

A Statistical Profile of Doctoral Students in Recreation, Park, Tourism and Leisure Studies

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Abstract

Numerous research studies have produced statistical profiles of higher education on a national basis. However, these national databases are insufficient to provide thorough information on any specific field. In 1991, Crompton studied the statistical profile of doctoral students in the fields of recreation, park, tourism, and leisure studies, and since then, there has been little, if any follow-up research on doctoral student profiling. The focus of this study was to identify the statistical profile of doctoral students in Fall 1997, and contrast this profile with the baseline data collected by Crompton (1991). Data were collected from 15 out of the 17 universities where offering doctoral degrees in recreation, park, tourism, and leisure studies by using a mailed questionnaire. Significant differences were found in the stipends paid to the doctoral students, the tuition status, and the type of Master's degree held by doctoral students between fall 1989 and fall 1997. No significant differences were found in the number of doctoral students enrolled in the five specialty areas (administration, tourism, leisure behavior, therapeutic recreation, and outdoor recreation), gender distribution, and nationality distribution between fall 1989 and fall 1997.

Keywords: doctoral students profile, recreation, park, tourism, and leisure studies

Biographical Information

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Introduction

Numerous research studies have produced statistical profiles of higher education on a national basis. These include examining the human and financial resources involved

in the delivery of post-seconding education (U.S. Department of Education, 1994), producing annual fact books (Andersen, 1975, and 1989; Benz, 1991; King, 1991; Myers, 1982), surveying the total number of doctoral degrees conferred (Ries & Thurgood, 1993; Thurgood & Clarke, 1995), and exploring continuity and change in research-doctorate program (Marvin, Brendan, & Pamela, 1995). However, these national databases are insufficient to provide thorough information on any specific field. As a result, educators and administrators have found it useful to conduct more specialized studies that can contribute to their own field. Examples of these studies, which focused on doctoral programs, include the following disciplines: pharmacy (Penna & Sherman, 1986, 1987, 1988, 1989 and 1990), physics (Ellis & Mulvey, 1993), higher education (Crosson & Nelson, 1986), real estate (Lyon, 1987), physical education (Baker & King, 1983; Crase & Hamrick, 1992, and 1994), arts, sciences, humanities, and engineering (Garet, 1982), health education (Hamrick & Crase, 1990, and 1993), science and engineering (Tuckman, Coyle, & Bae, 1990), psychology (Norcross, Hanych, & Terranova, 1996) and humanities (Brown & Ingram, 1997). However, despite Crompton's 1991 study of a statistical profile of doctoral students in the fields of recreation, park, tourism, and leisure studies, there has been little, if any follow-up research on doctoral student profiling.

In general, the purposes of the past statistical profile studies have been: (a) to examine the range and diversity of graduate education, and (b) to create a database that would permit interested analysts to explore and present findings in a way that is accessible to educators, administrators, students and policy-makers alike. A number of studies have focused on specific characteristics of doctoral students. Areas examined include enrollment trends (Bailey, 1982; Norcross, Hanych, & Terranova, 1996; Syverson & Welch, 1993; Stedman, 1978), human resources management (Hanson, 1987; Lane, 1987; Moffat, 1978), financial support (Choy & Kagehiro, 1993; Lane, 1987), career development (Bowen, 1981; Cartter, 1976; Gregg, 1985; Townsend & Manson, 1990), sexism and racism issues (Crase & Hamrick, 1994; Hill, 1983; Leatherman, 1994; Magner, 1993), and characteristics of the students (Baker & King 1983; Brown & Ingram, 1997; Ellis & Mulvey, 1993; Garet, 1982; Hamrick & Crase, 1992, 1993, and 1994; Norcross, Hanych, & Terranova, 1996; Penna & Sherman, 1986, 1987, 1988, 1989 and 1990).

Crompton's study (1991) opened this area of investigation to include doctoral students in recreation, parks, and leisure studies. Although he looked at a variety of characteristics in his profile in 1989, some questions were left unanswered by his findings. Answering these questions necessitated additional research as he stated in his conclusion:

The profile of doctoral students reveals some interesting data, but its main value probably lies in providing baseline information against which future profiles can be compared to identify trends. The lack of previous data against which to compare this profile meant that discussion and interpretation of the data was conjectural and speculative. It is suggested that this profile study be replicated every four years, which is the average length of time it takes to complete the doctoral degree. (1991, p.11)

The focus of this study was to identify the statistical profile of doctoral students in Fall, 1997, and contrast this profile with the baseline data collected by Crompton (1991). To better explore the profiles of doctoral students in these two time periods, this study addressed several specific questions:

1. What does the profile of full-time doctoral students in the recreation, park, tourism, and leisure studies field look like in the Fall of 1997?
2. Are there any significant differences in the number of doctoral students enrolled in the five specialty areas as identified by Crompton (1991) between Fall 1989 and Fall 1997?
3. Are there significant differences between participants in the two studies in any of the following areas: gender distribution, nationality distribution, amount of stipend, tuition status, and type of Master's degree?

Methodology

Participants

Seventeen institutions formed the sample for this study. The institutional list was generated from the 1996-1997 Society of Park and Recreation Educators (SPRE) curriculum catalog. The SPRE curriculum catalog met the criteria of an identifiable listing of institutions that offered doctoral programs in recreation, park, tourism, and leisure studies.

Instrument

The development of the instrument involved (a) a study of literature relating to the research on the doctoral student profile, (b) a review of the instrument used by Crompton in 1989 and (c) feedback from a panel of experts for revision of the survey instrument. The completed questionnaire contained two parts: Part I consisted of background information on the institutions, and Part II queried the doctoral students on: degree title, gender, age, nationality, race, years and months in doctoral program, amount of monthly assistantship stipend, tuition status, expected graduation date, specialty area, and type of Master degree held. To ascertain the profile of doctoral students, a designated representative from each participating university was asked to fill out information about doctoral students enrolled in his/her institution. Each school received a questionnaire with a stamped return envelope. All data were collected in accordance with the ethical standards of the American Psychological Association. The objectives and purposes of the survey were explained. Participants were requested to read the instructions before completing the questionnaire. The questionnaire took between one to four hours to complete, depending on how many doctoral students they had in their programs and whether they had to search multiple sources for the requested information.

Analysis of Data

This study relied primarily on descriptive statistics to analyze the profile of doctoral students in recreation, parks, tourism, and leisure studies in Fall 1997. Chi-square tests for nominal data were used to analyze the differences between Fall 1989 and Fall 1997 profiles, across the five specialty areas of: administration, tourism, leisure behavior, therapeutic recreation, and outdoor recreation in the following areas: (a) number of students enrolled (b) gender distribution of students; (c) nationality distribution; and (d) type of master's degree held.

Chi-square tests were also used to analyze the differences between Fall 1989 and Fall 1997 profiles in amount of stipends paid and tuition status. The model was implemented using the Chi-square test because: each respondent had only one entry in the table, the expected frequency was more than five in each cell, the data were divided into mutually exclusive categories, and the cell entries were frequencies. The null hypothesis for this study, $H_0: m_{1989} = m_{1997}$, stated that there was no significant difference in the statistical profile of doctoral students between Fall 1989 and Fall 1997. The rejection level of the Chi-square was set at $\alpha = .05$. Finally, the data were analyzed using the Statistical Package for the Social Sciences (SPSS).

Results and Discussions

Respondent Profile

Fifteen of seventeen questionnaires were returned, yielding an overall response rate of 88.2%. Of these, two were discarded due to no reported enrollments. Most of the program descriptions of respondents fell into the category of recreation, parks, tourism, and leisure studies. The only exception was a program description in applied health and educational psychology. A total of 196 full-time students were enrolled in doctoral programs at the 13 institutions. The Ph.D. degree was the most common degree pursued by 175 (89.3%) doctoral students in the field of recreation, park, tourism, and leisure studies. The Ed.D. degree accounted for 14 (7.1%) of the enrollments, and the specialist Re.D. degree accounted for seven (3.6%).

Doctoral Student Profiles

The profiles of doctoral students were explored with regard to varying characteristics and financial status. Tables 1 through 6 describes each of these profiles. Table 1 shows that 39.0% of doctoral students currently enrolled were female. This finding is similar to findings from SPRE surveys conducted from 1978 to 1996. This implies that female representation in the field of recreation, park, tourism, and leisure studies has remained stable from 1978 to present. However, the findings also showed that male students dominated in administration (62.5%), tourism (66.7%), and outdoor recreation (68.1%) specialization. On the other hand, male and female students had similar repre-

sentation in leisure behavior (Male = 50%, Female = 50%), and therapeutic recreation (Male = 51.9%, Female = 48.1%). This table also shows that administration, tourism, and outdoor recreation were the dominant student identified specialty areas, each accounting for more than 20% of enrollment in Fall 1989 and Fall 1997. It is not surprising that administration and outdoor recreation have the greatest percentage of enrollment. Since the job pools in those areas are larger than job pools in other specialization areas. The U.S. Department of Labor (1998) reported that there were about 233,000 jobs in 1996 in the leisure field. Half worked in parks and recreation departments of municipal and county government. On the other hand, recreational therapists only held about 38,000 jobs in 1996 (U.S. Department of Labor, 1998). The high enrollment of international students in tourism accounted for a high percentage enrollment in this specialization. This is perhaps because the host countries that support tourism realize the great economic impact it has on their countries. A growth of interest in leisure science may be the reason for larger enrollment in leisure behavior.

TABLE 1

Gender of Doctoral Students Enrolled in Each Specialty Area

Specialty area	Fall 1997						Fall 1989					
	Male		Female		Total		Male		Female		Total	
	n	% (%)	n	% (%)	n	% (%)	n	% (%)	n	% (%)	n	% (%)
Administration	30	25.0 (62.5)	18	23.7 (37.5)	48	24.5 (100.0)	31	32.0 (68.9)	14	22.6 (31.1)	45	28.3 (100.0)
Tourism	30	25.0 (66.7)	15	19.7 (33.3)	45	23.0 (100.0)	25	25.8 (61.0)	16	25.8 (39.0)	41	25.8 (100.0)
Leisure behavior	16	13.3 (50.0)	16	21.1 (50.0)	32	16.3 (100.0)	7	7.2 (43.8)	9	14.5 (56.3)	16	10.1 (100.0)
Therapeutic recreation	14	11.7 (51.9)	13	17.1 (48.1)	27	13.8 (100.0)	10	10.3 (40.0)	15	24.2 (60.0)	25	15.7 (100.0)
Outdoor recreation	30	25.0 (68.1)	14	18.4 (31.8)	44	22.4 (100.0)	24	24.7 (75.0)	8	12.9 (25.0)	32	20.1 (100.0)
Total number	120	100.0	76	100.0	196	100.0	97	100.0	62	100.0	159	100.0
Total percentage	61.2		38.8		100.0		61.0		39.0		100.0	

Note. n = Percentage of student in five specialty areas. (%) = Percentage of student within the same specialty areas. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 2(1), p. 3.

Table 2 shows that 32.3% of doctoral students currently enrolled were international students. Greater than 60% of the students who specialized in tourism were international students. These two findings are similar to Crompton's (1991) assertion that international students have dominated the supply of potential faculty in tourism. However, the high percentage of Asian students who specialize in tourism can be accounted for by the large Asian tourism market and the demand for potential faculty in tourism in Asia.

On the questionnaire, the item concerning nationality was open-ended. Twenty different countries, including the United States, were reported. The international students, who came from 19 countries, were distributed across five continents. The results show that 74.6% of foreign students were Asian (n=47). Asians formed a dominant group among international students. This implies that Asian students play an important role in doctoral programs in the recreation, park, tourism, and leisure studies field. In addition, doctoral programs may need to anticipate the needs of Asian doctoral students. For ex-

ample, economic conditions or political changes in Asian countries may affect enrollment rates and retention of international students the in leisure field.

TABLE 2

US and Non-US Doctoral Students Enrolled in Each Specialty Area

Specialty area	Fall 1997						Fall 1989					
	United States		International		Total		United States		International		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Administration	35	26.5	13	20.6	48	24.6	33	30.8	12	23.1	45	28.3
Tourism	16	12.1	29	46.0	45	23.1	15	14.0	26	50.0	41	25.8
Leisure behavior	23	17.4	9	14.3	32	16.4	10	9.4	6	11.5	16	10.1
Therapeutic recreation	21	15.9	5	7.9	26	13.3	21	19.6	4	7.7	25	15.7
Outdoor recreation	37	28.0	7	11.1	44	22.6	28	26.2	4	7.7	32	20.1
Total number	132	100.0	63	100.0	195	100.0	107	100.0	52	100.0	159	100.0
Total percentage	67.7		32.3		100.0		67.3		32.7		100.0	

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 3.

Based on the academic programs surveyed, representation of ethnic minorities in the doctoral student population was minimal when international students are disregarded. Out of 131 U.S. students, there were 3 African-Americans, 1 Native American, 1 Hispanic, and 1 Asian-American resulting in minority representation of 4.6%. This finding is similar to findings in a 1996 SPRE Survey (Bialeschki, 1997). Compared with the 22% of minority-received doctorate degrees in 1994-1995 (U.S. Department of Education, 1998), the under-representation of minorities in the field of recreation, park, tourism, and leisure studies remains an area of concern (Bialeschki, 1989, 1997; Gitelson & Henkel, 1983; Gitelson, 1985 and 1987; Stein & Henkel, 1979 and 1981). Moreover, the U.S. Bureau of Census (1998) reported that the percent of population in year 2000 will comprise 71.8% White not Hispanic, 12.9% Black, 0.9% American Indian, Eskimo, and Aleut, 4.1 % Asian and Pacific Islander, and 11.4% Hispanic. It will be a challenge for our profession to serve the diverse consumer population.

Table 3 shows that 56.4% of reported doctoral students are under 36 years old. This finding is similar to the average age of all doctoral students, (33 years old) as reported by the U.S. Department of Education (1998). By integrating length of time in the program and projected graduation date, it is possible to estimate the length of time it takes to complete a doctoral degree. Table 4 indicates that the doctoral degree is likely to take more than four years to complete. This is slightly increased when compared with Crompton's (1991) findings of 40-51 months. By combining data relating to age of doctoral students and length of time taken to complete a doctoral degree, it is possible to project that 50% of doctoral degree recipients will be under 40 years old. Compared to other related disciplines, such as health and physical education, leisure studies and health doctoral students are typically younger than 40 (Hamrick & Crase, 1993). On the other hand, leisure studies doctoral students are older than physical education doctoral students. Eighty-seven percent of physical education doctoral students received their doctorates before they were 40 years old (Crase & Hamrick, 1992).

TABLE 3
Age Distribution of Doctoral Students

Age in Fall 1997	n	%	Valid %
	39	19.9	Missing
30 or under	49	25.0	31.4
31-35	39	20.4	25.0
36-40	29	14.8	18.6
41-45	16	8.2	10.3
46-50	18	9.2	11.5
50 and over	5	2.6	3.2
Total	196	100.0	

TABLE 4
Number of Months Expected to Complete the Degree

Months	n	%	Valid %
	45	23.0	Missing
23 and under	4	2.0	2.6
24-35	16	8.2	10.6
36-47	33	16.8	21.9
48-59	36	18.4	23.8
60-71	28	14.3	18.5
72-83	18	9.2	11.9
84 and over	16	8.2	10.6
Total	196	100.0	100.0

Table 5 shows that 60.3% of doctoral students received a stipend while completing their degree. The amount of remuneration tended to follow a normal distribution, with a peak of about \$900-999 per month (See Figure 1). Moreover, the results also showed that 63.0% of doctoral students were given tuition waivers. This finding is relatively high when comparing with only 41% of Ph.D. students receiving assistantships in a national study by U.S. Department of Education (1998).

TABLE 5
Monthly Stipends Paid to Doctoral Students

Monthly Stipend(dollars)	n	%	Valid %
	196	11.2	Missing
0	69	35.2	39.7
1-499	8	4.1	4.6
500-599	6	3.1	3.4
600-699	8	4.1	4.6
700-799	10	5.1	5.7
800-899	12	6.1	6.9
900-999	43	21.9	24.7
1000-1499	11	5.6	6.3
1500-1999	4	2.0	2.3
2000 and over	3	1.5	1.7
Total	196	100.0	100.0

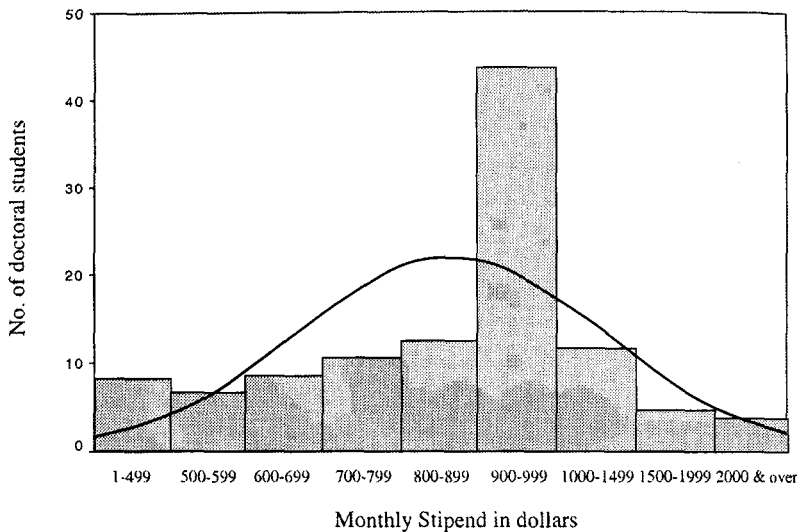


Figure 1. Frequency Distribution of Monthly Stipends

The doctoral students in this study received their Master's degrees from 32 different disciplines. The disciplines were divided into six categories according to the Department of Education's standard educational program classification system (U.S. Department of Education, 1997). Results are presented in Table 6. The majority of doctoral students (62.3%) had received their Master's degrees in recreation, parks, tourism, or leisure studies. The specialty area with the least diversity was leisure behavior. More than 85% of those enrolled in this area came from backgrounds in recreation, parks, tourism, or leisure studies. Nevertheless, more than 40% of those enrolled in administration, therapeutic recreation, outdoor recreation, and tourism areas came from diverse backgrounds.

TABLE 6

The Study Area in which Doctoral Students in Each of the Five Specialty Areas obtained their Master's Degrees

	Administration		Tourism		Leisure behavior		Therapeutic recreation		Outdoor recreation		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Master Degrees												
Recreation, parks, leisure, and tourism	26	56.5	23	53.5	27	90.0	18	69.2	20	52.6	114	62.3
Physical Science	3	6.5	5	11.6	0	0	0	0	0	0	8	4.4
Life Science	3	6.5	3	6.9	1	3.3	2	7.7	8	21.1	17	9.3
Social Science	3	6.5	6	14.0	0	0	1	3.9	4	10.5	14	7.6
Liberal arts	8	17.5	2	4.7	2	6.7	5	19.2	4	10.5	21	11.5
Professional	3	6.5	4	9.3	0	0	0	0	2	5.3	9	4.9
Total	46	100.0	43	100.0	30	100.0	26	100.0	38	100.0	183	100.0

Relationships of Doctoral Student Profiles between Fall 1989 and Fall 1997

The second purpose of this study was to examine differences in statistical profiles of doctoral students between Fall 1989 and Fall 1997. It was hypothesized that no significant differences exist in the statistical profiles of doctoral students between these two groups. Relative to the number of doctoral students enrolled in the five specialty areas, no significant difference was observed. This implies that the number of doctoral students enrolled in the five specialty areas remained stable from 1989 to 1997. It also suggests that tourism is not the major growth area. There was no decline in enrollment within the administration area (See Table 7). The enrollment increased more in the leisure behavior and outdoor recreation specialization areas than in the therapeutic recreation area.

TABLE 7

Number of Doctoral Students Enrolled in the Five Specialty Areas in Fall 1989 and Fall 1997

Specialty area	Student profile	
	Fall 1989	Fall 1997
	<i>n</i>	<i>n</i>
Administration	45	48
Tourism	41	45
Leisure behavior	16	32
Therapeutic recreation	25	27
Outdoor recreation	32	44
Total	159	196

$\chi^2 = 3.77246$, $df = 4$, $p > .05$

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 2.

Neither the gender nor the nationality distributions of doctoral students changed significantly between 1989 and 1997 (see Tables 8 and 9).

TABLE 8

Gender Distribution of Doctoral Students in Fall 1989 and Fall 1997

Gender	Student profile	
	Fall 1989	Fall 1997
	<i>n</i>	<i>n</i>
Male	97	120
Female	62	76
Total	159	196

$\chi^2 = .00176$, $df = 1$, $p > .05$

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 3.

TABLE 9

Nationality Distribution of Doctoral Students in Fall 1989 and Fall 1997

	Student profile	
	Fall 1989	Fall 1997
Nationality	<u>n</u>	<u>n</u>
United States	107	132
International	52	63
Total	159	195

$\chi^2 = .00628$, $df = 1$, $p > .05$

*Valid cases 195 Missing cases 1

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 3.

Contrary to the hypothesis, a significant difference was found in the amount of stipends paid to doctoral students between Fall 1989 and Fall 1997 (See Table 10). Remuneration tends to follow a normal distribution, with a peak of \$700-799 per month in Fall 1989 and \$900-999 per month in Fall 1997. This increase can be accounted for by rises in cost of living, reflected in 32.65% increase in the consumer price index from 1989 to 1996 (See table 11). Seven hundred dollars in 1989 equaled \$929 (\$700 X 132.65%) in 1997, and \$799 in 1989 equaled \$1060 (\$799 X 132.65%) in 1997. Therefore, there was no real stipend income growth for doctoral students between Fall 1989 and Fall 1997. In general, the amount of stipend received by doctoral students in our discipline is not as high as the national average of \$12,500 per academic year for 1995-96 (U.S. Department of Education, 1998). This amount was equal to \$13,235 in 1997.

TABLE 10

Amount of Stipends Paid to Doctoral Students in Fall 1989 and Fall 1997

Stipends per month (dollars)	Student profile	
	Fall 1989	Fall 1997
	<u>n</u>	<u>n</u>
0	30	69
1-499	14	8
500-599	11	6
600-699	18	8
700-799	30	10
800-899	13	12
900-999	0	43
1000-1999	4	15
2000 & over	5	3
Total	125	174

$\chi^2 = 76.24268$, $df = 8$, $p < .05$

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 8.

TABLE 11

The Consumer Price Index (CPI) from 1989 to 1996

Year	Annual Average Percentage Change of Consumer Price Index
1989	4.8%
1990	5.4%
1991	4.2%
1992	3.0%
1993	3.0%
1994	2.6%
1995	2.8%
1996	3.0%
Total % Change in CPI from 1989 to 1996	32.65%*
Total % Change in CPI from 1995 to 1996	5.88%**

Note. * Total % Change = $\{(100\%+4.8\%)1989 \times (100\%+5.4\%)1990 \times (100\%+5.2\%)1991 \times (100\%+3.0\%)1992 \times (100\%+3.0\%)1993 \times (100\%+2.6\%)1994 \times (100\%+2.8\%)1995 \times (100\%+3.0\%)1996\} - 100\%$; ** Total % Change = $\{(100\%+2.8\%)1995 \times (100\%+3.0\%)1996\} - 100\%$. The data of annual average percentage change of consumer price index are from U.S. Department of Labor (1998). CPI detailed report: Data for December 1997. Washington, DC: Bureau of Labor Statistics.

A significant difference was found in tuition status of doctoral students. The large portion of doctoral students who received tuition waivers in 1997 accounts for the difference (See Table 12).

TABLE 12

Tuition Status of Doctoral Students in Fall 1989 and Fall 1997

Tuition	Student profile	
	Fall 1989	Fall 1997
	<i>n</i>	<i>n</i>
Waived	66	116
Instate	53	39
Out-of-state	22	29
Total	141	184

$\chi^2 = 11.33670, df = 2, p < .05$

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, Journal of Park and Recreation Administration, 9(1), p. 8.

Another significant difference was found in the type of Master's degree held by doctoral students. This difference can be accounted for by the category "other" in Table 13, which includes degrees obtained in social science and life science fields. These two fields were not presented in the Fall of 1989 profiles; however, the method of collapsing Master's degrees was different in Fall 1989 and Fall 1997. The lack of consistent catego-

ries makes a comparison difficult. This study divided the Master's degree fields into six categories by using the Department of Education's standard educational program classification system (U.S. Department of Education, 1997), which standardizes the data and makes both comparison and further replication of the present study easier.

TABLE 13
Master's Degree Fields in Fall 1989 and Fall 1997

Master Degrees	Student profile	
	Fall 1989	Fall 1997
	<i>n</i>	<i>n</i>
Recreation, parks, leisure, and tourism	104	107
Business	4	6
Physical Science	6	1
Liberal arts	23	21
Agriculture	7	15
Architecture & urban planning	10	9
Other	0	24
Total	154	183

$\chi^2 = 28.78432$, $df = 6$, $p < .05$

Note. The data for Fall 1989 are from "A profile of students in recreation, park, and tourism doctoral programs at eight major U.S. universities," by J. L. Crompton, 1991, *Journal of Park and Recreation Administration*, 9(1), p. 5.

Recommendations for Further Study

The following recommendations are made for further research in the area of doctoral student statistical profiles. First, as previously suggested by Crompton (1991), this type of study should be replicated every four years, which is the average length of time it takes to complete a doctoral degree. This would allow trends to be identified. In addition, the relationship between the supply of potential faculty and the demand for new faculty should be examined. This would provide information for career forecasting and helped to determine if there were too many Ph.D. programs or too many Ph.D. for too few jobs. To compliment these studies, examination can be made of perceived barriers by seniors and masters students to pursuing advanced degrees. Moreover, there is a need for studies to identify the impact on enrollment of international doctoral students in recreation, park, tourism, and leisure studies. This would permit more information for enrollment forecasting and potential dialogue between schools on ways to support students. Finally, studies identifying recruitment and retention of a diverse faculty and student profile are needed to parallel global insistence on cultural competence, as the consumer population of leisure services becomes more diverse.

Implications

Findings from this study have important practical implications for educators, administrators, students, and policy makers. First, it appears that males are the dominant group in the administration, tourism, or outdoor recreation options. Thus, academic programs may have difficulty hiring new female faculty in these specialty areas. Second, Asian students dominate the student population in the tourism specialty area, perhaps due to the large tourist market and demand for tourism faculty in Asia. However, this also implies that if demand of potential faculty in tourism is high in the United States, academic programs will have to recruit non-United States scholars. If tourism is a major growth area, the academic preparation and interest in this area may not be keeping pace with the industry.

Third, Asians also formed the dominant group among international students. This implies that Asian students play an important role in doctoral programs in the recreation, park, tourism, and leisure studies field. It then becomes imperative that doctoral programs may need to anticipate the needs of Asian doctoral students and accommodate them.

Fourth, the majority (95.6%) of United States students are Caucasians. This implies a lack of diversity and consequently doctoral programs may have difficulty in meeting institutional diversity requirements when hiring new graduates as faculty. Moreover, it is a challenge for our profession to serve the diverse consumer population that stands at 28% and continues to grow. Departments will have to attract minorities in both master's and doctoral programs, as more than half of the doctoral students in Fall 1997 received their Master's degree in the field of recreation, park, tourism, and leisure studies.

Finally, there was no significant change in enrollments of doctoral students in the five specialty areas between Fall 1989 and Fall 1997 one might assume that the interest areas of those pursuing degrees remains fairly stable over time.

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