

THE CHANGING FACE OF ANIMAL SCIENCE IN NEW MEXICO

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Introduction

New Mexico State University (NMSU) was established in 1888 as the Land Grant University of New Mexico. It is currently the only Land Grant institution classified as Hispanic Serving by the federal government. For the fall semester of 2002, the total enrollment of the main and branch campuses was 24,305. The main campus in Las Cruces had a total of 15,243 students including 2,712 graduate students in fall 2002. Total ethnic minorities on the main campus totaled 49% of the student body including 41% Hispanic, 3% American Indian, 3% African American, and 2% Asian American. In 2002, women comprised 54.4% of the total enrollment compared with 45.6% for men.

In fall 2002, the College of Agriculture and Home Economics at NMSU had a total of 1,653 students of which 1,437 (87%) were undergraduates and 216 (13%) were graduate students. Of the undergraduates, 884 (62%) were women and 553 (38%) were men. Women ($n = 109$) and men ($n = 107$) each comprised 50% of the graduate enrollment. From the standpoint of ethnicity, Hispanic students made up 36% ($n = 518$) of the undergraduate enrollment and 16% ($n = 35$) of the graduate population. Other ethnic groups comprised less than 7% of the student population while 57% ($n = 815$) and 79% ($n = 169$) of undergraduates and graduates, respectively, were white. The Department of Animal and Range Sciences included 208 and 36 undergraduate animal and range science students, respectively. Graduate students included 22 animal science and 16 range science majors.

During my 28-yr career in the Department of Animal and Range Sciences at NMSU, I have had the good fortune of teaching a number of undergraduate and graduate courses. Two classes have been particularly rewarding because they afforded me the opportunity of getting acquainted with essentially all of the students to receive bachelors or graduate degrees in Animal Science. Anatomy and Physiology of Farm Animals (AnSc 370) is a required course in our undergraduate curriculum and I have continuously taught this class (with the exception of one year) since 1975. During my 33 semesters with this class, 1,499 students have been enrolled. Likewise, Endocrinology of Domestic Animals (AnSc 509) is the first physiology class most animal science students take as they begin their graduate program. I have taught 317 individuals during the 28 times this course has been

offered. The objective of this manuscript is to examine enrollment trends in these two classes in an attempt to evaluate the changing face of animal science in New Mexico.

Enrollment Trends

Enrollment in AnSc 370 between 1975 and 2002 is shown in Figure 1. From 1975 through 1979, over 100 students were enrolled each year. In the 1980s, enrollment in this class began a steady decline to reach a low of 21 students in 1990. Although the cause of this declining enrollment is not the subject of this manuscript, similar enrollment declines in Colleges of Agriculture were observed at many U.S. institutions. Enrollment increased through the 1990s and early part of 2000s to stabilize at 35 to 45 students.

Number of students taking AnSc 509 is also depicted in Figure 1. Graduate enrollment has been more stable than undergraduate numbers during this 28-yr period. Graduate students taking AnSc 509 ranged from a high of 21 in 1987 to a low of four students in 2002 but generally numbered 10 to 15 students.

Gender

Of the 1,499 students in AnSc 370, 543 (36.2%) were women and 956 (63.8%) were men. Values shown in Figure 2 depict the dramatic change occurring in the number of women in animal science during the last 28 yr. In 1975, 21.2% of the students in AnSc 370 were women. This number remained below 30% until 1982 when it rose to 35.1%. By the end of the 1980s, women comprised 45.7% of the enrollment; and beginning in 1995, the percentage of women enrolled has not dropped below 50%. In 2002, the percentage of women (76.5%) and men (23.5%) in this class was the opposite of what it had been 28 yr earlier.

Much the same trend can be seen in the percentage of males and females taking AnSc 509 (Figure 2). The values are somewhat more erratic in graduate numbers but the 9.1% female and 90.9% male values of 1975 had changed dramatically by the mid to late 1980s. Since 1991, the gender enrollment ratio has approximated 50:50.

Ethnicity

Students from a wide range of ethnic backgrounds and nationalities have enrolled in these two classes. Students of Hispanic background comprised 21.4% of the 1,499 students to take AnSc 370. Similarly, 22.1% of 317 individuals enrolled in AnSc 509 were Hispanic. For purposes of this discussion, ethnicities were termed EthGrp (Hispanic, American Indian, Asian, African) or white.

Of the total students in AnSc 370, 1,090 (72.7%) were white and 409 (27.3%) were EthGrp. Figure 3 shows the trends in enrollment for EthGrp students between 1975 and 2002. Even in the 1970s, a sizable portion of students enrolled in AnSc 370 were ethnic minorities. This trend has even improved since 1998 when ethnic minority students have generally comprised greater than 35% of the enrollment.

Overall, 67.2% of the 317 students in AnSc 509 were white and 32.8% were EthGrp. The trends across years shown in Figure 3 are generally similar to those discussed for AnSc 370. In 1975, 45.4% of students in AnSc 509 were EthGrp. These values range from a low of 11.1% in 1997 to a high of 58.3% in 1996.

Gender x Ethnicity

Although the enrollment changes observed for women in animal science over the last 28 yr are very dramatic, the increase in women of ethnic minorities is even more impressive. In 1975, one female EthGrp student (1% of total) was enrolled in AnSc 370 compared with 21 (20.2% of total) white women, 17 (16.4% of total) male EthGrp, and 65 (62.5% of total) white men. The percentage of female EthGrp students did not rise consistently above 10% of total class enrollment until 1997. In 2002, 31.4% and 45.1% of total enrollment were EthGrp and white women, respectively, compared with 7.8% and 15.7% EthGrp and white men, respectively.

Between 1975 and 1985, not a single ethnic minority woman was enrolled in AnSc 509. The numbers changed quickly beginning in 1991 when 28.6, 28.6, 28.6, and 14.3% of the total enrollment were ethnic minority women, white women, EthGrp men, and white men, respectively. Women of ethnic background have continued to be attracted to animal science graduate programs and have comprised 8 to 25% of the total AnSc 509 enrollment since 1991 (with the exception of 1998).

Implications

Enrollment trends described herein for two animal science classes over a 28-yr period at New Mexico State University demonstrate the dramatic rise in the number of women interested in careers in animal science. The numbers also show that a sizable portion of the women with these interests are ladies with ethnic minority background. These trends speak well of the future of

students from diverse backgrounds in the field of animal science.

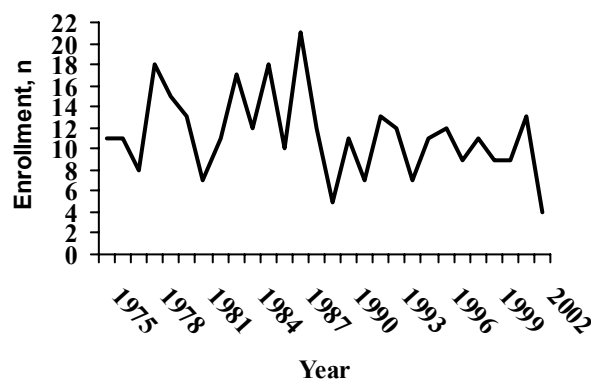
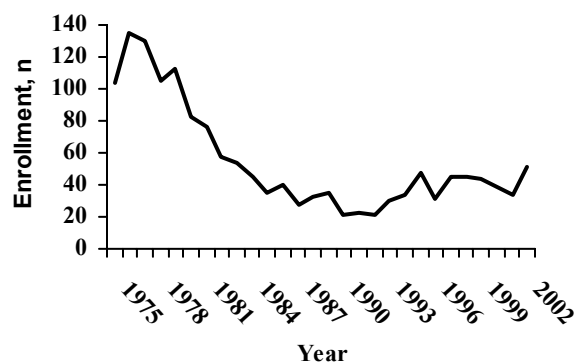


Figure 1. Number of students enrolled in Anatomy and Physiology of Farm Animals (AnSc 370, top frame) and Endocrinology of Domestic Animals (AnSc 509, bottom frame) at New Mexico State University between 1975 and 2002.

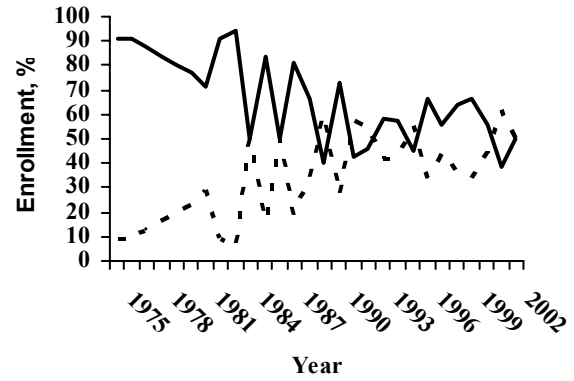
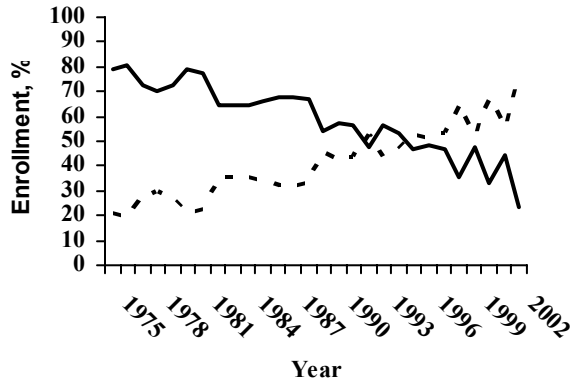


Figure 2. Percentage of female (----) and male (—) students enrolled in Anatomy and Physiology of Farm Animals (AnSc 370, left frame) and Endocrinology of Domestic Animals (AnSc 509, right frame) at New Mexico State University between 1975 and 2002.

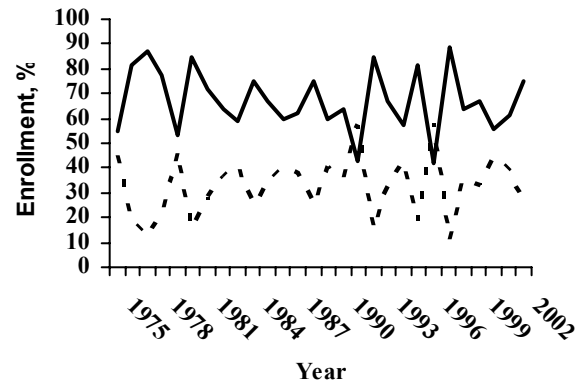
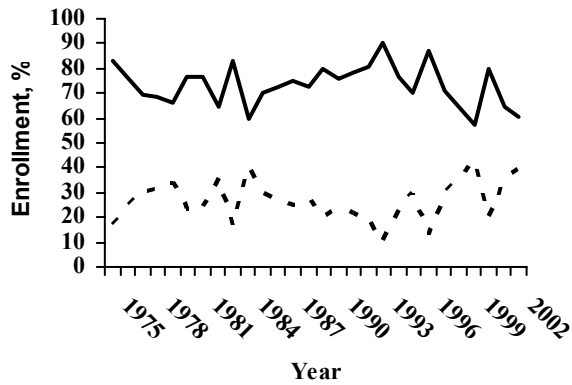


Figure 3. Percentage of students from ethnic (----) and white (—) backgrounds enrolled in Anatomy and Physiology of Farm Animals (AnSc 370, left frame) and Endocrinology of Domestic Animals (AnSc 509, right frame) at New Mexico State University between 1975 and 2002.