitative evaluation based on institutional self-reported data about their faculty and students. Unlike some national evaluations, the AAKPE evaluation of doctoral programs did not ask for perceptions of quality (e.g., How would you rank programs from top to bottom?) from each university. Therefore, the results of the AAKPE evaluation are based on faculty productivity and student characteristics inherent in each program.

Evaluating doctoral programs is of importance for the departments (e.g., what are strengths and areas for improvement), universities (where to invest resources for improvement and enhancement), and potential doctoral students (what programs best meet their needs and interests). Therefore, it is critical that departments of kinesiology/physical education be included in national evaluations of the quality of their doctoral programs.

Method

Either the academic dean or graduate dean and department chair at all programs listed in Appendix A (participating and non-participating) were initially contacted by the AAKPE national office and asked to participate in the survey and evaluation. Of the 61 institutions, 32 (52.5%) institutions participated. Institutions that originally decided not to participate or failed to respond to the invitation to participate were contacted by e-mail and/or phone and encouraged to participate. The value of the evaluation to the department, university, and field was stressed. A participation fee of \$600 was charged to each program to cover costs of data collection, analysis, and reporting.

Each participating institution was sent an "Instructional Guide" (see Appendix B), an Excel coding sheet for faculty and student data, and a verification page that was signed by the department chair and returned to the AAKPE national office. All data were sent and returned electronically. The verification page was used to ensure that the responsible program administrator had reviewed and approved the submitted data.

The period of review for this evaluation includes five calendar years, 2000-2004. Institutions were asked to enter data on all current faculty members for the past five years (as of December 31, 2004). All data for any faculty member arriving during the 5-year period were included while any data for a faculty member who left during the 5-year period was excluded. Using this approach, the evaluation reflected the faculty status of the department at the end of the 5-year period. Counts, amounts, and values inserted were for their activities throughout the entire 5-year period. Some student data were for the 2004 calendar year (e.g., GRE) while other student data represent the total 5-year period (e.g., number of doctoral graduates; see Appendix B for complete instructions on entering both faculty and graduate student data). Appropriate answers were developed for frequently asked questions and were posted on the AAKPE Web site to facilitate report preparation by the departments. One important question was whether the evaluation was directed at the degree program or at each sub-discipline within a program (e.g., exercise physiology versus biomechanics). The answer to this question is that the evaluation was for the entire degree program (including all subdisciplines represented within the degree program at a specific institution). Another frequent question was whether each institution's faculty data would be adjusted for the number of graduate faculty. Yes, it was.

Variables Reported for Faculty

To count as faculty, all three of the following criteria had to be met:

- Teach doctoral-serving courses and/or direct doctoral dissertations and/or serve on doctoral advisory committees;
- Hold a doctoral degree and be in a tenured or tenure-earning position at the rank of assistant professor, associate professor, or professor;
- Receive at least 25% of their salary support from the academic unit sponsoring the doctoral degree.

Information on faculty were gathered in the following categories (see Appendix B):

- Faculty Rank
- Refereed Publications—scholarly articles, book chapters, and monographs
- Presentations—only at national or international meetings
- Federal External Funding—total extramural dollars from Federal agencies
- Non-Federal External Funding—total extramural dollars from non-Federal agencies
- Internal Research Funding—total dollars funded from outside the department but internal to the university
- Editors and Editorial Boards—boards/journals served on
- Fellows in AAKPE—number at institution
- Fellows in Other Scholarly Societies—number at institution

Information on students was gathered in the following categories (see Appendix B):

- Minimum GRE Verbal Score Required—if no minimum, enter none
- Minimum GRE Quantitative Score Required—if no minimum, enter none
- GRE Verbal Score—average for students in 2004 calendar year
- GRE Quantitative Score—average for students in 2004 calendar year
- Student Support—total FTE for graduate student support for 2004
- Applications—number of completed doctoral applications received in the past 5 years
- Acceptance—number of doctoral students accepted in the past 5 years
- Enrolled—number of doctoral students accepted who enrolled in the past 5 years
- Post-Doctoral Students—number of doctoral graduates who accepted post-docs during the last 5 years
- Employment in the Field—number of doctoral graduates during the past 5 years who accepted full-time professional positions relative to your doctoral program
- Two variables were calculated from the student indices:

Selectivity—number of doctoral students accepted to the program during the past 5 years divided by the number of applicants

Yield—number of doctoral students enrolled during the 5-year period divided by the number accepted

A committee of AAKPE Fellows¹ with experience in doctoral education and program administration met for two days to develop appropriate weightings for variables in the doctoral evaluation. They used pilot data from a preliminary study conducted by the AAKPE three years earlier. Table 1 provides information concerning the weightings by categories and subcategories for Faculty Indices² (66%) and Student Indices (34%) set by the committee of experts.

Data Analysis

Data were returned electronically by participating institutions to the AAKPE national office. Two AAKPE Fellows were contracted to conduct the data analysis. These individuals were measurement experts from a nondoctoral granting institution. In this manner, their decisions regarding the data analysis could not reflect on their own institution's standing in the doctoral evaluation. The measurement experts reviewed and analyzed the data and submitted a report of the outcomes to the AAKPE Executive Committee. Any data that appeared erroneous were reviewed and, if needed, followed up for verification by email or phone call. Following are the data analysis procedures used:

- Standard scores ($M = 0$, $SD = 1$) were calculated for each of the faculty and student indices.
- Extreme outliers were truncated to a standard score maximum of 2.576 (this occurred for 8 scores out for a possible 512 scores, 1.6% of the data).
- Standard scores were converted to T-scores with a $M = 50$ and a $SD = 10$ for each of the faculty and student indices.

- A composite or overall score was calculated by applying the weights (Table 1) to the T-scores for each faculty and student indices for each institution.
- Programs then received a rank based on their total composite T-score.
- T-scores were also reported by institution for each of the faculty and student indices.
- *Ms* and *SDs* were calculated for each faculty and student index and reported in four groups: Composite T-score greater than 60, 50-59, 40-49, below 40.

Results

Table 2 is a listing of the program ranking by overall T-score for the 32 institutions that participated. The question arises about where nonparticipating institutions would have been ranked. While the answer to that question is elusive, several points can be made about the high quality of the institutions that chose to participate:

- Many of the programs that have been traditionally regarded as high quality have been in the Big 10, where 9 of the 10 institutions with doctoral programs participated.

Table 1 AAKPE Doctoral Program Review Committee's Weighting

Faculty Indices		66%
Productivity		30%
Research publications	20%	
Books	5%	
Presentations	5%	
Funding		26%
Federal	15%	
Other External	8%	
Internal	3%	
Visibility		10%
Editorial Boards	6%	
Number AAKPE Fellows	2%	
Other Fellow status	2%	
Student Indices		34%
Graduate Assistant support		13%
Student quality		10%
GRE Verbal	5%	
GRE Quantitative	5%	
Employment		7%
Postdocs	4%	
Employment in the field	3%	
Admissions		4%
Selectivity	2%	
Yield	2%	

- Many of the traditionally well-regarded programs outside the Big 10 also participated (e.g., University of Maryland, University of Massachusetts-Amherst, Teachers College, University of Texas at Austin, University of Georgia-Athens).

While there are certainly some high quality programs that choose not to participate, of the top 20 programs listed by Massengale and Sage (1982), 13 are in the current data, 4 have changed the nature of their program so much as to be outside kinesiology, and 3 chose not to participate in the current evaluation (thus

Table 2 Overall Final Score and Rank

University	Academic Unit	Rank	Score
Pennsylvania State U.	Kinesiology	1	66
U. of Connecticut	Kinesiology	1	66
Arizona State U.	Kinesiology	3	63
U. of Illinois Urbana-Champaign	Kinesiology	3	63
U. of Maryland	Kinesiology	3	63
U. of Massachusetts-Amherst	Exercise Science	6	62
Indiana U.	Kinesiology	7	59
Oregon State U.	Exercise & Sport Science	8	57
Teachers College-Columbia U.	Biobehavioral Sciences	8	57
U. of South Carolina	Exercise Science	8	57
Texas A&M U.	Kinesiology	11	56
U. of Minnesota	Kinesiology	11	56
U. Texas-Austin	Kinesiology	13	54
U. of Georgia-Athens	Kinesiology	14	52
U. of Houston	Human Performance	15	50
U. of Illinois-Chicago	Kinesiology	15	50
U. of Wisconsin-Madison	Kinesiology	15	50
Michigan State U.	Kinesiology	18	48
U. of Michigan	Kinesiology	18	48
Iowa State U.	Human Performance	20	47
Louisiana State U.	Kinesiology	21	46
Ohio State U.	Physical Activity & Educational Services	22	43
West Virginia University	Physical Education	22	43
Purdue U.	Kinesiology	24	42
U. North Carolina - Greensboro	Exercise & Sport Science	24	42
U. of Oklahoma	Sport Science	26	41
U. of Utah	Exercise & Sport Science	26	41
Auburn U.	Human Performance	28	40
Texas Woman's U.	Kinesiology	29	38
U. of Mississippi	Exercise Science	30	35
Florida State U.	Sport Management, Recreation Management, & Physical Education	31	34
North Dakota State U.	Exercise Sciences	32	28

13 of 16 are included here). Hasbrook and Loy (1983) summarized five different previous rankings of doctoral programs and 15 of their top 22 are reported in the current survey, 5 programs have changed such as to be outside kinesiology, and 2 did not participate in this evaluation (thus 15 of 17 are included here). Based on these previous reports, a case can be made that most of the high quality doctoral programs in the U.S. are represented by the survey results. The AAKPE plans to continue the survey at 5-year intervals (a process recommended by Hasbrook & Loy, 1983, over 20 years ago) and anticipates that a greater percent of the programs will participate in the 2005-2009 survey as graduate and academic deans become aware of the process and its value in our field.

Table 3 provides the T-score values for each institution based on the faculty indices (see Table 1 for weighting of indices). Thus, each institution can determine their status relative to others in characteristics such as journal articles, books, presentations, federal funding, etc. Table 4 provides the same data for student indices (see Table 1 for weighting of indices) such as GRE Verbal Score, GRE Quantitative Score, student assistantships, etc.

Tables 5 and 6 provide average data for institutions within categories based on the overall T-scores of 60 and above, 50-59, 40-49, and below 40. These data are reported for faculty indices for the total of the 5 years of the study. Thus, for institutions having a T-score of 60 and above, the average faculty member published 24.0 papers ($SD = 5.7$) over the 5-year period. This compares to 18.5 papers ($SD = 6.4$) for the average faculty member in an institution with a T-score in the range of 50-59. For student indices, the average GRE-V scores for institutions with overall T-scores of 60 and above was 527.9 ($SD = 41.8$) compared to 505.5 ($SD = 61.2$) for institutions with overall T-scores in the 50-59 range.

Because large variations existed among institutions with regard to the number of faculty in kinesiology and physical education, AAKPE decided to correct all faculty indices for the number of faculty who actively participated in doctoral programs. Following is the grouping of institutions by number of doctoral faculty members:

- 18 or larger ($n = 6$)—Pennsylvania State University, Texas A&M University, University of Illinois at Urbana-Champaign, University of Michigan, University of North Carolina at Greensboro, University of Texas at Austin
- 14-17 ($n = 9$)—Indiana University, Iowa State University, Ohio State University, Oregon State University, Purdue University, University of Georgia, University of Maryland, University of Utah, University of Wisconsin
- 10-13 ($n = 6$)—Auburn University, Louisiana State University, Michigan State University, Texas Woman's University, University of Houston, University of Minnesota
- less than 10 ($n = 11$)—Arizona State University, Florida State University, North Dakota State University, Teachers College (Columbia University), University of Connecticut, University of Illinois at Chicago, University of Massachusetts, University of Mississippi, University of Oklahoma, University of South Carolina, West Virginia University

Tables 7 and 8 provide the correlations of each of the faculty and student indices with the final ranking T-score. Table 7 data have been corrected for the number of faculty at each institution prior to calculating the correlations. Note the best predictor is, in fact, the index with the most weight (20%) in the total

Table 3 University Kinesiology/Physical Education Doctoral Program Results for Faculty Indices

University	Journal Articles	Books	Presentations	Federal Funding	Non-federal Funding	Internal Funding	Editorships	AAKPE Fellows	Other Fellows
Pennsylvania State U.	61	55	63	52	43	50	62	56	53
U. of Connecticut	75	67	65	43	72	44	58	37	47
Arizona State U.	61	75	66	76	46	53	45	56	66
U. of Maryland	53	50	57	59	43	41	61	61	52
U. of Illinois Urbana-Champaign	57	55	63	61	58	66	59	54	47
U. of Massachusetts-Amherst	60	60	76	53	60	47	62	75	55
Indiana U.	73	43	58	44	49	76	53	47	38
Oregon State U.	56	51	51	58	45	76	57	47	74
Teachers College-Columbia U.	52	55	53	52	72	41	48	68	39
U. of South Carolina	61	44	43	76	55	52	45	37	45
Texas A&M U.	53	39	56	50	43	44	47	50	56
U. of Minnesota	63	49	43	48	55	52	53	60	67
U. Texas-Austin	46	53	47	45	57	44	51	48	48
U. of Georgia-Athens	52	55	56	48	45	49	59	63	56
U. of Houston	47	40	53	54	58	59	40	45	37
U. of Illinois-Chicago	49	37	44	59	46	43	76	63	46
U. of Wisconsin-Madison	44	37	45	54	44	58	48	42	63
Michigan State U.	50	59	49	42	48	50	50	51	51
U. of Michigan	41	47	44	45	76	47	45	49	40
Iowa State U.	47	74	43	48	46	52	44	59	48
Louisiana State U.	44	52	50	44	44	48	43	50	48
Ohio State U.	42	48	41	44	45	45	51	51	50
West Virginia University	41	47	50	43	43	42	41	54	35
Purdue U.	42	46	41	44	44	54	49	42	59
U. North Carolina - Greensboro	42	60	48	43	45	48	45	54	45
U. of Oklahoma	51	37	53	46	44	46	52	37	61
U. of Utah	44	41	37	42	48	47	42	42	47
Auburn U.	38	53	48	42	45	44	45	49	56
Texas Woman's U.	38	50	46	47	41	40	41	37	39
U. of Mississippi	38	41	40	43	41	46	40	37	38
Florida State U.	44	37	36	42	49	40	39	37	35
North Dakota State U.	33	44	32	44	43	47	39	37	60

*Column values have an approximate mean of 50 and SD of 10.

Table 4 University Kinesiology/Physical Education Doctoral Program Results for Student Indices

University	GRE Verbal	GRE Quantitative	Student Assistantships	Selectivity	Yield	Postdoctoral Positions	Employment in the Field
Pennsylvania State U.	55	60	76	54	53	66	49
U. of Connecticut	67	61	48	47	49	53	54
Arizona State U.	43	63	39	63	46	39	62
U. of Maryland	60	61	72	55	47	61	46
U. of Illinois							
Urbana-Champaign	56	52	58	41	52	52	51
U. of Massachusetts-							
Amherst	54	54	41	65	59	55	48
Indiana U.	43	56	56	48	69	39	44
Oregon State U.	46	50	45	56	63	57	55
Teachers College-							
Columbia U.	74	57	42	59	69	44	68
U. of South Carolina	37	48	43	48	57	60	35
Texas A&M U.	70	69	58	45	51	65	45
U. of Minnesota	50	53	45	49	43	61	57
U. Texas-Austin	56	53	61	57	43	69	60
U. of Georgia-Athens	39	48	49	57	52	60	50
U. of Houston	49	51	52	52	57	49	49
U. of Illinois-Chicago	58	53	43	38	42	44	37
U. of Wisconsin-Madison	46	54	52	64	63	65	47
Michigan State U.	48	49	47	52	37	55	55
U. of Michigan	56	57	51	52	4	44	43
Iowa State U.	58	55	41	62	46	39	41
Louisiana State U.	46	55	57	47	53	49	46
Ohio State U.	37	42	56	50	37	46	63
West Virginia University	51	50	53	62	51	39	66
Purdue U.	49	52	47	51	43	42	43
U. North Carolina -							
Greensboro	43	46	45	56	30	39	61
U. of Oklahoma	37	37	41	32	50	39	34
U. of Utah	43	42	62	46	28	39	34
Auburn U.	59	32	43	42	52	62	49
Texas Woman's U.	45	26	54	34	62	41	49
U. of Mississippi	40	39	41	46	51	50	58
Florida State U.	34	26	36	50	60	39	68
North Dakota State U.	34	26	38	24	43	39	34

*Column values have an approximate mean of 50 and SD of 10.

Table 5 Descriptive Statistics for Faculty Indices by T-Score Category

		Journal articles	Books	Presentations	Federal funding	Non-federal funding	Internal funding	Editorial Boards	AAKPE Fellows	Other Fellows
60 or more	Mean	24.0	0.8	31.8	\$785,936.99	\$189,996.27	\$20,149.69	2.0	0.3	.82
	Std. Dev	5.7	0.3	5.5	\$616,034.92	\$180,786.28	\$17,579.74	0.7	0.2	.30
50-59	Mean	18.5	0.3	20.0	\$590,485.36	\$161,799.07	\$29,900.27	1.5	0.2	.75
	Std. Dev	6.4	0.2	4.4	\$542,448.06	\$132,774.01	\$29,072.81	1.3	0.1	.55
40-49	Mean	11.0	0.5	16.9	\$82,701.95	\$115,349.95	\$15,153.68	0.8	0.2	.62
	Std. Dev	3.1	0.3	3.7	\$86,054.47	\$176,145.53	\$7,530.82	0.4	0.1	.34
Less than 40	Mean	6.6	0.2	11.2	\$81,575.61	\$39,285.94	\$6,502.72	0.1	0.0	.36
	Std. Dev	3.5	0.2	4.6	\$106,674.14	\$58,316.08	\$7,246.77	0.1	0.0	.52
Overall	Mean	15.5	0.4	20.0	\$388,968.27	\$135,805.02	\$20,078.20	1.2	0.2	.67
	Std. Dev	7.6	0.3	7.6	\$500,004.58	\$153,149.89	\$20,309.99	1.0	0.1	.44

Table 6 Descriptive Statistics for Student Indices by T-Score Category

		Average GRE-V	Average GRE-Q	Student Support (FTE)	Selectivity	Yield	Post doctoral positions	Employed in field
60 or more	Mean	527.9	661.2	24.3	.4	.8	.13	.5
	Std. Dev	41.8	27.1	19.4	.2	.1	.08	.2
50-59	Mean	505.5	633.2	16.5	.4	.8	.15	.3
	Std. Dev	61.2	34.1	7.6	.1	.1	.09	.3
40-49	Mean	486.3	592.5	15.9	.5	.7	.05	.4
	Std. Dev	40.4	46.5	8.1	.2	.1	.07	.3
Less than 40	Mean	435.4	487.6	8.1	.7	.8	.03	.5
	Std. Dev	27.9	37.6	9.1	.3	.1	.05	.4
Overall	Mean	494.3	606.3	16.7	.5	.8	.10	.5
	Std. Dev	53.1	63.7	11.4	.2	.1	.09	.3

score, refereed journal articles. Most of the variables have a meaningful correlation with final score as they should. That is, the items that make up the total score should be positively related to it. Table 8 provides the same estimates for graduate student data with GRE-V and GRE-Q having the highest correlations. Table 9 is the correlation of number of faculty and by rank with the final ranking T-score. The only meaningful correlation here is number of full professors on the faculty. Since full professors are likely to have more substantial publications records, presentations, and grant dollars, the correlation with program ranking is logical and desirable.

Table 7 Correlations Between Corrected Faculty Indices and Final Ranking

Index	r
Journal articles (20%)	.85
Books (5%)	.41
Presentations (5%)	.79
Federal funding (15%)	.56
External funding (non-Fed) (8%)	.40
Internal funding (3%)	.33
Editorial Boards (6%)	.62
AAKPE Fellows (2%)	.50
Professional Fellows (2%)	.21

Table 8 Correlation Between Student Indices and Final Ranking

Index	r
Average GRE – V (5%)	.53
Average GRE – Q (5%)	.81
Student support (FTE) (13%)	.39
Selectivity (2%)	.45
Yield (2%)	.27
Post-doctoral positions (4%)	.48
Positions in field (3%)	.09

Table 9 Correlation Between Number of Doctoral Faculty and Final Ranking

Faculty Number	r
Total faculty (N)	.25
Assistant Professors (n)	-.05
Associate Professors (n)	.22
Professors (n)	.38

Discussion

In looking at the results from Table 2, the influence of correcting the faculty indices by the number of doctoral faculty is apparent. For example, in the top 10 programs 5 have less than 10 doctoral faculty while the other 5 have more than 14 faculty with 2 (Pennsylvania State University and University of Illinois at Urbana-Champaign) having 18 or more. Thus, institutions with large and small numbers of doctoral faculty are included at top programs. Six (Pennsylvania State University, University of Illinois at Urbana-Champaign, University of Maryland, University of Massachusetts, Indiana University, and Teachers College-Columbia University) of the top 10 programs have long histories of producing doctoral students and have appeared near the top of previous surveys (e.g., Hasbrook & Loy, 1983; Massengale & Sage, 1982). However, the University of Connecticut, Arizona State University, Oregon State University, and the University of South Carolina may be considered more recent additions to top U.S. doctoral programs in kinesiology as they did not appear among top programs in previous rankings.

Institutions in the 11-20 range are more variable in their previous history and rankings than the top 10 group. For example, University of Texas at Austin, University of Wisconsin, Michigan State University, and the University of Michigan were listed among top 20 programs in previous rankings (Hasbrook & Loy, 1983; Massengale & Sage, 1982) while 6 programs making this group would be considered new to previous top 20 listings (Iowa State University, Texas A&M University, University of Georgia, University of Houston, University of Illinois-Chicago, and University of Minnesota). The final 12 institutions that participated in the survey also includes a number of programs appearing in the top 20 in previous rankings (Hasbrook & Loy, 1983; Massengale & Sage, 1982)—Florida State University, Ohio State University, Purdue University, and University of North Carolina at Greensboro. Again, there are several programs in the current list that did not appear in previous rankings—Auburn University, Louisiana State University, North Dakota State University, Texas Woman's University, University of Mississippi, University of Oklahoma, University of Utah, and West Virginia University. While there are certainly substantial changes (as would be expected) over the 20 years since previous rankings, most of the quantitative outcomes reported here are consistent with previous findings (e.g., Hasbrook & Loy, 1983; Massengale & Sage, 1982). However, the quantitative ranking allows for an unbiased and data-based ranking, which gives validity to the process and allows all programs to be fairly evaluated. In addition, the AAKPE plans to conduct this survey at 5-year intervals allowing a regular and consistent model for reporting findings.

There are several well-established programs that chose not to participate (see Appendix A, non-participating programs), including Springfield College, SUNY at Buffalo, University of Alabama, University of Florida, University of Iowa, University of Oregon, University of Pittsburgh, University of Southern California, University of Tennessee, and University of Virginia. The decision not to participate by the University of Oregon and the University of Southern California is likely due to their change in focus to integrative physiology. Thus, possibly they should have been excluded from the listing. Several of the other non-participating programs are relatively new (e.g., East Carolina University, Georgia State University, Oklahoma State University) or have doctoral programs with a relatively narrow focus (e.g., Ball State University—exercise physiology).

Tables 3 and 4 offer participating and non-participating institutions a basis for comparing their faculty and student indices to other programs, particularly the top ranked programs. Tables 5 and 6 offer comparison of mean data by four ranking categories (T-scores of 60 and above, 50-59, 40-49, and below 40) allowing institutions to see the average values (and standard deviations) of these groupings. For example, over the 5-year time span of this report, a profile of institutions with T-scores of 60 and above showed faculty averaged 24 publications in refereed journals, about 1 book, 32 presentations at conferences, nearly \$800,000 in Federal funding, and over \$200,000 in other funding. While these numbers have been corrected for the number of faculty at each institution, that is quite an outstanding record for the faculty at the 6 institutions with T-scores 60 or greater (Pennsylvania State University, University of Connecticut, Arizona State University, University of Illinois at Urbana-Champaign, University of Maryland, and the University of Massachusetts). Looking at the bottom of Table 5, it is impressive to note that the 32 institutions reported a total of 407 doctoral faculty who over a 5-year period averaged 15.5 refereed publications, 20 presentations, and over \$500,000 in external funding to support research and graduate students.

For the graduate student data reported in Table 6, the top doctoral granting institutions (T-score of 60 or greater) attract quality students as reflected by GRE scores (Verbal = 528, Quantitative = 661). In fact, the overall quality of graduate students is good with average GRE-V = 494 and GRE-Q = 606. The higher GRE-Q score is not surprising given the quantitative course requirements found in most undergraduate Kinesiology departments (e.g., biomechanics, research methods, and measurement courses).

Finally, we hope institutions, administrators, faculty, and graduate students will interpret these data carefully. For example, the range of T-score differences among the top 10 institutions is only 8 T-score points and the range among the next 10 is only 9 T-score points. A single T-score point often separates one institution from another. Thus, using data to set goals and develop strategies is worthwhile but judgments about qualitative differences among programs based on a few T-score points is not a valid use of these data. Some of the large programs are very broad-based in their offerings (e.g., variety of PhD specializations), while other smaller programs are narrowly focused and offer fewer specializations. Neither is bad, it just reflects differing goals, models, and resources.

Summary

The AAKPE doctoral program evaluation is the first of a planned series of evaluations of doctoral programs from the field of kinesiology and physical education. The AAKPE plans to conduct the evaluation at 5-year intervals. Based on findings from previous reports of doctoral program evaluation, most, but not all, of the top U.S. doctoral programs participated in the current survey. Data collected were quantitative in nature and included both faculty and student indices with faculty indices weighted as 66% and student indices as 34% of the final T-score used for ranking programs. Additional information was provided including T-score values by institution for each component and average data for institutions falling into the T-score categories of 60 and above, 50-59, 40-49, and below 40.

References

- Hasbrook, C.A., & Loy, J.W. (1983). Assessment of doctoral programs in physical education: Reports, rankings, and recommendations. *Quest*, **35**, 131-144.
- Massengale, J.D. (1987). Current status of graduate physical education: Program demography and the issue of program rankings. *Quest*, **39**, 97-102.
- Massengale, J.D., & Sage, G.H. (1982). Departmental prestige and career mobility patterns of college physical educators. *Research Quarterly for Exercise and Sport*, **53**, 305-312.
- Siedentop, D. (1987). Going public: Quality control in graduate education. *Quest*, **39**, 82-87.
- Spirduso, W.W. (1987). Graduate program ranking in physical education. *Quest*, **39**, 103-113.
- Thomas, J.R., Morrow, J.R., Jr., & Stevermer, C. (2004). Evaluating doctoral education in physical activity: Role of the American Academy of Kinesiology and Physical Education. *Quest*, **56**, 361-376.

End Notes

¹The AAKPE Doctoral Program Committee consisted of Dr. Kirk Cureton (University of Georgia), Dr. Scott Kretchmar (Pennsylvania State University), Dr. Gil Reeve (Texas Tech University), Dr. Waneen Spirduso (University of Texas), Dr. Jerry Thomas (Iowa State University and Committee Chair) and Dr. James R. Morrow, Jr. (University of North Texas and then current AAKPE President).

²Considerable discussion was held among the Doctoral Program Committee (end note 1) as well as at several annual meetings of the AAKPE concerning whether faculty indices at each institution should be corrected for faculty size. Quality is based on the number of faculty in an academic unit as well as the expertise of individual faculty. While there was never complete agreement, the consensus was that the correction should be used for faculty indices. Thus, all faculty indices were divided by the number of graduate faculty reported.

Acknowledgment

This paper was developed at the request of the Executive Committee of the American Academy of Kinesiology and Physical Education (AAKPE). Thomas was Chair of the Academy's Doctoral Program Committee, and Reeve was a member of that Committee as well as President of AAKPE during the survey. Two other Academy Fellows who are also measurement experts, James R. Morrow, Jr. and Allen W. Jackson from the University of North Texas (a non-doctoral granting program in kinesiology), were contracted to evaluate the data and report to the AAKPE. The data presented are from their report. The AAKPE Executive Committee and the AAKPE Doctoral Committee have read this report and approved its publication.

Appendix A

Participating and Non-Participating Programs in AAKPE Doctoral Program Review 2000-2004

Participating Programs

Arizona State University—Kinesiology
 Auburn University
 Florida State University—SMRMPE
 Indiana University
 Iowa State University
 Louisiana State University
 Michigan State University
 North Dakota State University
 Ohio State University
 Oregon State University
 Penn State University
 Purdue University
 Teachers College, Columbia University
 Texas A&M University
 Texas Woman's University
 University of Connecticut
 University of Georgia
 University of Houston
 University of Illinois, Chicago
 University of Illinois, Urbana-Champaign
 University of Maryland
 University of Massachusetts - Exercise Science
 University of Michigan
 University of Minnesota
 University of Mississippi
 University of North Carolina—Greensboro
 University of Oklahoma
 University of South Carolina—Exercise Science
 University of Texas
 University of Utah
 University of Wisconsin, Madison
 West Virginia University—Physical Education

Non-Participating Programs

Arizona State University—Exercise and Wellness
 Ball State University
 Brigham Young University
 East Carolina University
 Florida State University—Movement Science

Georgia State University
Oklahoma State University
Springfield College—Exercise Science
Springfield College—Physical Education
SUNY, Buffalo
Syracuse University
Temple University
United States Sports Academy
University of Alabama
University of Arkansas
University of Delaware
University of Florida—Applied Physiology and Kinesiology
University of Florida—Sport Management
University of Idaho
University of Iowa—Exercise Science
University of Iowa—Psych of Sport & Phy Act
University of Kansas
University of Kentucky
University of Massachusetts—Sport Management
University of Miami
University of New Mexico
University of Northern Colorado
University of Oregon
University of Pittsburgh
University of South Carolina—Physical Education
University of Southern California
University of Southern Mississippi
University of Tennessee
University of Toledo
University of Virginia
Virginia Tech University
West Virginia University—HPAES

Appendix B

AAKPE DOCTORAL PROGRAM EVALUATION

Instructional Guide

This Instructional Guide provides definitions and specific instructions for completing the EXCEL file data sheets. There is one EXCEL File (AAKPE Doctoral Program Evaluation – 2004) with two data entry sheets: Faculty Data, Student Group Data.

The faculty data are entered for EACH faculty but the student data are entered for the entire academic unit being evaluated.

If you have questions regarding the information requested, please contact _____ in the AAKPE Business Office (phone: _____, email: _____).

Return the completed EXEL file electronically to: _____ AND mail a hardcopy with signature to: AAKPE Business Office, _____.

Sign-Off

The department chairperson MUST sign-off on a hardcopy of the data submitted, verifying its accuracy. Use the Verification Page associated with this document. The mailing address is above.

Review Period

Data to be included are for the 5 calendar years 2000-2004. For faculty members, you are to include faculty members who are CURRENTLY conducting doctoral activities in your unit. Counts, amounts, and values inserted are for their activities throughout the ENTIRE 5-year period.

For student data include the current year or the entire 5-year period of 2000-2004 as described in this Instructional Guide.

FAQ

A list of Frequency Asked Questions can be viewed at <<WWW site here>>. If you have a question, contact _____ at _____ and you will receive a reply to your question. If appropriate, it will also be added to the Internet FAQ.

FACULTY DATA

A. Criteria for Inclusion of Faculty

Faculty must meet all three of the following:

1. *Currently* teach doctoral-serving courses AND/OR direct doctoral dissertations AND/OR serve on doctoral advisory committees;
2. Hold a doctoral degree and be in a tenured or tenure-earning position at the rank of assistant professor, associate professor, or professor;
3. At least 25% of their base salary support provided by academic unit sponsoring the doctoral program.

B. Instructions for Completing Each Column in Faculty Data Sheet (EXCEL variable names are listed in parentheses) (sheet name Faculty Data).

Faculty (faculty)

Individually list each faculty member who meets the above criteria for inclusion using any alphanumeric code that is meaningful to you. These should be faculty members who currently exist in your unit this academic year. It does not matter if they were not in your unit last year or 5 years ago; they still count.

Rank (rank)

To indicate rank of a faculty member: use 1 = assistant professor, 2 = associate professor, and 3 = professor.

Publications (include all publications in the count, whether senior or co-author)

Scholarly articles, book chapters, and monographs (jpubs). Enter the number of full length scholarly articles IN REFEREED JOURNALS, chapters in books, and monographs for each faculty member for the past 5 calendar years. Even if a particular faculty member has not been in your unit for a total of 5 years, still include all 5 years of his or her publications. If more than one faculty member is a co-author, count the publication as 1 for EACH of them. DO NOT INCLUDE ABSTRACTS, PROCEEDINGS or PROJECT REPORTS.

Books (bpubs). Enter the number of books for the past 5 calendar years (author, co-author, or editor). If more than one faculty member is a co-author, count the book as 1 for EACH of them. If more than 1 edition is published in the 5-year period, count EACH edition.

Presentations (present)

Enter the number of presentations whether senior or co-author over the past 5 calendar years. If more than one faculty member is a co-author, count the presentation as 1 for EACH of them. INCLUDE ONLY SCHOLARLY PRESENTATIONS AT NATIONAL AND INTERNATIONAL MEETINGS. Do NOT include sessions for which the faculty member simply acted as a presider.

External Funding

Federal extramural funds (not funding from university) (extfundfed). List the total extramural dollars (direct + indirect costs) for all contracts, grants, training program grants, etc. for each faculty member over the past 5 years. If multiple investigators, divide dollar amount proportionally by assignment. The proportional amount should total to the actual award amount. If multiple years, include only the dollar amount for the 5 years under evaluation.

External research funding (extfundnonfed). List the total extramural dollars (direct + indirect costs) for non-federal research grants only for each faculty member for the past 5 years. If multiple investigators, divide dollar amount proportionally by assignment. The proportional amount should total to the actual award amount. If multiple years, include only the dollar amount for the 5 years under evaluation.

Internal research funding (infund). List the total dollars (direct + indirect costs) for internal research grants only for each faculty member for the past 5 years. If multiple investigators, divide dollar amount proportionally by assignment. The proportional amount should total to the actual award amount. If multiple years, include only the dollar amount for the 5 years under evaluation.

Editors and Editorial Boards (editboard)

List the number of editorships and editorial boards for scholarly journals that each faculty member has held over the past 5 years. Do NOT include journals for which one simply serves as a reviewer. For example, if professor X served on *Medicine and Science in Sports & Exercise* for Years 1, 2, and 3; *Journal of Motor Behavior* for Years 3 and 4; and started on a new editorial board for *The Journal of Sport Psychology* in Year 4, the total would be 3.

Fellows in AAKPE (AAKPEFellow)

Enter if faculty member is an active fellow in the American Academy of Kinesiology and Physical Education for any year during the past 5 years. Enter “Yes” or “No”.

Fellows in Other Scholarly Societies (otherfellow)

Enter the number of active fellow positions held by faculty in other scholarly societies across the 5-year period. Count the number of societies in the past 5 years, and NOT the number of years.

STUDENT GROUP DATA

DATA Page: Student Group Data

A. Criteria for Inclusion of Current Students

Data included here are summary/grouped data

B. Instructions for Completing Each Column on the Student Group Data Sheet

Minimum GRE Verbal Score Required (minGREVerbal)

Enter the minimum GRE Verbal score required for admission to the doctoral program. If none – enter NONE.

Minimum GRE Quantitative Score Required (minGREQuant)

Enter the minimum GRE Quantitative score required for admission to the doctoral program. If none –enter NONE.

GRE Scores (aveGREVerbal) (aveGREQuant)

Enter the AVERAGE entry GRE scores (verbal, quantitative) for all doctoral students CURRENTLY in the program. If the student has completed the GRE more than once, use only the scores ACTUALLY USED to make the admission

decision. Use all full- and part-time students enrolled in the doctoral program in this field during the 2004 calendar year (spring, summer and/or fall, 2004). Include all doctoral students enrolled for one or more academic credits.

Student Support (stusupport)

Enter the total number of FTE for which your unit has graduate student support FOR THIS ACADEMIC YEAR. These could be Research Assistants, Graduate Assistants, Teaching Fellows, Teaching Assistants, etc.

Applications (applicat)

Enter the number of completed doctoral applications received for the doctoral program for the past 5 years. This is the number of applications that have reached your unit's decision point (this might be the Graduate School, the Department Chair, or the Graduate Coordinator, etc.).

Acceptance (accept)

Enter the number of doctoral students who have been accepted into this doctoral program in the last 5 years.

Enrolled (enrolled)

Enter the number of those who were accepted who actually enrolled in this program.

Post-doctoral student employment (postdoc)

Enter the total number of doctoral graduates in the past 5 years who accepted post-doctoral positions. This does NOT include regular faculty positions taken.

Employment in the field (employfield)

Enter the total number of doctoral graduates in the past 5 years who accepted full-time professional positions relevant to your doctoral program. This does NOT include Post-doctoral employment indicated above.