Wisconsin women, graduate school, and the professions. Volume II 1980

Swoboda, Marian J.; Roberts, Audrey J.
Madison, Wisconsin: University of Wisconsin System, Office of Women, 1980

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Volume II
University Women
A Series of Essays
University of Wisconsin System

WISCONSIN WOMEN
GRADUATE SCHOOL
AND THE PROFESSIONS

UNIVERSITY WOMEN
A Series of Essays
Volume II

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Funding: Elizabeth Conrad Fund

Published by the Office of Women
1802 Van Hise Hall
1220 Linden Drive
Madison, WI 53706

Price: $3.50

PREFACE

The emergence of women as a vocal and visible political force in the 1970's, the rise in academia of special programs in the study of women, and a raised social consciousness to the inequities women face in higher education have all been contributing factors in an historical reassessment of the role of women in the development of American educational institutions.

This series of three monographs attempts to reassess the role of women in the development of public higher education in Wisconsin. The monographs —

Volume 1: *They Came to Learn, They Came to Teach, They Came to Stay*
Volume 2: *Wisconsin Women, Graduate School, and the Professions*
Volume 3: *Women Emerge in the Seventies*

— are not conventional history, but anthologies of essays, impressions, and sketches dealing with the far and immediate pasts. The essays provide a female perspective on Wisconsin public higher education from the post Civil War days to today. One notices in reading the pieces a perpetuation of concerns: academic rank and promotion differences between men and women, salary inequities, marginal participation in university governance and administration, conflicts between social and career roles. One notes, as well, the varying responses to an on-going situation, responses that vary from acceptance to outrage.

The setting for these essays is the University of Wisconsin System, a federation of public higher education institutions in the State of Wisconsin. The System was formed in 1971 by legislative action merging the University of Wisconsin and the Wisconsin State Universities.

The former University of Wisconsin included the historical land-grant university at Madison, founded in 1849; the urban university at Milwaukee formed in 1956 through the merger of the former Wisconsin State College in Milwaukee and the University of Wisconsin Extension Center in Milwaukee; and two new universities created at Parkside and Green Bay in 1969.

The former Wisconsin State Universities consisted of nine universities which grew out of state normal schools established in Wisconsin between 1866 and 1916. They subsequently moved to state teacher college status then to state colleges and eventually became state universities.

The end result of this evolution of public higher education in Wisconsin is a System of 13 universities and 14 two-year centers plus the renowned extension service founded in 1891. As these three monographs demonstrate, women have played an influential part in the development of higher education in Wisconsin. Until now women's participation has been expressed primarily as footnotes to history. These essays begin to redress this inequity.

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PART THREE:

University Women and Their Professions Today

INTRODUCTION

If there is one recurrent theme in the pieces which constitute this anthology, it is that women in the University of Wisconsin System (in this case, Madison) were caught up in definitions and attitudes which sought to keep even the most capable of them in a position of service and nurture.

In Part One, women who received their doctorates before and during the 1920s are discussed and it is clear that these women were extraordinarily "work-minded," who neither married nor became active in the feminist movement of their time, were trained to teach. Their male counterparts were expected to publish and to become scholars, but for the women doctoral candidates and doctoral holders it was assumed that they "might not become scholars, but it was essential that as teachers, they should have the scholarly spirit." The women were to *teach* art, to *teach* science and to *teach* composition while their male counterparts were to *be* artists, to *be* researchers, and to *be* writers.

That women were viewed as teachers almost to exclusion of any other academic role is clear, as well, in Volume I *(They Came to Learn, They Came to Teach, They Came to Stay)* which recounts the course of study of undergraduate women during the advent of the co-education movement and of those very women who were their teachers.

That women were viewed as nurturing and serving — as vocationally equipped, although perhaps not intellectually or emotionally equipped, to really enter a man's world — is equally clear in Part Two, an anthology of essays which deal with women in the professional schools on the Madison campus.

From the stories of the development of nursing schools which began as hospital based courses of cheap female labor, to the stories of women attempting to enter law in a world in which it was assumed that "nature has tempered women as little for judicial conflicts of the courtroom as for the physical conflicts of the battlefield" and that "woman is modeled for gentler and better things," to the development of fine arts graduate programs which began to prepare "teachers and supervisors of manual training," it is clear that women in academia were to be considered supportive, nurturing, helpful, practical and trainable. They were the educationists while men were the scholars, the artists, the innovators, and the administrators.

That women are still locked into professions which are congruent with social sex-role stereotyping is all too clear in the profiles which constitute Part Three. Although "women came to stay — first as students, and later as faculty," they did so without concommitant rank, promotion, salary, status or job opportunities.

Mechanics Class
UW-Madison Archives Picture

PART ONE

TURN OF THE CENTURY BEGINNINGS

1. Vocational Aspirations and Job Realities

A Look at Some Women Receiving Ph.D.'s Prior to 1926

by Jean Droste

In the sixty years spanning the turn of the century, two major developments in higher education in the United States evolved: increased opportunities for the education of women and the commencement of graduate instruction. Some of the same forces which led to the acceptance of women into undergraduate colleges and universities led to the establishment of graduate education. It is worth noting, however, that in the years between 1870 and 1930 a larger percentage of women received Ph.D.'s than in the following three decades.[1]

The man who received Wisconsin's first Ph.D., Charles Van Hise, was president when the university officially organized the graduate school in 1904. Although there was little opposition to women attending the graduate school at Wisconsin, President Van Hise was not encouraging. "As at Chicago," said Van Hise at an educational conference, "the results of our granting fellowships to the women have not been satisfactory, so far as productive work is concerned. The capacity for constant intellectual effort along one definite line seems to me a very uncommon quality to find in women. While I would not curtail or refuse to admit women in the graduate schools, I do not expect proportionate results from their work."[2] At another meeting before the Association of Collegiate Alumnae in 1908, Van Hise said that he felt all of the state university presidents favored coeducation in undergraduate work, but there were reservations about graduate work for women. He went on to say that "the percentage of women who are willing to work at the same subject six hours a day for three hundred days in the year is much smaller than among the men. Thus, while the intellectual success of the women in undergraduate work is unquestioned, there is still question on the part of some as to the rank they are to take in graduate school and in creative work."[3]

Though Van Hise had reservations about the creative ability of women scholars, he did nothing to stop their entrance into graduate school.

One woman who received her Ph.D. from the University of Wisconsin, Mrs. Karl Young, felt that "the University authorities were not only tolerant of women but were anxious to advance the cause of women's higher education. I was advised to register for the Ph.D. with the offer of free tuition and the prospect of future advancement. The university was planning to emphasize graduate work for both men and women, and to increase the attractiveness of all conditions in the graduate school."[4] In 1906 the Regents expressed the official position. "The graduate school aims to serve the needs of young men and women of college training who desire a larger and more thorough acquaintance with the scholarship and research of the world than can be obtained in the current undergraduate courses. It seeks to awaken in the minds of capable men and women an appreciation of high scholarship, research and the advancement of learning."[5] The university authorities were anxious to build up the graduate school and in order to carry out their aim

they needed students. Thus the university encouraged students, both male and female, to matriculate in the graduate school.

By the 1930s any opposition to the graduate school had almost disappeared.[6] Before 1930 any graduate who had successfully completed a four-year course of liberal study of an approved university or college would be admitted to the graduate school without examination, but by the third decade of the twentieth century the university began to be selective in its admission policies.[7] With a stricter entrance policy the women graduate students were the first to suffer. In the years from 1931 to 1936 the percentage of women in graduate school dropped three percent from the preceding five-year period.[8]

Charles Slichter, a mathematics professor, became dean of the graduate school in 1920. A Wisconsin Ph.D., Mary Van Renassaler Buell, said that though she was the only graduate woman studying in the Wisconsin biochemistry department, she was never aware of any prejudice because she was a woman.[9] Many other women who received their Ph.D.'s at Wisconsin had similar experiences. Mrs. Karl Young believed that "great kindness and consideration" were accorded her by her colleagues and superiors.[10] Mrs. Victor Albjerg felt that her major professor, the noted historian, Carl Russell Fish, had a liberal attitude. "Professor Fish's attitude toward professional women who were serious about their work was always a very encouraging one; he simply disposed of prejudice against professional women as stupid." Mrs. Albjerg felt that Professor Fish's attitude about women was also shared by Professor Michael Rostovzeff, the famous scholar in ancient history.[11]

Though the women contacted[12] did not experience prejudice while they were going to school, many of them felt that their parents and friends would have been more pleased had they married. Despite new economic and social conditions, marriage continued to be the prized goal of the great majority of women. But women scholars did not fit into the traditional mold, and most women who had plans for research and teaching did not marry. In a 1929 study of more than 1,025 women who had taken the Ph.D. since 1877, the investigators found that over 75 percent were single.[13] Most of the women who took their Ph.D.'s at Wisconsin before 1926 did not marry. Many of them did not decide to obtain the Ph.D. until after they had taught a few years. One Wisconsin Ph.D. remarked that she and others like her were serious students; they were not in college to find a husband. The choice for many of the women scholars seemed to be whether they wanted to be career women or wives and mothers. While men could separate the values of family life and individual achievement, the values were conflicting for most women. The attitude of Dr. Ruth Allen was typical of many of the Wisconsin Ph.D.'s. She never married, but she was not opposed to marriage, or to men. She felt that the problem of marriage and a career could be difficult to work out.[14]

What made these women decide to obtain a Ph.D.? One reason was that they were so engrossed in their work that they could not do anything else.[15] Dr. Hally Holivette Sax, a woman who did most of her doctoral work at Wisconsin, wrote that in her junior year she "realized that she wanted more than a college education. She remembered that after graduating from college, on the train going home, her brother asked her why she looked so sad." She replied, "I have graduated and I know so little."[16] Another Ph.D. felt her goals of freedom and independence could be brought nearer if she earned the doc-

torate.[17] The chief reason most of these women went on for a Ph.D. was that their teachers encouraged them to do so. Many of them received financial help as well.

There was no one reason Wisconsin women Ph.D.'s chose Wisconsin over some other university. Many of them came because they had friends already here; others wished to study under a particular professor at Wisconsin; some picked Wisconsin for geographical reasons; and a few chose Wisconsin because they believed more opportunities were available at the university.

Many of these women who received their Ph.D.'s from Wisconsin came from well-established, esteemed families. For the most part, their families encouraged their educational ambitions.[18]

Most of these Wisconsin women Ph.D.'s were not politically active. They were interested in the women's reform movements, but not enough to cause them to take an active part in it. To one, "the movement did not seem to be especially interesting or important," yet she felt there was no reason why women should not participate in the suffrage movement if they wanted to do so.[19] Several women Ph.D.'s knew ardent suffragists yet they were not encouraged to take an active part in the movement themselves. Most of the women, quiet and mature scholars intent on their research, were simply too busy with their graduate work to take notice of the suffragists.

A major reason for the acceptance of women in graduate school was that the majority of them were interested in teaching careers. "Next to that of mother the greatest career for a woman was to be a teacher."[20] In graduate school women might not become scholars, but it was essential that teachers, especially college teachers, should have the scholarly spirit. Graduate school was the only place that women could receive the proper academic training for their chosen vocation. The university encouraged teachers to attend summer sessions and professors such as William H. Rosentengl, Frederick Jackson Turner and Charles Haskins emphasized advanced training for women to enter teaching careers.[21] A study done in 1905 by the Association of American Universities confirmed the general impression that the number of graduate women increased in direct ratio with the relevance of the instruction for immediate application in secondary teaching.[22] In 1906 the number of women attending the graduate school in the summer was ten percent higher than the proportion in the fall, indicating that women teachers took advantage of the summer session to continue their graduate work.[23] In 1910 Director Comstock asserted that the "graduate school is largely a professional college for the teacher that is to be and as such stands in immediate relation to the future of education in America."[24]

Though few of the women contacted who received their Ph.D.'s from Wisconsin felt any discrimination in graduate school, most felt some in the occupational opportunities offered them after graduation. Increased educational opportunity enabled women to acquire the intellectual skills for better jobs in a wider range, but with the exception of teaching, most were unable to use their advanced training. Faculty members encouraged many bright women to study for degrees, but after a great deal of hard work most of these women were unable to obtain suitable positions.

The experience of Martha Letitia Edwards who received her Ph.D. from Wisconsin in 1916 was representative of the frustrations encountered when a female Ph.D. went to seek a job. Edwards' colleagues described her as having

a brilliant mind.[25] She wrote her doctoral dissertation under the direction of Dr. Carl Russell Fish in history. Fish used part of Edwards' work in his book, *The Rise of the Common Man.*

Dr. Edwards hoped to obtain a position in the University of Wisconsin history department, but Fish had not pressed her cause because of the hostility of the other members of the department. She wrote to Fish: "With your almost femininely deep perception I am sure you felt that the unfailing kindness shown me by other members of the department was bestowed more as an act of grace and by way of easy toleration than in real recognition of my personal and intellectual qualifications."[26]

Edwards' next choice was a chair in American history at Washington University, but she had as much expectation of receiving the job as obtaining a "seat on Mount Olympus."[27] If all else failed, Edwards felt she would try to obtain a position at Sophie Newcomb College in Louisiana. Acting in her behalf, Fish wrote to Milton J. White, head of the Sophie Newcomb history department. "Anyway," he went on to say, "the authorities prefer male to female professors. The last is strictly confidential."[28] In 1917 Edwards finally secured a teaching position at Lake Erie College for Women in Painesville, Ohio. After teaching at Lake Erie College six years she obtained a position at the Extension Division of the University of Wisconsin where she worked until her death in 1926.[29]

Another Wisconsin Ph.D., Florence Porter Robinson, also experienced discrimination. While she was attending the University of Chicago, Robinson and a friend of hers had been "sufficiently impressed by the number and quality of the graduate women to contrast them with the very scanty opportunity for [their] professional placement and advancement."[30] Robinson had taught high school Latin for a few years after her graduation from the university in 1889. In 1891 she studied at the Harvard Annex, and then came back to the University of Wisconsin to obtain her master's degree in history.[31] She studied under Frederick Jackson Turner and obtained her degree in 1892. After receiving her M.A. she was still unable to find any university or college position where she could teach history. She became convinced that her inability to find a university job resulted from the fact that she was a woman. Her assumption was probably correct. At the same time she was searching for a position, many men with similar or inferior backgrounds had obtained jobs at Wisconsin.[32] After further attempts to obtain a university position failed, Robinson decided to change her career plans and become a home economics teacher. In 1918 she accepted a job as head of home economics at Beloit College. In 1921 President Brannon of Beloit wrote her a letter complimenting her on her work. He was "very greatly pleased with the development of educational plans for women at Beloit during the last three years. I have appreciated more than I can tell you the wisdom, patience, and balance which you have manifested in our rather slow progress."[33] Robinson replied that she had been upset to find herself outranked by others, especially by those who were not department heads. She felt that, at least in the case of those who were not department heads, seniority should have counted as a factor. She "could only conclude that the trouble was with myself or my sex, either solution being disheartening because irremediable.... Your very kind letter encourages me to hope that I am not wholly failing the college in scholarship or usefulness and to believe that Beloit is not a college which permits a biologi-

cal accident to influence unduly the matter of professional advancement."[34]

Many of these women who received their doctorates from Wisconsin also reported instances of job discrimination. Mrs. Sara Hawk felt that a woman could not earn as much as a man.[35] Mrs. Victor Albjerg reported that women were paid less than men. She also said that many men teachers in the twenties and thirties did not have their doctorates and sometimes resented a woman colleague who did. Albjerg's major professor, Carl Russell Fish, had shown her a letter from a professor at a western state university to whom he had written recommending Albjerg for a position. The professor replied that he would rather have a second-rate man than a first-rate woman.[36] Dr. Charlotte Elliott reported that Dr. E. F. Smith had asked her to join his laboratory at the United States Department of Agriculture, but the bureau was not in favor of high salaries for women. Once Elliott accepted the position at the United States Department of Agriculture she believed that she was at a promotional disadvantage solely because she was a woman.[37] If she had been a man, Dr. Eloise Gerry believed she would have received promotions that were denied to her because she was a woman.[38] Mrs. Glenn Turner said that everywhere she worked she received less pay than men in similar jobs.[39] Dr. Ella May Martin also reported salary differences and promotional disadvantages between men and women teachers.[40]

Although the great majority of the Wisconsin women Ph.D.'s secured positions in the academic profession, even those who remained unmarried and had lifelong careers failed to advance up the rungs of the university promotional ladder. Those who did achieve the rank of full professor did so in small coeducational colleges, women's colleges, or at small state-supported universities. Women scholars were often cut off from association with men scholars because they were clustered in these smaller, less prestigious schools. In 1919 Martha Edwards, who was then teaching at Lake Erie College for Women, expressed her frustrations to Carl Fish. "At least you must find some occasion to talk with either sex which is more than I can boast. Three years of concentrated feminine companionship is like to be the ruin of my disposition. That is one of the reasons I am looking forward to six months in Madison with genuine anticipation. It will give me an opportunity to hear once more what intelligent and thinking men have been doing while I have been paddling my boat in this quiet backwater."[41]

The problems that women faced in hiring and promotion were clearly sex related. At the beginning of the century college presidents were wary of receiving complaints that colleges, like the public schools, were becoming feminized. To avoid such criticism many believed that women should not be hired on university or college staffs.[42] In addition, many universities, including the University of Wisconsin, did not wish to employ married women.[43] A common assumption was that a woman must sacrifice a family life in order to achieve individual creativity. The prejudice against married women did not affect too many of the women Ph.D.'s however, because a majority of them were single.

Perhaps the greatest single reason given for women's lack of promotion, at least on the university level, was that women did not publish as much as men. The Hutchinson study and a study done of Radcliffe Ph.D.'s showed that women's publication rate was lower than men's.[44] It is important to note that the statistics regarding the publication records of women Ph.D.'s are mislead-

ing because they include married Ph.D.'s who had no intention of pursuing careers. In addition, investigators who carried on the Radcliffe study believed there was a psychological basis for the female Ph.D.'s lack of publication. Assuming that the single woman scholar was isolated from academic society, and her interests were not the same as married women or as her male colleagues, the Radcliffe researchers felt that the problem of adjustment drained off her efficiency, enthusiasm, and creativity.[45]

Of the fifty-four Wisconsin Ph.D.'s who became full-time professionals, only a few had sufficiently outstanding careers to be listed in *American Men of Science*, the *Directory of American Scholars*, and *Who's Who in American Education*, only three of them reached the rank of full professor at a university, and only one, Dr. Helen White, became a full professor at a large state university.

The life of the woman scholar was difficult in the early years of the 20th Century. Those who chose such a life often denied themselves the companionship of married life; their salaries were less than men's; they were practically excluded from professorships; they were often given hackwork jobs in departments; and they had to occupy themselves "with household cares of the most unintelligent and mechanical kind, which would kill in any man and does kill in most women the desire and power for original work."[46]

As early as 1912 the Association of Collegiate Alumnae became concerned about the status of professional women. Throughout the years of its existence one of the major unrealized goals of the ACA was to combat prejudice against professional women and to bring about more equitable pay.[47] The association felt that women should be given the same opportunities for promotion as men of equal rank. They were particularly concerned that chances for promotion to full professorships should be in proportion to the numbers of men and women employed on the faculties of colleges and universities who were members of the ACA. They believed that women's salaries should be equal to the salaries of men at the same rank and that women should not be assigned social and other non-academic duties which were not required of men scholars of equal rank.[48]

World War I played a significant role in changing attitudes. After the war, many men felt they could obtain better work outside the university, so the doors were opened for many more women than had been the case before. The rapid development of departments of education, music, home economics, and public health gave women job seekers an entry into the faculties of even the largely masculine universities. The growth of summer schools enabled many women to continue their education and also permitted women to teach at a university while their male colleagues were vacationing.[49]

The growing number of women on faculties in the twenties caused men on university faculties to see them as real competitors with the result that there was a closing up of the masculine ranks. [50]

In a study done in 1921 by a committee of the American Association of University Professors, 47 percent of the coeducational institutions and 27 percent of the women's colleges who responded frankly acknowledged that they gave women faculty members less salary and lower rank than men for the same work.[51] Many women were willing to accept a lower salary because the apparent leisure and prestige of a faculty position attracted them. Many boards of trustees with an eye towards economy were willing to accept

women who would work for less rather than a scholar who would do original research and demand a higher salary.[52] Although part of the salary differential dated back to the time of the female seminary when teachers of the seminary often taught a few years before getting married, its perpetuation in colleges and universities was effectively discriminatory.

A study done by the United States Office of Education for the academic year 1927-28 showed that in the land-grant colleges and universities the percentage of women teachers holding the higher academic ranks of dean, professor and associate professor was 24.8 percent in contrast with 53.6 percent for the men. Women holding the same academic rank as men were paid lower median salaries. Women deans were paid a median salary that was $1,260 less than men; women professors were paid $448 less than men and the salaries of associate professors was $402 lower. The median salaries of all women teachers irrespective of rank was approximately one-fourth less or $860 below that of men.[53]

At Wisconsin discrimination did not show up in salary differentials, but in unequal promotions (see figure 1). Dr. Leslie Spence felt that at Wisconsin women had to be twice as good as men to receive the same promotions. She felt that in some of the departments it was practically impossible to get beyond an instructorship.[54] Statistics bear out Spence's opinion. The percentage of women on the faculty showed little progress in the years from 1890 to 1940. Despite continued concern and the increase of women in departments such as home economics and physical education, the percentage of women on the faculty remained virtually the same over a period of fifty years (see figure 1).

In 1926 a noted author and member of the Board of Regents, Zona Gale, wrote to Elizabeth Waters, a former Regent, about the advancement of Wisconsin faculty women. Gale gave her friend a list of some men and women on the faculty, showing their length of service, their promotions, and their salary. Her list demonstrated that only women in the home economics department were full professors. She felt "that some of the others notably Miss Gay, have been here for years without receiving the advancement which some men have received." Gale recognized that, if their service was not of a quality to warrant advancement, promotions should not be given, but she felt that "in the case of Miss Gay at least we know that this is not true.... Another case in point is that of Miss Annie Pitman whose scholarship and attainment unquestionably warrant a promotion and there are a number of others, I believe, of whom this is equally true."[55]

In the first decades of the twentieth century it was easier for women to obtain jobs on college faculties than it was a decade or two later. From 1900 to 1935 the use ratio, i.e., the percentage of doctorates used professionally for at least five years, was quite high for women. The use rate was a little above 75 percent and compared favorably with that of the men's use rate. In contrast, the use rate for women from 1935 to 1960 declined to 35 percent, almost half that of men.[56] This decline in "use" of educated women coincided with the shift from the "new women" of post World War I, who had gained some social and economic independence along with the franchise, to the "happy housewife" of the late forties and after.

In the twenties the heroines of the mass circulation women's magazines were independent career women, but in the forties and fifties the fictional

idols were successful homemakers. In the late thirties, forties and fifties women no longer discussed women's rights. After the Depression, women as well as men were searching for security. One way women thought they could find it was to marry early and to forget about lifelong careers that were fraught with insecurity.[57]

In the late nineteenth century and early twentieth century women who really desired to obtain an advanced degree from Wisconsin were not prevented from doing so by the university administration or by their major professors. The small minority of women graduate students were not a threat to the male majority, but after the 1930s, equal professional opportunity was one obstacle even Wisconsin women Ph.D.'s had difficulty surmounting.

NOTES TO CHAPTER 1

1. Mabel Newcomer, *A Century of Higher Education for Women* (New York: Harper and Brothers, 1959), p. 240.
2. Albion W. Small, "Coinstruction in Graduate School," *Journal of the Proceedings and Addresses of the Association of American Universities*, Sixth Annual Conference, 1905, p. 49.
3. Charles Richard Van Hise, "Educational Tendencies in State Universities," *Publications of the Association of Collegiate Alumnae* (February, 1908), 36.
4. Letter to Jean Rasmusen Droste from Mrs. Karl Young, 11 March 1966.
5. *Biennial Report of the Board of Regents, 1904-1906*, University of Wisconsin Archives, 153.
6. Merle Curti and Vernon Carstensen, *The University of Wisconsin: A History*, 2 vols. (Madison: University of Wisconsin Press, 1949), I:369.
7. *Catalogs of the University of Wisconsin*, 1900-1901, 1909-1910, 1919-1920, 1929-1930, University of Wisconsin Archives.
8. E. B. Fred, "Women and Higher Education," *Journal of Experimental Education* (December, 1962), 161.
9. Personal interview, Madison, Wisconsin, 22 October 1965.
10. Young to Droste, 11 March 1966.
11. Mrs. Victor Albjerg to Droste 27 February 1966. All of the Wisconsin Ph.D.'s interviewed or questioned by the author through the mail expressed similar views. None of them could recall any instances of discrimination while they were attending graduate school.
12. Unless otherwise noted, the remainder of this essay is based on information obtained through seven interviews with the Wisconsin Ph.D.'s, through nineteen questionnaires and through Alumni Record Office, University of Wisconsin Union, Madison, Wisconsin. The Alumni Records contain some information about all of the women Ph.D.'s.
13. Emilie Hutchinson, *Women and the Ph.D.* (Greensboro, North Carolina Institute of Women's Professional Relations, Bulletin 2, North Carolina College for Women, 1929), p. 17.
14. Dr. Ruth Nebel to Jean Rasmusen Droste, 16 February 1966. Dr. Nebel was a former student of Dr. Allen.
15. Interview, 22 October 1965. Hutchinson, 28. Mary Creegan Roark, "A Study of the Graduate Work Done by Women in the Universities Belonging to the Association of American Universities," (Master's thesis, University of Wisconsin, 1916), p. 14.
16. Mrs. Hally Jolivette Sax to Jean Rasmusen Droste, 8 December 1965.
17. Mrs. Karl Young to Droste, 11 March 1966.
18. In the 22 interviews (written and oral) only two Wisconsin women Ph.D.'s mentioned that their families disapproved of their educational plans. A substantial majority of the rest of the women remarked that their immediate families encouraged and supported their career aims.
19. Mrs. Victor Albjerg to Droste, 11 February 1966.
20. William R. Harper, "Address of Welcome," *Publications of the Association of Collegiate Alumnae* (February, 1900), 2.
21. Curti and Carstensen, I:639, 349.

22. Small, p. 34.
23. *Biennial Report*, 1904-1906, p. 149.
24. *Biennial Report*, 1908-1910, p. 197.
25. Herbert W. Kuehner to Jean Rasmusen Droste, 22 November 1965.
26. *Carl Russell Fish Papers*, Letter from Dr. Martha Letitia Edwards to Carl Russell Fish, March 1914, Wisconsin Historical Society MS.
27. Ibid. Letter from Dr. Martha Letitia Edwards to Carl Russell Fish, 15 February 1915.
28. Ibid. Letter from Milton White to Carl Russell Fish, 15 February 1915.
29. Information obtained from Alumni Records, Alumni Records Office, University of Wisconsin Union, Madison, Wisconsin.
30. Letter from Florence Porter Robinson to Mrs. Marvin B. Rosenberry, 20 May 1926, Exhibit 5, Milwaukee County Court Probate record, File 65491.
31. Information from the Office of the Registrar, University of Wisconsin.
32. *University of Wisconsin Badgers* 1892-1898, University of Wisconsin Archives.
33. Letter from M. A. Brannon to Florence P. Robinson, 26 October 1921, Beloit College Archives.
34. Letter from Florence P. Robinson to M. A. Brannon, 28 October 1921, Beloit College Archives.
35. Sara Hawk to Jean Rasmusen Droste, 27 November 1965.
36. Mrs. Victor Albjerg to Jean Rasmusen Droste, 11 February 1966.
37. Charlotte Elliott to Jean Rasmusen Droste, 2 December 1965.
38. Interview with Eloise Gerry, Madison, Wisconsin, 17 August 1966.
39. Interview with Jennie McMullin Turner, Middleton, Wisconsin, 27 April 1966.
40. Interview with Ella May Martin, Wauwatosa, Wisconsin, 9 May 1966.
41. *Fish MS*, Martha Edwards to Carl Russell Fish, 12 April 1919.
42. Clara Frances McIntyre, "A Venture in Statistics," *Publications of the Association of Collegiate Alumnae*, (October, 1918), 6. In the years from 1870 to 1920 the absolute number of men teachers in the public schools increased 41% whereas the absolute number of women increased 385%. Edgar W. Knight *Twenty Centuries of Education* (Boston: Ginn and Company, 1931), p. 605.
43. Interview with Leslie Spence, Madison, Wisconsin, 16 August 1966.
44. *Graduate Education for Women, the Radcliffe Ph.D.*, (Cambridge: Harvard University Press, 1956), pp. 34, 45. Emilie Hutchinson, *Women and the Ph.D.* (Greensboro, N. C. Institute of Women's Professional Relations, Bulletin #2, N.C. College for Women, 1929), p. 17.
45. *Radcliffe Ph.D.*, p. 51.
46. Martha Carey Thomas, "The Future of Women in Independent Study and Research," *Publications of the Association of Collegiate Alumnae*, (February, 1903), p. 17.
47. Christine Ladd Franklin, "Endowed Professorships for Women," *Publications of the Association of Collegiate Alumnae*, (February, 1904), p. 59.
48. Marion Talbot and Lois Kimball Mathews Rosenberry, *The History of the American Association of University Women 1881-1931* (Boston: Houghton Mifflin Company, 1931), p. 200.
49. A. Caswell Ellis, "Preliminary Report of Committee W, On Status of Women in College and University Faculties," *Bulletin of the A.A.U.P.* VII (October 1921), p. 25.
50. Hutchinson, p. 202.
51. Ellis, pp. 23-24.
52. Amy E. Tanner, "The Salaries of Women Teachers in Institutions of Collegiate Rank," Special Bulletin of the *Publications of the Association of Collegiate Alumnae*, (November, 1907), p. 23.
53. John H. McNeely, "Salaries in Land-Grant Universities and Colleges," *U.S. Office of Education*, Bulletin #24, 1931, p. 3.
54. Interview, Madison, Wisconsin, 16 August 1966.
55. Zona Gale Papers, Letter from Zona Gale to Elizabeth Waters, 23 April 1926, Wisconsin Historical Society MS.

56. John B. Parrish, "Top Level Training of Women in the U.S.," *Journal of the National Association of Women Deans and Counselors* XXV (January, 1962), p. 72.

57. Betty Friedan, *The Feminine Mystique* (New York: W.W. Norton, 1963), pp. 12, 24. Chapter 2 discusses the advent of the "happy housewife heroine" and Chapter 4 deals with the feminists and their fight for greater women's rights. Also see *Radcliffe Ph.D.*, pp. 34-35.

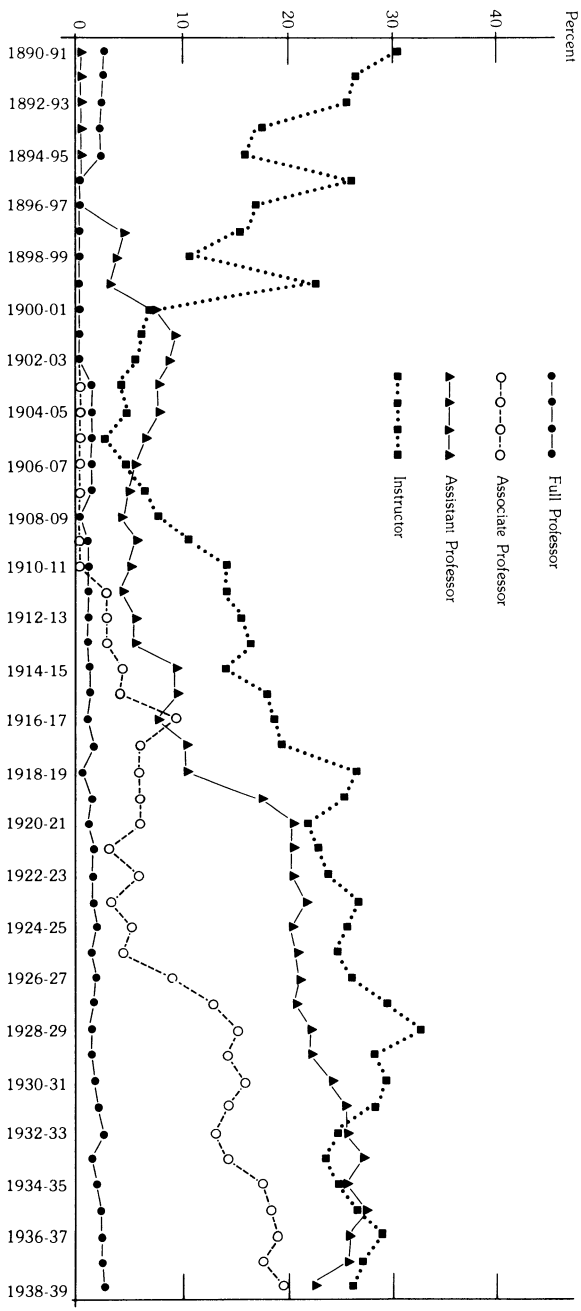


FIGURE 1
PERCENTAGE OF WOMEN ON THE UNIVERSITY OF WISCONSIN FACULTY 1890-1939

Source:
1. University of Wisconsin Catalogs, University of Wisconsin Archives.
2. Biennial Reports of the Board of Regents, University of Wisconsin Archives.

Library Class
UW-Madison Archives Picture

PART TWO

A MADISON ANTHOLOGY

2. Women in Science

Sketches of Sigma Delta Epsilon Members

by Bette Barnes and Ruth Dickie

Sigma Delta Epsilon: The Beginnings

On 4 October 1921, a group of twenty-two women working in science departments of the University of Wisconsin formed a science club for graduate women with master's or doctor's degrees who were engaged in experimental research in the biological, physical and mathematical sciences.

Ruth Chase Noland, in January 1977, writes of those days. "My recollections of the beginning of Sigma Delta Epsilon are not very clear. In the days following World War I the men slowly returned to the campus. During their absence there had been quite a build-up of women graduate students, and after the men came back and were active in Gamma Alpha and Phi Sigma, we began to think that the women needed some means of getting together and sharing interests. Thus somehow almost spontaneously a group formed a science club with the idea that women from various fields of scientific research should share their knowledge with one another. Later we heard of the Cornell group doing the same thing and eventually joined with them. Of course at that time Sigma Xi took women into that organization, but it was honorary and they usually were not admitted until late in their graduate work, so this did not serve the same purpose as our club.

"Many were the organizational meetings we held. Some of the women wanted it to be a closed secret society like a social sorority; others wanted the society to be open to all women who were doing research in science, and what was worked out was a compromise. There was really a great deal of debate over the local constitution. In the early years the ballot for new members was secret and two blackballs would keep an applicant out. I can remember only one occasion where this was used and many of us were distressed by it."[1]

At the Toronto meeting of the American Association for the Advancement of Science (AAAS) in December 1921, representatives of the science club met with members of a similar group formed in April 1921, at Cornell University. They hoped to form a national organization for women with the object of furthering interest in science, providing a society for national recognition of women in science, and bringing women together in fraternal relationship. After this meeting Cornell incorporated the national organization of Sigma Delta Epsilon (SDE) with itself as Alpha Chapter. Meanwhile, in January 1922, eleven more women joined the science club at Wisconsin and, on April 25, 1922, this science club with thirty-three members was installed as Beta Chapter.[2]

Mrs. Noland's recollections continue. "The meetings were in various places, and I believe they were twice a month up till World War II. We met in Lathrop Hall parlor, and in the YWCA — a frame building on the lake shore where the Union is now. It had a cafeteria in the basement, and we took our trays into a small room and ate together. Not all our meetings were at meal times. I remember talks being given in the fourth floor seminar room of Birge Hall, at that time known as the Biology Building.

"Because my life changed with my marriage in 1923, and my active scientific research ended with the coming of my children in the late 1920s, I did not participate as freely as before in the activities of Sigma Delta Epsilon, although jealously guarding my membership. I remember being fearful lest active membership would be denied me because I was no longer involved in scientific research.

"In the early years we were very conscientious about following our original plan of learning what all the women were doing in their various fields of science. Thus our meeting programs were usually presented by members.

"I believe we started early to have a social gathering at the second autumn meeting to which all women in graduate work in science were invited, so that we could get acquainted early with possible new members. The process of examining the credentials of candidates for membership and obtaining recommendations from major professors or department chairmen and then voting took some time, and initiation came in the first semester. These parties were sometimes held in the parlors of Lathrop Hall, as this was before the Union was built. Before Christmas there was a party held at the home of a member, Mrs. L. R. Jones. This became a tradition until she left Madison. During the university summer session there was a picnic and I remember some of these were held at the lakeside summer cottage of Dr. Selma Schubring.

"Gradually we worked into the national organization and our chapter was represented early in the national presidency and other offices, and at conventions. The early national conventions were always held in conjunction with the meetings of the AAAS which came once a year."

There have always been sexist remarks made about the organization, beginning with its formation when Edith Seymour Jones remembers that two members of the botany department, Drs. Overton and E. J. Kraus, called SDE "Hen Gamma Alpha" and "Sisters Delving Earnestly," respectively.

Sigma Delta Epsilon was the first women's organization accepted as an affiliate by AAAS in 1936, then as an associate in 1938. There are seventeen active chapters of SDE presently, including Omega, the alumnae chapter for persons living in areas where there is no chapter.

Beta Chapter is the only chapter to have remained fully active throughout its history. Another characteristic of Beta has been that women from many countries of the world have been active members at one time or another and often maintain membership in Omega Chapter upon returning to their native countries. One of the first was Dr. Mathilde Bensaude (1890-1969) who was initiated into Beta Chapter on December 5, 1922. She was born in Lisbon of Portuguese and French parents and received a Ph.D. at the Sorbonne. In 1927 she returned to Lisbon and spent the rest of her life helping the agricultural economy of Portugal and the Azores by studying plant diseases and plant pathology.

There are presently one hundred active members, representing forty departments at the University of Wisconsin-Madison, American Scientific Laboratories, the Department of Natural Resources, Edgewood College, Forest Products Laboratory, State Laboratory of Hygiene, and Madison General and the Veterans Administration Hospitals. Often the newest members leave the university campus and Madison after receiving M.S. or Ph.D. degrees, so the success of Beta Chapter always has depended on a core of women who continue to live in Madison and maintain active membership.

Many women have contributed to Sigma Delta Epsilon and to the furthering of the role of women in science. Some have been interested mainly in research, others primarily in teaching, but all have been intensely and personally interested in the young students with whom they have contact.

Women in Science

Dr. Nellie Bilstad (1906-1974) received all three of her degrees from the zoology department and stayed to teach courses in microtechniques, histology and elementary zoology, and to become "the best teacher we have...the wisest adviser in the handling of undergraduates, and the heart and soul of the zoology laboratory," according to her faculty in 1942. Thousands of students, both undergraduate and graduate, remember her as one of the truly fine teachers in the university. She was always available for extra guidance and encouragement to students, and served as inspiration to young women and as a warm and wise friend.

Dr. Pearl Claus Whitehead (1893-1975) also received three degrees at the University of Wisconsin and worked in the zoology department, initially as research associate with Dr. Michael F. Guyer, and later as assistant professor, teaching the laboratory course in cytology. She pioneered research projects involving scientists from biology and medicine, whose knowledge of biochemistry and microscopy of normal and cancerous cells could be integrated. Through animal experiments, some understanding of the retarding action of cancer chemotherapy agents was gained. She was a dedicated scientist and a dedicated friend. She served as national SDE president in 1949.

Charter Member Emma Fisk (1892-1972) was an associate professor of botany, teacher and adviser of students. From 1920 to 1963 she taught at least one course in botany every semester except one when she returned to Wellesley as a visiting professor. Her research dealt primarily with the cytology and anatomy of selected economic plants and the effects of growth regulators. Her special areas were plant anatomy and morphology but she also taught elementary botany and other courses from time to time. She was a favorite adviser to undergraduate students, and a long line of students waited in the corridor near her office door during every registration week. Among those former students are more than fifty teachers and administrators now at UW-Madison. She served as advisor to numerous graduate students and spent more time on doctoral committees than any other member of her department.

Women in Agriculture and Home Economics

On the agriculture campus of the University of Wisconsin were other brilliant, devoted teachers, researchers and advisers to young women.

Abby Marlatt (1869-1943) came to the university in 1909 to organize the department of home economics, and she served as director until her retirement in 1939. Her specialties were housing and education, although she had an almost equal interest in foods and nutrition. She laid the foundation for the development of the strong graduate program in nutrition research which was carried on by her students.

Marlatt was a tall, imposing woman who had little trouble being heard in the large lecture hall or at the small conference table. Dr. May Reynolds says of her that "students and young faculty often didn't get beyond her crusty exterior. Underneath she was pure marshmallow. Many a scholarship fund grew to adequate levels through the unheralded contributions from her pockets.

She even quietly paid for eye surgery for one of her students."

Dr. Helen T. Parsons was another charter member of SDE who came to the department of home economics in 1913 and was assigned to work with Dr. E. V. McCollum in agriculture chemistry. Except for four years at Johns Hopkins University and two years at Yale to complete her Ph.D., Parsons spent her active years — nearly forty — at Wisconsin. Her research has influenced the nutrition of the world. In 1944 she received the Borden Award of the American Home Economics Association for her work on the nutritive value of protein, and the human requirements for biotin, thiamine and riboflavin. Her last research, done with a graduate student from Thailand, showed that raw bracken fern destroys thiamine, a finding of tremendous importance in countries where rice is the chief diet and thiamine is already low. A colleague said of her that "she has a way of stimulating you to greater effort — and never will you work so hard so happily for anyone." She retired in 1956 leaving hundreds of students in more than a dozen countries helping to solve nutritional problems. In 1966 she was made a national honorary member of Sigma Delta Epsilon for her contribution to the field of nutrition and her work with women graduate students. She died December 30, 1977.

One of Dr. Parsons' graduate students, Dr. May Statler Reynolds, at eighty-five received national honorary membership in SDE at the grand chapter meeting in Madison in 1977. She was the recipient of the Borden Award in 1958 for fundamental research in human nutrition. She is an emeritus professor of foods and nutrition who came to Wisconsin in 1922 as a graduate student in the department of home economics and stayed to study nearly every population group — children, adolescent girls, college students, pregnant women and older women — on self-selected diets. She directed the nutrition research of more than sixty graduate students from many countries. As mentor, she developed her students' ego strength and their technical competence.

Dr. Dorothy Hussemann Strong is also an emeritus professor of foods and nutrition. She served as head of the department from 1951 to 1968. The year she retired, 1970, she received the Borden Award for her research in food poisonings caused by *Salmonella typhimurium*, enterotoxigenic micrococci, and *Clostridium perfringens*.

One of Dr. Reynolds' students, Dr. Hellen Linkswiler, received the Borden Award in 1971. Besides demonstrating competence as researcher and teacher she has served Beta Chapter and the national organization as national secretary and chair of the national nominating committee.

A colleague of Dr. Linkswiler's is Dr. Dorothy Pringle, who joined the staff of foods and nutrition in the department of home economics in 1953. Her main research has been on social and economic influences on food habits and nutritional adequacy of minority families in this country and others. Her personal qualities of openness, warmth, humility and helpfulness seem to have guided her choice of research areas for she also was concerned with the evaluation of nutrition education methods. She has always been helpful to graduate students, her own and others.

Dr. Margaret M. Cooper retired in 1974 as professor in the department of textiles and clothing. She developed a textile chemistry course for undergraduates and a graduate program in textile chemistry. She also wrote a

laboratory manual for undergraduates. Others have built and will continue to build on her research in textile chemistry.

Also on the agriculture campus was Dr. Elizabeth McCoy, emeritus professor of bacteriology, who joined SDE on October 25, 1926, and was an active member afterward, twice serving as Beta president. In 1974 she was awarded a national honorary membership for her research accomplishments and her assistance to SDE members. Her research consisted of pioneering work on root nodule bacteria and she is an internationally recognized authority on anerobic bacteria of the genus *Clostridium*, ecology of microorganisms in water and waste water, industrial fermentation and antibiotics, especially penicillin.

Dr. McCoy was active in campus and community. She also served as the first woman president of the University Club and the first honorary president of the Wisconsin Academy of Science, Arts and Letters. She died March 24, 1978.

Burdean Struckmeyer joined the horticulture staff after receiving her Ph.D. in that department in 1939. She was promoted to instructor in 1943, assistant professor in 1947, associate professor in 1950, and professor in 1960. She has taught and done research on the morphology and anatomy of horticultural crops as related to mineral nutrition, growth regulators, environment, and pathological diseases. Dr. Struckmeyer is (in 1977) the only woman Fellow of the American Society for Horticultural Science. She has been a member of SDE since December 1936.

Dr. Louise Wipf came to the University of Wisconsin-Madison from Oshkosh. In 1939 she received a Ph.D. in botany, working with plant cells, especially root nodules. From plant cells she had become interested in animal cells, and she joined the staff of the department of veterinary science in 1939 and stayed until her retirement in 1972. Interested in animal diseases, she used the microtechniques of pathology to perform her research. She joined Sigma Delta Epsilon in 1934.

Women in Hygiene

From 1936 to 1975 Virginia Allen was a member of the staff of the Wisconsin State Laboratory of Hygiene, which is part of the Medical Center. She worked closely with physicians to develop laboratory procedures to confirm medical diagnoses. Among the diagnostic methods worked out by Allen and her personnel were those for human brucellosis, leptospirosis, toxoplasmosis, mycoplasma pneunomia, and two antigens for histoplasmosis. She says of her work: "In retrospect those years in which the...work was done were very difficult years but also very rewarding as well.... Never was I told how to change or develop a procedure; instead, the problem was presented to me and it was my responsibility to devise or improve on an old procedure or develop a new one."

A current employee of the Wisconsin State Laboratory of Hygiene is Jean Koehler, who began her career at the hygiene lab in 1949. She is now microbiologist supervisor to the unit in which pathology residents spend one month or more learning techniques in detecting antibodies, serum protein levels, and various serological tests. She also teaches one or two courses on new laboratory procedures each year to medical laboratory personnel. In 1970 she

was general chair of the national SDE meeting held on the University of Wisconsin campus.

Sigma Delta Epsilon also claims three other members from the Wisconsin State Laboratory of Hygiene; Drs. Patricia Field (toxicology), and Judith Ladinsky and Lorraine Meissner (preventive medicine).

Women in Medicine

Dorothy Reed was born in 1875, graduated from Smith College in 1895, and received her M.D. from Johns Hopkins Medical School in 1900. She interned there under Dr. William Osler and in 1902 was designated the first woman fellow in pathology at Johns Hopkins. During her fellowship she continued research she had started as a medical student on the diagnosis of Hodgkin's disease and discovered a cell type; named a "Dorothy Reed cell," it is still considered diagnostic of that disease.

In 1903 she went to New York City, serving as an interim resident at the New York Infirmary of Women and Children and a resident in pediatrics at the Babies Hospital. In 1906 she was married to Charles E. Mendenhall, professor of physics at the University of Wisconsin.

From 1915 to 1918 Dr. Mendenhall served as lecturer on hygiene and public health with the Extension Division of the University of Wisconsin. In connection with the visiting nurse system of Madison, she founded in 1915 the Madison Child Health Centers known as well-baby clinics. She also was a member of the U.S. Children's Bureau staff for twenty years, and while medical officer for the bureau wrote a series of pamphlets on child care and child welfare, midwifery, nutrition, and prenatal care and baby care. Finally, she served from 1920 to 1945 as lecturer in the UW department of home economics where she taught prenatal and child care and adult hygiene. Upon her retirement she was given an honorary doctor's degree by Smith College. She was a charter member of SDE and remained a member until her death in 1964.

In 1974 Helen A. Dickie, M.D., professor of medicine, was named a Master of the American College of Physicians as "a master clinician, teacher and investigator in the areas of tuberculosis and pulmonary diseases." Her interest in tuberculosis led her to the study of sarcoidosis, histoplasmosis and "farmer's lung." She is presently one of two physicians in Wisconsin who hold masterships. She has served the university in many capacities, such as being the chief of staff of University Hospitals, representing the Medical School in the university senate, and as a member of the biological science division committee and the honorary degrees committee — all elective offices.

Dr. Gloria Sarto, formerly professor in the department of obstetrics and gynecology, has been a pioneer in the technique of amniocentesis, culture of the fetal cells, diagnosis of genetic defects and, finally, in counseling the mother and father-to-be if the fetus is abnormal. While at UW she was a willing and interesting speaker about her research.

Eleanor M. Larsen came to UW in 1940, as an assistant in the school of medicine, department of physiology, where she received an M.S. degree in 1942 and Ph.D. in 1948. She served as instructor (1942-54) and later as assistant professor until her retirement in 1972. Dr. Larsen taught the physical therapy majors both introductory physiology and the physiology of exer-

cise. She joined SDE in 1941 and served as Beta Chapter president, program chair and treasurer for several years. Her contacts with women students made her aware of the need for financial support and she maintained a strong interest in the fellowship fund of SDE.

Meryl Miles, emeritus associate professor of anatomy, taught anatomy in the medical school. Miles came to the University of Wisconsin in 1932, and was a physical therapist at University Hospitals until 1934. She then left to work in St. Louis and returned in 1943 to assist Dr. Walter Sullivan in teaching women of the Women's Army Corps (WACS) physical therapy and physical exercise. She taught gross anatomy to occupational therapy and physical therapy students from 1946 to 1976. Dr. D. B. Slautterback, head of the department of anatomy, referred to her as "the mainstay of our department." He went on to say that "she consistently had thirty to forty students contact hours of teaching per week, yet always set aside time to meet with students — she counseled, encouraged, and at times even tutored them. She was a hard worker and never settled for a poor job."

Women in Forestry

Dr. Eloise Gerry (1885-1970), was a charter member of Beta Chapter who came to Madison in 1910 with an M.S. degree from Radcliffe College to be the only woman on the staff of the then new Forest Products Laboratory. Her research there plus courses in botany and plant pathology enabled her to obtain the Ph.D. degree in 1921. She became an authority on the anatomy and physiology of foreign woods and was an assistant professor at the University of Wisconsin as well as a member of the Forest Products Staff. She continued in active membership in SDE throughout her life. She served as the third national president in 1925 and was awarded honorary membership in 1957. Her concern for young women in science was reflected in her particular interest in the national fellowship program which she helped to shape.

Also serving SDE from forestry positions were chapter members Helen Johann and C. Audrey Richards, both of whom held national offices as well as various positions in Beta Chapter.

These are only a few women of the hundreds who have belonged to SDE during the fifty-five years of its existence and who are worthy of note. Many other members of SDE have maintained active support of SDE objectives for many years. They have given a quality of instruction, friendship and aid that makes them long remembered by students. Although many retired with the academic rank of lecturer, specialist, assistant or associate professor, it must be remembered that this reflects academic practices in the academic promotion of women, and is not a true measure of their academic performance.

NOTES TO CHAPTER 2

1. Unless otherwise indicated, this history has been compiled from materials in the archives of Beta Chapter of Sigma Delta Epsilon, Graduate Women in Science, Inc., deposited in the Wisconsin State Historical Society Library, Madison, Wisconsin.
2. The charter members are: Elaine S. Anderson, Freda Backmann, Dorothy Bradbury, Ann Braun, Ruth W. Chase (Noland), Sophia Eckerson, Nevada Evans (Schmidt), Edna M. Feltges, Emma L. Fisk, Eloise Gerry, Harriette Holt, Helen Johann, Edith Seymour Jones, Abby L. Marlatt, Edna L. Meacham, Dorothy Reed Mendenhall, Sarah Morris, Helen T. Parsons, Norma Pearson, Marion Phelps, Mary E. Reed, C. Audrey Richards, Jessie P. Rose, Marianna T. Sell,

Selma L. Schubring, Elizabeth A. Smith (Bean), Lois K. Stewart, Regina E. Stockhausen (Riker), Minnie W. Taylor, Nellie A. Wakeman, Julia Whelan, Hilda F. Wiese and Grace O. Wineland. Four of these women are living: Dr. Selma L. Schubring is ninety-six and resides in LaJolla, California; Dr. Elizabeth A. Smith Bean lives in Laconia, New Hampshire. In Madison: Edith Seymour Jones (Mrs. Fred) and Ruth Chase Nolan (Mrs. Lowell) attend meetings regularly and are invaluable members of the chapter.

3. Women's Contributions to the Library School: 1895-1939

by Valmai Fenster

In 1895 the University of Wisconsin-Madison inaugurated a summer course for library workers which became the basis for the full-time library school that was founded in 1906.[1] This school provided important opportunities for Wisconsin women because it opened librarianship as a field of professional endeavor during a period when very few other professions welcomed their membership.[2] Indeed, between 1895-1939, over ninety-six percent of the students were women. Their contributions were a significant factor in the establishment and development of Wisconsin's library services, since the Free Library Commission, which administered the school during this time, used the program for library development throughout the state.

During the final decade of the nineteenth century, library development in Wisconsin was hindered because of the lack of trained librarians. The state's small rural institutions relied on service from local women who were often untrained in library management. The nearest full-time library school was at the Armour Institute in Chicago, but it was expensive and many women could not afford the time or the money required to complete such a course. In 1895 a summer school was begun in Madison to train library workers. By 1905, 384 students, over ninety-five percent of whom were women, had attended the school.[3] Its influence had reached far beyond the boundaries of Wisconsin, since forty-five percent of the students came from elsewhere in the United States.

This summer program was not considered the equivalent of the full-time schools, for it offered only a six-week course in library methods.[4] Under the direction of Katharine L. Sharp (a young protégé of Melvil Dewey) and Cornelia Marvin, her former student, the school trained workers to improve the organization of Wisconsin's small public and school libraries. Anna McDonnell of the Kellogg Public Library, Green Bay, remarked of her 1896 training that it filled up and rounded out her knowledge.[5]

So successful were the results of this summer school that, in 1905, Senator J. H. Stout introduced a bill in the legislature which brought an appropriation to the Free Library Commission for the establishment of a full-time school. Founded in 1906, this was the ninth library school in the nation. The professed object of its program was to prepare librarians for general service, but the Commission's primary aim was to train students for the competent organization and administration of the state's small public libraries, most of which contained between four and eight thousand volumes.[6] Although the school gave preference to Wisconsin applicants, when vacancies occurred, students were often accepted from other states. In the years before World War II, the latter group represented 56 percent of all students. Mary Emogene Hazeltine, a graduate of Wellesley and a distinguished public librarian from Jamestown, New York, was appointed to head the new school.

By 1909 a joint course with the university was established whereby students might take the school's program in their senior year and credit it

towards a bachelor's degree. In this way the school planned to attract more college women into the program which in these early days required only a high school diploma and the successful completion of an entrance exam as the academic standard for admission. After World War I, more women with college backgrounds entered. Between 1906 and 1921 only 24 percent were college graduates at the time of admission, but from 1921 to 1939, 52 percent gained university degrees prior to entry. Mere fulfillment of academic requirements did not guarantee acceptance to the program; previous experience in a library and an interview by the principal were also expected. Applicants under twenty years of age were not accepted and persons over thirty-five were advised against entry.[7] However, exceptions were often made for the latter group in order to accommodate experienced library workers.

The daily schedule of the students extended from 8:30 a.m. to 5:30 p.m. and attendance in class was required on Saturday mornings. Students went to an average of ten lectures weekly and spent from two to four hours on practice work and other assignments for each subject. The days, packed with cataloging, classification, bibliography and courses in the administrative aspects of librarianship, left few opportunities for relaxation. On more than one occasion students petitioned for released time from lectures in order to complete assignments.

Library school students had frequent opportunities to attend university functions. For the most part, however, student participation in university events was peripheral since the school's quarters were in the Madison Free Library on North Carroll Street and all lectures took place in this building. In 1914 students became subject to all university regulations on non-academic life, although only tenuous academic links existed through joint course work.

During these years between 1906 and 1939, 1,066 students graduated with the certificate of the school. This represented an average of twenty-eight per year until the end of World War I and an average of thirty-eight between the wars. Among these 1,066 graduates, only thirty-eight (3.5%) were men, with the first male student attending in 1912.[8]

The contributions made by library school women fall into three categories: Namely those by students, graduates and faculty.

Student Contributions

Since the small libraries of the state had only meager tax bases and were unable to support large staffs, many new graduates often found themselves the heads of libraries. Consequently, it was imperative that their training include ample opportunities for translating classroom learning into practical experience since the new librarians must be confident when they were called upon to be the sole administrators of small libraries. Until shortly after World War I, each student did three hours of apprentice work a week in various Madison libraries. While such work was aimed at translating theory into practice, it also benefited the cooperating institutions. For example, in 1906, the school's students catalogued and classified 2,000 books for the new Madison Free Library building and in 1916-17 they made a similar contribution by organizing the library of the University High School. For many years they made library service possible in many Madison neighborhoods by maintaining the public library's deposit stations in groceries, drug stores and fire stations.

Each year, during February and March, the instructional program of the school was suspended while students worked in two different libraries for four weeks in order to gain practical experience. They provided much-valued assistance in libraries which had few, if any, professionally trained librarians. This field practice was planned to strengthen the state's public libraries. Its success lay in the reciprocity of benefits to both cooperating libraries and students. The scheme was made possible by the unique relationship which the Library Commission held as administrator of the school and as counselor and guide to the state's libraries. Through this relationship, the activities of school and commission could be coordinated. Thus library school women participated in making the Wisconsin Idea a reality, for they were key agents in bringing the expertise of the university to the boundaries of the state.

A few examples of their accomplishments illustrate the contributions of these women students. In 1908 they organized a new Carnegie library at Elroy. They unpacked, accessioned and shelved 1,100 new books and organized circulation files and records.[9] During two months of 1908 the Belleville Library collection was weeded, books were mended, and the collection reclassified and expanded.[10] Some students established book collections in high schools, while others provided assistance in larger libraries at Eau Claire, Racine and Kenosha. By World War I a number of students were assisting at the college libraries of Beloit, Milton and Ripon. As early as 1915 two women classified books and made a printed catalog for the Waupun State Prison. In Madison the state government departments requested help in filing and indexing special document collections. The 1922 biennial report of the commission records that forty-eight students gave a total of ninety-six months of service, which was the equivalent of four full-time assistants for two years. As the advantages of such help were recognized, the number of libraries participating in the program increased from twelve in 1906 to over thirty following World War I.

Another important undertaking during each student's year of work was the compilation of a subject bibliography, a requirement for graduation. Subjects chosen for these bibliographies were often requested by departments of state government or university professors and the results were put to use as soon as the bibliographies were completed. Many were published in the *Wisconsin Library Bulletin* and some appeared in prestigious journals. Today, requests are still made for some of these early bibliographies.

During the years of commission administration, the women students made vital contributions. When the program came directly under university administration in 1939, students had no such opportunities for service and experience because academic residency requirements did not permit them to spend two months of the school year away from the UW-Madison campus.

Graduate Contributions

On three occasions — in 1906, 1925 and 1936 — the school's program was evaluated by the current *Standards* which the profession had devised for accreditation of the nation's library schools. In each instance these *Standards* were fully met. The students were accorded recognition for their efficiency in assuming responsibility for library management and were consequently in high demand. An alumna of 1916 recalled that she was offered a choice of forty-five positions that year in the State of Oregon alone.[11] During the 1920s

six positions were available for each student and most women were placed by the time of graduation. With the onset of the 1930s, placement became difficult because more librarians were graduating from newly established library schools. In addition, during the Depression, budget cuts cost some of the alumni their jobs. In 1933, there was no position for anyone in the graduating class and an emergency plan used Civil Works Administration funds to place all unemployed graduates in Wisconsin at library-related positions.[12] By 1937, the customary demand had returned.

As the school had originally been founded to train librarians for the state, it is interesting to note how completely this objective was realized. It was reported in 1921 that 79 percent of the eighty-two graduate librarians employed in Wisconsin were alumni.[13] Although no figures were cumulated for the later period, statements in annual reports imply that the great majority of the state's librarians had been trained in the school. In addition, many graduates served outside Wisconsin. In 1921 about 80 percent were working in other states or foreign countries.[14] In the subsequent period, it was estimated that about 60 percent of all graduates had never worked in Wisconsin.[15]

Throughout this period salaries in Wisconsin were often below the national average. In 1908 it was reported that beginning salaries in Wisconsin of $600 a year were the lowest in the nation.[16] Mary Emogene Hazeltine spoke of the difficulty of keeping women in positions which paid such low salaries and deplored the fact that many graduates left small libraries to accept better paying positions. By 1921 the graduating class had salaries averaging $1,394 a year, ranked sixth in a national survey of library school graduates' salaries. Following salary cuts and freezes in 1936, difficulties were again apparent. Many graduates of the late twenties were receiving lower salaries than when they began their careers. Low salaries and more challenging opportunities than were presented by small rural libraries were two main reasons why graduate women left Wisconsin.

Since the aim of the school was to train librarians for public library service, the question arises as to how many alumni actually took public library positions. The 1921 annual report reveals that between 50 and 60 percent of the working graduates were in public library positions as catalogers, reference librarians, children's librarians, as commission staff or as workers in extension or county librarianship. By World War II this figure increased to between 60 and 70 percent.[17] In 1921, 13 percent were employed in libraries specializing in service to hospitals, business and municipal reference collections. This was a trend encouraged by the informational demands of World War I. By World War II the second largest group (10.7%) was in school and teachers' college libraries. During both periods only about 6 percent were in college or university library positions. By 1921 five women (1.75%) had entered the field of library education and in 1936 there were nineteen library school instructors (3%). Among seventy-two women who had married by 1921, only five continued working as librarians. However, by 1936, of 302 who were married, eighty-four continued in the profession. These analyses indicate that although the majority of alumni made their contributions in public library work, the education gained in the school also gave them entry to a variety of other types of professional positions, but very few women taught at the university level in professional library schools.

Throughout the history of the school many graduates gained national

prominence. A few of their contributions must suffice to indicate such achievements. Winifred Gregory (class of 1910) made notable bibliographical contributions through her work as editor of the *Union List of Serials.* Althea Warren (class of 1911) served as head librarian of the San Diego Public Library and later at the Los Angeles Public Library. From 1949 she taught at the Universities of Michigan, Wisconsin and Southern California, bringing her experience and insight to library education programs. She also headed the World War II Victory Book Campaign and served as president of the American Library Association in 1943-44. Ruth Rutzen (class of 1920) served as director of Home Library Service in the Detroit Public Library and in 1957 was voted one of Ten Top Working Women in Detroit. Ruth Gregory (class of 1938) became chief librarian of the Waukegan, Illinois, Public Library in 1940 and edited *Public Libraries* during 1947-48. She was president of Public Libraries Association during 1944-45 and co-authored *Public Libraries in Cooperative Systems* (1971). Her most recent bibliographic contribution has been a revision of Mary Emogene Hazeltine's classic reference tool, *Anniversaries and Holidays,* 3rd ed. (1975). Each of these women trained for work in small libraries; yet, they made important contributions to large institutions.

In the field of work with children, Nora Beust (class of 1913) worked for twenty years in the U.S. Office of Education instructing state departments of education and local school systems in school library operation. She helped to establish a position for a children's librarian at the Library of Congress.

Another early graduate of the school, Lucy L. Morgan (class of 1911) directed an apprentice training program at the Detroit Public Library. Susan Grey Akers (class of 1913) began her teaching career in Wisconsin, leaving in 1926 to attend the University of Chicago graduate library school where she became the second woman to receive the Ph.D. Her most widely known educational contribution has been *Simple Library Cataloging* (1927), now in its sixth edition. From 1935 to 1954 she was director and dean of the school of library science at the University of North Carolina.

Faculty Contributions

At the University of Wisconsin library school most of the faculty were women. Matthew Dudgeon, secretary of the Library Commission from 1909 to 1921, had hoped to recruit men teachers, believing that they in turn would draw men students,[18] but this change did not take place until after World War II. By that time librarianship had become increasingly professionalized, salaries were much improved and the school's goals were no longer focused exclusively on training for positions in small public libraries. In the years between 1906 and 1939 only one man, Clarence Lester, served on the full-time faculty. After a few years of teaching during World War I, he succeeded Dudgeon as secretary of the commission and, thereafter, served the school only part-time. The major contributions of the faculty, therefore, were accomplished by the twenty-five women who served full-time during the thirty years.

In addition to the instructional work of the school, these women were charged by the commission to give advice and assistance to librarians throughout the state. This was accomplished in summer schools, special courses, institutes, conferences and field visits. They also contributed

regularly to the *Wisconsin Library Bulletin*, a compendium of practical information for librarians, administrators and educators. Hundreds of subscriptions to this journal were received from throughout the country and abroad.

Even after the establishment of the year-round school the summer course was continued and the faculty were required to work beyond the academic year in order to train sub-professional library assistants. During 1917 a course was begun for teacher-librarians to help them meet state certification requirements. A similar course was offered during the academic year to students in the school of education. Thus these women faculty took responsibility not only for public library training but also for the development of service to schools.

Faculty made themselves available for regular consultation with librarians throughout the state, assisted in planning library quarters, organizing library affairs, selecting books, gaining appropriations, and showing the role which the library should play in a community. The burden of these field visits was felt increasingly during the years after World War I, for the efforts of former women students and faculty had stimulated the growth of library services — from twenty-eight public libraries in 1895 to more than two hundred in the 1930s. The 1936-37 annual report records that between 1906 and 1937 faculty women had made almost seven thousand visits to libraries in the state.

Despite heavy teaching loads and the professional responsibilities associated with academic faculty, the salaries of these women remained low. The Board of Regents, finding the salaries of the library school faculty women lower than those applying generally among the university faculty, did not consent to confer academic titles until 1926, by which time salaries had improved.

It was inevitable that the dual commitment of the faculty to the school and to the commission's field program would eventually result in a conflict of interests. By World War II the work in both areas had increased to such an extent that the faculty had to choose which master it would serve. Their decision was to focus efforts entirely on the academic curriculum.

Conclusions

Earlier in this paper we emphasized the importance of the University of Wisconsin's library education program for opening up an avenue of professional service for women. We have also shown that students and faculty were predominantly women and it was to them that the school owed its notable accomplishments during the first fifty years by bringing library service to all the citizens of the state. The energy, intelligence and commitment of these women of the University of Wisconsin library school helped make the Wisconsin Idea a reality.

NOTES TO CHAPTER 3

1. This paper is based on research contained in the author's "The University of Wisconsin Library School, A History, 1895-1921." (Ph.D. dissertation, University of Wisconsin, 1977).
2. See Sharon B. Wells. "The Feminization of the American Library Profession, 1876-1923." (A.M. thesis, University of Chicago, 1967). According to Wells, a survey of the occupations of women college graduates in 1918 listed librarianship third after teaching and social work as the most common profession they entered in the United States.
3. Statistics derived from Wisconsin Free Library Commission, *Biennial Reports* (Madison: Democrat Printing Co., 1896-1906).
4. Letter from K. L. Sharp to student, 14 May 1897 (Armour Institute Letterbook. Katharine L. Sharp Papers. University of Illinois Archives).
5. Maude A. Earley. "Wisconsin Summer School of Library Science," in Wisconsin Free Library Commission. First *Biennial Report, 1895-1896.* (Madison: Democrat Printing Co., 1896), p. 90. Maude Earley quotes from a letter by Anna H. McDonnell.
6. *Wisconsin Library Bulletin.* 2 (January-February 1906), p. 1.
7. University of Wisconsin. Library School. *Catalog, 1907-08.* (Madison: Wisconsin Free Library Commission, 1908), p. 10.
8. Statistics derived from University of Wisconsin. Library School. Annual Reports (University of Wisconsin Archives, Madison).
9. *Wisconsin Library Bulletin.* 4 (April 1908), 27.
10. Ibid.
11. Transcript of a taped interview with Frances Hogg Browne at Neillsville, Wisconsin in 1976. (Files of C. A. Bunge. Awaiting deposit at University of Wisconsin Archives, Madison).
12. University of Wisconsin. Library School. Annual Report, 1933.
13. Annual Report, 1921-22.
14. Ibid.
15. Annual Report, 1936-37.
16. Report, December 1, 1908.
17. Annual Report, 1936-37.
18. Letter from M. S. Dudgeon to W. H. Hatton, 31 July 1913. (Wisconsin Free Library Commission. File 34/1/2 Box 8. Wisconsin State Historical Society Archives, Madison).

4. Women in Engineering: Highlights and Shadows

by Lois Greenfield

The history of women in engineering within the University of Wisconsin System resolves itself into a series of highlights and shadows: highlights because of the outstanding women who have been a part of the history, and shadows due to lack of information about the small numbers of women who have been involved.

For the forty years from 1896-1936 female enrollments in engineering at UW-Madison were consistently low; five female students each year was the peak. The first woman student enrolled in engineering, in 1896, was Mildred Wadsworth Campbell. Her history is quite difficult to trace, since she was listed as a civil engineering special student in 1896-97 and in 1897-98, and as a junior in civil engineering in 1898-99. All trace is lost thereafter.

The first engineering degree granted to a woman on the UW-Madison campus was in 1925-26, a degree in mining engineering, which was awarded to Emily Hahn. From then until 1945-46, only eight females were awarded bachelors degrees in engineering. Twelve women were awarded B.S. degrees, and one woman was awarded a graduate degree, between 1945 and 1949. Since 1953, there has been a steady increase in both undergraduate and graduate degrees in engineering awarded to women.

There seems to be a large discrepancy between the number of students enrolled and the number of graduates. The reasons for this remain unclear.

In addition to the Madison campus, two other Wisconsin campuses educate engineers. The University of Wisconsin-Platteville started awarding bachelor of science degrees in engineering in 1951. Figures on female enrollments are "rather fuzzy," but Dean Edward Busby reports that records show the following enrollments during the past few years:

Year	Number of Women Engineering Students
1974	14
1975	33
1976	50

Since 1951, UW-Platteville has granted degrees in civil engineering to three women, the first in 1971, the others in 1973 and 1975. The first woman to get a degree in mining engineering graduated in May 1977.

The University of Wisconsin-Milwaukee college of engineering and applied science was created as a four-year degree granting institution in 1964, with the first class graduating in 1969. Prior to 1964, it was part of the division of engineering of the extension program, offering two years of work toward a degree at UW-Madison or elsewhere. Figures on enrollment of women in the college of engineering and applied science and of degrees awarded are shown in Table 3. These figures include students in applied science, and are thus not strictly comparable to those in Table 1.

Notable Women Engineers

Two distinguished women associated with the college of engineering have been recipients of honorary degrees from the University of Wisconsin-Madison.

Lillian M. Gilbreth, probably the most famous woman engineer of all time, received an honorary D.Sc. degree from UW in 1955. In 1955, Lillian Moller Gilbreth was a visiting professor of management at the University of Wisconsin-Madison. Gilbreth pioneered in the application of engineering principles to industrial management, at the same time caring for her large family, as described by two of her children, Frank B. Jr., and Ernestine Gilbreth Carey, in *Cheaper by the Dozen.* When the faculty of the University of Wisconsin-Madison awarded her the honorary degree, in 1955, it cited the effective manner in which she brought American women into the nation's defense industries, and remarked that, "she must be ranked not only as the world's foremost woman engineer, but also as one of the truly great American women of all time."

In 1926, Emily Hahn received her B.S. degree in mining engineering, a most unlikely career choice for a woman at that time. For several years, she practiced as a mining and geologic engineer, before turning to a writing career. She has written a variety of books, including studies of China in the thirties, travel books, biographies, novels, even cookbooks. Most recently she has been a teacher of creative writing. In 1976 the honorary degree, Doctor of Humane Letters, was awarded to Emily Hahn by the University of Wisconsin-Madison, which cited her as "A true pioneer in establishing the right of women to have their own careers."

Once a year since 1948, the college of engineering at UW-Madison awards distinguished service citations to outstanding alumni and engineers, or other distinguished persons associated with the state of Wisconsin or college of engineering. On May 4, 1973, the first woman to receive such a citation was Elizabeth Jackson McLean, who received a B.S. in civil engineering from the college of engineering in 1954. McLean serves as assistant commissioner in the Department of Public Works, Chicago, Illinois. She also served in Chicago with the City Planning Commission, Department of Structures and Sanitation, and is a member of such associations as the U.S. Committee of Transportation Quality, Commission of Urban Area Government, American Society of Public Administration, Institute of Traffic Engineers, and National Housing and Redevelopment Association. She is a Registered Professional Engineer in Wisconsin and Illinois.

On October 3, 1975, a second woman received the distinguished service citation from the college of engineering. Thelma Estrin, who is director of the Data Processing Laboratory, Brain Research Center of the University of California at Los Angeles, received her B.S. in electrical engineering in 1947, M.S. (EE) 1948, and Ph.D. (EE) 1951, from the college of engineering. After receiving her degree she worked as a biomedical research engineer in the electroencephalography department of Columbia Presbyterian Medical Center in New York, as a computer engineer at the Weizmann Institute of Science in Israel, in the mathematics department at Rutgers University, and as an instructor in engineering at Valley College. She is a vice president of the Institute of Electrical and Electronics Engineers Group on Engineering in Medicine and Biology and is a member of the board of directors of the

Biomedical Engineering Society. On January 1, 1977, she was the sixth female elected a fellow of IEEE, "for contributions to the design and application of computer systems for neurophysiological and brain research."

Women Faculty Members

The number of women faculty in the college of engineering at the University of Wisconsin-Madison has been small. Spot checks of catalogues, directories, the *Wisconsin Engineer* student magazine, and inquiries of current and emeritus faculty members reveal that there have been women faculty members intermittently since the early days in the college. In the catalogue for 1896-97, the college of mechanics and engineering, as it was called then, lists two women on the staff of engineering — Lucy M. Gay, instructor in French and Jessie Griffith, instructor in German. These women were listed in the departments of instruction of the college, teaching required courses in language, but were actually members of the staff of the college of letters and science language departments.

Mary O'Keefe was an assistant to the assistant dean and freshman adviser in the college of engineering from 1921 to 1958. She was reported to be a pillar of strength to incoming freshman engineers. In the March, 1941 issue of the *Wisconsin Engineer*, it was reported that, "although engineering men sometimes flunk out because of women, Miss O'Keefe has frequently wrought quite the opposite effect." Again in the *Wisconsin Engineer* for March 1958, there is this tribute:

> Seldom has one person been so many things to so many people. In her role as advisor she was always ready to counsel a student on his selection of courses, to give him help in improving his study habits, to praise him when he had done well, or to give him a friendly scolding if she felt he had been letting his studies slide.

After her death, an engineering student loan fund was established in her memory. The fund continues to help engineering students in the Mary O'Keefe tradition.

In 1947, Norma Richardson was a full-time instructor in the mechanical engineering department. A 1929 listing in the *Wisconsin Engineer* shows Mary Soroka as a research assistant in hydraulic and sanitary engineering. Other female graduate students have probably served as part-time instructors, teaching and research assistants, but their names do not appear in the available records. Lillian Gilbreth, when a visiting professor in management in 1955, did not directly teach any of the engineering students but certainly served as an impressive model.

The college has invited female scientists and engineers from other countries as visiting instructors. In their contact with the women engineering students, these visitors have pointed out that female engineers are much more common in their home countries than in the United States. They have helped to provide effective role models for some of the women students. In the recent past, the college has been academic home to: Vilka Obseiger (ME) from Yugoslavia 1972; Rodica Baranescu (ME) from Romania 1975; and Gulgan Yalcinkaya (EM) from Turkey 1976.

In 1958, Lois B. Greenfield was made an assistant professor in the Engineering Experiment Station. She became a tenured professor in the general engineering department in 1973. In June 1963, H. Gladys Swope was appointed assistant professor of water chemistry in the civil engineering department. She remained at the university through the summer of 1966. She

served as adjunct assistant professor to associate professor at UW-Milwaukee from 1971-74.

At UW-Milwaukee, Jane Shallock, a civil engineer, was an instructor in the engineering drawing department between 1947 and 1951, and again from 1955 to 1963. She spent the intervening years working on hydraulic turbines at Allis Chalmers. Marilyn John was an instructor from 1956 to 1961 in the same department. After an absence of five years to raise a family, she returned to part-time work in the systems design department.

In addition, a number of women have worked in the college of engineering and applied science as lecturers, and at least two women, Mary Jaroch and Rose Daitsman, served as assistant to the dean.

Encouraging Female Students to Enroll

The college of engineering at UW-Madison has been concerned for some time about attracting students into engineering, especially those students who have little idea about the requirements for such a career. To introduce young women to engineering in an environment which would enable them to acquire familiarity with some concepts of engineering and would encourage them to consider engineering as a career, three summer programs were held in 1974, 1975, and 1976 on the UW-Madison campus. In each summer there were two, one-week programs. In addition, a week-end program was held in the fall of 1974. Female high school students who were nominated by their high school mathematics, chemistry, or physics teachers and had two years of math and at least one year of science were invited to participate. Seventy-seven enrolled in 1974, forty-four in 1975, and forty-seven in 1976. The participants were introduced to specific fields of engineering in which the college offers undergraduate degrees. The young women were introduced to computer programming and logic circuit boards, which afforded them the opportunity to learn how a computer works from the inside as well as the outside. Other "hands on" experiences were offered, such as metal casting in the foundry and measuring the horsepower of a tractor engine. An opportunity was provided for the participants to interact with women engineering students (two acted as dormitory counselors and were available every evening), as well as to meet six or seven practicing women engineers, so that the young women could gain some familiarity with professional women, the problems they had, and the different approaches they had used to combine careers and family.

As a result of these summer programs, many of the young women decided to begin engineering careers and, indeed, about half of the women in the entering freshman class in engineering in 1976 had participated in the program at the University of Wisconsin-Madison, or at some other engineering college. All of the young women participating thought that the most significant benefit of the program was the opportunity afforded them to learn about the possibility of careers in engineering, a field which they had not really considered before, so that they could make a more sensible decision about their future education. This was true for the women who chose engineering as well as those who decided against it.

The current position of the college is to encourage women by means of special programs to undertake the study of engineering. Encouragement was not the former policy, however.

In a bulletin of the University of Wisconsin for July 1927, titled "The Gray Book," a booklet of information for freshmen, by S. H. Goodnight, dean of men, we find the following statement under the section devoted to the college of engineering (written by the late J. D. Mack, formerly a professor of machine design): "A skilled trade is a happy endowment for any man, particularly an engineer, to possess.... Many instances also come to mind of men who have practiced a trade as a profession." (p. 108). As can be seen, even though this booklet was published the year after Emily Hahn received her degree, the assumption was still made that engineering was a field exclusively for men.

In the bulletin published by the University of Wisconsin in July 1944, entitled "Occupations for College Women," prepared by the dean of women and a faculty committee, we find less than encouraging words in the section on "engineering."

> Not many women have attended colleges of engineering; a few, however, have successfully completed the engineering courses given at the university and other similar schools. Probably the fields of city-planning and of sanitary engineering are the closest to women's present fields of work. During the war many great industries have employed women in special engineering jobs, such as drafting, supervising, training of workers, testing, and personnel work. These industries will probably not employ such large numbers of women after the war. Whether they will still keep the field open for some women will depend on the readjustment of industry and of its methods after the war. At present, women are trained for such work in special courses given to college graduates by the industries themselves, or in courses in drafting given by some colleges; and one large airplane factory is selecting women at the end of the junior year and sending them, for the senior year with salary, to a special course given at New York University. Radio engineering and inspection are fields in which a number of women now work. Control tower work for airlines is another....
>
> High school girls interested in engineering should try themselves out in mathematics and science (pp. 34-35).

In the bulletin of the University of Wisconsin prepared in July 1952, entitled "The Engineer, His Preparation and Work," which was widely circulated, particularly to high school students, there is no indication that it is possible for an engineer to be anything except male. All of the pictures and descriptive material stress this as a career for men, despite the increased enrollment of women during and following World War II. In fact, the general statement at the beginning of the booklet says, "It is hoped that the bulletin will enable many young men to choose a life work wisely and intelligently...."

At approximately the same time, the *Wisconsin Engineer* magazine, written by and for students in the college of engineering, developed a section directed to high school students called "Your Future in Engineering." In April 1952 a section on "Wisconsin Lady Engineers" appeared. It was written by the three female engineering students then enrolled in the college, Del Himmelfarb, Irene Lee, and Elizabeth Jackson, who said:

> Math and sciences are interesting subjects, but taken individually as majors they do not offer the variety and fascination they gain when combined in the engineering curriculum. The main purpose of the engineering curriculum is to teach practical application of the various sciences, and there is no reason why we women can't utilize these applications.
>
> What is the life of a lady engineer like? We go to school like other Wisconsin students....

> At present "Wisconsin's Lady Engineers" is only three strong, and because of this we are the object of much attention. (But we don't mind, it all makes life more interesting.) Teachers exhibit various reactions to us, and sometimes it's necessary to convince them that we are serious about becoming engineers; students are curious and friendly. Between the two, classes are never dull....

In February 1961 and again in February 1963, the high school issue contained a section on "Women in Engineering," written by a chemical engineering student, Barbara Friede. It attempted to outline the qualifications required for a major in engineering and then went on:

> Today there are not many women in engineering but it is not a brand-new profession for women. Way back in 1886 the first woman engineer opened her office.... The job openings for women engineers are not as great as for men engineers. In one employment manual there were 300 different companies who would accept men chemical engineers and only 30 who would accept women chemical engineers. But one must take into account that there is about one woman engineer graduating per 1,000 men. The types of engineering jobs for men and women are the same although chief engineer jobs preferably go to men with more lab work reserved for women.
>
> It is now being predicted that in the next few years more and more girls will decide to study engineering, for people are finally realizing that women can help satisfy industry's demand for capable engineers. You girls now in high school can be the vanguard of this movement of women into engineering. One other extra hint from one woman engineer to another; being the only girl with so many boys makes competition with grades a little tougher and the kidding may get a little rough at times. So come prepared with your sense of humor, your eagerness to learn, and your sliderule.

In line with the changing concept of the role of women, a booklet, "Women at Wisconsin Are in," prepared in 1973 by the UW-Madison campus affirmative action office, was designed to show that women students of the University of Wisconsin-Madison are involved in every kind of course, activity, job, or career preparation, including engineering.

In 1976, the booklet "Why Not Engineering" was prepared by women engineering students in the college of engineering to be distributed to high schools in Wisconsin, as well as to engineering educators interested in guidance. The booklet was designed to give accurate information about an engineering career, and sought to help young women decide whether or not engineering might be a career for them.

Women as Students in Engineering

The women students who have been enrolled in the college of engineering have participated in and contributed to many phases of student life and activities. Female students have been active in the student branches of the engineering professional societies and have been officers in these societies. In 1973 Cheryl Brandt was the first female president of Polygon Board, the student governing council for the college of engineering. In 1975, Doreen Osowski, a nuclear engineering student, was active as the co-chair of the National Coordinating Committee of the SCORE competition (Student Competition on Relevant Engineering), which dealt with energy resource alternatives.

Since 1971, the female students in the college of engineering have been organized on campus as Women in Engineering, a group to which any female engineering student belongs by virtue of her enrollment in the college. In March 1977, a student chapter of the Society of Women Engineers was chartered at the University of Wisconsin-Madison. Earlier, student chapters had been organized at the University of Wisconsin-Milwaukee and the University of Wisconsin-Platteville. These groups have worked to provide guidance con-

cerning engineering careers for women to high school students, have invited women engineers to talk about their professional careers, and have participated in social and professional activities in the college of engineering.

The *Wisconsin Engineer* student magazine which was founded in 1896 has had four women editors. The first editor was June Hartnell, a chemical engineering student in 1944-45. In 1966 Mary Ingeman, mechanical engineering (ME), in 1975 Peg Lawrence (ME), and in 1976 Lauren Schlicht, electrical and computer engineering (ECE), edited the magazine. In addition, a number of women engineering students have written descriptive and technical articles, have been members of the business staff, and have contributed to the outstanding record this magazine has made. Some of these women have written about their views and experiences as female students in the college of engineering, generally demonstrating their ability to see the humorous side of the incidents they report.

In the August 1944 issue of the *Wisconsin Engineer*, an article by Dorothy Miller, a chemical engineering student, appeared, entitled "Women in Engineering, or We Are Here to Stay, Better Make the Most of It." She wrote:

> Many amusing incidents take place in the course of instruction due to the presence of feminine members. A professor will seldom let a month pass without making some allusion to the girls in the class. For instance, in a discussion of solutes raising the boiling point of solutions, some reference might be made to the fudge-making ability of the girls. One does not dare look into space during lab periods for the instructor is sure to ask what it is we don't understand. Any unusual performance one might go through is likely to be attributed to that "feminine curiosity." And if one of us should go to a party which one of her professors chaperones — it's soon common class knowledge, what she looked like, who she was with and what they did during intermission. But don't let us fool you, we like attention as well as the next person, we enjoy a good joke, even at our expense. We'd like to thank our instructors, professors, advisors and fellow classmates for their kind and helpful attitude, we're going to do our best to uphold the purpose and interests of our chosen profession. We're taking engineering because we want to be engineers (p. 9).

Women students in the college continued to be singled out for special attention as seen in excerpts taken from a diary kept at the 1953 session of civil engineering summer survey camp, attendance at which was then required of all civil engineering students. A sense of humor was evidenced in the following quotation from "Summer Camp Diary" by Elizabeth Jackson in the October 1953 issue of *Wisconsin Engineer*.

> After the assembly adjourned, students returned to their trailers to arrange things for comfortable living. Mattresses were filled with straw and placed on metal cots. The trailers provided unusual conveniences to the engineers: rusted breadboxes became excellent shoe storage space; refrigerators which could not be used as such, became cases for drawing implements; and former kitchen work space became desks.
>
> Liz Jackson, after being informed that she was not to have her surveying partner for a roommate as the other engineers did, found her abode in the section of camp set aside for the girls who prepared and served meals to the summer campers.

The Future

Several factors may account for the recent large increase in enrollment of women:

(1) The women's movement, which has asserted that a woman may be or do anything for which she has the talent, with no fields closed because they are not traditionally female.

(2) A decrease in the jobs for teachers. While this has been true primarily for humanities and social studies teachers in the secondary schools, it is less true for mathematics, physics and chemistry teachers. However, the publicity about the scarcity of jobs for teachers has sent young women interested in math and science into exploring other fields requiring these talents, including engineering.

(3) Pressure by the government on industry and on its own agencies to hire women into professional and managerial jobs. In fact, the job market for women graduating in engineering is excellent; some women are getting better salaries and more frequent job offers than are men of equal talent. As this becomes known, more women will probably enter the field.

(4) Strong efforts on the part of engineering colleges to encourage enrollment of women students.

Nevertheless, the women students currently in engineering still represent only a small fraction of their potential in the general population and it seems unlikely that, in the near future, the number of women studying engineering will approach the number of men, since women must still juggle societal constraints placed on them by career, home and family.

The evidence of change abounds, however, and as more and more women accept and meet the challenge of a career in engineering, they will surely provide impetus for more and more younger women to follow in their footsteps.

Table 1

WOMEN ENROLLED IN ENGINEERING*

The University of Wisconsin-Madison

Fall	Undergrads & Specials	Grads	Fall	Undergrads & Specials	Grads
1977	323	45	1937	3	0
1976	245	27	1936	2	0
1975	183	34	1935	3	0
1974	75	26	1934	2	0
1973	44	19	1933	2	0
1972	27	15	1932	4	0
1971	22	16	1931	5	0
1970	20	10	1930	5	0
1969	17	12	1929	2	0
1968	15	9	1928	1	0
1967	21	7	1927	3	1
1966	18	4	1926	1	0
1965	13	3	1925	2	1
1964	14	3	1924	1	0
1963	14	0	1923	0	0
1962	17	0	1922	0	0
1961	6	0	1921	0	0
1960	11	0	1920	0	0
1959	20	1	1919	1	0
1958	19	0	1918	1	0
1957	16	2	1917	0	0
1956	16	0	1916	0	0
1955	13	0	1915	0	0
1954	5	0	1914	0	0
1953	5	0	1913	0	0
1952	5	0	1912	0	0
1951	3	0	1911	1	0
1950	3	1	1910	1	0
1949	5	2	1909	1	0
1948	7	1	1908	1	0
1947	12	1	1907	0	0
1946	33	3	1906	0	0
1945	13	0	1905	0	0
1944	16	0	1904	0	0
1943	0	0	1903	0	0
1942	1	0	1902	0	0
1941	2	0	1901	0	0
1940	2	0	1900	0	0
1939	3	0	1899	0	0
1938	4	0	1898	1	0
			1897	1	0
			1896	1	0

*Numbers of students enrolled in engineering for the period 1899-1915 were tabulated by searching the catalogues of those years. The accuracy of the resulting figures is questionable.

Table 2

DEGREES GRANTED TO WOMEN ENGINEERS

The University of Wisconsin-Madison

Academic Year*	Undergrad.	Grad.	Academic Year*	Undergrad.	Grad.
1975-76	6	6	1948-49	3	1
1974-75	4	13	1947-48	1	0
1973-74	6	8	1946-47	6	0
1972-73	2	9	1945-46	2	0
1971-72	5	6	1944-45	0	0
1970-71	3	4	1943-44	0	0
1969-70	3	4	1942-43	0	0
1968-69	2	4	1941-42	0	0
1967-68	3	0	1940-41	0	0
1966-67	2	2	1939-40	1	0
1965-66	1	0	1938-39	1	0
1964-65	1	0	1937-38	0	0
1963-64	1	0	1936-37	0	0
1962-63	2	0	1935-36	0	0
1961-62	0	0	1934-35	2	0
1960-61	1	0	1933-34	1	0
1959-60	3	0	1932-33	0	0
1958-59	3	1	1931-32	1	0
1957-58	0	0	1930-31	0	0
1956-57	0	0	1929-30	0	0
1955-56	2	0	1928-29	1	0
1954-55	1	0	1927-28	0	0
1953-54	1	0	1926-27	0	0
1952-53	0	0	1925-26	1	0
1951-52	0	1	1924-25	0	0
1950-51	0	0	1923-24	0	0
1949-50	0	0			

*July 1 through June 30

Table 3

WOMEN ENROLLED IN ENGINEERING AND APPLIED SCIENCE

The University of Wisconsin-Milwaukee

Year	Undergrads	Grads
1976-77	59	*
1975-76	47	11
1974-75	35	*
1973-74	29	*
1972-73	30	*
1971-72	24	*
1970-71	12	*
1969-70	9	*

*Data not available

DEGREES GRANTED TO WOMEN

The University of Wisconsin-Milwaukee
College of Engineering & Applied Science

Year	Undergrads	Grads
1975-76	—	2
1974-75	2	1
1973-74	4	—
1972-73	—	—
1971-72	—	—
1970-71	—	—
1969-70	—	—

5. Nursing in the University System

by Signe S. Cooper

"I wish you would educate your nurses for the nursing profession and not matrimony. We need people trained in the very careful manner that you are training them." Thus Adda Eldredge, executive director of the Nurses Placement Service in Chicago wrote Helen Denne, director of the school of nursing, on May 2, 1936.

The letter documents the reputation that the university's first nursing program, established in Madison in 1924, had attained in a short time. It also reflects the writer's concern that many graduates were leaving nursing through marriage.

The employment of married women is no longer the issue it was in 1936; a large proportion of the nursing alumni successfully combine marriage and a career. Indeed, graduates number men as well as women. In spite of the burgeoning enrollment of the last decade, the quality of practice of the university's nursing alumni remains high, as does the demand for graduates by many different types of employing agencies.

In 1974, the school of nursing at the University of Wisconsin-Madison celebrated its fiftieth anniversary; significantly, that same year the first graduates of an innovative curriculum received their diplomas. The school has gone beyond its traditional and somewhat conservative origins to the vanguard in nursing education.

The school of nursing at UW-Madison is the oldest collegiate nursing program in the state, and is among the oldest in the country. Today in the UW System, there are four nursing schools located at Eau Claire, Milwaukee, Oshkosh and Madison, but the others are more recent in origin (since 1963) than Madison.

Background of Collegiate Nursing Education

The University of Minnesota is generally credited with establishing the first collegiate school of nursing in the world in 1909.[1] This momentous step in the history of nursing marked the beginning of a trend for nursing education to move out of its hospital base into institutions of higher learning. This development in a neighboring state had a direct, though not immediate, effect upon events at the University of Wisconsin.

To appreciate fully the impact of moving nursing education into educational institutions, it is helpful to review the origins of nursing education. In 1860, Florence Nightingale established the first modern school of nursing at St. Thomas' Hospital in London. The school was established as a school independent from the hospital, financed by contributions of citizens grateful to Nightingale for her part in the Crimean War. The idea of independent schools was brought to the United States, along with many of Nightingale's other progressive ideas, but, with few exceptions, this idea was soon lost, largely for economic reasons.

The first schools of nursing were established in the United States in 1873. In spite of initial opposition by physicians, they gained acceptance when it became apparent that student nurses provided considerable service to

patients, with little economic cost to the hospital. Without established educational standards, hospitals across the country quickly opened schools of nursing. It was not unusual for a ten or twelve bed hospital to establish a school of nursing, with perhaps three or four students to a class. Although some schools provided at least a semblance of an educational program, students were often exploited in the name of education.

Yet women flocked to these schools, since few career opportunities were available to them. Later, when other opportunities became available, many selected nursing because it was inexpensive education; indeed, in most schools of nursing students received a small monthly stipend for their services and paid no tuition fees.

A number of "training schools," in the terminology of the time, were established in university hospitals, but were essentially no different than their hospital diploma counterparts, not only in the length of the program (three years), but also in the instruction — or lack of it — provided to students. The UW school of nursing narrowly missed this type of pattern, for in 1920 the university issued a bulletin announcing a school of nursing.[2] Five students enrolled, only to find that no funds had been provided to establish a school. The students were transferred to a Milwaukee school of nursing. Had the university school continued at that time, it probably would have been as a typical hospital diploma program.

In reality, the program started in 1924 retained many of the characteristics of the typical diploma program; there was a three-year course and a five-year course. Graduates of the former received a certificate and were eligible to write state board examinations to qualify for the practice of nursing. Graduates of the five-year course received a B.S. degree.

Many, but not all, of the graduates of the three-year curriculum returned to complete the requirements for the degree. This practice continued until 1956, when the first four-year curriculum was introduced.

There seems to have been support by medical faculty for the establishment of the nursing school, but there was opposition by some letters and science faculty members, who viewed nursing education as purely vocational.[3]

Some compromises were made by the nursing school faculty: until 1950 graduates were awarded the B.S. degree in hygiene, which apparently was more acceptable than nursing. Degree candidates were required to complete a second major, in home economics or in one of the liberal arts. Such an arrangement was typical of the collegiate nursing programs of the time, for nursing was yet to gain academic respectability within the university, but it meant that graduates of the nursing program were required to have many more credits for graduation than other university students and to put in more class hours to earn them.

The first nursing major, in public health nursing, came about as a result of the Social Security Act of 1935. Funds for preparing registered nurses for public health nursing were provided in this legislation and the university initiated a major in this area in 1939.

Early History

The appointment of Helen Denne as the first director of the school of nursing was a particularly fortunate choice. A Canadian by birth, she came to Madison from the Presbyterian Hospital in Chicago, noted for high standards

of nursing care. Two of her key appointments, Lila Fletcher and Gladys Carey, were also graduates of that hospital's school of nursing, and both had a substantial influence on the development of nursing in the new Wisconsin General Hospital, opened in 1924, in which nursing students had nearly all of their clinical practice.

Denne was a visionary and a crusader; she believed sound education was required for effective nursing care. Furthermore, she had the broad scope required to carve out a new approach to the education of nurses. Unfortunately, she did not write-up many of her ideas, but evidence exists that the nursing program started at the UW was more truly a collegiate program than most of its contemporaries.[4] Many of the early schools established in university hospitals were essentially diploma schools that happened to be located in a university setting, and the transformation into a truly collegiate program was often a slow, painful process.

From the beginning, in contrast to those in many other colleges and universities, some of the nursing faculty members held faculty rank and nursing students were enrolled as any other student on campus. They enrolled in university courses, had use of libraries and other facilities, and participated in university social events.

Denne was a strong-willed martinet. Students were in awe of her, if not actually afraid of her. She expected — and usually received — unquestioned obedience from faculty and students alike. Her leadership ability was exceptional. She encouraged graduate nurses and hospital staff nurses to seek additional education, and special work schedules were often arranged for them. Her compassion for people was perhaps best exemplified during the Depression, when she developed a share-the-job plan so that more nurses could work in the hospital, in spite of critical budget cuts. She then encouraged them to enroll in the university to make good use of the extra time. Her idea for fee-remission scholarships[5] was a practical way of enabling students to attend the university when otherwise it would not have been possible.

Under the guidance of Professor Denne, the school of nursing began on a firm foundation. The early growth of the school was rapid and a high quality educational program was maintained. It helped provide a useful pattern for later collegiate schools of nursing to follow.

World War II and After

Eleven o'clock classes were cancelled on Monday, December 8, 1941, so that students could hear President Franklin Roosevelt announce that the country was at war. The student nurses, who usually attended psychology 144 at that hour, crowded around the radio in the lounge at the nurses' dorm. Many of those who heard the announcement volunteered for service before the war was over.

Nursing alumni served in theaters of war around the world, in Europe and North Africa, and the South Pacific. Two served with UNRRA (United Nations' Relief and Rehabilitation Administration). One, Katherine Balzer (class of 1940) was awarded the Bronze Star for gallantry during the bombing of the Anzio beachhead. Another, Eleanor Nelson (class of 1945), died of pneumonia on Saipan. Alumnae served on the home front, too, carrying heavy work loads in hospitals, training Red Cross nursing aides, and teaching home nursing courses. The war also had an impact on the school. Enrollment

increased sharply, and the curriculum was accelerated with a fifteen-week summer session to permit earlier graduation.

The school was among twenty-three of Wisconsin's then twenty-five accredited schools of nursing to participate in the U.S. Cadet Nurse Corps. The Bolton Nurse Training Act of 1943 (Public Law 74 — 78th Congress) which created the U.S. Cadet Nurse Corps, became public law on July 1 of that year. For the first time in history, federal funds became available to students enrolled in the schools of nursing.

Following the war, nurse veterans were entitled to nearly the same benefits provided to other veterans.[6] The Serviceman's Readjustment Act of 1944 (Public Law 346 — 78th Congress), popularly known as the G.I. Bill of Rights, provided substantial educational benefits and many nurses took advantage of them. A more aggressive director than Christina Murray might have sought more actively to recruit these veterans.

An early faculty member of the school of nursing, Murray had returned in 1938 to become the second director of the school. Like Helen Denne, Murray was a Canadian, but, unlike her, she apparently did not have the vision — nor the stamina — to move the school forward. She was an effective teacher, and students remember her best for her inspired teaching. Some persons have hinted that Denne was not pleased with this appointment; perhaps she was aware of Murray's limitations as an administrator. During this time, collegiate programs were gaining public recognition, and progress at Wisconsin was much less dramatic than elsewhere in the nation.

Murray was the director during the troublesome years of World War II: faculty were enlisting in the Army and Navy Nurse Corps and the recruitment of replacements was difficult; the accelerated curriculum (three semesters each year) placed an extra burden on overworked faculty; the hospital was short-staffed, so students carried heavy nursing service loads. Furthermore, the Depression was scarcely over, and the budget problems were always serious. Although it was difficult to get qualified faculty, Murray, with few exceptions, did not seek faculty who were not alumni.

Christina Murray died in 1948 and was succeeded by Margery MacLachlan, the first alumna to serve as the director of the school and also the school's first graduate. Appointed in 1949, she was a family friend of Dr. William Middleton, then dean of the medical school.

MacLachlan was a blunt, outspoken, somewhat unattractive woman. Her forthrightness alienated colleagues who might otherwise have been more supportive and helpful. But her dedication to the school and to maintaining high academic standards was without question. Because of her brusque manner, students sometimes reacted negatively to her, yet in several instances she personally assisted students who were short of funds.

Events in nursing — and in the university — moved along rapidly in the 1950s, but not in the nursing school. However, extensive curriculum changes were made during MacLachlan's tenure. The four-year curriculum was inaugurated. The title of the degree granted was changed from B.S. (Hygiene) to B.S. (Nursing). The department of nursing in the extension division (now UW-Extension) was established. Sigma Chapter of Alpha Tau Delta was founded, and enrollment in the school increased.

Growth and Expansion

Until the early 1960s, the school of nursing maintained a fairly stable enrollment. After World War II, enrollment of registered nurses increased, as nurse veterans took advantage of the provisions of the G.I. Bill of Rights, entering the university to complete requirements for a baccalaureate degree.

But federal support of education for registered nurses had come earlier, through the provisions of the Social Security Act of 1935, when the public health nursing major started.[7] Not all the nurse veterans returning to the campus were interested in pursuing careers in public health nursing, so in 1946 a second major, ward management and teaching, was established.

To a great extent, enrollment in the school was limited by space in the nurses' dormitory. Since nursing students were expected to live in the dormitory during the clinical portion of the curriculum, the dormitory space severely limited enrollment. In 1960, this long-standing policy was changed, permitting students to live in any appropriate housing. This factor, along with a burgeoning interest in health occupations, resulted in constantly increasing enrollments in the school. This occurred along with the establishment of additional collegiate nursing programs in the UW System.

Helen Bunge, an alumna (class of 1930) and early faculty member of the school, returned to Madison in 1959. An internationally recognized nursing leader, she was perhaps best known for her promotion of nursing research and as the first editor of *Nursing Research* magazine.[8]

Bunge pushed for, and attained, autonomy for the nursing school in 1967. During her tenure (1959-1969) the school gained prestige and national recognition. Under her leadership the baccalaureate curriculum was strengthened, the number of prepared faculty was increased, the enrollment was doubled, and a graduate program was initiated. She played a major role in the establishment of a school of nursing at UW-Milwaukee.

Bunge's counsel was frequently sought by nursing groups at the national, state and local levels. She served as an advisor to the American Red Cross Nursing Service, and as a consultant to the U.S. Public Health Service, the Veterans' Administration, and the United States Fifth Army.

During her tenure, Bunge was able to attract highly talented faculty, many of whom remain today. The present dean, Dr. Valencia Prock, was appointed to the faculty in 1965, and as dean in 1970. Since her appointment as dean, an innovative curriculum has been launched, the number of graduate programs have increased, nursing research has been emphasized, and plans are underway for establishing a doctoral program.

Graduate Education

Recommendations for a graduate program in nursing on the Madison campus were made by a statewide commission on nursing in 1955, but the first graduate program was not established until 1964. That program, in pediatric nursing, was developed by Florence Blake, a pediatric nurse with an international reputation. Since then other graduate programs have been initiated and the present graduate program permits a number of options to facilitate preparation appropriate to the nurse's career goals. The Board of Regents has granted the school an entitlement to plan for a doctoral program in nursing, and, early in 1977, a project proposal for a feasibility study was submitted to the U.S. Department of Health, Education and Welfare.

Blake came to Madison in 1963 to start the university's first graduate program in nursing. An able and respected nurse and author of pediatric nursing texts, she was the ideal person to start the program.

Blake was a pioneer in the inclusion of clinical content in graduate programs in nursing (earlier programs focused on functional areas of teaching and administration). Her outstanding contribution to the nursing care of children (both in this country and abroad) was achieved through her teaching and her sophisticated writing.

At UW-Milwaukee, a graduate program in community health nursing, with an option in perinatal nursing, was started in 1971. Three years later a master's program was started at UW-Oshkosh; this program prepares primary nurse clinicians for joint practice with primary care physicians. Special attention is given to the location of these graduates in under-served areas. In 1976, the Board of Regents granted an entitlement to plan a master's program in nursing at the UW-Eau Claire.

Students, Faculty and Alumni

From the original eleven students who enrolled in September 1924, the student body grew to nearly one thousand three hundred at UW-Madison fifty years later. That year (1974) enrollment at UW-Milwaukee reached a peak of 1492 students.

The students who enrolled in the first class were single white women. For many years most of those admitted to the school were recent high school graduates, and almost without exception, Wisconsin residents.

Today, many students are married, and some have children before they enroll or even while they are in school. Like their predecessors, some students hold college degrees before they enter the school, but now more are likely to be pursuing a second career and many are entering at an older age. Today's students are a more diversified group; the majority are Wisconsin residents, but many come from other states or occasionally from a foreign country. There are more men and more minority students among them.

The first minority student, Jane Wong, was graduated in the class of 1941. It was not until 1955 that the first black student, Canary Girardeau, completed the program. Although men had previously been enrolled in the registered nurse program, it was not until 1963 that Paul Learman, the first man to receive a degree in nursing, was graduated. Since then, men have been graduated from all four of the university's nursing programs.

Students have been and continue to be active in a number of nursing organizations. When the State Student Nurses' Association was formed in 1949, its first president, Nelsine Hanshus, was a university student. Since then two other university students have served as president of the organization, and many have served as officers and committee members.

Sigma Chapter of Alpha Tau Delta, a national fraternity for women in nursing, was officially installed on the UW-Madison campus in 1959. Beta Eta Chapter of Sigma Theta Tau, the only national honor society of nursing, was formally installed in 1972. Membership includes undergraduate and graduate students, faculty, and members of the nursing community.

Although a high percentage of nursing students are employed part-time while enrolled in school, many find time to participate in a wide range of volunteer activities. Students serve as volunteers at institutions for the men-

tally retarded, in nursing homes, in day care centers, and in the Blue Bus free health clinic, to name a few of their activities.

In addition to Helen Denne, Helen Bunge, and Florence Blake, a number of outstanding nurse educators have been associated with the UW-Madison school of nursing. The directors (later deans) were women of vision, with high intellectual standards, deep understanding, empathy with students, and appreciation of the special contributions of nursing to society as a whole.

Many early faculty members were alumni who stayed on for most of their professional careers. Today such professional inbreeding is viewed as stifling; early in the history of the school it was necessary for survival.

Faculty members with long tenure made special contributions to the educational programs. These include Margaret Crump Du Rose (class of 1932) in pediatric nursing, Eugenia Schoen (class of 1935) in psychiatric nursing, Erna Ziegel (class of 1932) in obstetric nursing and Shirley Watson (class of 1930) in cancer nursing. Watson also wrote the first brief history of the school.[9]

In 1974, Eugenia Schoen received the William H. Kieckhofer award for distinguished teaching, the first time the award, given annually on the UW-Madison campus since 1952, had ever gone to a woman faculty member. Erna Ziegel was the first faculty member to publish a textbook; her revision of the popular *Obstetrical Nursing,* originally written by Carolyn Van Blarcom, was published in 1957, with two later revisions.

By 1977, University of Wisconsin nursing alumni numbered more than 6,000. This included 2,881 with baccalaureate degrees from the UW-Madison campus; an additional 810 students were awarded the certificate of graduate nurse between 1927-1960.[10] Total graduations for UW-Eau Claire were 656; for UW-Milwaukee 1,061; and for UW-Oshkosh 755.

The contributions of alumni to their chosen profession are impossible to list, but these contributions reflect the quality of the education to which they have been exposed. A high percentage serve in leadership positions, as directors of nursing service in hospitals, nursing homes, and community health agencies, as directors or deans of schools of nursing, as consultants to governmental or voluntary health agencies. Many have served as faculty members of schools of nursing, in Wisconsin and throughout the country.

For the three more recent schools of nursing in the university system, not enough time has elapsed since graduation for nurses to secure advanced education and to establish themselves as outstanding in the nursing world. But their contributions to nursing practice, particularly in the northern and less populated areas of the state, are substantial, for the alumni of the Eau Claire and Oshkosh programs have accepted positions in some geographic areas where few Madison alumni went.

Alumni often seek challenging employment opportunities as they practice their profession. Many have been employed in coronary care and intensive care units, from the time these life-saving facilities were begun. Alumni have made an impact on the care of the mentally retarded and the emotionally disturbed; the care of mothers and babies, including those identified as high risk; the concern for the elderly, the chronically ill, and the dying. Many have practiced as community health nurses, in rural areas and in inner cities.

Several alumni have made significant contributions to nursing research. In 1977, Nancy Fugate Woods (UW-Eau Claire class of 1968), a faculty member

at Duke University, was one of five recipients of a research award from the American Nurses' Foundation.

Alumni have pioneered the use of new approaches to helping students learn, in particular the use of technology in teaching. May Shiga Hornback (class of 1954) was among the first nurse educators to use television in teaching. In 1963, as a member of the UW-Madison school of nursing faculty, she developed a videotaped course in fundamentals of nursing. Later, as a faculty member of the extension department of nursing, she pioneered in the use of the telephone in teaching. Dr. Elizabeth Kruger (class of 1945) was among the first nurse educators to design auto-tutorial learning modules in nursing.

Other alumni have gained prominence through their work in national nursing and health-related organizations. Margaret Miezio (class of 1964) was active in the establishment of the Spina Bifida Association of America and served as its first president.[11] Dr. Mitzi Duxbury (class of 1966) director for health personnel development in the National Foundation-March of Dimes, designed and directed a project to develop packaged study modules for nursery nurses; the project has attracted interst throughout the United States and in other parts of the world.

Recently alumni served in both Korea and Vietnam, as well as on peacetime assignments in Europe and elsewhere, and nearly all alumni practice their profession at some time, although many may leave, often temporarily, while their children are small. But even those not practicing make contributions to the communities in which they live, by participating in a wide range of health related and other community activities.

Continuing Education

University of Wisconsin faculty members pioneered in the development of continuing education in nursing. In Wisconsin, the provision of nursing courses under the auspices of the extension division predated the establishment of the school of nursing by a number of years. The first course offered by the university was in 1916, when public health nursing was offered as a cooperative venture between the extension division and the Wisconsin Anti-Tuberculosis Association (WATA — now the Wisconsin Lung Association).[12] Designed for registered nurses, it was given at a time when few public health nursing courses were available anywhere to nurses interested in this field.

Five years after the school of nursing was established, a non-credit extension course on supervision and teaching of nurses in training was offered in Milwaukee.

The first nursing credit course was principles of public health nursing, taught at the extension center in Milwaukee during the second semester of 1939-40. In the early 1950s, credit courses were offered in Eau Claire, Racine, Kenosha, Milwaukee and elsewhere and were taught by school of nursing faculty members.

In 1955 the department of nursing was created in the university's extension division (now UW-Extension). This was not the first time a nurse had been appointed to a university faculty with a primary responsibility for continuing education,[13] but it was the first long-range commitment for this responsibility. The UW has provided continuing education to nurses over a sustained period of time, longer than any other university or college.

After the department of nursing was established by the extension division, credit courses continued to be offered regularly for several years. Between 1955 and 1965, forty-seven credit courses were provided by extension in seventeen different Wisconsin communities. In that time a total of 967 nurses completed the courses.[14] Credit courses were discontinued after 1965 when the courses previously offered off-campus were dropped from the nursing curriculum; only recently (fall semester 1976-77) have credit courses again been made available off-campus.

The first institute for registered nurses to be conducted by faculty of the nursing school was in cancer nursing in September 1948, with approximately thirty nurses attending.[15] Additional institutes were held in cancer nursing, rheumatic fever, poliomyelitis nursing and industrial nursing.

The majority of course offerings now sponsored by extension nursing are non-credit workshops and conferences, designed for practicing nurses. The two-day conference has been a popular format, since nurses can fit an absence of this length into their working schedules, but may not be able to be gone from their homes and their employment for longer periods of time.

Refresher courses for non-practicing nurses have been an integral part of the extension nursing program since its inception. Between 1954 and 1977 a total of 108 such courses were given in 40 different Wisconsin communities with more than 2,200 nurses enrolled. Between 1967 and 1970 extension nursing participated in a nation-wide effort to return inactive nurses to practice. No other state has consistently provided a program for non-practicing nurses for as long a period of time as has Wisconsin.

The first nursing course offered by telephone, "Call Nursing 1966" was taught by various school of nursing faculty members. That twelve-week course was attended by 630 nurses, who participated at one of twenty-three listening posts scattered throughout the state.

Nursing Dial Access is another use of the telephone for educational purposes. Modeled after a similar system designed for physicians, it consists of a number of short pre-recorded tapes on various nursing subjects. The nurse may dial from her own telephone to the university's communication center to listen to topics of her choosing.

Self-contained learning packages also have been developed to assist nurses in their learning efforts. Several independent study courses, including lectures on audiocassette tapes with study guides and supportive materials, were developed.

Extension Nursing Faculty

Signe Cooper (class of 1943) was appointed head of the department of nursing in the extension division when the position was created, as a joint position with the school of nursing, in 1955. Except for a two-year period, she has served in that capacity since.

Cooper served as the first chair of the Council of Continuing Education of the American Nurses Association (ANA) when it was established in 1972. In 1967, she was presented the Linda Richards Award of the National League for Nursing for her pioneering efforts in continuing education in nursing. She received the distinguished service award of UW-Extension in 1970 and, in 1976, the honorary recognition award of the American Nurses Association.

Dr. May Hornback joined the extension faculty in 1965 and served until her death in 1976. For ten years she directed the educational offerings provided to nurses throughout the statewide educational telephone network (ETN). She encouraged and assisted faculty members and guest lecturers in the use of this technology to teach nurses throughout the state.

Hornback was recognized nationally for her contributions to continuing education in nursing. She served as a member of the Commission on Nursing Education of the ANA and in 1975 was appointed the first chair of its National Accreditation Board for Continuing Education.

Dorothy Hutchison joined the faculty of the extension nursing department in 1963. She was appointed the first editor of the *Journal of Continuing Education in Nursing* when it was established in 1970 and served in that capacity for seven years. Between 1971 and 1975, she served as director for a national organized collaborative project to provide comprehensive services to handicapped infants and their families, a project designed to promote the development of inter-disciplinary teams in agencies and institutions caring for the developmentally disabled.

Milwaukee, Eau Claire and Oshkosh

Interest in collegiate programs in nursing in various parts of the state was in evidence long before any of the schools outside of Madison came into being. Three new collegiate programs were created in the 1960s; one at UW-Milwaukee, one at UW-Eau Claire, and one at UW-Oshkosh.

The development of these three programs was considerably different from those occurring over forty years earlier on the UW-Madison campus. The absence of a medical school in each of these three schools undoubtedly had an impact on their development. Although support by medical colleagues was missing, at least there was no competition with these same colleagues for budget.

The nursing school at the UW-Milwaukee was opened as a division of the UW-Madison school of nursing in September 1963, and became independent three years later. In its formative years a number of Madison faculty counseled students, taught courses and made a substantial contribution to its development. In particular, Professor Louise Smith devoted considerable time to student advisement during this time.

Frances Cunningham came to Milwaukee in 1964 as director of the division of nursing. She had been on the faculty of the Frances Payne Bolton School of Nursing at Western Reserve University in Cleveland. A personal friend of Helen Bunge, dean of the nursing school at UW-Madison, the two worked closely together and shared a mutual concern for quality education.

Inez Hinsvark was appointed dean in 1967 and served in this capacity until 1975. She remains on the faculty and currently directs a national study of credentialing and licensure for the ANA.

Hinsvark, who holds an Ed.D. from the University of California-Los Angeles, was responsible for planning the school of nursing building at UW-Milwaukee. In 1971-72 she was one of three nurse members of the Wisconsin Governor's Task Force on Health Policy and Planning and serves as a member of the ANA's Commission on Nursing Education. She was succeeded by Dr. May Conway, who was appointed dean on August 1, 1976.

The UW-Milwaukee nursing school attained a national reputation for the development of automated instruction in the teaching of nursing. Much of this work was under the direction of Elizabeth Krueger. The automated modules she developed are now available as the Lippincott Learning System and are used in schools of nursing throughout the country. Dr. Krueger, who received her doctorate from Teachers' College, Columbia University, has served on the faculty of the UW-Milwaukee school almost from its inception.

The nursing program in Eau Claire grew out of a relationship of the Luther Hospital School of Nursing with the Wisconsin State College — Eau Claire in 1953, when courses were provided to the nursing students.[16] Earlier, in 1949, the faculty of the Eau Claire State Teachers Colllge — now UW-Eau Claire — adopted a resolution requesting the formulation of plans for developing a degree program in nursing. From time to time faculty committees engaged in further study of the question and, in 1961, Mary Quarmby, a consultant for the National League for Nursing, came to the Eau Claire campus to study needs, facilities, and academic program.

In 1963, the Board of Regents of State Colleges authorized Wisconsin State University-Eau Claire to continue to explore the degree program. In the fall of 1964, Marguerite Coffman came to the campus to evaluate facilities and to plan a curriculum. The following year she was appointed dean, and the first class of sophomores began professional studies. In 1968, seventeen students were graduated in the first class.[17] The next year the school was granted accreditation by the National League for Nursing.

In 1967, a U.S. Public Health Services grant was awarded for construction of a school of nursing building. It was completed in 1969. Five years later the program was expanded to permit the admission of registered nurse students wishing to pursue a degree.

Prior to her appointment at UW-Eau Claire, Coffman had served as an educational consultant for the Kansas State Board of Nursing and on the faculty of the University of Kansas School of Nursing. She served as dean from the inception of the school until June 30, 1977, at which time Dr. Susan Van Ort succeeded her. At the time of her retirement in 1977, funds were contributed to initiate the Marguerite P. Coffman lecture series in the nursing school.

The school (now college) of nursing at UW-Oshkosh was established in 1966. The first class of twenty-two students was graduated in 1970, the same year that the new nursing building was completed. In 1971, the college initiated an equivalency examination plan for registered nurse students. A master of science in nursing program was initiated in 1974.

Helen Dorsch, who holds a doctorate from Ohio State University, was appointed the school's first dean. She came to Wisconsin from Ohio State University, where she was a member of the faculty. Following a crisis precipitated by the inability of the school to accommodate all the candidates who wished admission, Dorsch resigned as dean in 1976, and Hildegarde Siegel was appointed interim dean.

Siegel, who was appointed to the faculty in 1969, was responsible for establishing the graduate program in nursing and served as its first director. She holds a doctorate from the University of Minnesota, and had served on the faculty at Marquette College of Nursing prior to her appointment at UW-Oshkosh. She was appointed dean of the college in May 1977.

Current Developments and Trends

In the early 1970s, the school of nursing at UW-Madison attracted nation-wide attention by its innovative curriculum. The inauguration of this program followed intensive study by faculty of recommendations for change made by a multidisciplinary advisory committee. These recommendations were based on an examination of trends in nursing and speculation about the future. They recognized that current health needs were not being met by the traditional delivery of health care and future needs seemed less likely to be met. A school of nursing in a tax-supported institution has a special obligation to the citizens of the state. The faculty recognized the obligation and under the direction of Dr. Rose Marie Chioni designed the curriculum accordingly.

The new curriculum is designed to prepare nurses for new roles and expanded functions. It recognizes that it is no longer practical or realistic to prepare nurses to care for individuals at all levels of health and illness and in all settings where nursing is practiced.

During the first two and one-half years students are enrolled in a core curriculum; that is, all students enroll in the same nursing courses. During the last three semesters students choose a selected area of concentration, either primary or secondary health care.

Faculty in the schools within the University of Wisconsin System are experimenting with new approaches to education for the registered nurse seeking a baccalaureate degree. Faculty are also seeking solutions to health care delivery issues, as learning experiences are provided in clinics in Milwaukee's inner city, or in migrant labor camps or to Native American populations.

Summary

From an inauspicious beginning on the UW-Madison campus, nursing in the University of Wisconsin has grown to substantial size. Two of the schools of nursing — Madison and Milwaukee — are among the ten largest collegiate nursing programs in the country. By 1976, more than six thousand nurses had been graduated from the four schools in the UW System.

The innovative curriculum on the UW-Madison campus has attracted attention throughout the country. Wisconsin's continuing education program has attained national recognition. Graduates at both the baccalaureate and graduate level in all four programs serve in leadership positions throughout the country.

As nursing slowly evolves into a profession, university-based nursing education becomes increasingly significant. For more than fifty years, the University of Wisconsin has contributed to the progress of nursing.

NOTES TO CHAPTER 5

1. Annie Goodrich, "The Gift of Richard Olding Beard to Nursing Education," *American Journal of Nursing,* 35 (March 1935), 251.
2. News item, *American Journal of Nursing,* 21:1:61, (October 1920). See also Board of Regents, Minutes, 21 January 1920. (University Archives, University of Wisconsin-Madison).
3. William Ellery Leonard, *The Locomotive God,* (London: Chapman and Hall, 1928), 223.
4. National League for Nursing Education, "Proceedings of Conference on Nursing Schools Connected with Colleges and Universities," held at Teachers College, Columbia University, 21-25 January 1928. (New York: The League, 1928).

5. Resolution adopted by the Regents of the University of Wisconsin, 27 February 1925: "That in return for services given by pupil nurses, in the care of patients at the Wisconsin General Hospital, all fees, incidental, non-resident and laboratory, be remitted while these nurses are in residence at the hospital." (University Archives).
6. Women veterans were usually excluded from veteran home loan benefits.
7. "Preparation of Public Health Nurses under the Social Security Act," *Public Health Nursing*, 28 (April 1936), 259-260.
8. Lucille E. Notter, "Helen L. Bunge, First Editor of *Nursing Research*," *Nursing Research*, 19 (July-August 1970), 291.
9. Shirley Watson, "Wisconsin University School Evolves Slowly into Graduate Status," *Trained Nurse and Hospital Review*, 122 (June 1949), 261-263; 282; 286; 291.
10. The exact number awarded the certificate and later completing the degree is not known, although it is a high proportion. Thus, the total number of UW-Madison alumni is more than 2,881, but fewer than 881 plus those holding degrees.
11. Ann Rundell, "They Helped Themselves. Madison Couple Formed Spina Bifida Organization." *Wisconsin State Journal*, 24 March 1974.
12. "University of Wisconsin Established Instruction on Preventable Diseases for Nurses," *Public Health Nursing*, 2 (May 1917), 6.
13. One of the earliest appointments appears to have been at the University of Michigan in 1941 when Thelma Brewington was appointed state coordinator of refresher courses for inactive nurses throughout Michigan, under the Extension Department of the University of Michigan and the Department of Nursing at Wayne University *(American Journal of Nursing*, 41, July 1941, 489*)*.
14. Signe S. Cooper, "Ten Years of Statewide Service: Report of the Activities of the Department of Nursing," (mimeographed) the University of Wisconsin University Extension, 1955-65, 7.
15. "Cancer Institute," *University of Wisconsin Nurse's Alumni Magazine*, (December 1948), 11.
16. Hilda R. Carter and John R. Jenswold, *The University of Wisconsin-Eau Claire. A History, 1916-1976* (Eau Claire: University of Wisconsin-Eau Claire Foundation, 1976), 74.
17. Ibid., 115.

6. Women in the Medical School

by Rima D. Apple and Judith Walzer Leavitt

Women have always practiced medicine. They healed their families and tended their friends throughout history. But they entered the regular medical profession in the United States only in the middle of the nineteenth century. The number of women physicians increased through the rest of the century, peaking in the decade 1900-10. Although women represented a significant proportion of medical practitioners (in Boston, 18 percent in 1900), they never achieved more than a minor place in medicine. Their numbers rapidly declined after 1910. Only recently in the 1970s have they again increased. Discrimination, overt and covert, obstructed integration of the sexes in the medical profession.

Through the second half of the nineteenth century, women sought acceptance into the regular world of medical men. They battled to get into medical schools, hospitals, and professional organizations; but once in, they found themselves a small unheard minority that had little or no effect. Women achieved their greatest triumphs alone. Separate medical schools, training hospitals, and infirmaries served women well. They were "island[s] of feminist strength"[1] that created the atmosphere necessary for learning and achieving. Women's separation, however, further isolated them from the regular medical profession.

A few state university medical schools accepted women as early as the 1860s.[2] But not until the 1890s did women win general acceptance to male schools. In 1893 Tufts matriculated 25 percent women, increasing to 42 percent in 1900. Women comprised 37 percent of the student body at Boston University and 31 percent at Kansas Medical School in 1893. As more previously all-male schools admitted women, the new road seemed promising. Separate institutions for women closed and women happily sought to integrate themselves into coeducational schools. But the success began to disintegrate in the early twentieth century. Either precipitously or gradually most coeducational medical schools reduced their quota of women to approximately 5 percent in the early decades of the twentieth century. This chapter examines women's experiences as students and faculty in a twentieth century coeducational school, the University of Wisconsin medical school at Madison.

Information about women students was gathered from the university archives, alumni documents and a questionnaire sent to 370 women graduates and house staff. Approximately 66 percent responded. To insure their confidentiality, replies are quoted without names, identifying merely the year of graduation. Data was gathered about women faculty from archival material, budgets, and interviews with nine former and current women faculty members whose names and positions are not divulged.

The University of Wisconsin medical school opened its doors with a two-year preclinical program in 1907. In that year, three women matriculated in a class of twenty-six.[4] Remembering her early years at the University of Wisconsin, one physician remarked that "the University of Wisconsin was very much ahead of most medical schools in their admission, support and treatment of women." (1916) This perception accurately reflects the views of

the majority of women who studied at the University of Wisconsin before the 1960s.

In June 1927, the medical school conferred its first four-year medical degrees on six women and nineteen men. Nationally, women constituted only 4.5 percent of graduating classes, so Wisconsin, at 24 percent, appeared significantly different. After the first four-year class in 1927, however, the percentages of women graduates at UW dropped dramatically. In 1928, no women graduated; the class of 1929 produced five out of forty-four (11.3 percent); the class of 1930, two in a class of 38 (5.3 percent). Not until the war years, 1947-51, did women again attain levels significantly above 10 percent. This erratic pattern needs more examination. During the 1950s and 1960s the numbers of women students fluctuated widely and in the 1970s the percentage of women medical graduates rose almost to the height of the 1927 class.

The number of women graduates depends on how many women apply, are accepted, and decide to enter the first-year class. Through the last half-century women have applied to medical schools in increasing numbers. United States medical schools received 684 applications from women in 1926, ten sent to the University of Wisconsin. The UW accepted a relatively high proportion of the women who applied for admission, especially in the early years [See Table 1]. By 1973 the national figure was 7,202, with 121 to the UW. During this period male applications to UW doubled, women's applications increased 1,200 percent.

Admission procedures today are more rigorous than they have been in the past because of the increasing number of applications and the relatively inflexible number of places. In 1957 the freshman class held 90 students; in 1970, 113; and in 1976, 159. Although the class size is expected to grow still larger, it will not match the growth rate of applications. Therefore, each year a smaller proportion of those who apply gain entrance and competition increases.

Admissions committees traditionally questioned women's commitment to medicine. Dr. Charles Bardeen, dean from 1907 to 1935, supported the idea of women physicians, but frequently found it difficult to apply that support to individuals. He once told a woman applicant that "women in medicine never go on to use it," and that furthermore, "the state couldn't afford to train them if they weren't going to use their medicine because there were good men who wanted to go into it." (1929)[6] Dr. William Middleton, dean from 1935 to 1955, actively campaigned for a certain quality in women medical students. To test women's dedication, Middleton surveyed the first thirty-three women graduates and learned that ten of them married, four had children and two were "homemakers rather than practitioners of medicine."[7] He "repeatedly emphasized that he wanted only female students who would serve humanity [with] their medical training. He did *not* want those who would give up medical practice for marriage, family-raising or other careers." (1943)

Worries about women's dedication to medicine still plague the admissions procedures at UW. Recent women graduates complained that interviews were often "required of all women — optional for men." (1974) Admissions committees asked women applicants if they "planned to get married and would that cause [them] to drop out" (1966) and "about boyfriends, marriage plans, making applicants feel as though [they] should have taken an oath of

celibacy." (1971) At least one female student's husband was also interviewed, presumably to forwarn him what to expect if his wife were admitted. (1974) Although studies have shown that women physicians do not "drop out" of medical practice at any greater rate than male physicians, the belief that they are a higher risk group persists.[8] Only three of our sample of UW graduates had not practiced.

Women students in the 1920s, 1930s, and 1940s expected a certain amount of suspicion about their presence in medical school and they did not resent the implication that they were not serious students. As one of them put it: "Really I have very little bitterness. Perhaps I *expected* to have a harder time of it than the men, and I took a certain amount of hostility in stride, ignoring it as much as possible." (1929) Students in the 1960s and 1970s, however, have resented the questions about their personal lives and consider that treatment discriminatory.

Despite seeming obstacles to the admission of women medical students at the UW, the number of acceptances of women has trebled between 1970 and 1976, from 16 to 50. Women's high grade point averages and Medical College Admission Test scores insure that those who apply are potentially acceptable [See Table 3]. Furthermore, federal affirmative action pressures have created an atmosphere that encourages more women to apply. Thus, given the intense competition for the limited number of first-year places, it is significant that women's rate of acceptance fell only to 34 percent while that of males fell to 29.2 percent.

Once admitted to UW, women medical students have enjoyed more support than some of their colleagues elsewhere.[9] A physician who graduated from the UW in 1947 thought that her "teachers were supportive and interested in me as a human as well as a woman." One of her classmates agreed that she had a "great experience" at UW. Women students noticed an open atmosphere in which women "were taken as a matter of course." (1950)

> At the University of Wisconsin we always had been treated as students and accepted as women who were trying to make the grade in a male-dominated profession. We were neither scorned nor ridiculed.[10]

Of course, perceptions varied greatly and women who had similar experiences often perceived them very differently. A student from the class of 1949 wrote:

> I lived with a female medical student in my class — she complained much of discrimination against women but I in the same class did not see or feel it — we had very differing experiences in same class — same school — same year. We were different.

Recent graduates are more sensitive to discrimination than women who graduated before the revival of the feminist movement in the 1960s. Wisconsin did not allow women in the 1920s and 1930s to catheterize male patients or to rotate through the male urology clinics, but the women students did not see that exclusion as discriminatory. Faculty treated them with more care and "courtesy" than male students and they appreciated rather than scorned the special attention. In more recent years, women graduates are more critical of their classroom experiences. Students repeatedly noticed the "derogatory women jokes" (1958), the "lecture and slide sessions with overt sexual (always female) overtones by male lecturers" (1972), and the "general lack of sensitivity" (1974) to women's participation.

One of the most publicized events of recent years occurred in 1973 when a UW pathology professor joked that a woman student could not make an announcement before the class "because she's got too many clothes on." He continued:

> We have to give you equal rights and the first thing you know...women will dominate society. Thank God I'll be dead before you do though.

Women students filed a complaint with the Office of Civil Rights and organized themselves around this blatant example of sexism. No formal action was taken, although the professor finally apologized to the class.[11] Overt sexism is becoming less frequent, although female students still notice enough covert behavior to make them feel uncomfortable. Given the small number of women students, women found that they "never could be absent because this would be noticed." (1966) Several faculty had a "subtle leering, sneering attitude" toward women students (1972); while others showed "less willingness to allow a female student [to] assume responsibility — e.g. in operative techniques, active management." (1974)

Sex discriminatory practices have existed in several other subtle forms as well. Women have been in attendance at the medical school since 1907, yet there has been little provision for their sleeping facilities. Women on call in obstetrics and other services often found themselves housed with the nurses and physically separated from their male medical colleagues. This physical separation affected their learning, since informal conversation with professors and other students always has been an important part of learning clinical medicine. The problem of space for women increased in the 1970s as more women were admitted. In Marshfield, where many students serve their preceptorships, men live in individual apartments and women in the nurses' dormitory where they are subject to strict regulations.

Since the male medical fraternity excluded females, women students in the 1920s formed a local chapter of Alpha Epsilon Iota, the national medical sorority. For several decades AEI held frequent gatherings of students and faculty for mutual support. Through the 1950s "all active women of the medical school met at the Union" (1945), meetings which many women remember fondly. AEI dissolved in the mid-1960s when the national organization concluded that women were accepted in medicine and there was no longer a need for a separate women's organization.

Historically, women who organized themselves for change were most successful in effecting the change. Institutional barriers remained strong until women themselves demonstrated a magnitude of sufficient force to make their demands. Nineteenth century women achieved that comfortable atmosphere most successfully in all-woman institutions; late twentieth century medical women seek to create a place for themselves within the walls of male-dominated institutions.

Today, with a feminist movement supporting them and increasing numbers of women within the institutions, women medical students continue to work with women faculty and staff to create an atmosphere conducive to their comfort and success. The Women's Health Commission formed in 1970 has already attacked many of the evident inequalities and is at work attempting to make the UW Center for the Health Sciences more responsive to women's needs.

The University of Wisconsin has not been a "bad" place for women students. But the fact that women have been relatively happy here for the last seventy years does not mean that the institution has always been sensitive to women's role in medicine. Preferential treatment, derogatory attitudes, and exclusion from some activities are evidence of discriminatory behavior, even if the women themselves did not experience it as such at the time. Student perceptions are part of the picture, but we must find other sources to uncover more of women's experience in a coeducational medical school.

The presence of women faculty role-models is extremely important to women students. Until recently, women have not been conspicuous on the UW medical school faculty (See Table 4). Those few who were hired climbed up the promotion ladder more slowly and received less pay than their male colleagues.

Dr. Helen Josie Dobson, the first woman on the faculty, was the medical examiner of women in 1909. Dr. Sarah Morris replaced Dobson in 1911 in the clinical medicine department. Morris was a highly regarded physician who devoted herself to the medical problems of women students. Her career was suggestive of the women's experience in academic medicine in those years.

In 1914 Morris and her colleague Middleton were both instructors and both received a salary of $1,600. In 1915 Morris and Middleton were promoted to assistant professors: Morris's salary increased to $1,750 and Middleton's to $1,900. Still in the same department in 1923, Middleton had become an associate professor and received $4,250 while Morris remained an assistant professor at a salary of $3,250.

This single example does not necessarily inform us about women's experience in general. Yet Morris's promotion pattern seemed typical in the first several decades of the medical school. Dr. Frances Hellebrant, a recognized national figure in physiology, never achieved the rank of full professor. Frances Holford in bacteriology also retired as an associate professor. Dr. Marie Carns, who slowly moved up the ranks in clinical medicine became a full professor only when she became director of the women's physical education department outside the medical school. Women, on the whole, had to remain longer on the faculty to attain professorial status. Dr. Annette Washburn was the first woman full professor, a rank she achieved in 1948. Dr. Mabel Masten followed her in 1950. Dr. Madeline Thornton who came to the obstetrics department in 1929 retired in 1969, still an associate professor. Her chairman said of her, "if Madeline Thornton had been a man she would be the head of an OB department some place." In spite of individual examples of women gaining grudging acceptance, for the most part, women's careers show a steady struggle for equitable recognition.

Women who were employed at the UW expected slow promotions. One of them remembered:

> I knew this when I went into medical school, that you wouldn't get the promotions as fast as a man. I accepted that. That didn't mean a thing to me. I didn't fight it because this I understood.

When she was hired, Dean Middleton warned her, "You know I can never pay a woman what I would pay a man."

In the 1960s, the number of women faculty began to grow. In 1959, fifteen women held positions at the rank of assistant professor or above; in

1964, seventeen held such positions. But in the same five-year period the entire medical school had grown so that the percentage of women faculty actually decreased from ten percent to eight percent. Most women on the medical school staff held positions below the rank of assistant professor, in non-tenure track positions. Women stayed as lecturers or research associates for many years partly because of their perceived lack of mobility. If their husbands had secure jobs on campus, departments assumed they would not move away.

Local women's demands from the Association of Faculty Women (AFW) and the Women's Health Commission, supported by federal affirmative action pressures, have significantly influenced women's positions around the campus. Salaries between men and women became more equitable after the AFW publicly revealed large discrepancies, and today it is more difficult to hire women at short term non-tenure track appointments. One woman's career illustrates the new trend. She had been a research associate for twenty years, though she sought a faculty position. In 1969 she received a promotion to assistant professor after she had been invited to present the annual lecture at a prestigious international university. In 1971 she was promoted to associate professor, and in 1972 to full professor.

In recent years, women's positions within the University of Wisconsin medical school have been increasing and improving. Between 1964 and 1974 the number of tenure-track faculty increased by 95 percent. Women faculty increased 176 percent from 17 to 47 and men faculty 87 percent from 194 to 366. But the disparity is still enormous and women are still more likely to hold non-tenure track appointments than their male colleagues [See Table 5].

Despite some of the difficulties in hiring and promotions, most women faculty experienced little discrimination in their daily interactions with their male colleagues. As one of them put it, the "school has an open attitude, if not the height of enlightenment" regarding women professors. Another described her daily interactions as "easy"; her male associates accepted her and appreciated her work. Despite the inequalities in rates of promotion and salary levels, most women have found the medical school a congenial place to work. Some who acknowledged that there are "male chauvinist pigs" among the faculty felt that a sense of humor could combat discriminatory remarks. On the other hand, if women act "business-like," and if they are "professional" one woman faculty member believed they would be "dealt with even-handedly."

Using quantitative measures, women medical students appear to fare well at the University of Wisconsin. Their numbers have increased in recent years, a relatively high percentage of applicants are accepted, and their GPAs and MCAT scores are comparable to the male students. Once admitted to the medical school, however, they sense discrimination at a personal level. In lectures, with on-call facilities, and in daily interactions with their professors and fellow students, women experience discomfort and do not feel accepted. The reverse appears true for women faculty. On measurable criteria such as the numbers of women on the faculty, their rates of promotion and salary levels, women have not been treated as the equals of their male colleagues. Yet, most women on the staff expressed the belief that they had good working and social relations with their male associates.

Today's women physicians differ in at least one important respect from their predecessors. In the nineteenth century, women developed medical careers in separate female institutions and did not readily transfer to the regular male world of medicine. In the twentieth century, women physicians are educated and participate within the male dominated institutions, as at the University of Wisconsin medical school. This integration within established institutions offers a stability to the present situation that nineteenth century women could not achieve in separate schools. There is reason for optimism, then, that the present growing numbers, influence and contributions of women in the field of medicine will be permanent.

NOTES TO CHAPTER 6

1. Mary Roth Walsh, "Doctors Wanted: No Women Need Apply," *Sexual Barriers in the Medical Profession, 1835-1975* (New Haven: Yale University Press, 1977), p. 103.
2. For an account of the obstacles women faced in entering a state university medical school in the nineteenth century, see Dorothy Gies McGuigan, *A Dangerous Experiment: 100 Years of Women at the University of Michigan* (Ann Arbor: Center for Continuing Education of Women, 1970), pp. 35-38.
3. We are grateful to all the women who helped by sharing their experiences with us. We received a total of 246 replies (66 percent) from our questionnaire; some from graduates, some from house staff. Of the 286 living women graduates of the University of Wisconsin medical school, 178 responded (62 percent). We would also like to thank all the people on the UW campus who helped us gain access to and interpret information about women in the medical school.
4. For the general history of the University of Wisconsin medical school, see William H. Oatway, Jr., "Progress of the University of Wisconsin Medical School — The Years Before 1923," Wisconsin Medical History Seminar, unpublished paper, 1939; and Paul F. Clark, *The University of Wisconsin Medical School: A Chronicle, 1848-1948* (Madison: The University of Wisconsin Press for the Wisconsin Alumni Association, 1967). These and other histories of the UW medical school include little on women.
5. *Journal of the Association of American Medical Colleges*, various issues, 1927-1930.
6. On a more personal level, Bardeen counselled one of his daughters away from medical school and into nursing. Another daughter did attend medical school, several years after his death.
7. William S. Middleton, "Women in Medicine," *The Medical Women's Journal*, 43 (1936), 293.
8. Judith Lorber, "Women and Medical Sociology: Invisible Professionals and Ubiquitous Patients," in Marcia Millman and Rosabeth Moss Kanter, editors, *Another Voice: Feminist Perspectives on Social Life and Social Science* (Garden City, New York: Anchor Books, 1975), pp. 77-78; and Margaret A. Campbell, *"Why Would a Girl Go Into Medicine?": Medical Education in the United States: A Guide for Women* (Old Westbury, New York: The Feminist Press, 1973), pp. 102-103.
9. Campbell, pp. 6-44.
10. Else B. Edelman, "Two Alumnae Look Back: The Unforgettable Experience," *Health Affairs*, University of Pennsylvania (Fall 1976), p. 10.
11. Deborah Shapley, "Medical Education: Those Sexist Putdowns May be Illegal," *Science*, 184 (1974), 450.
12. William S. Middleton, "The University Medical School: A Personal History," University of Wisconsin: University Archives Oral History Project (Madison, 1972), p. 7; and Middleton, "Women in Medicine," p. 292.

*We would like to thank Ann Dettmering, Margy S. Lambert, and Bonny Nelson for their assistance in preparing this essay.

TABLE 1

Women Applicants

	University of Wisconsin Medical School			United States Medical Schools		
Year	Applicants	Acceptances	%	Applicants	Acceptances	%
1926	10	8	80	684	304	44
1927	16	10	62	765	318	42
1928	18	16	89	868	377	43
1929	7	4	57	801	344	43
——						
1969	26	11	42	2289	952	42
1970	30	16	53	2734	1256	46
1971	49	25	51	3737	1693	45
1972	96	32	33	5480	2315	42
1973	121	56	46	7202	2743	38

Sources: *Journal of the Association of American Medical Colleges*, various issues, 1927-1930 and the statistics from the Admissions Committee of the University of Wisconsin Medical School.

TABLE 2

Applicants and Acceptances
University of Wisconsin Medical School

	Total Resident* Applicants		Total Resident Acceptances		Percent Accepted	
Year	Female	Male	Female	Male	Female	Male
1970	30	324	16	143	53.3	44.1
1971	49	371	25	144	51	38.8
1972	96	390	32	135	33.3	34.6
1973	121	481	56	169	46.3	35.1
1974	148	549	55	156	37.2	28.4
1975	140	489	48	149	34.2	30.5
1976	147	465	50	136	34	29.2

*Since 1970, there have been only a limited number of non-residents admitted to the medical school.

Source: Statistics from the Admissions Committee of the University of Wisconsin Medical School.

TABLE 3

Average Class Scores for Entering Medical Students

	Science GPA		MCAT Science	
	Female	Male	Female	Male
1965	3.33	3.29	540	561
1966	3.53	3.31	535	571
1967	3.32	3.30	518	582
1968	3.67	3.34	560	589
1969	3.59	3.42	606	573
1970	3.14	3.45	563	567
1971	3.65	3.49	578	578
1972	3.68	3.66	570	600
1973	3.55	3.47	605	609
1974	3.71	3.69	624	641
1975	3.65	3.50	610	646
1976	3.62	3.53	610	641

Source: Statistics from the Admissions Committee of the University of Wisconsin Medical School.

TABLE 4

Women Faculty
University of Wisconsin Medical School
Selected Years, 1924-1975

	Women at rank[1]		Women on staff[2]	
Years	Number	%	Number	%
1924-25	1	3	5	7
1928-29	1	2	7	8.5
1934-35	5	8.6	8	9
1940-42	6	8.8	13	11
1944-46	7	9.2	15	12.3
1948-50	12	12.9	22	17
1954-56	10	9.4	21	12.3
1959-60	15	10.1	41	11.9
1964-65	17	8	48	10
1969-70	33	10.2	80	11.6
1974-75	47	11.3	109	12.5

Sources: for years 1924-1956, University of Wisconsin catalogues; for years 1959-1975, University of Wisconsin Staff Directories.

[1]Includes: professors, associate professors and assistant professors.

[2]Includes: women at rank, instructors, lecturers, and clinical staff.

TABLE 5

University of Wisconsin Medical School Faculty
1964-65 — 1974-75

	At Rank[1]				On Staff[2]			
Years	Total No.	Men No.	Women No.	%	Total No.	Men No.	Women No.	%
1964-65	211	194	17	8	478	430	48	10
1969-70	321	288	33	10.2	687	607	80	11.6
1974-75	413	366	47	11.3	868	759	109	12.5
	% INCREASE FROM 1964-65 TO 1974-75							
	95%	87%	176%		81%	76%	127%	

Sources: University of Wisconsin Staff Directories, 1964-65, 1969-70, and 1974-75.

[1]Includes: professors, associate professors, and assistant professors

[2]Includes: at rank personnel, instructors, lecturers, and clinical staff

7. Women and the Law School

From a Trickle to a Flood

by Ruth B. Doyle

This essay attempts to describe two eras in the history of women and the law school. One (1868-1968) is a century in which a few women came and went — some years several, some years none at all. The other (1968-1978) is a decade which stands out in stark contrast to the first.

Efforts to describe the first hundred years involved seeking out the few individuals to discover what legal education means or meant to them. For this group the records are very skimpy. During the last nine or ten years, the number of women in the law school has grown so that mention of individuals is all but impossible.[1]

The First Century

For more than a hundred years, there was a trickle of women entering and leaving the University of Wisconsin law school. In many entering classes there were one, two or three. In graduating classes there was seldom more than one. For example, an alumni directory published in 1919 reveals that between 1875 and 1919, sixteen women were graduated from the University of Wisconsin law school.[2] Some years there were none. Many more entered than graduated; a good many who graduated never tried to practice.

In 1887, there were two women in the graduating class — Mrs. Kate Hamilton Pier and her daughter Kate Pier (later Mrs. J. A. McIntosh). In 1891, there were three: Norma Lawrence (later Mrs. A. H. Long of Prairie du Chien) and Pier's two younger daughters, Caroline and Harriet, who became, respectively, Mrs. J. H. Roemer and Mrs. C. G. Simonds. Together the Piers made up almost a third of the female graduates in a forty-four-year period.

Wisconsin had one of the earliest law schools in the United States, and women were never excluded either by law or by rule. For women, however, admission to the bar was difficult here and impossible in many states, so there was really no incentive offered to women to go to law school, and few of them were motivated to challenge the traditional system.

Examples of the traditional view held by the bench and bar — and society generally — are the following statements by Chief Justice Ryan speaking for the Supreme Court of Wisconsin in 1875 in the matter of motion to admit Miss Lavinia Goodell to the bar of this court:

> Nature has tempered women as little for judicial conflicts of the courtroom as for the physical conflicts of the battlefield. Woman is modeled for gentler and better things. It . . . [the law profession] has essentially and habitually to do with all that is selfish and extortionate, knavish and criminal, coarse and brutal, repulsive and obscene in human life. It would be revolting to all female sense of innocence and sanctity of their sex, shocking to man's reverence for womanhood and faith in woman on which hinge all the better affections and humanities of life, that woman should be permitted to mix professionally in all the nastiness of the world which finds its way into the courts of justice. . . . Discussions are habitually necessary which are unfit for female ears. The habitual presence of women at these would tend to relax the public sense of decency and propriety.[3]

During the first one hundred years of the UW law school's history, there was not much change in the status of women as students and as lawyers. The

experiences of the graduates in the nineteenth century and the first half of the twentieth were — astonishingly — very much alike. For instance, it is only in recent years that women have attempted to enter the job market in any substantial numbers. Early graduates recall that as recently as 1950, none of the female students considered that the law school placement office was open to them. Women who graduated in the early post-World War II period sought employment on their own, and usually wound up working for institutions — government, banks, insurance companies.

Until the last decade, they confronted a profession which appeared to have no room for them. One of its most famous practitioners, Clarence Darrow, said to them, "You can't be shining lights at the bar, because you are too kind. You can never be corporation lawyers, because you are not cold-blooded. You have not a high grade of intellect. You can never expect to get the fees men get. I doubt if you can even make a living."[4]

Many years after Clarence Darrow spoke, Mordella Shearer (class of 1943) visited Dean Oliver Rundell. At the time she decided to come to law school, she needed the dean's approval to receive credit for the law school courses taken as a pre-law student. The dean did not deny her admission, nor did he withhold the credit. But he gave her an argument: (1) as a lawyer, she would have to deal with indelicate subjects; (2) she would not be able to compete with men; (3) she would have to seek male companionship in the bar rooms. Nearly thirty years later, she recalls that she made no rejoinder to the dean, but that she was "appalled."

Profiles of the Century's Graduates

Nevertheless, a hardy little band — one or two each year — steadily and bravely moved out into the wide world of indelicate subjects and coarse male behavior. We don't know what happened to most of them before 1920. Pier and her daughters practiced law in Fond du Lac and Milwaukee. Pier became Circuit Court Commissioner. Mrs. McIntosh (the eldest daughter) argued cases before the Supreme Court of Wisconsin and, in 1894, before the Federal Circuit Court of Appeals. She was admitted to practice in the United States Supreme Court. Only twenty years earlier (1874), in a case upholding a state law forbidding women to practice law, the U.S. Supreme Court had said: "Man is, or should be, woman's protector and defender. The natural and proper timidity and delicacy which belongs to the female sex evidently unfits it for many occupations in civil life." Including the practice of law, of course.

In her biography of her husband, Belle Case LaFollette (class of 1885) seldom mentions herself. One of her rare personal comments follows:

> Bob was the first to suggest that I take the University of Wisconsin law course. It did not require much urging to convince me I could do so without neglecting my child and other home duties. The course was then two years. I entered in 1883 and was graduated in 1885, being the first woman to graduate from the University of Wisconsin law school.[5]

Belle LaFollette worked closely with her husband when he was Dane County district attorney. She wrote occasional briefs for her husband during his few years of practice. Early in his career as Dane County district attorney, LaFollette, when praised by the Chief Justice of Wisconsin for a brilliant brief, admitted to the court that it had been written from "start to finish" by his wife. She was a writer of great accomplishment, a leader of the suffrage

movement and a founder of the Women's International League for Peace and Freedom. But she never practiced law.[6]

Others, who came along after Belle LaFollette, and who did practice law, found various ways, almost always with difficulty, to accomplish their purposes.

Some of them found their niches in private practice — in family firms. Nancy Murry Barkla (class of 1952), River Falls, established partnership with her father; so did Cecilia Doyle of Fond du Lac (class of 1927), and Miriam Frye of Oshkosh (class of 1924). Others, such as Marjorie Loomis Marshall (class of 1936), and Mordella Dahl Shearer (class of 1947), became the partners of their husbands. Still others, like Norma Goldstein Zarky (class of 1940), became partners in the big firms with which their husbands were associated.

Dorothy Walker (class of 1920), Portage, is the most enduring and prominent example of the successful woman in her own private practice. She, after graduating, joined a firm in Portage. She served two terms as district attorney of Columbia County starting at age twenty-three. Member of a firm for almost twenty years, she has also been a solo practitioner since 1938. She has felt no need to become liberated. In her case, "the subject never came up."

These women have succeeded well in the traditional practice of law. Others have chosen other paths to success. What follows are only samples.

Beatrice Lampert, class of 1924, retired in 1967 as assistant attorney general of Wisconsin, a position she had held for twenty-five years.

Lampert started her career three years after her graduation from law school. Jobs did not come easily. She was hired in the Madison city attorney's office, as a secretary-law clerk, and worked her way into a professional job. She became a hearing examiner for the Wisconsin Public Service Commission before joining the attorney general's staff.

Her career was one of great prestige and responsibility. She often represented the State of Wisconsin in argument in the Supreme Court of the United States. Remarkable as that was in her time, more remarkable now is the fact that four years ago, after nine years of retirement, she again became an assistant attorney general of Wisconsin, and works part-time at the work she did so well and enjoyed so much. She works on one case at a time and feels none of the pressure she felt earlier.

Except for four years salaried service to the Legal Aid program in Milwaukee County, Dorothy Clark von Briesen (class of 1936) has had a long and satisfying career as a volunteer lawyer. For many years she has participated in a lawyer referral service sponsored by the Milwaukee County Bar Association. She works a regular schedule — two months almost full time during the winter and fewer — but regular — hours during the rest of the year. On a usual day of service, she interviews thirty clients, with a vast variety of problems, and refers them to lawyers who can be helpful. She also serves on the volunteer staff of the little-publicized Counselling Center for Youth in Milwaukee.

Looking back on her long career, which started as a social worker while a student and as a new graduate from Northwestern University, von Briesen asserts that her father "did not waste his money" by investing in her legal education.

Bernice Lotwin Bernstein graduated from the law school in 1932. She has recently retired as special assistant to the secretary of the U.S. Department of Health, Education, and Welfare for welfare reform and national health insurance. Her first employment by the federal government was in the infant Social Security Administration whose organization was initially financed from WPA (Works Progress Administration) funds.

A graduate of the University of Wisconsin in philosophy, Mrs. Bernstein felt close to the "John R. Commons group," from which emanated many of the creators of the great reforms of the Roosevelt New Deal, including social security. Her service has always been in government: assistant general counsel for the Federal Security Agency, assistant solicitor in the U.S. Department of Labor, regional attorney for the Department of Health, Education, and Welfare.

She was encouraged to go to law school by her father. Legal training, she believed, would be needed to promote the programs which interested her most. And so it has.

Although women graduates, such as Mordella Shearer and Emily Dodge, were hired by the law school to teach legal writing and legal bibliography, no woman was ever given a tenure-track faculty appointment until 1959, when Marigold Shire Melli, class of 1950, became a member of the regular faculty. When she joined the faculty, there were almost no women professors in any law school. It is a little surprising that Professor Melli came back to the law school, since she remembers her student days as a lonely time for her. After several years of service on the staff of the Wisconsin Legislative Council and then as executive director of the Judicial Council, she was asked to apply and was appointed to the faculty. Her distinguished career has made her a nationally known expert in welfare, family and criminal law. Of her teaching experience, she says, "It is an interesting stimulating career where what you do is up to your own ability and interests — and the law school urges you to give it a try." Although she is the first, she is certainly not the only nor the last woman to have a tenure-track appointment in the University of Wisconsin law school. There are now four women professors on the teaching staff. A fifth — Shirley Abrahamson — has been elected to the Supreme Court of Wisconsin.

Catherine Cleary (class of 1943) started her career as an elementary school teacher, and is not quite sure why she decided to come to law school. Her father was a lawyer, and that was one motivating factor. Her own interest in politics was another. After a short association with a Chicago law firm and a brief time in the legal department of the Kohler Company, Cleary joined the First Wisconsin Trust Company in Milwaukee in 1947. She has recently retired as chairman of the board. Her climb up the corporate ladder included service as trust officer, executive vice president and president. She is director of ten of the country's major corporations and a holder of at least eight honorary degrees.

What brought this small, diverse group of women to law school in the first place?

Dorothy Heil, retired from a long career as assistant revisor of statutes for the State of Wisconsin, spent her college years as secretary to a lawyer and as a reporter of law suits and hearings. A number of others — including Mor-

della Shearer, Marjorie Marshall, and Catherine Cleary — were dissatisfied school teachers.

Some came, as did Belle LaFollette, with the encouragement of their husbands. Dorothy von Briesen was motivated by her service as a social worker in juvenile court. Beatrice Lampert recalls that she came to law school as near as she can figure, because her two brothers who were engineers teased her lawyer brother. Having moved to Madison with her mother when her sister entered graduate school, it seemed natural and easy to go to law school. Emily Dodge came because her B.A. in French and her M.A. in economics gave her little future, except as a teacher. Cleary saw law school as an entre into politics. Melli admits to having thought that being one of the lawyers would give her "power" — a goal she had set for herself. One very successful private practitioner says that she was bored with college after her third year.

Mostly, though, their intentions were not well defined. They had no "grand design" which might be expected of pioneers setting forth in a new and forbidding profession.

They were good students. Of the first thirty winners of the Salmon Dalberg prize, given to the outstanding member of each graduating class, six were women. Twenty percent of the winners came from a percentage of the student body so small as to be unmeasureable. Four were editors-in-chief of the *Wisconsin Law Review* between 1920, when it was founded, and 1968, and others served as editors.

Most of them recall little of their law school experience. Some worked hard at outside jobs to support themselves. Others had little connection with the non-curricular aspects of law school. Lampert recalls that her social and university life was almost entirely outside the law school.

They got along, in part, because each "knew her place." The student lounge was for men only. The women served the tea at student and faculty gatherings. They realized that the placement office was off-limits. They did not assert themselves, except by their diligence and intelligence as students. Some felt isolated; others recall that they welcomed being let alone.

Shearer remembers that during her short stay as legal writing instructor, she, along with the female librarians, was not invited to the dean's annual faculty party. They were entertained separately.

It is clear that a sense of individual strength brought them to law school in the beginning, despite their vague recollections of why they came. A sense of individual strength carried them through. Despite the forbidding climate of the outside world, and their isolation within the law school, they survived.

Without exception, the pre-1968 graduates interviewed found the law school a friendly and cordial place, even with its limitations. The "women jokes" among the law students were a relatively recent phenomenon, which has now, happily, passed.

The Last Decade

After a hundred years, suddenly a startling change took place in all the law schools in the United States. UW law school enrollment figures for the past twelve years tell the story:

University of Wisconsin Law School Enrollment[7]
1964-1976

Year	Men	Women	% of Total
1964-65	610	18	3.0
1965-66	636	22	3.0
1966-67	652	20	3.0
1967-68	619	23	3.5
1968-69	538	37	5.4
1969-70	678	51	7.5
Startling change begins:			
1970-71	751	70	8.5
1971-72	803	93	10.0
1972-73	788	138	15.0
1973-74	788	196	20.0
1974-75	625	237	20.0
1975-76	620	225	26.0
1976-77	576	256	30.0
1977-78	569	334	35.0
1978-79	598	299	33.0
1979-80	551	350	40.0

In 1979-80, more than 40 percent of the entering students are women, compared to 33 percent in 1978-79.

The recent flood of female applicants is one of the main reasons for the great pressure on law school enrollments.

At Wisconsin, in 1974, the overcrowding of the law school required a cutback in the total enrollment. The growing percentage of highly qualified women admitted has increased the impact of women on the law schools and forecasts a major change in the profession.

No one can provide a single answer to the growing interest by women in legal careers. Some of the reasons are the result of changes in the profession itself, as it has increased its interest and participation (often by litigation) in establishing the rights of the poor, the defense of criminals, the war against those who allegedly would spoil the environment, and the fight against racial and sexual discrimination. Many people — young and not-so-young — were not interested in a profession which handled real estate deals, drafted contracts and wills, prepared tax returns and probated estates. All of these are still important responsibilities of the legal profession, but much has been added, including current social issues.

The relative freedom and flexibility offered by the legal profession is very appealing to newly liberated women. The power granted to lawyers in many important instances, and the urge to deal with the problems of individuals are also attractive to women interested in social change. And the opportunity to make a comfortable living in a profession with a future (actually a number of futures) has kindled their interest. All of these circumstances attract men as well as women; but the contemporary women have not stood aside, as they did in the past.

It is not yet possible to identify and describe all the individuals who make up the new women law students. They come from a wide age range — twenty-one to forty or older. They come from all segments of contemporary society. Many come from long careers as teachers, social workers, or other "helping professions." A number of them are single parents, seeking lucrative

careers to support the children they are raising alone. They are highly qualified — as are all those admitted to law school these days. Some are wives of lawyers, doctors, ministers, professors, businessmen. Many of them are single women, intending to remain so. And the placement office is no longer out of bounds. Many firms, both large and small, are welcoming them to the private practice of law.

Jean Zorn (class of 1973) can be considered one of the transitional women law students. She was the mother of two children with a master's degree in English at the time she decided to come to law school. Her husband was also in graduate school, and her own studies had been interrupted several times by the need to support the family.

After law school she spent four years in New Guinea. Part of the time she taught at the law school in Papua, and the rest was spent working for the government's law reform system. On her return she joined a large New York law firm.

Zorn remembers law school in the sixties. On entry, she found herself part of a group of less than twenty women — which was received cordially, because it was not threatening to the majority of students. She recalls that the women played a role far more influential than was warranted by their numbers, because by self-selection, the group had only very high achievers.

The transitional women shared much with those women of the first era — 1868-1968. At the same time, because of their diverse professional interests, their participation in the "troubles" which were dominant in all educational institutions at that time, and their political awareness and concern, they were part of the new wave. By the time they graduated, women were enrolling in ever-larger numbers, and the new awareness among women was in full swing.

One of them, at least, remembers well the turbulent years of her attendance at law school. Until Anne Taylor Wadsack (class of 1971) met Margo and Joseph Melli a few years after her graduation from college, she never realized that women could be lawyers. As a result of this encounter in 1968, the year of her marriage, she entered the law school. The years which followed found her troubled and deeply involved in the black students' struggle, the strike of the teaching assistants, the protests which followed the invasion of Cambodia and the shootings at Kent State. While she recalls that she enjoyed many of her courses, and that her personal education continued, she has difficulty divorcing her own education from the memory of troops in the corridors and the unpleasant encounters between police and students on Bascom Hill outside.

Now a practitioner in a group of three young lawyers formed into a loose association (not strictly a partnership), Wadsack is a specialist in family law; she does almost nothing else. In her first year of solo practice she made her office expenses, plus an income because of a large number of referrals from a successful, well-established woman practitioner.

Eunice Gibson (class of 1973) is a forerunner of an increasingly large number of new women law students. The fall she entered law school, the youngest of her five children started kindergarten. There was no lawyer tradition in her family.

She brought to law school in 1970 a wealth of experience — as a teacher of English and physical education, as an executive secretary of the Democratic

Party of Wisconsin, as a legislative researcher in the office of a United States senator, as the wife of an AID official for five years in Panama. Since she married while still in college, all of these experiences were interspersed with the birth of her children.

After graduation from law school, she was employed briefly in the Wisconsin Department of Revenue. Since the beginning of 1974, she has been the only woman assistant city attorney in Madison. In this job, the relevance of her law school education is often apparent. Professor Hurst's course in legislation, for instance, comes daily to her mind as she handles her responsibilities in her present career.

Her developing career is a source of complete pleasure to her. She may wish, she thinks, to become a judge someday, but she has no immediate ambitions other than to continue to deal well with her responsibilities. She is a woman at ease with herself and the world, living a vastly different life than the one she intended when, as a senior in college, she married. Until that time, she had never met a live lawyer. Now she seldom sees anyone but.

A preliminary look at the placement office's records for 1978 reveals that the barriers are down. Women have accepted employment in government, business, private practice. Large firms in large cities, small firms in large and small cities, have accepted women associates. Three relatively recent graduates have become judges in the past year: Angela Bartell (class of 1971) and Moria Krueger (class of 1970) sit on the Dane County bench; Martha Bablitch (class of 1969) was recently elected to the newly established Appellate Courts of Wisconsin. Recently Barbara Crabb (class of 1962) has been installed as a federal judge for the western district of Wisconsin. The legal world has opened up to them, and they are being drawn into it.

For the past eleven years, nation-wide conferences of women law students and women lawyers have provided a nation-wide demonstration of the unity of this new breed of lawyers and law students. About 2,300 attend each time. The conferences include well-planned programs which deal with the law relating to women as well as skill-training and other practical requirements of the profession. The conference was held in Madison in the spring of 1977. In 1980, it will take place in San Francisco.

There is a tendency among the young to think that the world began when they did and that it will end on their demise. The new women lawyers should realize that they come from a long and distinguished line, which is of immeasurable importance to the possibilities of success which they find in 1977 and beyond.

Wisconsin has been earlier than most universities in the movement to open the door to women who choose to study law. But in all other states, law schools and organizations, the doors are now open to the thousands of well-qualified people seeking to be let in. No one expects the movement to slow or stop. It is no longer a struggle.

NOTES TO CHAPTER 7

1. Much of this essay is based on conversations and correspondence with the following women: Nancy Murry Barkla (class of 1952); Bernice Lotwin Bernstein (class of 1932); Katrina Boedecker, Coordinator, Conference on Women and the Law; Catherine Cleary (class of 1943); Nancy C. Dreher (class of 1967); Mary Beth Gleaves (class of 1975); Dorothy Heil (class of 1941); Mary LaFollette (daughter of Belle Case LaFollette); Beatrice Lampert (class

of 1925); Marigold Shire Melli (class of 1950); Juliet Auman Metcalf (class of 1943); Mordella Dahl Shearer (class of 1943); Dorothy Clark von Briesen (class of 1936); Dorothy Walker (class of 1920); Jean Gross Zorn (class of 1973); Anne Taylor Wadsack (class of 1971); and Eunice Gibson (class of 1973).

2. The 1919 alumni directory lists: Elsie Buck Botensek (class of 1875); Belle Case LaFollette (class of 1885); Kate H. Pier (class of 1887); Kate Pier McIntosh (class of 1887); Jessie E. Hutchison (class of 1889); Norma Lawrence Long (class of 1891); Caroline Pier Roemer (class of 1891); Harriet Pier Simonds (class of 1891); Alice T. Mather (class of 1893); Elizabeth Fordyce Fenelon (class of 1895); Antoinette Jackowska Peterson (class of 1901); Ellen Copp (class of 1908); Mary Thomas Stephenson (class of 1908); Olene Lapham (class of 1914); Nettie Karcher (class of 1915); Marie A. Brunner (class of 1919).
3. 39 Wis. 232, p. 245.
4. D. X. Fenten, *M.S. Attorney* (Philadelphia: Westminster Press, 1974), pp. 12, 14.
5. Belle C. LaFollette, *Robert M. LaFollette* Vol. I, p. 55. It appears that Belle LaFollette was misinformed. She was undoubtedly one of the early women law school graduates. However, the earliest alumni directory lists Elsie M. Buck as a graduate in the class of 1875; but skimpy records prevent us from asserting with certainty that she was the first woman law school graduate. She never practiced law but was an instructor.
6. Belle C. LaFollette, *op. cit.*, p. 6.
7. U. W. Registrar's Office.

8. Women in the School of Music

by Carolyn Sylvander

The history of women in the University of Wisconsin-Madison school of music is not atypical of women's positions in the academic world in disciplines relatively open to them.[1] Women were hired in largest numbers during the years when men were not as readily available, 1916-30, and during the time of surging student enrollments in the 1960s. Women were hired in largest numbers in the lowest and least permanent ranks, and most of them remained on the staff for only a short time, one semester to three years. Recognition began to be given to outstanding women during the 1970s, when promotions and other awards for achievement increased in number, and when at least some women were hired at higher ranks. Since 1909, recognized or unrecognized, the women on the staff of the school of music have made worthy contributions to the advancement of art and education throughout the state and country. Increasingly in the 1970s those contributions are being recognized and the options for women music students increase.

The school of music has, since 1909, employed a total of fifty-six women, including the thirteen women on the staff in 1976-77. Forty-one percent, or twenty-three, of these fifty-six women completed their terms of employment by the school of music before 1956. Seventeen of the twenty-three were employed for varying lengths of time between 1916 and 1930, during and immediately after World War I. In contrast, the years 1930-45 included only four women teaching in the school of music, with one of the four teaching one-fourth time, and with only two of those four women hired in 1930 or after. Of women hired between 1957 and 1977, a total of thirty, eleven remain on the staff, and thirteen were hired for periods of time ranging from only one semester to two years.

Excluding the thirteen women presently on the staff of the school of music, of the forty-three whose full years of service are completed, twenty-two were hired for only one year or one semester. Another eight were employed by the university for two or three years only. The number of years of employment for the remaining women whose terms of employment are complete ranges from four years to thirty-seven years, with the average of all terms of employment for the forty-three women being six years.

The ranks at which most women have been employed in the school of music have undergone changes in name only; since 1909 women have filled the lowest and least permanent faculty ranks. Between 1909, when Minnie Bergman began employment as an instructor, and 1916, when Doris Carter and Alice Crane were both employed as instructors, there was one woman on the full-time faculty. Seventeen women first employed between 1916 and 1930 were all hired, and remained as instructors, or, in one case, as assistant instructor. Another, Irene Eastman, in 1917 was employed as an instructor but was promoted to assistant professor in 1927. (She remained on the staff full-time as assistant professor until 1954.) Louise Carpenter was employed as an assistant professor in 1923, was promoted to associate professor in 1929 and to full professor in 1951. She also remained on the staff until 1954.

The two women hired between 1920 and 1945 were both hired as instructors. Margaret Cooper has remained on the staff since 1937 as a one-fourth instructor. Helene Blotz was hired in 1930 as an instructor and was promoted in 1946 to assistant professor, in which rank she remained until leaving the staff in 1956.

Most of the women hired after 1945 were hired in a new rank, lecturer, which effectively replaced the rank of instructor. Two women were hired at this rank in 1948-49, for one semester and one-year appointments. Between 1960 and 1974, eight more women were hired at the lecturer rank, and an additional four were hired as visiting lecturers. Also between 1960 and 1974, one woman was hired as a specialist, and one as a visiting assistant professor. None of these women remained on the school of music staff in 1976-77.

In non-permanent, but higher ranks, four women were hired as visiting professors or Brittingham Professors between 1960 and 1974. One of these, Eva Badura-Skoda, moved from guest professor to professor in 1966, and remained on the staff of the school of music until 1974.

Apart from a woman hired as an acting instructor part-time for the 1956-57 school year, those women who were hired between 1945 and 1974 as instructors rather than lecturers have subsequently been promoted and remain on the staff. Three women — Tait Barrows, hired in 1955, Jeanette Ross, hired in 1957, and Ellen Burmeister, hired in 1962 as instructors — have since been promoted to associate professor: Barrows in 1971, Ross in 1968, and Burmeister in 1970. With the exception of one person hired as an assistant professor in 1969, who left the staff in 1975, and one person who remained on staff from 1945 to 1967 as assistant and associate professor, all women hired as assistant professors between 1945 and 1974 — a total of four — remain on the staff.

No women have been hired at the associate professor rank and only one woman has been hired at the full professor rank, Eunice Boardman Meske, in 1975. In addition to Meske and Eva Badura-Skoda, mentioned previously, only two women have become full professors in the UW-Madison school of music, Bettina Bjorksten and Ilona Kombrink. Both were promoted to professor in 1976.

Three outstanding women were hired for one semester and one-year periods in the 1960s as visiting faculty. Alice Ehlers was appointed Brittingham Professor of Music for the first semester of 1961-62. A Viennese harpsichordist who made her American debut in New York in 1936 after successful tours of Europe, Egypt, Palestine, and South America, Ehlers gave lectures and recitals on the UW-Madison campus as well as giving individual and master-class instruction on the harpsichord and teaching a seminar in interpretation. Mary Rasmussen was brought to the UW-Madison campus in 1963-66 as visiting lecturer. Editor of the *Brass Quarterly* since 1957, research bibliographer for the Harvard music library, and consulting expert for the Smithsonian Institution since 1962, Rasmussen taught courses in the symphony and in brass and woodwind literature while in Madison. Solange Corbin was hired as a visiting professor for the second semester of 1968-69. A French scholar in medieval music, Corbin taught seminars in notation and Gregorian chant at UW-Madison.

In 1930 and 1945, two women who contributed many years of service to the UW were hired. Helene Blotz, hired as instructor in 1930 at a salary

which remained the same until 1942, was promoted to assistant professor, as mentioned earlier, in 1946, and remained as an extension teacher in the music department until 1956. Blotz travelled throughout Wisconsin, sampling various ethnic cultures, recording their music through grants and assistance from the university, the Library of Congress, and the Wisconsin State Historical Society. On campus, she taught theory and directed the women's glee club. Christine Gunlaugson, who was hired as assistant professor in 1945 and promoted to associate professor in 1955, retired in 1967 after teaching applied voice at the university. Gunlaugson made her Italian opera debut in 1926 and her American debut in Boston in 1928, and continued her public presentations with many premier performances and recitals on tour in Scandinavia.

Eva Badura-Skoda, Brittingham Guest Professor of Music, 1964, and Professor of Music, 1966-74, did her Ph.D. dissertation on "Studies in History of Music Education in Austria in the 16th, 17th, and 18th Centuries." Born in Munich, Germany, Badura-Skoda wrote and published in 1957 with her husband a book on Mozart interpretation which has subsequently appeared in English, Japanese, Russian, East German and French editions. Numerous additional publications by Badura-Skoda have appeared in musical periodicals and Mozart yearbooks, and she has edited a volume of the *New Complete Edition of Mozart's Works,* as well as *Haydn's Keyboard Works* and *Schubert's Piano Trios.* At Wisconsin, Badura-Skoda taught courses in performance practice, musicology, and the history of music.

The thirteen women presently on the staff of fifty-three in the UW-Madison school of music have also made notable contributions. Among them, Bettina Bjorksten, on the staff since 1958, has appeared in many recitals, as soprano soloist in oratorios, and in a number of multi-media programs. Lois Anderson, appointed in 1967, is an ethno-musicologist specializing in the music of Africa. In 1965-66 she served as guest lecturer in Kampala, Uganda, and in 1973 she was named Wisconsin's Outstanding Young Woman of the Year. Ilona Kombrink, also appointed in 1967, is a soprano with wide concert and opera experience in the United States and Canada. In 1974, Kombrink received the Chancellor's Award for Distinguished Teaching, the first time the award has been given to a woman. Eunice Boardman Meske was appointed professor of music in 1976. Specializing in music education, Meske has done curriculum consulting for state and national music educators meetings, classroom teacher organizations, public school systems, universities and colleges in forty states. She is co-author of *Musical Growth in the Elementary Schools* and *Exploring Music,* and was named Outstanding 4-H Alumnus in 1963.

The facts about surges of employment of women when men were scarce and when student numbers increased; about the low and impermanent ranks at which women were hired; about their lengths of time on the school of music faculty; and about women's exceptional contributions do not tell all there is of importance in the evolving role of women in music.

The women's movement of the late 1960s and early 1970s has had a profound and continuing impact on the school of music, not so much from activity of feminists within the school as from an increasing consciousness of subtle and not-so-subtle discrimination against women throughout the university and society. The changes, of course, affect not only the roles played by

women faculty, but the options and models female music students have available.

Until recently, women have generally not been considered to have the capacity for music theory, composition, and conducting. Even with increasing numbers of women students in these areas, there is still a way to go — in conducting, for example, women are still concentrated in the choral area. In other areas which were once male-dominated, there has been noticeable improvement; participation of women in brass and woodwind areas, for example, has increased significantly.

It has been evidently difficult for women in music to combine marriage and family with career; the same cannot be said, generally, for men and music. Female faculty members who were married to male faculty in the school of music were underpaid and frequently unrecognized when their talents matched or surpassed those of their husbands. Most of the women who succeeded in gaining prominent or permanent positions in the school were not married. Increasing awareness of women's right to equal opportunity has decreased somewhat the career liability carried by the married mother who is also a musician.

As roles within the music area open up to both sexes, and as women's talents and achievements are recognized apart from their family connections, the counseling given women music students is bound to reflect increasing opportunity and decreasing prejudice. The role models played by women faculty who are learning to speak up, and who are finally taking positions on faculty committees other than the social committee, will also give young women students the courage to choose the disciplines suiting their talents and interests. The changes already wrought by the women's movement will become more solid, more normal, and more egalitarian. Women and men musicians, and the people served by the UW alike will benefit.

NOTE TO CHAPTER 8

1. Material for this article came from music school records, as summarized by Frank Roub, administrative assistant, and from interviews conducted by the author.

9. Women in the Art Department

by Judith Mjaanes

When Helen Annen came to teach at the University of Wisconsin-Madison in 1926, the faculty for industrial education and applied arts consisted of three men and three women. When she retired in 1963, the art faculty had grown to twenty-two, with twenty men and two women. Now in 1977 the art faculty numbers forty-six full and part-time members. There are twenty-one male full professors with tenure and one woman; nine men associate professors, no women; two men assistant professors on tenure track and two women; four male visiting lecturers and seven women, two of whom have full-time appointments. During most of those years the number of women enrolled as undergraduates in the department equaled or exceeded the number of men.[1]

The changes in what was to become the art department between 1926 when Helen Annen arrived at Wisconsin and her retirement in 1963 were dramatic. The first classes she taught met in the haymow of a converted horse barn on the site of the present day Memorial Library. She recalls:

> For the first year or two everyone had hay fever. We were never short of students, forty or fifty in each class. I taught four courses my first two years, twenty-four hours each week in the classroom. Two classes were at Wisconsin High School which was the university lab school and two were design classes at the university. Some classes were taught in the old mechanical engineering building where the heavy machinery on the first floor kept the whole building shaking violently, and we had to shout our lectures above the roar. The kids were really good to get any control over their drawing. In the winter is was so cold we kept our overcoats on.

As student interest grew in watercolor and composition, which were her own specialities, Helen Annen taught full-time at the university, where most of her students were training to become public school teachers. She feels that the way many art students were taught at that time was "a crime" — teachers who demonstrated a technique to be rigidly followed and who worked directly on students' paintings were producing copyists, not artists. Instead, she encouraged her students to find subject matter which truly interested them. The class often met outdoors and group critiques were an important part of the learning process.

In 1910, in response to the growing number of students entering public high schools, a series of courses was established "appropriate for the preparation of teachers and supervisors of manual training." Bench work in wood and iron, pipe fitting, and forge and lathe work in metals were considered appropriate. When William Varnum joined the faculty in 1912, the manual arts curriculum was expanded to free-hand drawing, art metal, and ceramics. Varnum also introduced cast drawing, watercolor rendering, and the history and appreciation of design. Della Wilson, who joined the faculty in 1915, taught elementary industrial art, sculpture (which emphasized work in clay and plaster) and pottery. During the twenties, portrait painting, block printing, etching, and stage design were added to the curriculum. A major reorganization took place in 1930, separating industrial arts from the fine arts and establishing the department of art education within the school of education.

In the late thirties students and faculty sought to establish a fine arts major independent of art education. Regular exhibits of students' work were mounted with the help of the Wisconsin Union, and Helen Annen and Roland Stebbins both exhibited their paintings in Madison and the Wisconsin Painters and Sculptors Show in Milwaukee. As the arts became more visible on campus, the idea that art students "painted lampshades" faded. It was gradually conceded that art work could serve as grounds for faculty promotions and reduced class loads just as books and research did in other departments. During these years the faculty was a small congenial group. The few new members included Carol Williams, who taught drawing for four years, and Ruth Allcot in art education. Annen says, "We were pals."

Although the direction of the art department was firmly set in the thirties, Annen remembers the period immediately after World War II as decisive in fixing the professional stature of the department. When William Varnum died suddenly in the spring of 1946, Della Wilson became the first woman to chair a department in which both men and women were taught. Her most pressing task as chair was finding qualified teachers to meet the surge of returning veterans and her achievement was to bring artists with established reputations to the faculty. Former students John Wilde and Robert Grilley came back to teach drawing and painting; Arthur Vierthaler took Varnum's place in art metal; Santos Zingale in painting, Alfred Sessler in graphics, and Fred Logan in art education all came from Milwaukee — at that time a livelier center for the arts than Madison.

As one reviews the early history of the art department, two questions about the status of women within the department are inevitable. First, given the contribution of women to the department in its formative years and the number of qualified women graduating from the department, why were women so seldom considered for faculty positions? Second, how has the failure to hire women affected both the few women who were occasionally hired and women students?

The answer to the first question is not difficult to find. There is nothing exceptional in the way women were treated in the art department. The same pattern was repeated over and over in departments throughout the university. "It was the times." "No one thought about it." "It was, after all, Della Wilson and Helen Annen who hired male artists after the Second World War." "There simply did not appear to be any women with qualifications to match those of the men applying for jobs." Women's backgrounds were in art education while the department sought people with specific skills who were practicing artists. Qualified women were not considered because they did not have national reputations. As one faculty member said, "If there had been women artists of the stature of Isabel Bishop available, we would have hired them, but not a woman from Milwaukee." Yet, three new male faculty had come to UW-Madison from Milwaukee only a few years before.

Fred Logan admits the department has been chauvinistic and would not have begun to change unless pushed by university policies supporting affirmative action. He thinks that the women applying for faculty positions in the last ten years have been as well qualified as male candidates. However, when he says women have not done well in interviews (many have appeared hesitant and unsure of themselves), women counter with their own claim that inter-

views have been structured to confuse and intimidate them. Other faculty disclaim any bias — "We have always hired the best candidate."

One may conclude that women were able to play the important role they did in the early years of the art department only because it was small and seemed to have marginal importance to academic disciplines. After the department's prestige was established and when it was expanding rapidly, women were not sought out.

Apart from unwillingness to seriously consider women's professionalism, there has been another barrier in hiring women — the attitude many men in our society grow up with about women's "place." They object that a woman is taking away a man's livelihood and support for his family to satisfy her own need for status, that a career is something different for a man than for a woman. One married graduate student was told by a faculty member with real bitterness when she questioned him about jobs, "I don't want to hear from you. Your're married! You have someone to buy your materials. You don't know how well off you are!" Such an attitude overlooks the reality of the lives of the women faculty. During the Depression Helen Annen's husband worked sporadically, and her salary was the base of their support. Della Wilson had also been the sole support of her mother, who lived to be ninety-two. Another faculty member points out the "privileged" position of a married woman whose children are in school leaving her free to pursue her art without distraction of students or committee meetings, forgetting that those very distractions keep one involved and active in one's profession.

The second question regarding the effect of discrimination on women faculty and students is not so easily answered. Since Marjorie Kreilick joined the faculty in 1953, only Deborah Butterfield and Eleanor Moty have been hired in full-time tenure-track positions.

The older generation of women faculty suffered from isolation. Their ambition was seen as unwomanly; their femininity was questioned. The younger faculty considered Annen spinsterish, in spite of the fact that she was married. On several occasions Marjorie Kreilick was called before the raises and promotions committee and questioned about her plans for the coming year. They assumed that an attractive young woman would give up her ambitions and settle happily into marriage.

These women were seldom included for lunch or invited to share transportation to conferences. At faculty parties they shared neither the camaraderie of their male colleagues nor the experiences of their colleagues' wives, whose lives revolved around their homes and families. Always outnumbered and out-voted at faculty meetings, they had little effectiveness as women within a male-dominated department. Annen also found that her conservative political views and firm administration of the art department while chair from 1949 to 1952 had alienated her from many of the younger faculty. Both Annen and Kreilick see themselves as survivors.

When one examines the record, there can be little doubt that women advanced through the academic ranks at a slower pace and received less pay than men in similar positions.[2] Annen taught for twenty-one years before becoming a professor and it was nineteen years before she reached the rank of associate. In the first fifteen years she taught (from 1926 to 1941) her salary crept from $2,100 to $3,000 a year. At the time of her retirement she was receiving $2,000 less a year than faculty with half her seniority.

Kreilick taught for fourteen years before becoming a full professor. She remained an instructor for five years, while men hired a few years later became assistant professors in one or two years. Once past the first barrier she advanced at a rate comparable to other faculty. The attitudes toward working women in the fifties and early sixties did not help her. The first year she taught her salary was $500 less than agreed upon. The money had been given to another faculty member on the assumption Krielick would not miss it or at least not make an issue of it. Later she was told that since she did not need to buy refrigerators as all men must do for their families, she should not expect as much money. Nor did she ever receive as much. Her salary always trailed that of other faculty with similar credentials. In 1955-56 a newly appointed instructor received $250 more than she did with two years' experience. In 1958-59 she was the lowest paid assistant professor while an instructor hired that year received $180 more. In 1968-69, a year after she became a professor, she was still the lowest paid full professor; her colleagues' salaries ranging from $2,500 to $5,000 above hers. In 1971, when a special report on the status of women at the university was published, the average salary of a male professor in the art department was $17,464; for the one woman (Kreilick), $15,000.[3] Today the average salary of a male professor in the art department remains several hundred dollars above that for the one female professor.

Eleanor Moty has not felt the kind of isolation that earlier faculty women experienced. She is accepted as a colleague and highly-respected craftsperson, and the men of her generation do not question women's professional success. But she has faced other problems. She was hired for three years as a visiting lecturer without faculty benefits while the department struggled with conflicting internal demands for funds. Like Kreilick, she has been criticized as being too exacting a teacher. Everyone in the department admits that other faculty members are just as demanding, yet in two well documented cases neither Kreilick nor Moty received colleagues' support when students challenged the standards of performance they had set.

Visiting lecturers have also experienced problems working in the department. Claire Van Vliet refused to teach more than one year at UW-Madison because she found her experience here unnerving. Although she succeeded in cleaning up the graphics studio and obtaining a research grant which allowed her students to experiment with unusual printing techniques and create their own books, she found herself caught up in department politics which jeopardized her professional position.

In spite of such incidents Kreilick, Moty and Butterfield have proved themselves strong teachers and artists. In addition to teaching design, Kreilick worked with Leo Steppat teaching the beginning courses in sculpture. When Steppat died in 1965, Kreilick focused her energies on developing the design sequence with a strong emphasis on the interaction of color. For those students caught up in the illusive and seductive nature of color, the course is of fundamental importance, as student evaluations testified. For example:

> The importance of each exercise as a stepping stone to the next insight about color became more and more evident as the semester progressed.

Her own work includes sculptural forms with inlaid patterns working over the surface, usually several feet in dimension, and large-scale mosaic wall murals. She capitalizes on the great range of colors found in marbles and

other rock and the textures created by combining different shapes and sizes of stone.[4] Her mosaics are planned as integral parts of the architectural structure in which they are placed.

Eleanor Moty came to Wisconsin in 1972 as a visiting lecturer in jewelry and metalsmithing. At twenty-seven she had already established a national reputation in her field for elegant, innovative work combining unusual materials with new technical processes. At Illinois an engineering student had suggested that the same process used to print electric circuitry might have possibilities in jewelry making. For two years she worked with a technician learning the delicate art of photofabrication, at the same time researching electroforming.

Each piece of jewelry she makes brings together images and symbols which have meaning in her own life. She sees jewelry as a form of sculpture enhanced by the human body. She will hide a photomontage on the back side of a piece or tuck a pearl away in an unexpected place, creating a kind of visual poetry which appeals to others by touching on the hidden emotional themes of their own lives.

She likes teaching undergraduates. Women students especially need the feeling they can handle tools and machinery with confidence. "There are just as many klutzy boys around machinery as girls, but male teachers are always saying, 'Wait, I'll do it for you' to women." One of the ways she feels she can help women students is to encourage independence that results from learning to do things oneself.

Her respect for craftsmanship is also communicated to her students as course evaluations demonstrate:

> I enjoyed this course because for the first time in my college life I could not just "get by." Perfection was the goal which made my accomplishments fulfilling.

Deborah Butterfield, like Eleanor Moty, uses images which have significance in her own life. All one year she worked on seven horses, each slightly larger than life-size, in her studio in the Humanities Building. She says of these sculptures: "I identify with horses and use them as metaphorical self-portraits, a device which allows me to deal with very personal imagery in a more objective fashion." Her horses do have a presence that is both disquieting and magical. Their attraction lies partly in their size and reference to real horses, partly in the viewer's experience walking among them when they are grouped together in a gallery. Her sculptured animals have been exhibited in California as well as Wisconsin, and she recently completed a commission for the Circus World Museum in Baraboo, Wisconsin.

In addition to the three women who are permanent members of the faculty, women have been employed as visiting lecturers for one or two semesters and frequently for the summer session. Nevertheless, the number of women on the staff at any one time has always been small, and it has been quite possible to go through school never having had a woman instructor.

A few faculty have made a special effort to seek out women. Marjorie Kreilick tries to replace herself with another woman whenever she takes a leave of absence. Warrington Colescott has brought women into the graphics area: among them, Claire Van Vliet, a highly regarded printmaker and producer of fine books; Jennifer Dickson, a member of the Royal Academy of Arts in London; and Birgit Skiold, a Norwegian who has established an im-

portant workshop for printmakers and is an internationally known printmaker herself. Gibson Byrd has invited women like Cindy Nemser from the *Feminist Art Journal* and Marcia Tucker, a curator at the Whitney Museum in New York, to lecture in his seminars.

At this point one might well ask how young women perceive their position in a field where few women achieve professional recognition and where men pass judgment on their work? With few women faculty to act as role models or to counsel them, do they understand the realities of being a woman artist in our society?

When one talks with women students it is clear that their self-esteem is high.[5] They believe strongly in the validity of the images they are creating and see themselves every bit as talented as male students. However, women often seem to have a different attitude than men toward what being an artist means. For many their art is primarily an extension of their lives, intimately bound up with personal experiences. Fame and recognition are not set as goals and consequently many women have less drive for professional achievement or understand what it might mean in terms of their continued development as artists.

Women are trained to make art, but not how to survive once they leave school. The expectations this culture holds for men act as a constant prod, but no one is urging women on. How often must a young woman be told, "You will only get married and quit painting" before she begins to believe it?

Without role models women students have little sense of how successful women handle the kinds of choices they may be forced to make in pursuing a career. Both Jennifer Dickson and Alison McMaugh left husbands and children when they came to teach as visiting lecturers at UW-Madison. When Deborah Butterfield's husband accepted a teaching position in Montana, they were faced with separation for much of the year. A number of women who have received Master of Fine Arts (M.F.A.) degrees in recent years are working on the same problem. Speaking engagements and architectural commissions have taken Eleanor Moty and Marjorie Kreilick to all parts of the country. Mobility is important for people establishing themselves in a profession.

While many women graduates do find jobs, those jobs are often short-term or temporary. The problems are similar on many campuses. Jane Marshall, who received an M.F.A. this spring in graphics from UW-Madison, previously taught at Kansas State University for seven years. She was hired each August just before classes started, her salary ranging from $3,000 to $6,000, and she had no voice in faculty affairs. She always taught beginning courses, never painting, sculpture, or printmaking, although her academic background and exhibition record matched that of many regular faculty members.

Alison McMaugh replaced Marjorie Kreilick for one year. During her year at UW-Madison the demands on her time far exceeded that of most faculty. In addition to her classes, she taught a seminar at the request of women students examining women in the arts, prepared material on over fifty women artists for the art survey course, and participated on juries and panels at conferences.

For some women working often does not seem worth it. One woman with an M.F.A. who taught for several years at a small state college said that every time she talked to the only other woman in the department she had visions of herself in twenty years as an eccentric whom other faculty considered a nui-

sance. Realizing there was nowhere to go beyond her present job in any case, she quit and got married.

Women who work at home face other difficulties. Finding adequate studio space, particularly for painters or designers who need good natural light is not easy. For women with young children, time away from their family and the means to pay for it sometimes seems like an insurmountable problem. And most women, one soon discovers, feel they must earn the money themselves to support their art rather than take it from the family budget.

In a field where one artist in three hundred finds a gallery willing to promote his or her work, the competition is fierce for everyone.[6] Even small public galleries like the Madison Art Center will seldom exhibit the work of an artist without an established reputation or academic ties to the university. For women, the lack of such affiliation cripples their chance for recognition.

Yet one way or another women do continue as practicing artists. Since the art department has not kept any formal record of what happens to their students after graduation, it is difficult to make generalizations. A few women have established careers in art education: Beverly Blumenfeld, Marilyn Loft, Marjorie Whitsitt, and Judith Wojta. Nancy Burkert has illustrated several books including the award-winning books *Snow White* and *The Scroobious Pip*. Shari Urquhart has taught at a number of universities and when not teaching supports herself in marginal jobs in New York City in order to work on her art. Kathleen Kurt's M.F.A. show was exhibited in New York and her paintings were included in "Pop Art Redefined" in London. Suzanne Ferris runs a private press and paper mill; Julie Sepkowitz works as a master printer; and Phyllis Halprin Bramson is a recognized Chicago painter.

Monona Rossol works on ceramics in New York. Nancy Guay's wall hangings were exhibited this year at the Museum of Modern Art. Julie Schneider exhibits drawings nationally; Mary Alice Wimmer teaches at the UW Center-Janesville and Barbara Dickerson at UW-Milwaukee. Heather Holden is at Virginia Commonwealth University, Belle Hornung at the University of Indiana, Judith Kelly at McGill, Julie Kiefer-Bell at Northern Illinois University, Ann Mullin at Virginia Commonwealth University, Sylvia Lark at Saskatchewan, Sandra Fellman in Minnesota, Elizabeth Mitty at Ohio State, and Sylvia Solochok in St. Louis.

In recent years affirmative action has directly affected the department and the status of women within the art department has been improving. In the past, hiring was done informally and depended to a great extent on personal contacts. When an opening occurred, phone calls were made to colleagues at other schools. Little attempt was ever made to advertise positions to a wider public or to set up procedures which might attract candidates outside the established network. The present hiring procedure is far more equitable; however, the art department today is in the unenviable position of trying to correct the inequities of the past. The "Report to the Faculty on Affirmative Action in Faculty Hiring and Utilization" circulated by the UW-Madison affirmative action office summarizes the department's dilemma.[7] Of a total permanent staff of thirty-five, three (or 8.6) are women. Out of the total number of qualified candidates, 47.5 are women which means that 16.63 women should have faculty status instead of three. Therefore, the number of women needed to reach full utilization is fourteen, the highest figure in the entire university.

It is unlikely that the imbalance in the art department will be corrected in the next ten or fifteen years. The present staff already includes thirty professors and associate professors, seventeen of whom were hired during the middle and late 1960s.

The selection process of teaching assistants has also been reorganized. Faculty and students found the previous system unfair and together established a new procedure. Now, each candidate submits twenty slides of his or her art work identified only by a code number insuring that each student's work will be judged impartially on its own merit. Faculty members rank the slide presentations and the top twenty students are then interviewed by a committee representing each area of the department. Those students with the highest ranking in both the slide review and interview are then chosen to be teaching assistants.

As more adults return to the university, faculty attitudes toward working with mature students are changing to everyone's benefit. The support and encouragement the department extended to Virginia Roeder and Lyn Vaubel, for example, has been more than repaid in the quality of their teaching in the department. Virginia Roeder came back to school to find a place to paint and the chance to be with other artists. Impressed with her concentration and the quality of her work, the faculty urged her to work for an M.F.A. For several semesters she has been a visiting lecturer teaching the contemporary section of art survey. The importance of role models for both young men and women was very evident in the warm response of her students last year when she was pregnant with her third child. Many students commented on how seldom they saw pregnant women or could talk with anyone about the problems of combining a family and career.

Lyn Vaubel was married at eighteen and struggled for years to complete an undergraduate degree. When she registered in basic design, the instructor ripped up one of her first projects because it was poorly mounted. She refused to be deterred and has developed her own distinctive style of batik soft-sculpture. After the response to her M.A. show and the acceptance of her "Chicken Colonel" sculpture in a Union Craft Show, she said, "I had a glimpse of glory; I knew I was an artist." She is now working on an M.F.A. and teaching three-dimensional design. For several years she taught Art 100, a course open only to non-art majors in studio arts. She proved an inspired teacher, urging sensitive work from her students, many of whom had not drawn or painted since elementary school.

Quite apart from institutional changes, the attitudes of male faculty are changing as everyone becomes more sensitive to human rights. Faculty have become far less tolerant of their colleagues' sexist remarks about women. A male chauvinist posture no longer seems amusing and few men want to be so identified. Today women are beginning to win recognition in the art field. However, that recognition comes at a point when universities and colleges are cutting back on programs and faculty. Both men and women starting a teaching career in art are hard-pressed to find even short-term appointments in higher education.

How well women will fare depends on how firmly colleges and universities adhere to affirmative action principles and how effective the current generation of women artists will be in influencing their colleagues.

NOTES TO CHAPTER 9

The material for this essay has been drawn from departmental files and interviews with students and faculty of the art department. The author is particularly grateful to Helen Annen and Frederick Logan for information about the early history of the department and the period after World War II.

1. The same is true of graduate students. Almost as many women as men have received M.F.A.'s over the years (484 degrees granted; 270 to men and 214 to women). It should be noted that not one of those women has ever become a permanent member of the faculty. This is not true of the men. In addition to John Wilde, Robert Grilley, Santos Zingale and Arthur Vierthaler, who were students at the university in the thirties, the present faculty includes Raymond Gloeckler, Richard Reese and William Weege.
2. *University of Wisconsin Budget* (yearly reports), University Archives, Madison.
3. "Final Report on the Status of Academic Women-1971," University of Wisconsin, University Archives.
4. Among her many commissions are a washed marble pebble mural (114 feet x 12 feet) for the Wonderland Shopping Center in Livonia, Michigan, ten mosaic murals (each 15 feet x 9 feet) for the State Office Building in Milwaukee, one mosaic mural at the Mayo Clinic and another at St. Mary's Clinic in Wausau, and a marble mosaic pool (13 feet x 13 feet) at Telfair Academy of Arts and Science in Savannah, Georgia.
5. The conclusions of Lita Whitesel's study "Attitudes of Women Art Students," *Art Education* (January 1977) conducted in California among women in professional and university art schools reflect very closely the attitudes one finds talking more casually to students at UW-Madison.
6. June Wayne, "The Male Artist as a Stereotypical Female," *College Art Journal*, (1973, p. 414).
7. Table 7, p. 39, University Archives, University of Wisconsin, Madison.

10. Women and Cooperative Home Economics Extension

by Ruth Dickie

The University of Wisconsin cooperative extension was molded by the era in which it started — the existing educational institutions and systems, classic and popular, the economic and social organization of the period, and the technological developments. Citizens were searching for a better life and ways to increase the returns on their labors. Extension aided in developing strong and articulate leadership, and helped lay the foundation for sources of financial support. Home economics extension today bears the fruits of vision and political astuteness of persons of position who have worked over the years for its development.

Education for the Masses

The nineteenth century and the industrial revolution gave the world many populist movements. One of the most lasting was the demand for education for all, and for education directly applicable to the work situation. In England, "institutes" were developed between 1824 and 1830 to teach artisans "the scientific principles of their craft." These developed into "extension" classes taught by representatives from the major universities who went out to communities to teach the workers.[1]

In the United States during the latter part of the nineteenth century the Lyceum and Chautauqua movements did essentially the same thing. Frederick Rosenstreter, in his history of extension in Wisconsin, states that these societies were designed "to encourage the mingling of everybody over eighteen — with every man an educator, every man a student."[2]

Unfortunately, most of these movements, conceived for the worker, became inspirational lectures for the intelligensia by famous men of the period and music and theater for the masses. The Chautauqua movement, two to three day campground cultural programs, held in tents, left the scene with advances in transportation and the advent of radio in the twenties.

Women's Activities

History makes little mention of women's organizations before 1900, but women were as active as transportation and homemaking responsibilities allowed. Many middle class city homes and some rural homes had "hired girls." Babysitters were an unheard of luxury, but grandmothers as part of the extended families were a household institution. Farm wives served as partners in farm work and as backup for their husbands in performing chores in the husband's absence. Since many of the farm wives had more schooling than their husbands — many had been rural school teachers — they were often the managers of the business enterprise as well as the home.

Women's societies were related mainly to women's political activities, church activities, literary uplift and preservations of historical significance. Transportation difficulties isolated many rural women from these groups. In the first part of the twentieth century in the rural areas, the local home-

makers' clubs provided inspiration, development, sociability, and aid in times of family stress. The first homemakers' clubs were organized by county extension agents and state home economics extension staff in 1920.[3]

Female partners were eager to learn and improve the economics and welfare of the family. The rigors of frontier life had erased the social stratification that existed in the older eastern section of the United States. Transportation was by horse drawn vehicle on dirt roads. Although invented in 1876, phones were practically non-existent in rural Wisconsin before 1910. Radios had not been invented. Channels for communication and friendship were sought. Social gathering was central in homemakers' clubs where women worked and learned together, and the older or more experienced served as mentors to the younger or less experienced. The meetings also provided the development of local leaders who broadened their community of influence as the years progressed.

Food and nutrition, family economics and financial security, home and community environmental practices and improvements, and human resources and development have been major areas of extension teaching since its beginnings. From the first quarter of the twentieth century when bacteriological principles of home canning were just being developed, women were taught to preserve fruits and vegetables for the winter months. Groups would frequently meet during harvest time to can fruits and vegetables "for the needy." Welfare programs had not been developed and care of the less fortunate was a community responsibility.

A few women attended the first Wisconsin Farm Institute held in Portage in 1892. At the suggestion of W. H. Morrison, superintendent of the farmers institutes, cooking schools were organized. Mrs. M. L. Clarke of Milwaukee presided at the first cooking school. A special institute cookbook prepared by Mrs. Nellie Maxwell, Neenah, reached 13,000 persons in the first year. McIntyre reported that from their origin in 1892 until 1907, eleven cooking schools per year were held and by 1910, 181 cooking schools had been held. At the Sparta institute of 1899, Nellie Kedzie Jones participated.[4]

Although set up as cooking schools, they were not confined to culinary arts. They also included such things as the care and feeding of babies, family health, gardening, food preparation, step saving, exercises, sewing, home furnishing, schools, libraries and community problems. In a dollar-short economy the women realized that "a penny saved is a penny earned" and they diligently pursued means of stretching the purchasing value of the dollar.

Home Economics Department Established

Home Economics was mandated by the 1903 legislature as part of the school of letters and science. It was first located in South Hall, later in Lathrop Hall.[5] Until 1914 when the Smith-Lever Act provided funds for home economics extension, the resident faculty performed all the extension functions.

W. A. Henry, the new dean of agriculture, arranged for the first "housekeeper's conference" to be presented by the department of home economics in February 1905 in conjunction with the ten-day farmers' course. Grace Rowntree Duffee commented that "this was probably the beginning of what was later called farm and home week." The housekeeper's conference was di-

rected by Caroline L. Hunt, assisted by Ellen Alden Huntington of the home economics staff; Belle Crowe, dietitian at Chadbourne Hall, was one of the speakers. Subjects presented were: food for health, care of children, water supplies, ventilation, floral culture, home furnishings and marketing.[6]

Abby L. Marlatt was brought to Wisconsin in 1909 to head the department of home economics by Harry L. Russell, the second dean of the school of agriculture. At that time, home economics was transferred to the school of agriculture, a fortuitous move in the light of future federal support of agriculture. The department moved into its new home economics-extension building in 1914.

Marlatt was a tall, imposing figure with mobile eyebrows and gifts of ready speech and showmanship. She had a strong academic background in chemistry and built home economics courses around the core of basic science. Rather than have home economics duplicate basic science courses, she insisted that basic science be taken with other men and women in courses already being offered "on the hill." Home economics would teach subjects unique to "home ec," such as food composition, preservation, and sanitation; nutrition; dietetics; home management; family financial security; housing and home furnishing; clothing and textile chemistry; art in the home; and dress design and construction. These were the subjects she, and later her staff, presented in extension lectures, short courses, and at farm and home week.

In spite of her heavy academic duties, Marlatt took on the extension circuit, traveling by train and depending upon her hostesses to transport her from the train to the meeting place and generally to provide overnight accommodations.

Cooperative Home Economics Extension Established

The resident home economics faculty continued the extension circuit until a separate cooperative extension service was established with funds provided by the Smith-Lever Act of 1914. Elizabeth B. Kelley was recruited from Louisiana to be the first state leader of home economics extension. Elizabeth Amery, foods specialist, and Agnes Boeing, clothing specialist, were her complete staff. The resident faculty continued to cooperate in the program of the farm and home week as well as in writing bulletins. The "women's program" of farm and home week included recent research findings and women's issues of the day. Family health, sanitation, home layout, home conveniences and improved work methods were some of the topics covered. Increasing emphasis was given to financial security, legislation affecting the home and families, and community resources. Art and aesthetics, music, literature, education, library development, and similar subjects also were included.[7]

Four full-time and many part-time staff members conducted 64 cooking schools, two-day short courses, farmers institutes, and district teachers' meetings throughout Wisconsin, drawing over 12,000 persons during the first year Elizabeth Kelley served as state leader. Kelley and her successor, Emma Conley, were called to Washington, D.C. for special war duty with the United States Department of Agriculture during World War I.

Nellie Kedzie Jones became state leader of home economics extension in 1918 to work with especially employed home economists and specialists in mobilizing food production volunteers, carrying out projects to conserve fats and oils, and promoting meatless, wheatless, and fuel saving days during

World War I. Following Kelley's precedent, she utilized her own staff and staff from other departments to meet the increasing requests. Gladys ("Sally") Stillman, nutrition specialist; Gladys Meloche, clothing specialist; Abby Marlatt, head of the home economics department; Dorothy Reed Mendenhall, M.D. ("baby doctor"); Mary Bradford, Stout Institute; Helen Denniston, M.D.; and Blanche Trilling of the women's physical education department, Helen Dodge, and others traveled throughout the state conducting cooking schools and workshops during World War I and the twenties.[8]

Jones and her staff helped families weather the Depression of the thirties. Gardens and food preservation were stressed. The U.S. Department of Agriculture circular, *Diet at Four Levels of Nutritive Content and Cost* was used as a teaching tool to help families maintain adequate nutrition in the face of reduced money for food.[9] Vitamins had been recently discovered and extension taught people about "protective foods" and a "balanced diet." The system of calculating the economic savings possible through home production and preservation of food was taught. Clothing and home furnishings were made out of materials at hand — women learned that with imaginative use of colorful decorations, or dye, even cotton flour sacks would make fashionable clothes. Cast-off clothes were made into crocheted and braided rugs. Home soap making was demonstrated. Classes were instituted to show individuals how to make mattresses, and how to utilize the prevalent wooden orange crates and apple boxes to make creative and colorful furniture. The resident home economics staff cooperated in preparing exhibits and presenting information during farm and home week.

Luelle Mortenson served from 1933 to 1936 as Wisconsin's fourth state leader of home economics extension. She had served previously as a nutrition specialist in home economics extension. She continued to urge counties to employ extension home economists. When she left in 1936, nineteen counties had made appropriations for employment of county extension home economists.

In 1936, Blanche Lee, who was to serve Wisconsin until 1958, joined the state home economics extension staff as state leader. Under her leadership, sixty-seven of the seventy-one counties in Wisconsin employed extension home economists by 1955. County extension home economists are members of the faculty of the University of Wisconsin-Madison. Through Lee's leadership and that of state and county extension home economists, families were helped through the period of World War II, when again the country was in a state of emergency which struck at every family. Lee encouraged extension homemaker clubs and councils to organize into a statewide extension homemaker council, an organization which continues to be active today.

Margaret Browne, Ph.D., succeeded Lee in 1959. She continued the work of state leaders before her, until there were more than 3,000 extension homemaker clubs with approximately 50,000 members.

In 1963, when Browne left to serve as head of the Federal Extension Service home economics staff, Marlys Richert, Ph.D., became state leader. She maintained that role through December 31, 1977. She is nationally known for her capabilities and leadership in giving direction for more effective program development, implementation and evaluation.

Educational programs have changed from the time when cooking schools were a means of taking the university to the borders of the state. Today's pro-

grams retain the research arm of UW-Madison and focus on the effect of public policies and social and economic changes on families and the family's competence to influence or effect change. Basic knowledge and procedures that strengthen the family and its members, and improve the quality of living remain a primary area of emphasis.

May Cowles, Ph.D., had long taught family economics and household management in the home economics department. A major thrust in extension family economics started when Louise A. Young was appointed extension specialist February 1, 1945, as a home management specialist. She continued the work of Clara Jonas developing family and consumer economics in the area of total family resource management. In the forties she and Margaret McCordic continued the work simplification activities, preparing bulletins and training sessions on "Washing Made Easier," "Ironing Made Easier" and "Work Made Easier."

Family financial management was taught to some extent through leader training meetings in the early years, but it was not until additional staff, changing economic situations, and some changes in laws came into the picture that this area became more prominent.

Young built on information started by Clara Jonas. She sought counsel from the law school. Her mimeographed materials and finally a circular, "Your Property — Plan Its Transfer," written in cooperation with Jacob N. Beuscher of the law school in 1951, provided the foundation for leadership training, local club homemaker projects and county meetings on estate planning.

During the sixties, but to a greater extent beginning about 1972, the educational programs developed along special interest lines with husbands and wives attending. The many changes in the state probate law passed in 1971 and the Tax Reform Act of 1976 stimulated interest. Training was increased to two to three sessions in each county.

Young estimates that between 15,000 to 20,000 persons were reached in the estate planning workshops between 1972 and her retirement in July 1976. In a follow-up evaluation of the meetings, among those responding almost 75 percent had revised their will, more than 50 percent made changes in some aspect, more than 25 percent took action related to a will and 20 percent contacted their legislator about estate and inheritance laws. Recent emphasis has included financial security, retirement and pre-retirement planning, savings and investments, life, health, liability and property insurance. Social security and pension plans — and factors influencing the selection of options, have also been included. Karen Goebel is continuing with this teaching.

Farm and home development, a project to assist young farm families, was initiated in 1954 with family economics and agricultural economics specialists taking the lead. A series of six workshop meetings was developed to help young farm couples solve their own problems. Glen Pulver and Robert Riech, agricultural economics specialists cooperated with Louise Young in developing and presenting this program and in training county extension personnel. Farm families are still reporting the value of these meetings in getting started on a good farm and family track. The success of the farm families' workshops led to a series of family financial workshops with urban families.

Success measured by attendance and response, in the Milwaukee area, has been outstanding.

Extension added an additional specialist to provide information on wise consumer practices, interpret laws and regulations designed to assist the consumer, and learn how to make consumer complaints.[10] Safety practices in the use of hazardous products have been emphasized.

Home Economics Subject Matter Continues to Broaden

Individual and family growth and development are receiving increased emphasis in home economics extension. Specialists in child development and family relations were added during the war years. New programs focused on ways to build strong people and strong families, on normative growth, on parent-teen relations. More recently, programming has sought to help individuals and families understand and cope with social change and the feelings of powerlessness and alienation which that change often engenders. The women's movement, high divorce rates, population and environmental concerns gave rise to programs dealing with the concerns of the elderly, with day care, family size, parenting, marriage, divorce, death, child abuse, changing roles for men and women — all a far cry from the skill oriented subject matter of earlier years, and far more controversial. New technologies, new information and new situations are forcing people to re-examine and articulate their attitudes, goals and values. Assistant state leaders were added during the 1940s — Edith Bangham, Anita Gundlach, Grace Rowntree and Josephine Polloch. They are now all retired.

In 1977 there were eighty-one extension home economists, many of whom held masters degrees, and seven district program leaders who guided their educational programs throughout the state. In 1977 there were twenty-five specialists and program leaders as compared with the four of 1914.[11]

The cooperative extension service which covered agriculture and home economics remained separate from general extension until the sixties. Legislation in October 1965 merged the cooperative extension service with the general extension service. The merger was effected in July 1966. In 1967 home economics extension was renamed the center for women's and family living education.

The last annual farm and home week was held in February 1964. In 1963 college week, directed by the home economics extension service (which became family living education in 1967) was started. The three days' activities are planned to encourage personal growth, increase awareness of state, national and foreign issues, and increase participation in public decision making. In 1963 there were 250 participants. In 1977 there were over 1,500 representing 66 counties. Participants, men as well as women, were offered a choice of 57 seminars during the 1977 three-day session. Rosemary Stare was general chair and Karen Howard, program coordinator.

Marlys Richert, family living education statewide program chair of family living education in extension, and her staff have redefined their role and mission. They have identified the 1977-78 areas of concern and major thrusts. Their report states: "Family living education encompasses five interdisciplinary areas: family growth and development, consumer resources management, food resources and human nutrition, family housing, and the

development of human and social community resources directly related to family living.

"Extension programs are designed to assist adults and youth in obtaining non-credit education in a setting which will help them understand today's concerns and determine future directions." The impact of economic fluctuation, social change, changing food supply and changing environment are identified as the major areas of concern. The report, with its accompanying literature, is a study of the social and economic concerns of the family in this decade.[13]

Cooperation With Other Resources

The 1957 state legislature in Chapter 431 of the state laws sanctioned the broad scope of cooperative extension. The legislative action recognized cooperation with other agencies. The home economics extension staff had previously worked closely with the state department of health and social services, with the county nurses, county welfare workers, home economics teachers and other social and business groups. In areas where migrant workers come into the state in the summer, special programs had been developed for them. Indian families on and off the reservations had often been helped by home economics extension workers. The extension home economists shared responsibility with agricultural engineering specialists in helping families get running water, septic tanks, efficiently arranged and equipped kitchens, and remodeled homes. Horticultural specialists worked with the extension home economists on gardening, orchards, and food storage. Extension agents helped set up emergency programs for collecting metal scrap and milk weed pods (for life jackets) during World War II. In the emergency, special emphasis was given to food production and storage. Labor recruitment for farms and orchards were extension's responsibility in war time. Home economics specialists shared in the recruitment and supervision of over 3,000 young people to pick cherries. Extension cooperated with three major farm organizations — the Farm Bureau, the Grange, and the Farmers' Union, by providing programs at meetings and camps. Extension also cooperated with farm security in their farm and home financial aid and management program. The health, housing and economic needs of migrant workers were recognized as major areas of concern — and home economics extension responded with programs to improve the health, housing and economic situation of the migrant workers.

These are but a few examples of cooperative work with other groups. Extension also shared in programs of other agencies and they, in turn, helped carry out extension programs. The ultimate goal was to help families achieve their goals.

4-H Club Work

Four-H club work is one arm of cooperative extension and has been instrumental in disseminating reliable home economics information.[14]

In the early years of 4-H club work most clubs were in rural areas and villages. Now the program has expanded into urban areas and members may select a wide variety of projects, many representing family economics, environmental factors, aesthetics, and community organization.

Media Communications

Cooperative extension personnel have utilized many local and state communications media to extend the teaching of the university to the borders of the state. WHA radio, and later television, has been looked to by the residents of the state as a source of reliable information on all aspects of home, family, and their economic, social, and health needs.

Aline Hazard wrote of the beginnings of WHA and the homemakers' hour: "Gladys Meloche, dedicated clothing supervisor in home economics extension services, made her first broadcast in 1921. It was one of the first ever dedicated to news of home and family." Hazard commented that after this first "home" program, other programs devoted to farm and home interests were added. April 1929 marked the division of farm and home programs and the homemakers' program stood alone.[15]

Andrew Hopkins, agricultural editor, "very early decided that here was a new way of extending the information obtained by experimenters in agriculture and home economics — he created the homemakers' hour." It was his idea that the homemaker's program should "encompass the whole aspect of enriched farm living." WHA was on the air less than eight hours a day and the homemakers' program and the farm program formed the "backbone of programming."[16]

Aline Hazard formally began work with WHA and agricultural journalism on June 20, 1933. Ruth Milne became her part-time assistant. Together they prepared daily programs, home economics press releases, and a mailing list, and answered the increasing volume of mail. In addition college of the air programs were planned for special broadcasts.

Looking back on her programs, Hazard wrote, "information included experimental findings that alerted listeners to the finer values and better homemaking methods. For variety I supplemented interviews and round table discussions with on-spot reports and individual talks. University staff members and specialists from the state department of agriculture gave freely of their information. Practical homemakers, dietitians, home economics department specialists and staff with vocational, technical and adult leadership participated."

Requests for information resulted in more than 10,000 letters in 1962. The resident home economics staff, home economics extension staff and the department of agricultural journalism participated in writing circulars and bulletins.[17] Many famous people appeared on her radio program, and many honors came her way, all graciously received with "credit to the good people who made it possible." She retired on June 11, 1965 after more than 10,000 broadcasts.

Jean Fewster, who took over after Mrs. Hazard's retirement, recognized that many men were following her program. She gave in-depth information to help men improve their quality of life within the family, along with advice to women to help them meet their changing role in society. The name of the program was changed in 1966 to "accent on living."

In June 1967 Norma Simpson started half-time as a graduate assistant to Fewster, doing three programs a week. When Fewster left in 1968, Simpson took on the direction of the program on a full time basis.

Simpson, following Fewster's emphasis, focused on the sociological aspects of the changing role of women and the family in society. Asked about highlights of her years of service, Simpson replied, "one of my greatest joys has been working with Clarice Dunn and Genevieve Lewis on yarns of yesteryear, a UW-Extension creative writing contest for senior citizens of Wisconsin. These unique stories will be a permanent record of good times and bad times, of growing up and living in Wisconsin."

In 1965 the educational telephone network was put in operation. All county extension offices were connected. Continuing education statewide took off! Conferences and training programs could be conducted without the cost of time and travel. Other professional groups were quick to recognize the potential and sought sources of funding not financed by cooperative extension. As many as seventy Wisconsin hospitals, some libraries and other educational agencies have used the system.

In December 1973 cooperative extension dial access programs were started. This service comprises an extensive variety of lay-oriented, three to five minute recorded messages, prepared, reviewed, and up-dated as necessary by extension professionals.[18]

While extension's most valuable resource and delivery system remains its personnel, its home economics, its specialists and program leaders, the system now includes many non-traditional media and methods to reach people of all ages and situations: the state-wide educational telephone network (ETN); WHA radio and public television; commercial television, dial access telephone information and the sixty-second and thirty-second "spots" (family living forum) for dozens of commercial radio stations around the state.

Since the department of agricultural journalism was established in the college of agriculture, it has served as an arm of extension, editing publications and providing newspapers (and later radio and TV stations) news from extension staff. Grace Langdon joined the staff as assistant extension editor on November 6, 1920 and served until her retirement October 31, 1959. Former department heads refer appreciatively to her fund of knowledge and her capabilities.

Alice Jones was appointed regular full-time home economics editor in the early fifties. In 1953 Nellie McCannon, presently professor of agricultural journalism and cooperative extension, succeeded Jones. She provided information from extension specialists to county home economists and family and consumer articles to newspapers, radio and television stations. In 1968 she started a yearly seminar for Wisconsin press women, especially family page editors (at that time generally referred to as women's editors or society editors). McCannon observed that these communications specialists are the gatekeepers who determine the quality and quantity of family and consumer information reaching the public through the communications media. McCannon also teaches a class in journalism and coordinates media communications in the school of family resources and consumer sciences. After years of campaigning, led by McCannon, a communications section was added to the American Home Economics Association in 1970 to strengthen the training and work of home economics media specialists.

Women Today

Extension has felt the pulse of America at its point of genesis, the home,

and has helped people in identifying their human needs at the home, community and national level. Extension has helped people and communities to solve their own problems and to bridge the gap from home into the legislative, executive and judicial systems and into the economic mainstream.

Throughout history, women have provided the stabilizing forces improving the environment and establishing a level of moral conduct in the home and in the community. Understandings, developed by years of mothering, have carried human concerns into the community, with attention to the ethical, aesthetic, and social as well as the economic and physical aspects of life. Since women are generally the homemakers, they and the youth have been the chief participants in the home economics extension programs.

Women have identified their major concerns and are becoming more articulate. County home economists report that women are seeking a world which will give them an equal start in life, in the family, and in the community in which they work; an environment which will stimulate and nurture their continuing life-long growth in competency and status; a home and community which will reward justly and equally their contributions to the economic and social structure of the home, the community, and the nation.

Former staff members recall that during the Depression of the 1930s, and for many years following, university administration frowned on having two members of the same family on the staff, be they men or women. This meant that when a woman faculty member married a man on the staff, since her salary was almost always less, she usually bowed out gracefully within a year or two in spite of having tenure. Merit increases and academic promotions were withheld, the reason given being that two members of the same family receiving raises or promotions would create adverse newspaper publicity. Many fine home economics resident and extension staff were lost because of this policy. Affirmative action requirements in the 1970s stopped this practice.

Women feel that the handicaps imposed on them by the social institutions of generations past must be removed, and they are eager to join groups working to develop a better social order for tomorrow. They no longer accept the historic "ancillary" and "auxiliary" role. They are displeased with present tax, divorce, and inheritance laws that do not adequately recognize the homemaker's contributions to the family financial holdings; with Social Security regulations developed in 1935 — before Congress had emerged from its Victorian concept of the position of women; and with employment practices which fail to give recognition to the education and management skills developed as a home administrator. They look forward to the day when women will share equally with men positions in government and business that hold policy and decision-making authority. They realize that progress in achieving this status in the higher echelons of government and industry will be slow because men remain the gatekeepers controlling entry into such positions.

With confidence in the facts they have compiled, women are participating more actively as citizens and as elected officers in formulating laws and executive guidelines which they hope will provide all persons just consideration and equality in the work place, in the courts and in the state and federal social welfare programs.

Women, with their industry and knowledge, have taken more families out of poverty than any government program to date. In addition to training in money-saving practices, the extension home economists have helped families

develop financial budgets establishing priorities between current pleasures and long-range goals. Extension has helped homemakers to be knowledgeable of labor-saving equipment and methods. They have helped many families weigh the positive and negative aspects of paid employment outside of the home for the homemaker.

Homemakers who do not seek paid employment outside the home are seeking a forum to discuss things important to them — their home and family, their economic security, and the composite social and economic community factors affecting their homes and families.

Extension has realized that the community of tomorrow has its roots in the learning centers provided by the homes of today. Attitudes are caught, not taught. Extension recognizes the home as the foundation and the rehearsal stage for life, the place where activities and behaviors, including the use of time and money are studied, practiced, and modified; where habits are developed; where appropriate expression and timing are perfected; and where value systems are established. Home economics is the only discipline focusing on the home and all aspects of human life. The leadership process extension has used for many years is developing leaders to provide continuity in progress at the local level and in the councils of our community, the world.

NOTES TO CHAPTER 10

Acknowledgments

This review of cooperative home economics extension's origins and progress has been made possible by the assistance of many people. Doris Staidl, professor of family living education, provided written information on women extension personnel and their areas of service. Eugenie Hoover of the extension library sought out books on the historical development of extension, and personnel in the university archives have been most generous in checking data. Charlotte Ocain of the Steenbock Library government documents section retrieved early extension publications and recommended periodicals covering early developments. Harold Engel, professor emeritus, radio extension, provided information on the beginnings of WHA radio. Grace Rowntree Duffee, former associate professor and assistant state home economics extension leader, gave first-hand knowledge on people, their titles at each period and their contributions. She also provided the information on 4-H club work and pointed out omissions in what had been written previously.

Edith Bangham, professor emeritus, former home economics extension leader, showed me many original manuscripts from the thirties and forties. She made me appreciate the broad scope and human value in extension service. Louise Young, professor emeritus, family living education, provided information on the outstanding developments in teaching family resource managements. Jane Burbach Tybring, assistant professor, family living education, described the increasing emphasis on human relations to help individuals and families cope with the rapidly changing social scene.

Glenn Pound, dean of agriculture and life sciences, provided vital information on the organizational structure of cooperative extension and sources of documented data.

Many persons, too numerous to name, checked the manuscript for accuracy and supplied information based on their experience.

1. Rosenstreter, Frederick M., *The Boundaries of the Campus, A History of the University of Wisconsin Extension Division, 1885-1945.* Madison: University of Wisconsin Press, 1957, p. 10.
2. Ibid., p. 10.
3. McIntyre, E. R., *Fifty Years of Cooperative Extension in Wisconsin, 1912-1962.* Circular 602, University of Wisconsin Extension Service, Madison, January 1962, p. 59.
4. Ibid., p. 169.
5. Ibid., p. 169.
6. Ibid., p. 169.

7. Extension circulars and bulletins were prepared to aid in the teaching program and U.S. Department of Agriculture bulletins were made available. Titles of some of the early bulletins in the Steenbock Library indicate the areas of study and use: 1909 — *Daily Meals of School Children;* 1911 — *Bibliography of Child Study for the Years 1908-1909;* 1912 — *Bibliography of Education in Agriculture and Home Economics;* 1912 — *Bibliography of Exceptional Children;* 1913 — *School Hygiene;* 1913 — *Sanitary School Houses;* 1914 — *Physical Growth and School Progress;* 1916; *Sewage Disposal for Country Homes;* 1917 — *Preserve Eggs for Winter Use;* 1917 — *Have a Backyard Garden;* 1917 — *What to Feed Children;* 1917 — *Canning for Pleasure and Profit;* 1919 — *Eat Vegetables to Keep Well and Lower Food Bill;* 1919 — *Making Clothes Last Longer;* 1920 — *The Hot Lunch in Rural Schools.*
8. McIntyre, op. cit., p. 238-286.
9. Stiebeling, Hazel K. and Medore M. Ward, *Diets at Four Levels of Nutritive Content and Cost,* Circular 296, U.S. Department of Agriculture, Washington, D.C., 1933.
10. Some of the former state home economics extension specialists listed in the *First Fifty Years of Cooperative Extension in Wisconsin, 1912-1962,* are Katherine Bailey, Elsa Bate, Elizabeth Birong, Agnes Boeing, Mary Brady, Charlotte Clark Buslaff, Linnea Dennett, Mildred Dorr, Joan Verlene Engle, Wealthy Hale, Blanche Hedrick, Gertrude Hoffman, Edna Huffman, Alice Kelly Iverson, Clara Jonas Legrid, Margaret McCordic, Jean McFarlane, Sadie McNulty, Gladys Meloche, Helen Pearson, Ruth Peck, A. Marie Reuter Peterson, Mary Purcell, Jean Reddin, Dorothy Knutson Traisman, Viola Hunt Wilkinson, and Louise Young. All extension specialists hold appointments in the U.S. Department of Agriculture.
11. The specialists on the staff in 1977 include Nancy Johnson, Ph.D., and Jane Voichick, Ph.D., nutritional sciences; Mary Mennes, food administration; Charlotte Dunn, food sciences; Marian Longbotham, home management and housing; James Buesing, housing and interior space; Jane Graff, home furnishings; Beverly Henderson, Margaret Nelson, Ph.D., and Karen Goebel, Ph.D., consumer economics and family financial management; Ruth Diez and Lenore Landry, clothing and textiles; Irene Goodman, child development; Jane Tybring, family relations; Marian Thompson, women's education; and Wilbur C. Thomas, human relations. Program leaders who coordinate the service throughout the state are: Priscilla Hargraves, Eileen Niedermeier, Bernadine Peterson, Ph.D., Rosemary Stare, Helen Jackson, Marjorie Hamann, and Doris Staidl, Ph.D.
12. College week for women programs have been deposited in the University of Wisconsin Memorial Library archives, courtesy of Rosemary Stare, associate professor of family living.
13. *Wisconsin Families in Social and Economic Change, 1977-78.* Family Living Education, University of Wisconsin Extension, Madison, WI 1977. Typewritten report filed in U.W. Memorial Library archives.
14. Information provided by Grace Rowntree Duffee. See also *Fifty Years of Cooperative Extension in Wisconsin, 1912-1962,* Chapter 12.
15. Hazard, Aline Watson: *For the Love of Mike.* The Department of Agricultural Journalism, College of Agriculture and Life Sciences, the University of Wisconsin. No date.
16. Harold Engel enlarged on Hazard's description: Mainly personal communication. See also *Harold Engel and Harold McCarty: An Interview Conducted by Steven Lowe.* University of Wisconsin, University Archives Early History Project, Madison, 1972, see page 4 of the interview.
17. *Wisconsin Agricultural Extension Service — Radio Circulars* starting in 1930 are shelved in Steenbock Library.
18. Floeter, Jan, "Dial Access." *Extension Service Review 48* (No. 4) (July-August 1977), 22.

11. Women on the Academic Staff

by Joanne Elder

When the University of Wisconsin-Madison began in 1848, the president and faculty did all the jobs related to higher education. By the 1890s, "in the interest of lessening the burdens of the faculty"[1] a non-faculty person became registrar and secretary of the faculty. During its first 124 years, the University of Wisconsin lumped most of its professional personnel together and called them academic staff. In 1974 the statute merging all public higher education institutions in Wisconsin made a clear separation between legal faculty and academic staff. Since women make up over half of the academic staff and only 18 percent of the legal faculty in the UW System,[2] it is very important in a book which looks at the contributions of women to the UW to understand the distinct role of the academic staff.[3]

There are many functions in the university vital to its operation today that are filled by academic staff. The office of admissions, registrar, financial aids, counseling center, placement, Memorial Union and Union South and housing are examples of student support services staffed by academic staff. Academic deans and advisors, archivists, editors, architects, computer specialists and directors of special programs like the arboretum are seldom faculty. Coaches whose positions depend on winning teams are not faculty and many scientists and lab technicians on grant money are academic staff.

Distinguishing clearly between faculty and academic staff is not always an easy task. One cannot make the distinction whether or not the person teaches. For example, at UW-Madison, the clinical professors and lecturers in social work and medicine are academic staff rather than faculty. Lecturers may be distinguished visitors sharing their expertise for a single semester, or they may be advanced graduate students given a chance to acquire a semester's teaching experience. Lecturers may also be persons called upon to fill an unexpected demand for a course. Many women have been used as standby lecturers. In the UW System, 41.3 percent of the lecturer positions are filled by women.[4]

Explaining who is academic staff is made more difficult by the fact that the support functions performed by academic staff are sometimes also performed by faculty and civil service employees. For example, a specialist on the academic staff and a person who has a civil service appointment do the same work in the senior summaries office. Librarians are the best example of the dilemma of definition of academic staff. A few have professorial rank, a few hold civil service appointments, one has faculty status, and the rest have the title of specialist.

A major difference between faculty and academic staff concerns representation on the faculty senate. Only legal faculty are represented by the faculty senate. However, a few people on the academic staff have been given faculty status and they consequently are represented. In 1977, of over three thousand persons on the academic staff, thirty have faculty status, and eight of these are women. However, having faculty status does not give those thirty members of the academic staff job security or affect their salaries; it simply

means they are represented in governance while the rest of the academic staff is not.

In 1967, the university tried to bring some order into hiring practices by drawing up academic staff personnel policies. At first, the specialist title was encouraged[5] for its flexible use. The title was also used to reduce the number of persons in the instructor category, especially those who did not teach.[6]

Women make up 51.6 percent[7] of persons who hold the specialist title on the UW-Madison academic staff, a much higher percentage than in any other category. Specialists are an especially heterogenous group. A laboratory technician who earns $8,250 and a coach who earns $40,300 are both specialists. Academic advisers, computer specialists, nursing specialists, media specialists, an architect, legal adviser, and naturalist, are specialists. Some specialists are project typists. At present over three hundred persons on the academic staff have the Ph.D. degree, and 21.1 percent[8] of these are women.

Between 1949 and 1972 the number of research personnel hired through grants from the federal government greatly swelled the numbers of academic staff. In 1949-50, $3,700,000 was spent on research at the UW.[9] By 1972, $69,000,000 was spent by the university on research, $40,000,000 of which came from the federal government.[10] Many of the federal grants were awarded to specific faculty members for approved programs. These persons independently hired personnel to fit their needs and budget. Although soft money positions are considered temporary, some employees have now worked twenty years on soft money. (Soft money is the term used for money which comes from sources other than state legislated funds.) There is a tendency for men to use these soft money positions as stepping stones to positions elsewhere. Many women, feeling bound to Madison because of family responsibilities, accept less money because of fewer alternatives and find that soft money positions are often dead-end jobs.

A fair number of women hired as administrative secretaries on grant monies were given the title specialist. Administrative memos flew[11] urging correct use of civil service positions and the specialist position. But the specialist position was more attractive because of its flexibility. For management, specialists could be held accountable for work without overtime pay, and be dismissed easily; and for the specialists, hours were more flexible, there was more vacation time, and sometimes the pay scale was better than a comparable civil service appointment.

In 1970, Vice President Donald Percy wrote the second "Guideline: Academic Staff Positions, Appointments and Titles." By then many persons of diverse qualifications were lumped into the catchall specialist title. The effect was to lower the status of persons with the title specialist.

The committee on the status of women in 1971 set up a subcommittee on specialists and noted that "serious dissatisfaction exists" with the specialist position. There was no job security, promotional track, or guidelines for salary increases.[12] In December 1971, Chancellor Edwin Young, "to insure that employment policies for specialists are equitable, consistent and applied with full concern for proper employment procedures,"[13] asked all specialists to fill out a questionnaire. At that time there were over 1,600 specialists on the Madison campus and those on soft money outnumbered those on state funds about three to one. Only slightly more than half of the questionnaire respondents considered their positions career positions.[14] "Personnel Policies for

Non-Faculty Members of the Academic Staff," dated 14 December 1972, tried to regularize the personnel practices for the UW-Madison campus. The regularization of academic staff policies did little to raise the status of specialists, more than half of whom were women. There was still the huge staff on soft money without job security. There was no input into university governance nor even self-governance, nor ladders of promotion or structure to earn merit.

The merger statute of 1974 required personnel rules for (1) faculty and (2) academic staff. Those will provide for fixed term and indefinite appointments. It remains to be seen whether professional women will receive their fair share of the indefinite appointments and whether a stratification scheme can be set up which is fair and equitable to the technicians.

The great majority of specialists in our libraries are women and represent a special case in terms of categorization. Before 1968, librarians in administrative positions held faculty rank appointment, and all other professional librarians held civil service appointments. In 1968 most of the civil service appointments became specialists. The director of Memorial Library in 1969 wrote a "Statement to Librarian Specialists" reassuring them about job security and a proper grievance procedure, but admitting this was his view and not that of the university as a whole. A committee on specialist librarians wrote a definitive report explaining why the specialist title is inappropriate.[15] "As a specialist, the librarian is denied a voice in formulating the policies which affect both the library itself and the university. Consequently, the ability of librarians to develop their profession is seriously impaired." The report also spelled out reasons why the civil service classification was unsuitable for librarians.

Joseph Treyz, director of libraries, addressed the chancellor's committee on the status of women in 1971 and explained his attempt to gain faculty status for all professional librarians. The chancellor's subcommittee on specialists recommended that specialist librarians be given appropriate faculty rank, but this did not happen.[16] Ruth Schwebke was an articulate spokeswoman and a member of almost every committee which struggled with the problems of librarians as specialists. She left the university for another position which she felt better recognized her professional talents.

Professor Franklyn Bright, director of technical services, wrote in 1974 of the merger statute:

> "We were confident that this was a significant step forward in status recognition for librarians on this campus but we soon learned this was not the case. First, Madison campus librarians lost all job security by this move. Under civil service they had very strong job security. Secondly we observed salary increases...did not advance as quickly as salaries for librarians in the civil service bracket. The combination...was a discouragement to all of us."[17]

Given the size of the university today with a student body twice as large as two decades ago, a faculty which grew by two-thirds, and an academic staff five times as large as it was in 1949-50, there is need for many administrators and managers.[18] Women make up 25.4 percent of the administrator/manager group on the UW-Madison campus, although only about 10 percent of these are in policy-making positions. Except for top administrators who are paid well, academic staff positions are low budget priorities. Nurturing and support tasks are rewarded minimally.

There are certain stereotypes about women which inhibit their appointments to top jobs, such as women lack authority, are not adept in budget matters, and lack organizational skills which require high levels of analysis. The following examples of women who are part of UW-Madison's academic staff or non-teaching faculty destroy these stereotypes. Their work exemplifies the kind of tasks done by academic staff. These women have made outstanding contributions to the university; there are many others like them.

Emily Chervenik worked as a career adviser for thirty years. Earning a degree is one thing but finding a job may be quite another. Thousands of UW students are grateful to Emily Chervenik for her job-getting tips. In 1944 she began her work at Wisconsin in the dean of women's office doing preplacement job guidance for women. She was made coordinator of placement services in 1956 and director of the placement center in 1970. She worked tirelessly, lecturing, publishing booklets and articles on placement and career advising, assisting the badger girls state conferences, editing the newsletter for the Midwest College Placement Association, and serving on the editorial board of the National Guidance Quarterly. In 1962, she was made an associate professor and continued as director of the placement center.

Ethel A. Schenck is now associate director of admissions. She has given forty years of service to UW. Chancellor Lathrop may have been able to keep student records himself, but by 1939 the university had a staff of record-keepers, and Ethel Schenck was part of that staff. She began as a research assistant in the bureau of guidance and records. In 1945, she received an M.A. in guidance and educational testing. In 1962, her title was changed from specialist (which it had been since 1949-59) to assistant director of admissions. Now, close to retirement, when offered the director's job, she refused. She does a superb job of the nitty-gritty that needs doing. She wrote a transfer student handbook and many other guideline booklets and is the expert on policy questions about admissions. Without faculty rank or status she is not eligible to serve in or be represented by the faculty senate. With all of her accumulated expertise, she cannot serve on university committees. On several occasions, however, when the university found she was the most knowledgeable person in an area, she was asked to serve on a committee. She is in charge of a professional staff of about fifteen persons, and takes pride in having done a good job. Unwilling to put herself forward, she will retire with modest remuneration for her forty years of service.

Louise G. Leonard has faculty status but never had a tenure-track appointment. She received her B.A. with honors in 1935. In those days there were no fellowships; so she worked as a teacher for fifteen years in the public schools of Kansas. In 1962, she completed a Ph.D. in educational psychology, guidance and counseling. She came to Wisconsin in 1961 as a visiting lecturer in the department of guidance and counseling. She decided to build her career in Madison and did that through her work as counselor specialist and coordinator of practicum from 1963 until the present. In 1975-76 she was director of counseling services. She represented the division of student affairs in 1972 on the faculty senate. She has done research and published, but her great contribution has been in her counseling to students, residents, house fellows, academic departments, and numerous groups inside and outside the university community. She is a good example of teaching by doing, applying the nurturing role of women to a professional setting. As a counselor, she has

been in demand with both students and faculty to consult about the special problems of women.

Imogene S. Higbie, who is the current director of counseling services, holds a limited appointment and her back-up appointment is clinical assistant professor of social work. She earned a B.A. from Syracuse University in 1939, then there is the familiar gap — she took her M.S.W. in 1957. She had two children when she came to Wisconsin as a single parent in 1960. She was associated with the department of psychiatry until 1964. From 1964 she has been with the school of social work, teaching in class and field work, developing community programs, neighborhood centers, coordinating programs with the Dane County mental health center, serving on numerous committees and doing private counseling. The school of social work recognized the outstanding contributions of Imi Higbie and recommended her for the rank of associate professor, but the divisional committee turned down the request because she lacked appropriate publications. Higbie doesn't have faculty status and is another person in a key position at the university not represented in governance. She is typical of the clinical faculty who lack job security and have been poorly recognized for their contributions to the university.

Patricia Bond Tautfest is an assistant dean of student academic affairs, an associate professor in letters and science, and an example of women in administration. Her training was in counseling and she does academic advising, but her career incorporates a series of administrative responsibilities. (Her position as dean is an academic staff position, but like Emily Chervenik, she holds professorial rank.) Tautfest took her B.A. in zoology from Butler University and her Ph.D. in counseling psychology from Purdue University. She held a tenure-track position at Purdue but married and came to Wisconsin. She was assistant dean of women here in 1960, then was appointed assistant professor at the student counseling center, a tenure-track appointment at that time. Later she was acting dean of women from 1963 to 1966, after which time she served as assistant dean of student affairs. From 1969 to 1973 she was assistant vice chancellor for student affairs and associate professor. She was in charge of personnel matters for the division. She was promoted to associate professor in 1969 on the basis of publications and active participation at the national level in student personnel and higher education associations. In 1973, because of UW-Madison budget reallocations, the division of student affairs was dissolved. Tautfest was transferred to student academic affairs as assistant dean and associate professor. Her administrative skills continue to be used as she serves as a member of committees and supervises the letters and science individual major.

Diane Johnson is assistant dean of student affairs. She has had two careers. Diane Johnson took her B.S. with honors in June 1954 in medical microbiology and subsequently worked in this field. She completed a Ph.D. degree in the history of science in 1971. While working on her degree, she had been employed as assistant dean of student academic affairs since 1968. She has many scientific publications and her Ph.D. thesis was published as *E. B. Fred: Scientist, Administrator, Gentleman.* In her position as academic dean she has a special interest in encouraging women and minorities to enter the sciences. She serves on many committees and has been on dozens of professional panel discussions. Her unique talents have yet to be fully utilized, but she has already made invaluable contributions to this university.

Joyce E. Becker is our example of a specialist in the laboratory sciences. She holds an M.S. in bacteriology from this university and worked as a project assistant in McArdle Laboratory from 1959 to 1962. She did cancer research in Germany for two years and then returned to McArdle Laboratory where she was a project assistant responsible for the tissue culture laboratory of Professor Van Potter's research group. In 1967, the work was the same, but her title changed to research specialist. She is the co-author of twenty-one publications and senior author of two. She has become an expert in tissue culture. She carries heavy responsibilities and her work is highly regarded. Yet she has no job security and is hopeful but not confident that she may have a continuing career at the UW-Madison. For years she has served on various committees which discuss the situation of specialists. Currently, she serves many hours on the academic staff advisory committee to advise the chancellor on personnel rules because she believes this committee provides the academic staff with some continuing in-put into governance. She is typical of many specialists who have developed laboratory expertise far beyond the status of their classification.

Ilse Riegel's title is senior scientist. She earned her Ph.D. in zoology in 1952, with a minor in medical physiology. For two years she worked in research on hormones at McArdle. An excellent writer, she was asked to collaborate with Professor Harold Rusch, editor-in-chief of *Cancer Research.* Riegel was managing editor until 1964. Marvelously well organized, she has a gift for managing several projects at once. Her scientific background was invaluable in her task as editor. She also wrote grant proposals and research reports, served on committees, and designed training programs and brochures. For twenty years she has done the work of two people in her area (including some volunteer teaching), yet she earns about $5,000 less than men in similar positions with similar length of experience. She also does all those extras expected of women and not often men — like helping foreign students find housing and being the informal mediator between students and professors.

Katharine Bradley is director of the University of Wisconsin Arboretum. She is an example of women starting a career after children are grown.

Katharine Bradley, an honors graduate in botany at Vassar and a Ph.D. in botany from the University of Michigan in 1953, might have launched a distinguished professorial career. Instead, after a few years of being an instructor, she married and dropped out of the job market for seventeen years. During those years she was an active volunteer in many community organizations, which gave her valuable administrative and committee experience. Friends urged her to apply for the position of director of the arboretum. She is paid at 80 percent FTE (while working 100 percent plus). She does a fully professional job and feels satisfied about what she has been able to achieve. She does this by choice, so that she may, as she says with a clear conscience, "meet my family's needs. I have been urged to go onto full-time formally, but have refused."

The support role of many academic staff jobs are familiar roles for many women. Whether the university or society will lead the way in expanding the potential role of women remains to be seen.

1. Bogue and Taylor, *The University of Wisconsin: One Hundred and Twenty-Five Years* (Madison, Wisconsin: University of Wisconsin Press, 1975), p. 21.
2. *University of Wisconsin Memo,* Vol. 7, No. 1, 15 July 1977.
3. It will be useful to understand the special terminology: The following is from the *Wisconsin Administrative Code. Personnel Rules for Faculty: Register January, 1975, No. 229.*

   UWS 1.01 Academic Staff. "Academic staff" means professional and administrative personnel, other than faculty and classified staff, with duties and types of appointments that are primarily associated with higher education institutions or their administration.

   UWS 1.04 Faculty. "Faculty" means persons who hold the rank of professor, associate professor, assistant professor, or instructor in an academic department or its functional equivalent in an institution. The appointment of a member of the academic staff may be converted to a faculty appointment in accordance with UWS 3.01 (1) (c).

   UWS 1.05 Faculty Status. By action of the appropriate faculty body and chancellor of an institution, members of the academic staff may be designated as having "faculty status." "Faculty status" means a right to participate in faculty governance of an institution in accordance with the rules of the institution. Faculty status does not confer rank or tenure, or convert an academic staff appointment into a faculty appointment.

   "Tenure" is defined as an appointment for an indefinite period. It is generally understood a person holding a tenure appointment would be dismissed only for adequate cause (10A.03). To get tenure, one must produce scholarly publications the quality and quantity of which are judged at the departmental and divisional levels of the university.

   "Tenure-track faculty" and "legal faculty" are synonymous terms which refer to assistant, associate and full professors and a few instructors who have representation in university governance. At some point the person will be or has been considered for tenure.

   The following is from *Guideline Academic Staff, Positions, Appointments and Titles* (revised January 1, 1970).

   Specialist. This title should be used for non-student professional employees, full- or part-time, who possess specialized training and/or experience which qualifies them to provide a service essential to the academic enterprise which is not appropriately reflected by another title.

   While "specialist" is the "genus" designation for official university records, it may be preceded or followed by a "species" modifier* [*Use of modifier is encouraged] such as "scientific, technical, research, student affairs, etc." or it can stand alone. Nothing precludes use of programmatic titles within the employing unit to further specify the role of the appointee.

   UWS 15.01 (1) Limited Appointment. A limited appointment under section 36.19 Wis. Stat. is a special appointment to a designated administrative position. [A person in this type of appointment serves at the pleasure of the authorized official who made the appointment.]
4. *University Women,* Vol. 4, No. 6, 30 June 1977.
5. In a memo dated, 6 January 1967, Vice President R. L. Clodius circulated "Proposed Policy Guidelines on Academic Staff Positions," and said "wide use of this title [specialist] is encouraged."
6. Again, this affected large numbers of women, since about half of the old title instructor was held by women. Today instructor applies only to the bottom rung of tenured legal faculty, 46 percent of which are women. See *University Women,* 30 June 1977.
7. Information from Charlotte Woods, academic personnel office, 1 June 1977.
8. Ibid.
9. Bogue and Taylor, p. 46.
10. Bogue and Taylor, p. 97.
11. 14 December 1970, Robert Hughes in the school of agricultural and life sciences reaffirmed his memorandum of 28 July 1966, "wherein we were requested by central administration to establish a continuing process of periodically evaluating the appointments of specialists to insure that the positions were of sufficient academic scope to be placed outside the classified series (civil service)." 18 October 1972 Dean Doremus sent a long memo to deans and direc-

tors on the same subject. 30 January 1973, Virginia Marks of the vice chancellor's office spelled out qualifications for use of specialist title.

12. The huge increase in research grants in the health sciences caused the development of personnel policies for specialists as early as 1967. The criteria set were (1) must not be a student, (2) must have professional qualifications and responsibilities (minimum of bachelor's), (3) non-career position. The medical school document did have suggested salary levels and salary increase guidelines.
13. Cover letter by Chancellor Edwin Young to specialist questionnaire, 6 December 1971.
14. Letter to Joann Elder from Cyrena Pondrom, assistant to the chancellor, 29 March 1972.
15. Report and names of committee members in files, Joann Elder.
16. Helen Crawford, librarian in the Medical Library, complained to the university committee in a letter, 13 February 1970, about the lack of faculty status for librarians and the difficulties it presented.
17. Letter to Elder from Associate Professor Franklyn Bright, chief of technical services, Memorial Library, 12 December 1974.
18. Bogue and Taylor, pp. 160-161.

12. Women and Student Government

by Buff Wright

"In spite of the fact that there has never been a time in America when opportunities have been greater, statistics show that college-educated women are not preparing for or accepting their place in professional ranks or positions of leadership."[1] R. Jean Brownlee addressed this comment to the American Association of University Women in March, 1966. In 1977, the number of women in leadership positions in American institutions has increased slightly, but there still are not enough women obtaining the experience necessary to augment the ranks significantly. College women do not use one training ground to develop administrative leadership to the extent they could; that is, student governing associations. Student government, which provides individuals with an opportunity to gain experience at a grass roots level of administration, has been shown to influence later vocational success for men and women alike.

A 1957 study by Anne L. Minahan provides an evaluation of the relationship of student membership in campus organizations to post-college community activism.[2] Minahan found a significant difference between student leaders of the University of Wisconsin-Madison Memorial Union and non-union students in the level of civic participation after graduation. For instance, the union graduates from 1920-26 were considerably more active in village, city and state boards and commissions, and in university-related affairs.[3] She also found that the union women in the 1947-50 group had an employment rate of 51 percent as compared to 14 percent in the non-union group. The discrepancy was attributed in part to the variance in the number of children borne: 61.5 percent of the union women had no children; 78.5 percent of the non-union women had from one to three children.[4]

Even though the study has not been updated, it would seem reasonable to assume that the basic conclusion holds today: students who participate in college student governance are more likely to be the leaders in their communities after graduation.

The absence of women from leadership in coeducational university wide student organizatons is not necessarily due to overt discrimination. Women have not asserted themselves — or have felt discouraged from doing so — in campus student government. With few exceptions, college women have only sought secretarial positions in coeducational organizations, leaving the leadership to their male cohorts. The instances of female presidents and male secretaries have been few.

The extent to which students have governed themselves and contributed to policy decisions at institutions of higher learning over the years has varied according to the faculty's perception of the students' maturity and ability to make wise decisions. When higher education first developed in colonial America, young male students were considered dependents, therefore, the faculty enjoyed complete control of the collegiate environment. After the American Revolution, the predominant faculty opinion was that students were in the university to be taught, to be disciplined, and to be inspired to make

intellectual use of their leisure time. Off-campus controls were lax, but the faculty maintained strict control over the lives of their students in on-campus affairs.

From the mid-1800s through the early 1900s, women infiltrated the male domain of the nation's colleges. New problems arose, particularly questions about health and general well-being of the young women: were they strong enough to withstand the pressures of academia? Moreover, could they be left to their wiles in the midst of strong young men? The answer in most cases was strict control of the academic and social lives of the new, fragile female students.

At the University of Wisconsin, there was no formal student government or student disciplinary agency until 1897. Until then the students disciplined themselves in their organizations and influenced university policy through literary societies, class meetings, and informal complaining. The societies and meetings were segregated by sex; only the complaining was not!

In 1896, President Charles K. Adams suggested in his biennial report to the regents that there should be more formal supervision over the lives of all the university's 327 female students. His recommendation was that the position of dean of women be established to advise and direct the university women in social and scholastic matters and to inspire them to "embrace the highest ideals of womanhood."[5] Adams interviewed Dr. Annie Emery in the summer of 1896. She was an honor graduate of Bryn Mawr College and had obtained a European Ph.D. on a graduate fellowship. Emery became the dean of women and an assistant professor of philosophy in September 1897.[6]

It was fortunate that Adams chose Emery, who had graduated from a women's college where women were treated as intelligent adults. As an undergraduate at Bryn Mawr, she was the first president of the Women's Self Government Association (WSGA) in 1892, and was interested in trying the WSGA in a coed institution where women were still treated protectively. At first the students were skeptical, thinking a WSGA would take all the joy out of life, but with Emery's encouragement, the women formed the UW Women's Self Government Association in the fall of 1897. The constitution established that the organization would regulate all matters pertaining to the student life of its members which did not fall under the immediate jurisdiction of the faculty.[7]

The WSGA took some time to gain control, suffering initial vexation when a group of women defiantly broke the only rule yet passed — that parties end at midnight.[8] Nonetheless, under the leadership of Emery and the first WSGA president, Jessie Nelson, the organization flourished.[9] Projects were organized to unite the women in social and academic pursuits. The association became a social and political force on campus when there was no similar organization for men.

President Adams declared in his first announcement about student government to the regents in 1898 that the objective of the association was "to define the social conventionalities which shall be observed, and by the fostering of a wholesome public opinion, to contribute to the earnestness of university life."[10] The WSGA took many opportunities to fulfill Adams' expectations, even when the young men of the university preferred otherwise. An incident occurred in October of 1899 that helped establish their position.

In a Halloween night escapade, some four hundred students organized a nightshirt parade which was to end in a serenade of Ladies' Hall and the sororities. Despite good intentions, the festivities got out of hand at Ladies' Hall. Some rowdies broke into the laundry room and made off with the wash-day contents. Soon after, WSGA President Marcia Jackman summoned a meeting to proclaim that there would be "no social relations with the men of the university until the faculty or men of the university have satisfactorily dealt with the offenders...and until all losses sustained have been made good." The women maintained the boycott for over a week — against the protests of the estranged male students. President Adams demanded at a convocation that the "trophies of the escapade" be returned. The men were eventually dealt with and the trophies restored to their to their rightful owners. The incident established the WSGA as the organization which defined social relationships between men and women at the university.[11] In 1904, the *Daily Cardinal,* a student newspaper, confirmed its strength:

> Since the girls instituted this society a few years ago the principle which gave it its name has been religiously adhered to and the influence on the life of the university, socially and morally, has been great. From insignificant beginnings it has become a power. The growth and influence of the association has been such that now one of the greatest honors which can be given the university coed is an office in SGA.[12]

The WSGA worked to expand opportunities for university women. Partially through its efforts a women's building, Lathrop Hall, was constructed and dedicated in 1910.[13] In 1907, the WSGA established a loan fund for needy women. Each year until 1928 it contributed one hundred dollars to the fund to enable more women to pursue higher education.[14] During the 1911 school year, the WSGA organized the first Wisconsin careers conference for university women which was continued for many years. As a result of the first conference, a committee was established to provide career counseling year round.[15]

A perceptible change in administration and faculty interest in student self government took place after the men's Student Conference Committee was established in 1910.[16] The men had begun to advise President Van Hise (upon his request) in matters pertaining to students, thus surpassing the status of the WSGA. In 1910, the regents approved a student court for the male students to handle their own disciplinary problems.[17] In an effort to keep pace, the WSGA petitioned the faculty and the regents for similar judicial authority, but the women waited two years before any action was taken by the board,[18] a further indication of the university's languishing attention. President Adams had neglected to fill the position after Dean Emery left the UW in 1900 to take a post at Brown University. It was only with pressure from the faculty women that President Van Hise appointed an advisor of women in 1906, and upon her resignation, a dean of women in 1911.[19] During the eleven years between Emery's resignation and the arrival of Dean Lois Matthews, the WSGA lost some influence, while the men gained some.

Since its founding in 1897, the WSGA was often characterized in the press as a "tyrannical old woman with a stick." Sometimes it passed and enforced rules which were conservative and restrictive even when the societal trend was liberal. But as an organization dedicated to representing women, it was remarkably successful in impressing the beliefs and attitudes of female

students upon the university community. In 1923, the *Daily Cardinal* printed the following critique of its influence:

> The SGA was conceived by a bunch of dames who have a hunch that every undergraduate coed will take a running jump for the dogs unless properly guided and censored by an older person who can recite Virgil with one hand tied behind her. If the rules of this society were obeyed, they would do more than any other factor to make tall, scantling-shaped [sic] spinsters out of our merrily tripping coeds. Still the WSGA undoubtedly saves girls.[20]

Despite the *Cardinal's* snide remarks, the WSGA often provided important programs and services for the university which otherwise would have been lacking. When World War I began, the WSGA was in the forefront of support activities for the war effort at the university. It formed the women's war work council in the fall of 1917, and four days a week the WSGA office was dedicated to making bandages, sewing hospital garments, and providing other needed services. After the war, the WSGA worked with dean of women Louise Nardin to combat two severe epidemics of influenza.[21]

As the war drew to a close and the men returned, some faculty and administrators saw serious moral difficulties. In her biennial report to the Board of Regents, Nardin said, "Campus life showed painfully the bad taste which society outside was tolerating in dress, dancing, et cetera."[22] The WSGA responded to the criticism with the adoption of the code for Wisconsin women in 1921. The code was distributed to each entering freshman woman by the WSGA in a booklet entitled, "If I Were a Freshman Again." The code consisted of five points which were expected to be followed carefully.

> The Wisconsin woman is thoughtful of her obligation to help establish and maintain high social and moral standards. To this end:
>
> 1. She is loyal to herself. She is careful of her word in all her obligations and in her every statement.
> 2. She is loyal to others. She is thoughtful and staunch in her zeal to make the right things prevail.
> 3. She is scrupulously honest in scholarship — both in everyday work and in examinations.
> 4. She refuses to associate with men who have been drinking.
> 5. She conducts herself in such a way that she can be *honestly willing* to have every girl in the community adopt her standards.[23]

The women in WSGA were serious about enforcing the code. In response to drunkenness at the 1923 homecoming, 2,000 women met to discuss the problem. Members of the WSGA proposed a resolution in opposition to drinking, indicating that they would encourage the federal prohibition authorities to take action against intoxication and its sources in Madison. The dean of men eventually enforced prohibition at homecoming and throughout the year.[24]

The structure of the WSGA was substantially weakened, however, after the Memorial Union was opened in 1926. The operation of the union was an experiment in integrating various student organizations and the diverse student body into a social program. The men's union and the WSGA provided the majority of the members for the union council, the union's governing body, proportional to the number of men and women enrolled. The WSGA received its budget through the union council which received five dollars per

student paid as part of tuition and fees. (Prior to the building of the union, the WSGA had collected one dollar in dues from each female student.)[25] This initial integration of the sexes under one governing body eventually contributed to the demise of the strong influence of the WSGA on the UW-Madison campus.

Until the late thirties, student government was still a function of a variety of organizations, each operating in its own sphere with its own constituency. In March, 1938, the men's union and WSGA created a committee to "study and effect beneficial changes in student government by development of existing structures."[26] The men proposed and implemented the formation of the Wisconsin Student Association (WSA) which would coordinate all governing groups. After the sixteen member student board, the legislative body of WSA, was constituted by the men's union, the women amended the constitution to permit females to participate in the WSA in proportion to their enrollment.[27] The women deferred to the men and appear to have lost some authority to the male students in the process. For many years afterward, no females emerged as elected executive officers.

Although it was no longer the primary political force to be reckoned with on campus, the WSGA continued to be active on its own. The women studied and made recommendations concerning the problems in housing on and around the campus. With the advent of World War II, they again became involved in war support activities.

During the war, it was not unusual to find more women doing more work in student government — there were more of them on campus. But the officers of WSA were still mostly male. Nevertheless, in 1946, as the men were returning from the armed services to the university, the students elected the first female president of WSA, Joyce Mickey. Joyce, now known as Joyce Erdman, is presently a regent of the University of Wisconsin System.

Many of the actions taken during Joyce Mickey's term were prompted by the influx of GIs and their families to the campus. The student board formed a student lobby at the state capitol to support the construction of additional on-campus housing, introduced a bill into the legislature to eliminate compulsory ROTC for freshman and sophomore men, and studied the ability of the campus health clinic to provide out-patient services for student wives and children. In addition, the student board petitioned the student employment bureau to eliminate racial and religious discrimination in hiring students but this controversial issue was not resolved to the students' satisfaction until 1952.[37] With Joyce Mickey's able direction, the student board took major steps to extend the influence and increase the participation of students in university governance.[29]

In the years following Joyce Mickey's term as president of WSA, few women succeeded her in that role. Other politically active women, however, continued to utilize the WSGA to develop leadership skills. Mary Williams, another UW-Madison student who later became a University of Wisconsin System regent, was president of the WSGA during the 1948-49 school year. In the course of her term in office, Williams had many opportunities to meet people affiliated with the university and state government and established strong contacts which helped in later undertakings. She resigned as a regent in 1975 to accept the position of executive secretary to the chancellor at UW-Stevens Point.[30] Williams asserts that she gained valuable personal experience

and that her education was enhanced and broadened through her participation in student government.

During the last twenty-five years, student government at UW-Madison developed coeducationally but men dominated the WSA. Since 1965, however, women have become somewhat more visible in leadership positions. Recently, the elected vice-presidents in 1974-75, 1975-76, and 1977-78 have been female, but no woman has served a full term as WSA president. The WSGA, which was renamed associated women students in 1953, is no longer a part of the governance structure of UW-Madison. Specialized women's groups have taken over its services to the women of the university. Although programmatically WSGA was relatively progressive, in many ways it had served to maintain the protected status of women.

Since the merger of the Wisconsin State University (WSU) and University of Wisconsin (UW) systems in 1971, female students have moved more frequently into the officer ranks of the student governing organizations. An example of current progress is UW-Milwaukee, where in the first fifteen years of student government no women ever ran for higher than secretarial office until Cindy Ceschi, the incumbent secretary, ran for president in 1973 but lost the election. Since then, females have been elected vice-president in 1974 and 1976, and appointments of a woman as treasurer and a male as secretary were made in January, 1977. As the nominations closed for the spring 1977 elections, no males had announced candidacy for president of the student association, and only one had declared for the vice-presidency in a field of four.

Several campuses in the system saw more female participation earlier than UW-Milwaukee. For two years at UW-Superior, women demonstrated strong leadership as presidents of the student association. Gloria Wahl (1972-73) and Hope Atkinson (1973-74) served during crucial years in the development of student government, lending perspective and stability which has carried forward to the present organization. The UW-Oshkosh students elected Mary DuWayne vice president during the 1973-74 school year, and Gwene Kelly served as the Oshkosh student association president the following year. At UW-Stout, student senator Vickie Gullicson didn't allow herself to be placed in a back row seat. A few months after her election, she was appointed and later elected vice-president for financial affairs, a post which she held until March 1975. During her term, Gullicson became treasurer of the statewide student lobby, the United Council of University of Wisconsin Student Governments.

Student government is not the only organization through which women have participated in university governance in a meaningful way. Women have been even more active in the residence hall councils and other coeducational organizations than in student government. On many campuses women have been the chief officers of the inter-residence hall council (IRHC). On student union activity boards around the system, women have consistently provided assertive leadership. Four of the last five presidents of the UW-River Falls Hagestead union board were women; and at UW-Stout, the officers of the university activities assembly have usually been female. Through these organizations, women have provided valuable services for students.

One may infer from the evidence that student governments have been more sexist throughout their histories than other student organizations and have provided a microcosm of government in the "real world." At UW-River

Falls, where so many women have been involved in the less powerful governing organizations, the number of female students in the senate has never been proportionate to their enrollment. Because the officers are elected from and by the senate, the chances for advancement are slim. Since 1970, only one woman, Bonnie Bratina, has been elected an officer of the senate.

Some student governments have been more affirmatively active in engaging women in leadership positions, but in every case, the action has been sporadic. For instance, UW-Eau Claire traditionally had more female students than male, but according to the associate dean of students they were not aggressive in running for student senate offices. Dean Burke named only five women who had been elected either vice-president or president of the student government since 1956. One woman, Lynn Neubauer, after serving successfully as vice-president during the 1966-67 school year, was elected to be president the following year; six years went by before another woman was elected to a full term as vice-president. Joanne Brandes was an affable, articulate and strong vice-president during the 1974-75 term.

UW-Milwaukee Assistant Chancellor for Student Services Earnest Spaights, when asked to name active student government women commented, "Regrettably, women have not been well represented in the major leadership positions of the student government at UW-Milwaukee. Both a lack of affirmative action on the part of the men in authority positions and a low level of initiative among women students in seeking elective posts have contributed to the record that exists."[31] Women have been the proverbial backbone of the student governments as members and heads of committees and task forces, yet they have not been projected into higher positions of authority. There are many reasons why this is so; the most important concern the socialization of the women themselves.

In 1966, R. Jean Brownlee had admonished the members of the American Association of University Women: "Women will not seek promotions because they are afraid of being conspicuous... They will not accept the responsibility of assuming authority."[32] From my personal experience, her statement rings with truth. I accepted the less active vice-presidency at UW-Milwaukee (1974-75) feeling safe in the assumption that as second-in-command, responsibility (read "blame") for decisions would pass me by. As a result, I also received absolutely no recognition when things went well. It was with great trepidation that I accepted the presidency of United Council of UW Student Governments a year later. There I could not escape the responsibility of authority. I was anxious for several weeks after the election, afraid that I couldn't meet the challenge nor my own level of expectation. I suspect that those feelings are not uncommon among my peers. Women must make a more conscious choice than men to seek and accept challenge because men have been conditioned by society to do so while women have not. As the traditional sex roles are broken down, this problem should fade.

Aside from female reluctance, the traditional attitudes of males are a significant factor. Male students may be predisposed to discriminate, but because excuses are hard to come by, those students who have resisted women's involvement are being forced to come to grips with their prejudices. Another barrier has been the method of choosing slates in student government elections. Running mates are often chosen by self-selected or groomed presidential candidates, much the same way as in public elections. In the past, the

network of male friends encompassed women only as secretarial candidates and occasionally for vice-presidental slots. This method of establishing slates coupled with women's lack of initiative to run for high office has meant that few women are in positions of leadership.

There are other subtle barriers for female students. One was demonstrated in the 1976 presidential election of the united council. Since its inception in 1960 no woman was elected as its president. When I considered seeking the presidency in the spring of 1976, a "liberated" male member of the council advised a colleague: "She shouldn't bother to run. She will lose because, although I'm inclined to vote for her, *other people* won't vote for a woman. And even if she did win, she probably couldn't be an effective leader because *they* [the predominantly male executive board] wouldn't have enough confidence in a woman."[33] Just prior to casting the ballot, members of the board questioned whether I believed a woman could be effective working with primarily male university administrators. The questioners themselves were not chauvinistic, of course; they were practical, realizing that *other* men discriminate against women! When the ballots were tallied, fourteen males and two females had cast a 9-7 vote electing me the first woman president of the organization.

After a year's experience working in the position with people from all levels of the UW System, I am in a better position to answer the question about a woman student working effectively with male administrators. For several reasons, an equally interested and competent woman should be as effective, if not more so, in working with university administrators and faculty of both sexes than her male cohorts. From my observations, as a group, female student governors seem to be more issue-centered and diligent in pursuing solutions to problems and projects, while male students' motives appear more personal than altruistic. Moreover, female students still are not fully viewed as future competition by male faculty and administrators, and thus are probably less intimidating than ambitious young males. According to one chancellor in the system, his colleagues have been reared to treat women gently and at times to defer to their desires, giving women an advantage in student government.[34] Unfortunately, the latter two reasons don't necessarily recognize the true abilities of women involved, but students are wont to exploit any attitude that contributes to their cause during their short terms. As women become more active in positions of authority, the gender stereotyping — and special "favors" that go with it — will diminish.

It is important to note that student governors of both sexes begin with a common disadvantage *vis a vis* youth and student status. This is perhaps more of a disadvantage to female students. Condescension is the result in some situations. Kathy Anderson, a UW-Milwaukee student who served as united council lobbyist from December 1975 to February 1977, gives a vivid example:

> Administrators will explain things to me patiently, in sufficiently simple terms so I can understand. For example, a university budget official was explaining to me that students should take bids before signing contracts in order to get the lowest price — a very difficult concept. He provided the following analogy that even a 'gal' like myself could understand. "If you see bananas for 10¢ a pound, you wouldn't shop somewhere else where they cost 15¢." And just in case it still wasn't clear, "If you could go to a policeman's ball with a 60-year-old fat, bald man, or a handsome 20-year-old who

drives a Mercedes, of course, you'd choose the latter." By comparing it to a *date*, he was finally convinced that the concept had been grasped.

Campus traditions developed by students, a lack of motivation of female students to seek the offices, and the unwillingness of students to elect women when they have run, have all contributed to keeping women from assuming higher office in student government. In addition, the administration and faculty have contributed to creating and perpetuating a male-dominated student leadership. Soon after President Van Hise came to Madison in 1903, he organized a men's student council to advise him on matters of concern to students. He did not use the WSGA in the same fashion. The faculty committee dealing with student life was centered under the direction of the dean of men by Van Hise in 1916. That position evolved into the dean of students, who has always been a male. Although Van Hise probably didn't intend to influence the pattern of women's participation for years to come, in a subtle way — by establishing this structure — he did.

All of the factors that contributed to women's lack of participation in student government are currently in a state of flux. Since the early 1900s when women, through the WSGA, determined the structure of social relationships at UW-Madison, they have taken several steps backward, and by 1970 had relinquished most of their control and influence to males. Today, accompanying a heightened move by women for equality in social treatment and an increase in the responsibility of student governments in the UW System, women are again providing leadership for students throughout the system. During the 1976-77 school year, only one of the thirteen student government presidents and five vice-presidents was a woman. During the 1977-78 term, three women served as presidents and eight as vice-presidents.[35] At UW-Milwaukee, the first female student body president was elected in spring of 1977, just one week after the student senate approved the formation of a women's caucus to "use the resources of the student association to develop, coordinate, provide, advocate and/or sponsor services or programs directed at improving the status of women."[36] The student governments in the system have broadened their scope to include women's issues such as the development of women's studies, sexism in the student media, expansion of health center gynecological services, day care facilities, and women's transit systems to help cut down on the number of sexual assaults after public transit hours. The renewed participation of women in influential positions in student government has also stimulated the implementation of Title IX of the Higher Education Amendments of 1972 with special concern for the development of women's athletic programs.

The significance of the increased number of women actively involved in campus governance goes beyond their current effectiveness in expanding programming and services. More college women are preparing themselves for future positions of authority and influence. Women like Joyce Erdman and Mary Williams have assumed important roles after graduation from college. Janet Maciejewski Jenkins, who was influential in gaining student input for Wisconsin financial aid policies, is currently building a legal practice in LaCrosse, Wisconsin, and is a politically active member of that community.[37] During my four-year tenure in student government I learned much practical information about higher education and the political system. At the same time I gained confidence in my ability to handle future responsibilities. I have seen

many obstacles diminish that had kept college women from actively planning administrative careers. As more college women heed Jean Brownlee's advice to accept authority and actively pursue it, women's increasing involvement in professions will not be reversed. Participation in student governing organizations for women is important preparation for positions of leadership.

NOTES TO CHAPTER 12

1. E. Jean Brownlee, "The fault, dear Mary...," *Journal of the American Association of University Women*, volume 59, no. 3 (1966), 119.
2. Anne L. Minahan, "Relationship of Wisconsin Union Student Committee Experience to Post-College Experience" (Master's thesis, University of Wisconsin-Madison, 1957).
3. Ibid., p. 36.
4. Ibid., p. 24.
5. Charles K. Adams, "Report of the President," *Biennial Report of the Board of Regents of the UW, 1896* (Madison, Wisconsin, 1896), p. 25.
6. Ibid., p. 312.
7. *Daily Cardinal*, 17 November 1897. (The *Daily Cardinal* was and is a student newspaper at the UW-Madison.)
8. Louise P. Kellogg, *First Days of S.G.A.*. [In Mary Jane Purcell, "Self-Government in Colleges and Universities and the History of Women's Self-Government Association at the University of Wisconsin," (Master's thesis, University of Wisconsin-Madison, 1947).]
9. A list of the WSGA officers from 1897-1947 is included in the appendix of Purcell, 1947.
10. Charles K. Adams, "Report of the President," *UW Regents Biennial Report, 1897-98*, Madison, Wisconsin, p. 12.
11. *Daily Cardinal*, 31 October and 2 November 1899.
12. *Daily Cardinal*, 15 February 1904.
13. *Daily Cardinal*, 1 April 1910.
14. *Daily Cardinal*, 17 April 1932.
15. Mary Jane Purcell, *"Self-Government in Colleges and Universities and the History of Women's Self-Government Association at the University of Wisconsin,"* (Master's thesis, University of Wisconsin-Madison, 1947), p. 61.
16. Maurice M. Vance, *Charles Richard Van Hise* (Madison, Wisconsin: State Historical Society of Wisconsin, 1960), pp. 99-100. President Van Hise had requested that the men form a committee to supervise the fracas surrounding homecoming in 1904. The committee evolved into a permanent organization which met with Van Hise several times a year to discuss student problems and interests.
17. *Daily Cardinal*, 20 January 1910.
18. *Board of Regents Record*, Madison, Wisconsin, Volume H., p. 302.
19. *Daily Cardinal*, 6 March 1911.
20. *Daily Cardinal*, 16 November 1923.
21. F. Louise Nardin, "Report of the Dean of Women," *Biennial Report of the UW Board of Regents*, Madison, 1920, p. 169.
22. Ibid.
23. "Code for Wisconsin Women," *If I Were a Freshman Again*, University Archives, Madison, Wisconsin, 1924, pp. 4-5.
24. *Daily Cardinal*, 16 November 1923.
25. Purcell, 1947, pp. 82-83.
26. *Daily Cardinal*, 17 March 1938.
27. *Daily Cardinal*, 19, 26 October and 18, 22 November 1938.
28. Calvin M. McIntyre, "The Influence and Influence Strategies of the Wisconsin Student Association on University Policy Making, 1938-1970," (Ph.D. dissertation, University of Wisconsin-Madison, 1972), pp. 79-80.

29. The information was taken from the regent biographies in the office of the secretary of the UW Board of Regents, and from a personal interview with Joyce M. Erdman. Joyce Mickey married Marshall Erdman shortly before receiving her Master's degree in economics from the University of Wisconsin in 1947. Following graduation, Joyce Erdman served on the research staff of the governor's commission on human rights in 1947 and 1948, and again in 1967. Particularly interested in the rights of Native Americans, she authored two books, *Wisconsin Indians* and *Non-White Housing in Wisconsin*. Erdman is the secretary of the rustic roads board of the department of transportation, which she refers to as "positive step backward" in the preservation of the natural beauty of the state. In the spring of 1977, Erdman finished a stint as president of Shorewood Hills, a suburb of Madison. In recognition of her service to the community and the state, Joyce Erdman was appointed to a seven-year term on the University of Wisconsin Board of Regents by Governor Patrick J. Lucey in 1975.
30. Taken from the UW regent biographies and an interview with Mary Williams.
31. Correspondence from Assistant Chancellor Ernest Spaights, UW-Milwaukee, 14 January 1977.
32. R. Jean Brownlee, 1966, p. 121.
33. Kathleen Anderson, "Women in Politics," unpublished paper, 1976.
34. Personal conversation with Chancellor Warren Carrier, UW-Platteville, November 1976.
35. UW-Milwaukee file, United Council of UW Student Governments, Madison, Wisconsin. The student government president in 1976-77 was Kiyoko Bowden at UW-Parkside. At UW-Green Bay, Deb Hutter was elected to fill an unexpired term as president and was re-elected for the 1977-78 school year. At UW-Milwaukee, Sue Mueller was elected to be the 1977-78 president, and Rusty Tutlewski was elected president at UW-Parkside. There were female vice-presidents at UW-Milwaukee, Stout, River Falls, Platteville, and Superior campuses during the 1976-77 year. During 1977-78, UW-Eau Claire, Madison, Oshkosh, Platteville, Stevens Point, Stout and Superior elected female vice-presidents.
36. UW-Milwaukee file, United Council of UW Student Governments, Madison, Wisconsin, 1977.
37. Janet M. Jenkins was the student coordinator for the student advisory committee of the Higher Educational Aids Board, the state agency which makes financial aid policy for the institutions of higher learning in the State of Wisconsin. She was instrumental in coordinating student input to the board, and influenced HEAB policy until she graduated from the UW-Madison law school in May 1975. Janet advised the United Council of UW Student Governments on matters of financial aid procedures and policy.

Medical Technology
UW-Madison

PART THREE

THEIR PROFESSIONS TODAY

13. A Socio-Economic Profile of Faculty Women at Madison

by Bonnie Cook Freeman

> *They came like an army with banners, conquering and to conquer; they came with bewitching curls and dimpled cheeks, and flowing robes, and all the panoply of feminine adornment; and worst of all they came to stay.*[1]

In spite of the progressive roots of the Wisconsin experience, there has been a great deal of controversy over the years since 1863, about the presence of women in the cloistered halls of the University of Wisconsin. Because of the women's liberation movement of the late 1960s and 1970s, some university administrators may well look back wistfully to the first two centuries of higher education in the United States, when women were excluded altogether. But, as James L. High noted, they, the women, came to stay — first as students, and later as faculty.

Like other universities in the 1960s and 1970s, Wisconsin academic women did not share equally in the rewards of the academic profession that their male peers did. Wisconsin academic women were concentrated in lower status positions and less visible academic specialties, and were only negligibly represented in the most prestigious and important positions in the university.

While Wisconsin is typical, it is also atypical. Unlike other universities, Wisconsin does have a particularly liberal political culture and climate, which facilitated along with other major factors the development of a major women's liberation movement on the Wisconsin campus. Because of the somewhat atypical developments, I have come to think of the women's movement at the University of Wisconsin-Madison as The Wisconsin Experience. This essay will consider the social and professional characteristics of faculty women at UW-Madison in the years from the mid-sixties to 1975. My purpose in doing the profile is to provide the context in which the women's movement at Wisconsin can be understood.

To carry out the study, no one particular method was used exclusively, but a complex blend of data collection techniques was used — questionnaires, information from the secretary of the faculty, documents and memos in files, information collected and developed by the Association of Faculty Women (AFW), interviews, newspaper research, and available national data sources examined for comparisons with UW. Most of the data was collected in the years 1972-74.

A survey was conducted by the author among UW faculty women and faculty senate men in the academic year 1972-73. A list of all women faculty in tenure-track positions, their departments, and their rank was compiled from the computer lists held by the secretary of the faculty at UW. Questionnaires were mailed in October 1972 and follow-up letters were sent to all non-respondents in November 1972. Since it was discovered that the members of certain departments had returned their questionnaires at a disproportionate rate, a third follow-up, with a new copy of the questionnaire, was mailed six

months after the original posting. Altogether, 210 faculty women were contacted and 135 responded with completed questionnaires in time to be included in the study (a response rate of 68 percent).[2]

Social Backgrounds

Social origins exert considerable influence on the individual's chances of occupational and educational success. The major factor determining a person's opportunities for upward mobility is usually the socio-economic level at which that person begins. Academics are no exception to this social norm. Also, the context in which people grow up affects their later attitudes and behaviors as adults in a broad sense.

Family stability is an important influence on the educational attainments and through them the ultimate occupational attainment and success of children. We find that faculty women at UW come from relatively stable family backgrounds in which both parents are present. In the entire UW female faculty sample, only one respondent reported that her father was absent when she was growing up.

Another important factor in predicting educational achievements and occupational success is family size. Small families are thought to be more conducive to success than large families. Most of the UW faculty women tend to have come from small families: 17.5 percent were the only children in their families and 30 percent had but one sibling. This finding is similar to the results of Helen Astin's cohort study in which 18 percent of the women were the only children in their families and 30 percent had but one sibling.[3] In the UW sample, 5 percent of the women came from families in which there were six or more siblings. In Astin's group, 9 percent were from families this large. When one compares the family sizes for women Ph.D.'s with the family sizes for male Ph.D.'s, there is no difference in the size of families.[4] Students of occupational and educational stratification consider birth order an important predictor of educational achievement and occupational success. William B. Altus, in his review of studies on the subject, found that the first born tends to be over represented among high achievers.[5]

In the UW sample of faculty women, 55 percent were first born children or the only children in their families. Astin's percentage for female doctorates was slightly lower — 47 percent. Percentages for second-born children were approximately the same — 28 percent for the UW sample and 26 percent for Astin. Those for the third-born were the same — 12 percent. The major difference occurs at the fourth-born child or later. Only 5 percent of the UW sample were fourth or later, compared to 15 percent in this category from Astin's sample. However, both sets of data seem to support the thrust of the argument that the first born are likely to be the high achievers.

The degree to which the acquisition of an education is valued within a family determines, to a great extent, the likelihood of the child going to college and pursuing an advanced degree. Highly educated parents are more likely than less educated parents to instill in their children a high sense of efficacy and self-esteem, an appreciation of the importance of education and independence of mind, an appreciation of the intrinsic value of education, and an orientation to high performance in school and work assignments. These personality traits and value orientations are considered essential in order to pursue an academic career.[6]

Female professors, similar to male professors, are drawn disproportionately from the higher status and educational elements of the society. Forty-three percent of the fathers were college graduates or held professional degrees beyond college. Twenty-eight percent of UW women faculty had mothers with college degrees or advanced degrees. The educational attainments of parents appear to have been an important supportive and facilitative influence in the men and women who pursued advanced training and careers in higher education.

The fathers of faculty women at UW were employed in the most highly regarded occupations. Eighty-two percent of the fathers of UW faculty women were engaged in medium to high status occupations as compared with 68 percent of fathers of Astin's doctorates and 58 percent of fathers of Harmon's male doctorates.

Until recently, few studies explored the linkage between career orientation of daughters and the employment of their mothers.[7] Some suggest that working mothers have an important influence on the career aspirations of their daughters. Only one-fourth of the UW women had mothers who were employed while they were growing up. Of those women whose mothers worked, 81.5 percent of the mothers of UW women were engaged in professional occupations. Unfortunately, there was no specific question asking the respondents whether or not their mothers were influential in their career orientations.

In summary, both parents of male and female faculty tend to be educated more than the general population and to hold higher prestige jobs. It seems safe to conclude that the socio-economic milieu from which these men and women were drawn constitutes a supportive and facilitative influence on their careers.

In regard to race and religious affiliation, the kind of women who become professors (black or white, married or single, Christian or Jew) is not a matter of pure chance. The degree to which there are patterns in the distribution of social characteristics among female faculty reflects to some extent the nature of the recruitment process into that profession for women. The particular mix of social types which make up the female professoriate will greatly affect the behavior of that group. Social attributes such as race, religion and age are often directly linked to particular sets of attitudes and behaviors; knowing the former helps one predict and explain the latter.

Of all the faculty women nearly all were Caucasian and Christian. The exact figure of minority women at UW at the time of this survey was difficult to determine, not because there were many, but because the UW data on affirmative action and faculty had not developed to the point that data separated faculty members both by race and sex. However, no minority woman responded to this survey. The figures on religious background for the UW sample are on the whole very similar to other institutions of its size and quality: most (67 percent) came from a Protestant background; 22 percent from a Catholic background (a higher percentage than that of comparable universities); 5 percent from a Jewish background (lower than that of comparable universities); 4 percent other, and 2 percent none (lower than that of women at comparable schools). Similar to teaching faculty at other universities, the median age of Wisconsin women was forty.

Adult Life of Faculty Women

The route to professional certification in any field for men or women exacts certain costs (prolonged study, financial sacrifices, foregone alternatives). Nothing more sharply distinguishes the female professor from her male colleague than the question of family relationships. In choosing to marry or not, in selecting a spouse, and in deciding whether to have children, females face a much different set of options and costs than do males. Thus, in the process of becoming a professor, the terms of bargaining and exchange for women are quite distinct from those for men. The area of life most affected is the most personal — marriage and family. Because of the different exchanges, women are coerced, subtly or directly, into paying a price in order to be accepted into the academic world, particularly at universities of the caliber of UW.[8]

Almost all male faculty marry at some time in their lives. A large proportion of faculty women do not. Fifty-six percent of UW faculty women were single (compared to 40 percent of the women at comparable institutions and 38 percent of female doctorates from Astin's cohort). At institutions comparable to UW, 8 percent of the male faculty have never married. Traditionally, learning and domesticity have been considered incompatible. If a woman married, her colleagues assumed she would retire from the academic scene. For men, marriage is usually understood to be an asset and is often taken to be an indicator of stability and maturity. That these social expectations still persist can be illustrated in the differences between the marriage rates of male and female professors.

The most persuasive evidence that marriage has deleterious effects on the careers of women and beneficial effects on careers of men emerges when one inquires into the academic rank held by men and women with different marital statuses. From my analysis of Carnegie Quality I data, the results show rather conclusively that single women hold higher positions than married women and that married men hold higher positions than single men.[9] Rank is related to marital status for women and being single is a *relative* advantage for a woman.

In an attempt to discover if this relationship was spurious and the result of the intervention of some other factors, I examined, using the Carnegie data from quality I institutions, the relationship between sex, marital status, and rank, controlling for the highest degree the individuals held, their age, the number of years they had been teaching, and the year they had received their degree. *In no case was the original relationship between marital status and rank attenuated for either sex.*[10] One immediate possibility is that married women, because they must normally take on the primary responsibility for managing a household and rearing children are unable to produce at the rate of their single female colleagues. Yet, there is little difference in the publication rates between single and married women. Also, one might surmise that the married man, benefiting from the assistance and support of a wife, is free to produce more scholarly research and publication. Men in our sample produce more than women. And married men publish both more articles and books than single men.[11]

The Educational Attainments of Spouse

People tend to marry persons with similar educational backgrounds and intellectual interests. Women usually do not marry men whose educational

attainment is lower than their own. Thus, it comes as no surprise that of the married faculty women at UW-Madison, most report that their husbands have professional or graduate degrees. Of the married UW women, 88 percent had husbands with advanced degrees — either doctoral or professional (compared to 63 percent in Astin's sample); only 4 percent of the married women in the UW sample were married to men who had not obtained some college education. When compared with men at an institution comparable to UW, only 45 percent of the males who were married had wives with professional or doctoral degrees.

In other words, women were almost twice as likely as men to choose as spouses persons with advanced educations. This finding (that the faculty women who marry choose men as well educated as themselves) fits in with the cultural norm of the marriage gradient — that women marry men brighter than themselves or at least as well educated; and men marry women who are slightly less well educated. This norm may also account *partially* for the large number of UW faculty women who have have remained single; there are no men superior in intellect to them.

Astin also found that the woman doctorate "tended to be married to a man whose field was the same or related to her own."[12] For the UW faculty women, at the time of this survey, there was only one husband/wife team in the same department. However, there were about ten couples on the university faculty in different departments, and at least two couples who were in fields directly related and who wrote and published together. One woman, part of a faculty couple in the process of divorce, did note that joint research and writing complicated their divorce and that what they had done together was largely accredited to her husband.

If the careers of academic women are somewhat impeded by marriage, motherhood is an even greater drawback. Even with affirmative action which supports maternity leaves, university day-care centers and part-time tenure track positions, attitudes about child-rearing have not altogether changed and many continue to believe that if a woman "gets pregnant," it is her problem. There is no way that children do not present a time consuming responsibility. Thus, it is not surprising to find that married women faculty at universities of similar caliber to UW-Madison have significantly fewer children than their married male peers. Women must spend nine months in pregnancy and childbirth, and in our society, bear the major responsibility of child-rearing. Thus, academic men may feel greater leeway in having as many children as they wish and can afford. Of those married academic women at UW-Madison, most choose to have one child, if they have any at all.

The Professional Lives of UW Women

To discuss the professional profile of faculty women at UW-Madison is to examine the profile of women who have "made it" in a man's world. They are the survivors, individuals at the top of their profession. We are not discussing those who are trapped at the bottom of their profession in low prestige colleges or who have fallen by the wayside. Thus describing the professional situation of the most successful women should be understood as understanding and obscuring the real inequalities between male and female professors. Although women on the faculty at UW-Madison are all high achievers, it must be noted that they are not found in near equal proportions

in all academic fields. As with other occupations in America the recruitment and/or selection process into various academic specialties is strongly sex-related. Most faculty women at UW-Madison, regardless of the discipline in which they received their highest degree, are located in stereotypically feminine fields (this is also true of women teaching at other elite institutions); or they work in a narrow range of specialties acceptable for members of their sex within a less distinctly feminine discipline (e.g. marriage and family in sociology).

Certain disciplines become stereotyped as feminine, not so much because women enter them in large numbers, but because they are believed to require the special qualities that women qua women are thought to possess. Yet even in fields that are stereotypically feminine and in which women are the dominant majority as undergraduate and graduate students (library science, French, art, Spanish, speech, sociology), there is still a tendency for the proportion of female faculty to be smaller than that of female undergraduate or graduate students. So, while certain fields may be perceived as being the woman's special domain, in fact, almost every academic specialization conceived of as feminine is populated predominantly by male faculty. More women than men enter fields like education, the languages, social work and speech, which train women for vocations out in the field but not for becoming faculty in those same fields. In 1972-73, there were only two disciplines at UW-Madison in which women faculty were numerically predominant — nursing and home economics. The same pattern repeats itself at other institutions like UW-Madison where women predominate numerically only in nursing and home economics.

Most all UW-Madison faculty women (82 percent) have acquired their doctorates. However, they have tended to populate the lower professional ranks and non-tenure track positions at UW. Since most women are clustered in these strata (assistant professor, lecturer, instructor), they are likely to experience much more sharply than men a sense of job insecurity. Faculty women at UW-Madison are no exception; they are in the lower ranks.

In 1970, a study completed by the UW System office of planning and analysis and entitled, "The Interim Report on the Study of the Status of Academic Women" revealed a systematic pattern of discrimination.

Some of its findings were:

> [There are] 157 women in tenure track appointments out of a faculty of 2,000 (7.8%) and one-half of the 157 in exclusively women's departments.... Excluding the women in the predominantly women's departments, 2.5% of full professors are women, 5% of associate professors, 11% of assistant professors, and 35% of instructors and more than 50% of non-tenure track academic appointments with average salary differentials ranging up to $10,000.[13]

In the summer of 1970, Women's Equity Action League (WEAL) filed charges of sex discrimination against UW and other universities with the Department of Labor under Executive Order 11246 as amended by EO 12375. *The complaint was based on evidence which demonstrated the gap between the academic rank held by men and women in various departments.* During the week of July 27-31, 1970, a team from the Department of Health, Education and Welfare (HEW) went to Madison and carried out a preliminary review of the charges contained in the WEAL complaint. HEW had concluded that there existed at UW a:

pattern of discrimination or under-utilization of minority group members and women in specific departments and job classifications.... It is apparent the need exists for the UW to identify and to promote minority group members and female employees who have the potential for higher level positions...both academic and managerial.... It has been reported and records appear to indicate that a disproportionate part of the miniscule number of black minorities and women employed are concentrated in "special projects," in specialist job classifications, and in non-tenure status.[14]

At the time of my study (1972-73) the distribution of women by faculty rank was: 44 percent assistant professors, 30 percent associate professors, 26 percent full professors.[15] In my sample (which was not precisely representative, but close), 44 percent were assistant professors, 28 percent associate professors, and 27 percent full professors. While differences in the distribution of academic rank may have changed somewhat at UW-Madison, the gap was quite striking at the time of my study. Most women were clustered at the lower ends of rank where they were without tenure.

In 1966, a report compiled by UW-Madison's business office did in part examine income and sex, and disclosed that the average faculty male made $1,734 more per year than the average faculty female.[16] Individual salaries and names were not revealed.

In November 1971, five years after this 1966 report, the *Wisconsin State Journal* reported that the equity review of salary by UW indicated that 48 percent of the total female staff (not just faculty members) was not receiving pay commensurate with men holding similar positions and qualifications, and as a result the report indicated that the women were entitled to equity raises.[17] Since the 1971 study controlled statistically for rank and discipline and the 1966 study did not, it was convincing and confirming of earlier suspicions of salary discrimination based on sex.

More and more publications are used as a measure of scholarly abilities and as a basis for promotion and financial reward in the academic world. As publications are more observable and quantifiable than success as a teacher, their number has become the primary criterion of job performance and promotion. Creativity and quality of published work, like good teaching, are not as easily quantifiable. Therefore, the number of publications is usually relied upon. If one examines publication at quality I institutions by sex alone, women have tended to be less productive.[28] In my study, I found that much of the difference between men and women in publishing can be shown to result from differing expectations in particular disciplines for its members to do research and to write for publication. Women are more likely than men to be in departments that do not provide strong normative incentives to publish, either because they are practitioner-oriented (e.g. nursing, home economics, social work) or because academic achievement is expected to be demonstrated in artistic accomplishments rather than in written research (e.g. the fine arts).

However, UW-Madison faculty women compare well in publishing achievement. Fifty-nine percent of the women at UW-Madison have published one book or more compared to 26 percent of faculty women and 43 percent of faculty men at all institutions of higher education [19] or 36 percent of the faculty women and 54 percent of faculty men at universities comparable to UW.[20] Based on the above, UW faculty women appear highly professional in their academic achievements in publication. They claim, however, that there are problems for them in this area, regardless. At UW, faculty women articulated the belief that women are less likely to receive financial support for

research from either their department or the university.

It is possible that applications for research funds from women are evaluated differently than those of the men. UW women in their complaints filed with HEW state that there had been a systematic bias on the part of the university against funding research proposals from faculty women.[21] Although not included in the HEW complaint filed by AFW, several women expressed the belief that they were kept from publishing because senior male colleagues did not assist them, as they do junior male colleagues.

While some faculty women value publishing, others express distaste for what they perceive as the university's misplaced priority on research. Most UW faculty women believe that the university expects them to place their first priority on research, and then only after that, in training graduate students and educating undergraduates. When asked where their primary interests lie in regard to teaching and research, 10 percent replied that they were primarily interested in research; 25 percent said both research and teaching but they leaned toward research; 36 percent in both, but they leaned toward teaching; and 28 percent reported their primary interest was teaching. Overall, it seems that most UW-Madison faculty women are interested in both teaching and research but value teaching and other student-related aspects of their jobs more than faculty men.

When research on this project was initiated in 1971-72, there were virtually no women in high positions on the UW-Madison campus. The one exception was the unpredicted, but rapid creation of the office of assistant to the chancellor whose responsibility was women and affirmative action. This appointment was made during the semester break of 1970-71. Also, there were few women on important, powerful university committees. During the academic year of 1970-71, of 88 UW-Madison faculty committees, only thirty had any women on them. In some instances, a limited number of faculty women were serving on several major committees simultaneously.[22] Major committees which had no women representatives were admissions policies, libraries, fringe benefits, career advisement, graduate fellowships, campus planning and divisional promotions.

Discrimination may be demonstrated concretely in inequities in hiring, promotions and salary, but more subtle, less quantifiable exploitation also exists. Therefore, I have included responses by faculty women that report their perception of their status. Forty-three percent of the women who returned questionnaires believed themselves a member of a minority group because of their sex. This identification was related to percent of women teaching in the department; the higher the minority identification, the smaller the percentage of women in the department.

Thirty-three percent of the sample said they had been exploited because of their sex. Several indicated they suspected foul play but had no proof and thus believed it inappropriate to mention it in their responses. Twenty-four percent chose to give details. The most frequently cited example of exploitation is *salary discrimination,* particularly in merit raises. That salary discrimination is so salient is not surprising when one considers that UW was forced by a lawsuit to raise many women's salaries to a level equitable with those of comparable males.[23]

After salary discrimination, the women complain equally of being assigned what I have characterized as inappropriate, menial work other than

the regular responsibilities of a faculty member, and of being subjected to treatment as an inferior. The women report that they are burdened with a host of minor, clerical duties that make it difficult for them to complete their more serious work.

They also feel that because of their sex they are recruited into certain stereotyped positions and systematically excluded from others. For example, they become secretaries to committees rather than chairs of departments. One woman surmises that the males in her department think men are more adept at decision making. She goes on: "Because women in many departments are lone subjects in male domains, the male faculty continue to assume women incompetent and proceed unconsciously to preclude them from consideration for such position."[24]

Complaints like the following may be considered examples of treatment as an inferior that the women have encountered.

1. Several women say they were sexually propositioned by men in their departments and then treated badly when they rejected the advances.
2. A number of women who are the only females in their departments report that they suffer from the club-like nature of male interaction. Several say they believe the men assume that they can use women for ideas but the men do not acknowledge the women or give them joint-authorship.

The third most common type of discrimination mentioned by the UW-Madison faculty women is being passed over for job promotions. The women who give this response believe that standards of promotion are raised for a woman. They feel that they must publish more than their male colleagues in order to be promoted, and they believe that many less well-qualified men have been advanced ahead of them. All three of these major forms of discrimination are particularly frustrating because the women believe that, if decisions were made on merit alone, they would be amply rewarded.

The women were asked in a separate, open-ended question to give the reason or reasons that they thought could explain their "success," the implications being that mere presence on the faculty of the University of Wisconsin represented a remarkable achievement for them. The two answers most frequently given were "hard work" and "perseverance, ambition, and motivation." What unmistakably emerges from the answers to the open-ended questions, and to the exploitation items, is the realization that what a sizable number of these women mean by "hard work" is a category of behavior that they believe is *above* and *beyond* what is necessary for their male colleagues in order to achieve tenure at the university. They do, however, include the rubric of hard work aspects of their lives that are not directly related to their jobs. As one woman describes it:

> When a woman tries to balance teaching, administrative work and duties, public service (she was in a practitioner field) and writing, on the one hand and having children, raising them, keeping house and supporting (morally) my husband, on the other hand, it is a strain and quantity of work/responsibility unknown to any man on the faculty.[25]

Apart from the problems of salaries, treatment as an inferior, and promotions, the women list a wide variety of other types of discrimination that they believe they suffered. For example, some women indicate problems related to being the female in an academic couple. Whether the woman is in a different field or part of a research team, problems develop. A few women with

academic spouses indicate that they are forced to commute long distances to work because their spouse teaches at another university. As the female partners of husband/wife research teams, some women face a different sort of difficulty. One woman indicates that her husband received promotions for what was their joint work and she did not; and later, the dissolution of their marriage was complicated by the intricate ties they had to their professional research. Still others mention sacrifices required on the part of both husband and wife in rank and tenure, even when the initial difficulty of locating two positions in the same instituion had been overcome.

There were a number of ambiguous answers given by women to the question of exploitation. Some indicate that they think they have not been exploited, but many are not certain. Some who say "no" mention that attempts have been made to exploit them, but that they had circumvented them and thus prevented exploitation.[26]

Conclusion

The picture that emerges is of a group of highly educated women who in relative terms are quite successful when compared with women of their age and profession — having acquired teaching jobs at a large and prestigious university. When compared with their male peers of similar age at the same university, women are less successful in achieving the rewards of salary, promotion and publications, and sacrifice more in personal terms for their efforts in becoming professors.

It seems clear that in a myriad of ways, big and small, some merely irritating, some destructive of mind and career, these women are reminded that they are different, less than men, females in a male domain. Many perceive themselves as exploited and deprived; they feel that they do not share equitably in the status and rewards of the university; and they are conscious in 1972-73 of belonging to a minority group — women — which involves sharing an imposed, inferior and vulnerable status. These findings of imbalance for male and female professors and women's growing perception of it provide the context for understanding better the attitudes of women faculty and the women's movement at the University of Wisconsin.

NOTES TO CHAPTER 13

1. E. B. Fred, "Women and Higher Education: With Special Reference to the University of Wisconsin," in *The Journal of Experimental Education* 31 (December 1962), pp. 161.
2. Further information is reported in Freeman, "A New Political Woman" (Ph.D. Dissertation, University of Wisconsin, 1975).

   Other supplementary data about Wisconsin came from participant observation as a graduate student during the years 1967-74, data from the UW secretary of the faculty on names and numbers of UW faculty women in their departments, interviews with important participants on the Wisconsin campus, and materials from the files of Professor Kay Clarenbach, documents and memos of the University of Wisconsin, the Association of Faculty Women, the Wisconsin Coordinating Council of Women in Higher Education, and examination of newspapers — *The Capital Times, Wisconsin State Journal, Milwaukee Sentinel.* For a more detailed description of the instruments (questionnaires) and data techniques, see Freeman, "A New Political Woman."

   Other data drawn on for the purposes of comparison is the information collected by the American Council on Education and reported by Alan Bayer, *College and University Faculty: A Statistical Description* (Washington, D.C.: ACE, 1970); Alan Bayer, *Teaching Faculty in*

Academe: 1972-73 (Washington, D.C.: ACE, 1973); the cohort study of women doctorates conducted by Helen W, Astin, *The Woman Doctorate in America* (New York: Russell Sage Foundation, 1969), and the national survey of higher education sponsored by the Carnegie Commission. This data was derived from the consortium at the University of Michigan. From it, data on faculty members at institutions of comparable rank with the UW, named quality I institutions, were separated out to create a new data base of faculty men and women at quality I institutions. A quality I institution refers to a classification of institutions of higher education assigned by the survey sponsored by the Carnegie Commission. Institutions of higher education participating in the survey were ranked according to their quality in three broad groupings: (1) universities; (2) colleges and (3) junior colleges. Within the first two categories, three quality classes (I, II, III) were created of which I was most highly rated. At quality I institutions there were 12,094 faculty men and 1,559 faculty women (13,653 total) who are the respondents to whom I refer in this essay. For a more detailed exposition of these data, see Freeman, "A New Political Woman," and Martin Trow, et. al., "Appendix A: A Technical Report on the 1969 Carnegie Commission Survey of Faculty and Student Opinion," in *Teachers and Students* (New York: McGraw Hill, 1975).

At the time this research data was collected, there were no official sources on UW academic women, which systematically collected all information and organized it into article or book form covering the entire period surveyed by this writer. Also, since the time of this study, some important participants have left UW, taking with them both their perceptions and their files. Others preferred not to discuss the subject with this writer.

3. Astin, *The Woman Doctorate.* Astin's work is a cohort analysis of the female doctorates of 1957-58. The study focused on questions concerning family background, experiences during graduate training, marital and family status, career history, community life and activities, and obstacles encountered during career development. It should be noted that because her study is of a cohort and not a sample, her data are not altogether comparable with mine and other surveys used in this paper. Some items of comparison (such as age) will not be presented.
4. The male doctorate sample referred to here and throughout this essay is that of Lindsey R. Harmon, "Profile of Ph.D.'s in the Sciences," Career Patterns Report No. 1 (Washington: National Academy of Sciences — National Research Council, 1965).
5. William B. Altus, "Birth Order and Its Sequelae," *Science* (January 1966), 44-49.
6. Peter M. Blau and Otis Dudley Duncan, *The Occupational Structure* (New York: Wiley, 1967); and Samuel Bowles and Herbert Gintis, *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life.* (New York: Basic Books, 1976).
7. A study by Sandra Tangri was one of the few to examine this relationship. She finds that women who aspire to male dominated occupations do not identify with fathers in preference to their mothers, particularly if the mothers are highly educated and working. See Sandra Tangri, "Determinants of Occupational Role Innovation among College Women," *Journal of Social Issues,* 28 (Summer 1972), p. 196.
8. B. C. Freeman, "Faculty Women in the American University: Up the Down Staircase," *Higher Education* 6 (May 1977), 170.
9. Ibid., p. 171.
10. Ibid.
11. Ibid., p. 172.
12. Astin, *The Woman Doctorate,* p. 143.
13. Reported in Ruth Bleier, "Women and the Wisconsin Experience," (paper delivered at the annual meeting of the Modern Language Association, December 1971).
14. HEW Report from Summer, 1970, Para. 13, Summary of Findings and Memoranda of Understanding Department of HEW, Region 5 (1970).
15. Jane Van Dyk and Bonnie Freeman, "Preliminary Report of the UW Faculty Women's Survey." (Unpublished report, April 1973).
16. *Milwaukee Sentinel,* November 1966.
17. *Wisconsin State Journal,* November 1970.
18. B. C. Freeman, "Faculty Women in the American University," p. 178.
19. Alan Bayer, *Teaching Faculty in Academic,* p. 28.
20. Ibid., p. 29.

21. Jacqueline Macaulay, "The Failure of Affirmative Action for Women: A Case Study of the University of Wisconsin-Madison." (Madison, Wisconsin: Unpublished manuscript, 1977).
22. Letter from AFW to President John Weaver, 9 August 1971.
23. Complaint of the Association of Faculty Women of the University of Wisconsin to the Department of Health, Education, and Welfare. Madison, Wisconsin: AFW Document, July 1972.
24. B. C. Freeman, "A New Political Woman," p. 314.
25. Ibid., p. 315.
26. Ibid., p. 317.

14. Traditional and Non-Traditional Choices of Disciplines by Women

by Marian J. Swoboda

Background

The number of women enrolled in undergraduate, graduate, and professional study in the University of Wisconsin System[1] increased substantially during the last six years. At the beginning of the 1972-73 academic year there were 57,057 women enrolled. Six years later, at the beginning of the 1978-79 academic year, 72,411 women were enrolled. The enrollment of men during the same period declined slightly. The number of men enrolled at the beginning of the 1972-73 academic year was 76,268 compared to 75,523 at the start of the 1978-79 academic year, a decline of 745.

Because of this increase in the enrollment of women in the University of Wisconsin System, coupled with the knowledge that women have traditionally entered courses of study congruent with social sex-role stereotypes, it was considered an appropriate time to examine in depth two critical questions in regard to the choice of disciplines by women. The first major question addressed is: Are women leaving their traditional fields of study, and if so, to what degree? The second question is: Are women entering non-traditional majors, and if so, to what extent? The importance of these questions and of the study rests with the need to know whether or not women are entering areas of study through which equity in the world of work and careers can best be achieved.

At the present time women are not found in very large numbers in those instructional program areas considered to be the traditional training ground for leadership roles in industry and business, in education, or in the scientific world. And, it is not likely that the situation will change until the realities of sex-role stereotyping in education and career selection are addressed and overcome.

Although this study is primarily concerned with women, it is not possible to analyze their choice of discipline without also examining the choice of discipline by men. Major choices made by men are, therefore, also considered.

Methods Summary

This study concerns itself with those students at the junior level and above because a major is generally not declared until the junior year. Students at the junior level or above who had not declared a major are not included in the study.[2] The study sample includes 25,134 women in 1973 and 28,889 in 1977; 35,482 men in 1973 and 35,135 in 1977, for a total of 60,616 students in 1973 and 64,024 in 1977.

The data for the study is based upon 1973-74 and 1977-78 fall enrollments. It is presented in graph form in appendices A and B.

Appendix A compares the actual enrollment change for women and men between 1973-74 and 1977-78 by instructional program area. The program areas are listed in order of greatest enrollment of women in 1973-74. Appen-

dix B shows the percent women were of total enrollment in 1973-74 and in 1977-78 by instructional program area.

The three levels referred to in the study are as follows:

Level II — Juniors and Seniors

Level III — Masters and Education Specialists

Level IV — Ph.D. Students and Upper-Level Graduate Students

Throughout the study the terms "traditional" and "non-traditional" program areas for women are used. Within the confines of the HEGIS taxonomy,[3] it has been established that the instructional program area will be considered traditional where women represent one-half or more of the total 1973-74 enrollment. Areas will be considered non-traditional where women rank, in terms of percent of total enrollment, in the bottom one-half. The traditional program areas in rank order are: home economics, library science, foreign languages, health professions, education, fine and applied arts, public affairs and services, letters and area studies. The non-traditional areas in rank order are: engineering, agriculture and natural resources, business and management, architecture and environmental design, physical sciences, computer and information sciences, law, mathematics, biological sciences and social sciences, interdisciplinary studies, communication and psychology.

Although the decision to designate these categories as either traditional or non-traditional for the purposes of this study was arbitrary, the pattern which emerged corresponds roughly to a study by Hooper and Chandler.[4] This is especially true with regard to the non-traditional fields.

Findings

The findings of the study will be presented in terms of the twenty-two instructional program areas found in the HEGIS taxonomy. The program areas identified as traditional for women will be examined first, followed by an examination of the non-traditional areas.

Traditional Instructional Program Areas

HOME ECONOMICS. In 1973-74, women accounted for 96 percent of the total enrollment in home economics at levels II and above. This percentage had dropped slightly by 1977-78 to 93.6 percent. However, women are definitely not leaving the field. In 1973-74 there were only 699 women enrolled, compared to 1,177 in 1977-78. The greatest growth for both men and women in this field was at level II. For women the growth occurred primarily in dietetics, fashion merchandising, home economics in business, and retailing. For men the most notable percentage increase occurred in dietetics. Men moved in total numbers in home economics from 29 in 1973-74 to 73 in 1977-78. This is noteworthy when considering the decline in the total enrollment of men.

LIBRARY SCIENCES. In library science women remained almost the same in total numbers between 1973-74 and 1977-78. The percentage of women students increased, however, because men are leaving the area at a faster rate than women. Women now constitute 78.3 percent of the library science majors. Their concentration is at level III, while more men are at level IV.

FOREIGN LANGUAGES. There was a decrease in the total number of both men and women in foreign languages. The percent of men and women

remains about the same, indicating both are leaving the field at about the same rate. The actual number of women leaving the field, however, is greater — a drop of 189 women compared to 39 men. The traditional foreign languages — French, Spanish and German — have experienced the largest decline in students. A small number of students are venturing into other foreign languages at the doctoral cluster. Overall, women still dominate the foreign language majors, and account for 66.7 percent of the total enrollment.

HEALTH PROFESSIONS. The total number of women enrolled in the health professions increased from 3,331 in 1973-74 to 3,518 in 1977-78. The percent of women also increased from 68 percent to 70 percent. The number of men decreased from 1,553 in 1973-74 to 1,502 in 1977-78.

Within the health professions area there are two majors which would be considered non-traditional majors for women: medicine and pharmacy. Women increased their enrollment in both of these areas. However, the real numbers were not large and it needs to be noted that while women increased their enrollment in pharmacy, the number of men dropped. Enrollment of both men and women increased, however, in medicine. Women increased at a faster rate than men, changing from 99 students enrolled in 1973-74 to 170 in 1977-78 while men increased from 436 to 487.

There are a number of majors within the health professions which by virtue of the percentage of women enrolled would be considered traditionally women's fields: nursing, communicative disorders, occupational therapy, physical therapy and medical technology. Enrollment of women in these fields, except for occupational therapy, decreased slightly in absolute numbers. The dramatic change came in medical technology where there was a decrease from 507 to 376.[5] The number of men enrolled in nursing increased from 140 to 170, and in occupational therapy from 6 to 16. However, in other fields which would be considered traditional to women, the number of men declined.

Two new majors in the health professions added after 1973-74 account for some of the increase in the total numbers of women. These were community health nursing and physician's assistant. Community health nursing showed an enrollment of 53 women and 3 men in 1977-78 and the physician's assistant program 51 women and 38 men. The decrease in total enrollment in nursing for women is more than offset by the increase represented by their enrollment in community health nursing. It will be interesting to see as the physician's assistant program continues whether this will become a field dominated by women or whether it will continue to be one in which men and women are represented more or less equally.

EDUCATION. Education is the category with the largest number of women, and is also one of the areas in which women predominate. In 1973-74, 63.6 percent of the students in education were women. In 1977-78, women comprised 65.3 percent. The number of women majoring in education dropped slightly during this period from 8,543 to 8,531. Education is the second largest category for men, ranking only behind business. The total number of men enrolled in the area of education between 1973-74 and 1977-78 dropped from 4,896 to 4,528, a more substantial drop than for women. Consequently, although the number of women remained fairly static, the percentage of women who account for the total enrollment in education increased during this four-year period.

At level II, the enrollment of women dropped by 626 students while men dropped by 173. At level III, women's enrollment increased by 493 while men's declined by 147. The majors where women increased were elementary reading, educational administration, counseling and guidance, and exceptional education. With the exception of educational administration, men also increased in enrollment in these particular disciplines, but not to the extent of women. Women in educational administration increased by 57 and men decreased by 82. The same basic pattern took place at level IV where women increased by 121 and men decreased by 48.

FINE AND APPLIED ARTS. In fine and applied arts, women accounted for 57.1 percent of the student population in 1973-74. By 1977-78 women increased to 62.8 percent. Of the 383 total increase in enrollment, 377 were women and 6 were men. Clearly, women are not leaving the field of fine and applied arts. At level II, where most of the activity takes place, women increased by 350 between 1973-74 and 1977-78 while the number of men increased by 30. Four majors — art, bachelor of fine arts, theatre and drama, and dance — account for the major increase of women.

PUBLIC AFFAIRS AND SERVICES. The overall enrollment of women in public affairs and services increased by 418 while men decreased by 5. It should be noted that this category contains the social work or social welfare major which has traditionally been dominated by women. The number of women enrolled in social work or social welfare remained at 1,159 between 1973-74 and 1977-78 while the enrollment of men decreased from 554 to 396. Women and men increased in total enrollment in vocational rehabilitation and in criminal justice.

One major included in this category which shows a substantial change in the percent of women enrolled is in recreation resources. In 1973-74 there were 36 women and 141 men enrolled in this major. By 1977-78 there were 216 women and 139 men.

LETTERS. In the area of letters the totals for both men and women are dropping, somewhat more for men than for women. The major within this category which shows a large decrease of students is English. The decrease which occurs in the category of letters is occurring generally across all fields and at all levels. Comparative literature, classics, linguistics, and philosophy are some of the principal majors in this area.

AREA STUDIES. There is not a great deal of change for either men or women in area studies. It is a very small category. The real numbers for 1973-74 are 136 and for 1977-78, 166. The number of men increased by 23 and women by 7. Women decreased in percent of total from 50.7 percent to 45.8 percent.

Non-Traditional Instructional Program Areas

ENGINEERING. Engineering is one of the fields most totally dominated by men. In 1973-74 men accounted for 3,031 of the total number of engineering students at the junior level and above, while women numbered only 51, or 1.6 percent of total enrollment. The change from 1973-74 to 1977-78 for women was quite dramatic: enrollment went from 51 to 299. Although the absolute numbers for women compared to the absolute numbers for men are not substantial, there is no question that women are beginning to move into the field of engineering. It is important to note, however, that the

field of engineering is also growing with respect to male enrollments at the same time, with an increase of total enrollment from 3,031 to 3,656. Despite the increase in the number of men entering the field, the number of women is substantial enough to change the percent of the total for women from 1.6 percent in 1973-74 to 7.6 percent in 1977-78.

There is no one engineering major which has attracted a disproportionate number of women. There are several, however, which do have a higher number of women than others: civil and environmental, chemical, and electrical and industrial engineering.

AGRICULTURE AND NATURAL RESOURCES. Agriculture and natural resources is another category which men have traditionally dominated. And here again, as with engineering, although the real numbers may be somewhat small for women, there is a substantial increase in the number of women. While the number of men electing majors within this category also increased, the percentage of women increased from 10.6 percent in 1973-74 to 25.0 percent in 1977-78. In actual numbers women increased by 529 while men increased by 545.

There is no one major where women are clustered. The great increase appears at level II. Some of the majors where the largest number of positive changes occurred are: agricultural journalism, agronomy, soil science, meat and animal science, dairy science, poultry science, wildlife ecology, horticulture and conservation.

BUSINESS AND MANAGEMENT. Substantial changes occurred for both men and women in business and management. Women increased from a total of 729 in 1973-74 to a total of 2,327 in 1977-78, and their percentage increased from 11.4 percent to 23.4 percent. One reason that this percentage did not change more in light of the substantial increase in numbers of women is that men also are selecting majors in business and management in ever-increasing numbers. Men in business and management numbered 5,691 in 1973-74 and 7,623 in 1977-78.

The following majors were all chosen by increasing numbers of both men and women and account for the largest increases in student enrollment in the category of business and management: accounting, finance, business administration, management, hotel and restaurant, and marketing. The bulk of the growth occurred at level II. Women are enrolled in all 22 majors appearing under the business and management category for 1977-78.

ARCHITECTURE AND ENVIRONMENTAL DESIGN. Architecture and environmental design appears to be a category in which women made gains as substantial as those in engineering. In fact, in terms of their percent of the total student enrollment, their gains appear to be even more substantial. The total enrollment for women increased from 69 in 1973-74 to 267 in 1977-78. The enrollment for men also increased, but not nearly as much, from 511 to 530. The percentage for women changed from 11.9 percent of the total student enrollment in 1973-74 to 33.5 percent in 1977-78, which appears to be quite a dramatic increase for women in this non-traditional field. However, this is an area where the study of individual majors is essential when viewing the increase.

There is one major in this category which is of particular interest and that is interior design. The major is new to this category as of 1977-78. It appeared as a major in 1973-74 under home economics. This major represents

over half of the total number of women in this category as of 1977-78, therefore it must be acknowledged that this major is skewing the total increase. Interior design accounts for 122 of the total 198 increase while landscape architecture accounts for 48, urban and regional planning for 18, and architecture for 10.

PHYSICAL SCIENCES. In the physical sciences the number of women enrolled increased at every level while the number of men decreased. Women thus moved from 12.5 percent of total enrollment in 1973-74 to 16.6 percent in 1977-78. The preponderance of women in this area is in chemistry, followed by geology, earth science and physics. Men are more evenly distributed among majors. Women appear in all majors in this category except astronomy and geophysics.

COMPUTER AND INFORMATION SCIENCES. Both men and women increased in enrollment in majors within the computer and information sciences area. However, it is a small category containing only two majors and not very many students, either men or women. Women increased from 41 students in 1973-74 to 81 in 1977-78, and men increased from 246 to 316. Although both have increased enrollment in this area, proportionally more women have entered this field than men, and women thus increased their percentage of the total enrollment from 14.3 percent to 20.6 percent.

LAW. Law has traditionally been dominated by men. However, it is evident that women are increasing their enrollment in this area. Enrollment for women in 1973-74 was 192 and in 1977-78 it increased to 299. Their percent of total enrollment increased from 20.7 percent in 1973-74 to 33.6 percent in 1977-78. The number of men entering law dropped between 1973-74 and 1977-78 from 735 to 592.

MATHEMATICS. Both men and women are leaving the area of mathematics, men at a greater rate than women. Consequently, the percent of women in the total enrollment increased slightly from 26.2 percent to 27.5 percent between 1973-74 and 1977-78.

BIOLOGICAL SCIENCES. In the biological sciences the number of women increased by 265 between 1973-74 and 1977-78 while the number of men decreased by 208. The greatest increase of women was in biology, bacteriology, plant pathology, biochemistry, molecular biology, genetics and nutritional sciences.

SOCIAL SCIENCE. There was a decrease in enrollment for both men and women in the social sciences area between 1973-74 and 1977-78. The decrease in absolute numbers for men was much more substantial, however, than that for women — men decreased by 1,499, women by 110. Because men are leaving the social sciences area at a greater rate than women, the percentage of women of the total increased from 28 percent in 1973-74 to 34.1 percent in 1977-78.

There are five majors within the social sciences area which account for the largest number of total students: sociology, political science, geography, history, and economics. Sociology has about 50 percent women, while the other majors are dominated by men. Women show increased enrollment in political science and in economics and decreased enrollment in geography and history.

INTERDISCIPLINARY STUDIES. There was a decrease in enrollment of both men and women in interdisciplinary studies, but men are leaving the

area at a much grater rate than women. The enrollment of women decreased from 524 to 508 while the enrollment of men decreased from 910 to 664. Women moved from 36.5 percent of the total to 43.3 percent.

COMMUNICATIONS. In the communications area, the numbers of both men and women increased between 1973-74 and 1977-78. Women increased at a slightly greater rate than men, moving from 40.9 percent to 42.1 percent of the total. Women now total 835 and men 1,149 in the six majors in the area of communications.

PSYCHOLOGY. In the area of psychology the enrollment of both men and women decreased. Because the decrease of men (312) was greater than for women (60), the percent of women in the total enrollment increased from 44.0 percent to 50.8 percent.

Summary

The increased enrollment of women in higher education coupled with the entrance of women into several non-traditional areas of study can be viewed either in terms of how far women have come, or in terms of how far they still have to go. This study views both perspectives. Therefore, the purpose of this study was twofold: first, to see whether or not, and to what degree, women were leaving areas of study traditional to women; and secondly, to find out to what extent, if any, they are entering new, or non-traditional areas of study.

The findings indicated that women are not leaving their traditional areas of study in any substantial numbers. As a matter of fact, many of the traditional areas are growing. Their numbers grew during the past four years in the areas of home economics, public affairs and services, fine and applied arts, health professions, and area studies. Their numbers relative to male enrollment also increased in library science, education and letters. Of all women who had declared a major, 58.4 percent were concentrated in education, health professions, public affairs and services, fine and applied arts, and home economics.

At the same time that women continue to enter traditional areas of study, they are also moving into non-traditional areas. Their percent of total enrollment or their actual numbers in these areas, however, do not begin to approach those of men. The greatest increase for women in non-traditional majors in terms of numbers was in the areas of business and management, followed by agriculture and natural resources, biological sciences and engineering.

In 1973-74, 73.0 percent of the women were enrolled in the nine program areas considered traditional in this study. By 1977-78, only 66.4 percent were enrolled in these nine areas. During these years, the enrollment of women had increased by 3,755. In comparison, the percentage of men enrolled in the areas non-traditional for women, or traditional for men, in 1973-74 was 70.0 percent. By 1977-78 the percentage increased to 72.0 percent in spite of the fact that overall enrollment of men decreased by 347. Thus men are increasing in enrollment in even larger relative numbers in some of the areas non-traditional to women, notably in business and management, agriculture and natural sciences, and engineering.

It appears from this study when women move into non-traditional areas of study, they often choose majors that resemble socially defined areas for women. For example, in the field of engineering women have avoided nuclear

and mining engineering and chosen chemical or environmental engineering. In agriculture and natural resources, women are more likely to choose food science, conservation or horticulture rather than farm management or agricultural economics. In the biological sciences no women are found in biophysics or neurosciences. The majority are found in majors like biology, botany, nutritional sciences, zoology or biochemistry. Likewise in the physical sciences the preponderance of women is in chemistry rather than majors like geophysics or astronomy.

Implications

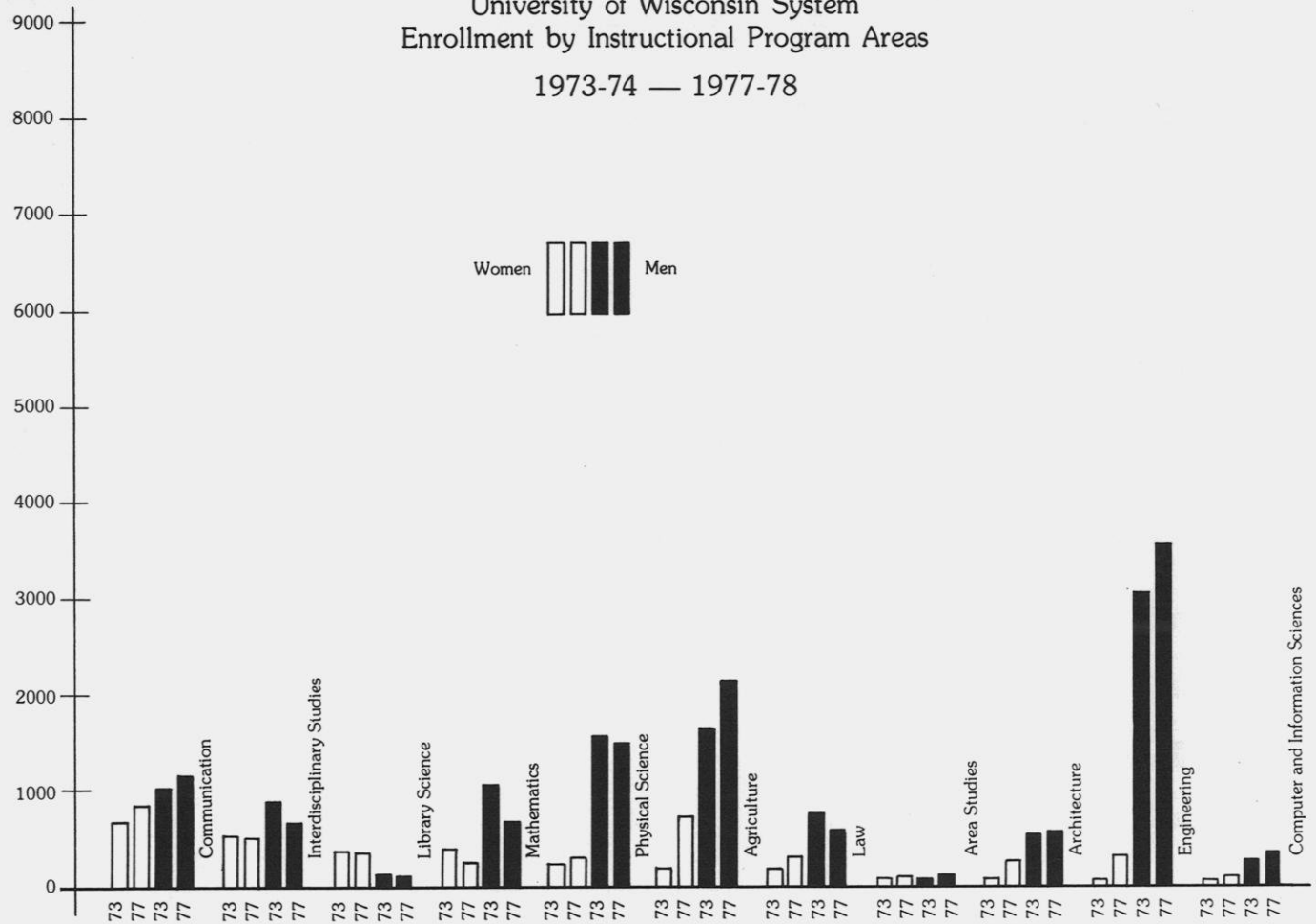
There are several implications to be drawn from this study. First, we need to know more about the relationship between choice of majors and careers. It appears that men are selecting the majors where career options are expanding and are leaving areas where employment prospects are less plentiful at a higher rate than women. Secondly, the study points out that men are still more likely to go on to graduate school than are women, even in areas traditional to women. And finally, the study reaffirms that continued affirmative action needs to be taken to foster and encourage the entrance of women into non-traditional areas of study if, indeed, it is our desire to achieve a better balance in the distribution of educational choices and opportunity among and between men and women.

Although the sex-differential phenomenon in the selection of educational pursuits cannot be explained conclusively, it has been argued that women often confine their choices because society expects them to select certain socially accepted roles. But choices and expectations are also learned in the educational environment. Thus the educational system is in a unique position to help dispel the myths that tend to nurture and perpetuate the cultural stereotypes which function to direct and control the entrance of women into selected fields of study.

NOTES TO CHAPTER 14

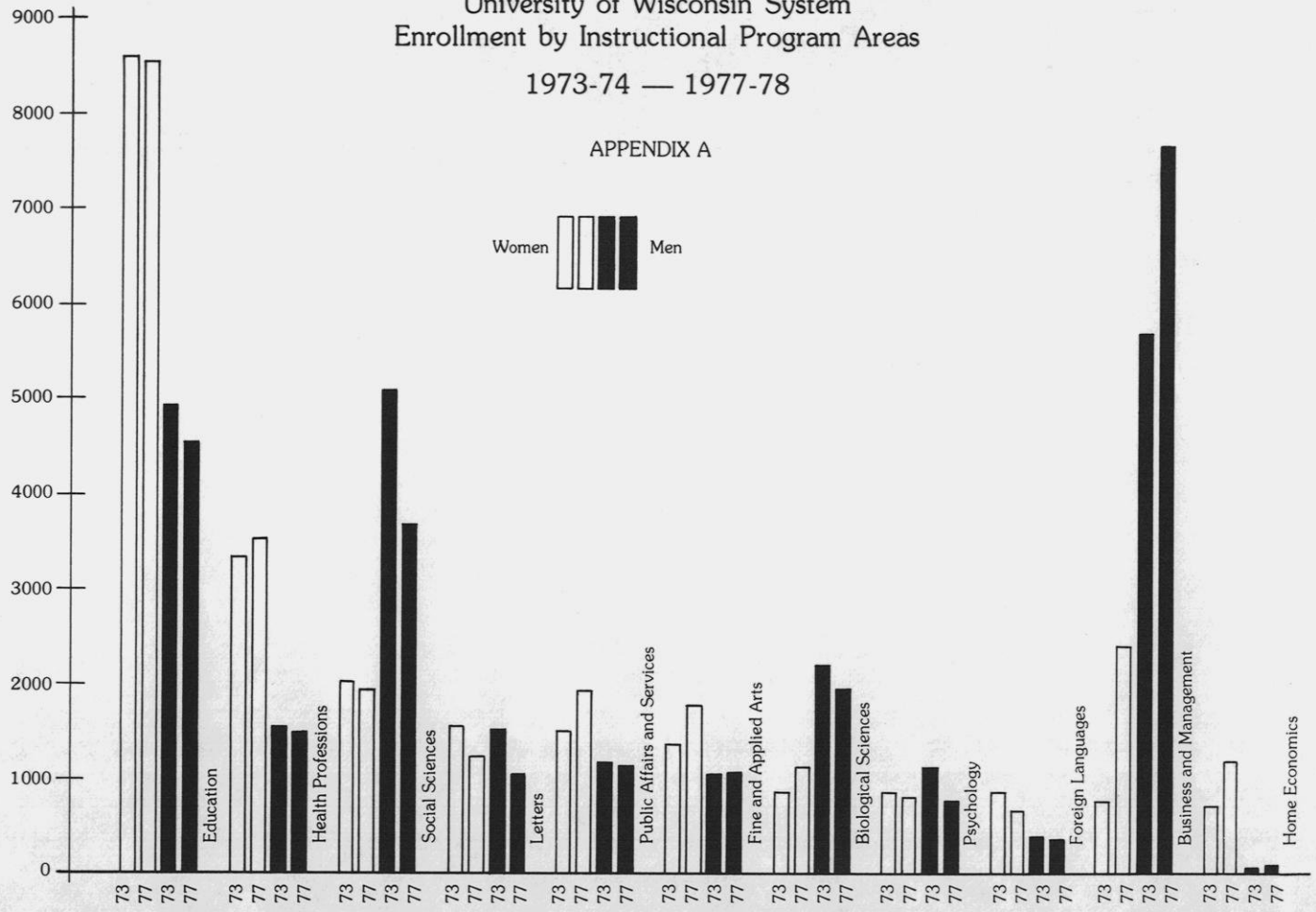
1. The University of Wisconsin System is comprised of: Thirteen universities, organized as a doctoral cluster of two universities (UW-Madison and UW-Milwaukee) with program entitlement at the baccalaureate, master's, specialist, advanced professional, and doctoral levels, and a university cluster of eleven universities (UW-Eau Claire, UW-Green Bay, UW-LaCrosse, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Superior, and UW-Whitewater) with program entitlement at the baccalaureate, master's and specialist levels; a Center System of fourteen campuses offering two-year transfer and associate degree programs; and University Extension responsible in cooperation with the campuses for statewide outreach services.
2. The number of students at the junior level and above who had not declared a major in 1973 was 6,227 (2,296 women and 3,931 men) and in 1977, 6,073 (2,615 women and 3,458 men).
3. The instructional program areas described in the study are based upon the High Education General Information Survey (HEGIS) taxonomy. One of the difficulties in using this taxonomy for purposes of this study is that an area might contain individual majors with widely divergent percentages of women. For example, the social science category includes sociology, where the enrollment of women is generally high, and economics, where enrollment is generally low. For this reason the twenty-two instructional program areas identified in the study are listed in Appendix C. One further problem with the data bears mentioning. Where a major appears only for 1973-74 or 1977-78, the potential for skewing the category total exists. Majors appearing in only one year are noted in Appendix C.

4. Mary E. Hooper and Margaret O. Chandler, *Earned Degrees Conferred 1968-69: Part B — Institutional Data*, U.S. Office of Education, Government Printing Office, Washington, D.C., 1971 as quoted in Saul D. Feldman's *Escape from the Doll's House.*
5. This drop may in some part be the result of a system audit of medical technology programs and the subsequent discontinuance of several institutional programs.


University of Wisconsin System
Enrollment by Instructional Program Areas
1973-74 — 1977-78
Women
Men
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
73 77 73 77
Communication
Interdisciplinary Studies
Library Science
Mathematics
Physical Science
Agriculture
Law
Area Studies
Architecture
Engineering
Computer and Information Sciences

University of Wisconsin System
Enrollment by Instructional Program Areas
1973-74 — 1977-78

APPENDIX A



University of Wisconsin System
Percent of Women by Instructional Program Areas
1973-74 — 1977-78
Percent
100
90
80
70
60
50
40
30
20
10
0
73
77
Biological Sciences
Mathematics
Law
Computer and Information Sciences
Physical Sciences
Agriculture
Business and Management
Architecture
Engineering.

University of Wisconsin System
Percent of Women by Instructional Program Areas
1973-74 — 1977-78
APPENDIX B
Percent
100
90
80
70
60
50
40
30
20
10
0
73
77
Home Economics
Library Science
Foreign Languages
Health Professions
Education
Fine and Applied Arts
Public Affairs and Services
Letters
Area Studies
Psychology
Communications
Interdisciplinary Studies
Social Sciences

APPENDIX C

Majors within Instructional Program Areas

AGRICULTURE AND NATURAL RESOURCES
- Agriculture
- Agricultural Journalism
- Agronomy
- Soil Science
- Meat & Animal Science
- Dairy Science
- Poultry Science
- Wildlife Ecology
- Horticulture
- Farm Management
- Agricultural Economics
- **Agricultural and Appl.
- Agricultural Business
- Agricultural Industrial
- Agricultural Marketing
- Food Science
- Food Chemistry
- Forestry
- Forest Science
- Conservation
- Natural Resources
- Agricultural Mechanization
- Construction Administration
- Scientific Land Management
- **Land Resources
- *Agricultural Engineering
- *Biological Aspects of Agriculture
- Rural Sociology
- Water Resources

ARCHITECTURE AND ENVIRONMENTAL DESIGN
- *Environmental Design
- Architectural Studies
- **Architecture
- **Interior Design
- Landscape Architecture
- Urban and Regional Planning

AREA STUDIES
- Asian Studies
- Buddhist Studies
- Indian Studies
- South Asian Studies
- Russian-East Central
- Ibero-American Studies
- Hebrew Studies
- French Area Studies
- *Scandinavian Studies
- American Studies
- **American Institutions
- Hindu Studies

BIOLOGICAL SCIENCES
- Biology
- Botany
- Botany and Zoology
- Education and Botany
- Bacteriology
- Plant Pathology
- Zoology
- Education and Zoology
- Pathology
- Pharmacology — Medical
- **Pharmacology — Pharmacy
- Physiology
- *Physiological Chemistry
- **Medical Microbiology
- Anatomy
- Biochemistry
- **Pharmaceutical Biochemistry
- **Biophysics
- Molecular Biology
- *Wildlife Ecology
- Entomology
- Genetics — Agricultural
- Plant Breeding and Pl.
- **Genetics — Medical
- Nutritional Sciences
- **Nutrition
- **Neurosciences
- **Neurophysiology
- **Biological Aspects of
- **Endocrinology — Reproduction
- **Medical Science
- **Pre-Veterinary
- **Veterinary Science

BUSINESS AND MANAGEMENT
- Business Diversified
- Accounting
- Business Statistics
- Actuarial Science
- Finance, Investment A
- Business Administration
- Management
- Office Administration
- Business Construction
- Administrative Science
- Public Management
- Program Administration
- *Operations Research
- Quantitative Analysis
- Hotel and Restaurant
- Marketing
- Transportation
- Real Estate and Urban
- *Appraisal
- Risk and Insurance
- International Business
- Executive Secretarial
- Industrial Relations
- *Information Systems
- *Business and Engineering
- **Arts Administration

COMMUNICATIONS
- Communication Arts
- Journalism
- Mass Communications
- **Technical Communications
- Education and Journalism
- **Education and Communications

COMPUTER AND INFORMATION SCIENCES
Computer Sciences
**Information Systems A

EDUCATION
Elementary Education
Secondary Education
Junior High Education
**Continuing and Vocational
Exceptional Education
Mentally Retarded
Deaf and Hard of Hearing
Communicative Disorders
Emotionally Disturbed
Behavioral Disabilities
Educational Policy Studies
**Education Studies
Pre-School Kindergarten
*Early Childhood Education
*Child Development and Education
Counseling and Guidance
Rehabilitation Counseling
Education Administrator
School Business Management
School Supervision and Education
Curriculum and Instruction
**Curriculum and Supervision
Elementary/Reading
Art Education
Music Education
*Music Education, Instruction
Music Education, Vocal
**Music Education, Elementary
Music — BME
Physical Education
*Music — Elementary Education
Science Education
*Physical Education, W
*Physical Education, M
*Elementary Physical Education
Safety
Health
**Community Health Education
Business Education
Distributive Education
Industrial Education
Technical Education
*Vocational Education
**Industrial and Vocational
Agricultural Education
Chemistry Course
Agricultural Extension
*Cooperative Extension
Audiovisual Media
Home Economics Education
Journalism Education
Community Education
Pre and Early Adolescent
*Theater Arts Education
Institute of Education
*Education — Earth Science
School Psychology
Natural Science
Urban Education
*Education — Botany
*Education — English
Education — Geography
*Education — German
*Education — History
*Education — Mathematics
Education — Music
**Professional Development

ENGINEERING
Engineering
Applied Science
Agricultural Engineering
**Biomedical Engineering
Chemical Engineering
Civil and Environmental Engineering
Light Building Construction
Civil and Environmental Eng. & Co.
Electrical Engineering
Mechanical Engineering
Industrial Engineering
Metallurgical Engineering
**Materials Science
Mining Engineering
Nuclear Engineering
Engineering Mechanics
**Water Chemistry
**Water Resources Management
**Ocean Engineering
*American Industry
Industrial Technology
**Engineering Technology
Safety, Occupational

FINE AND APPLIED ARTS
Art
Art, BFA
Art History
**Art History & Criticism
Music — Applied
*Music, Instrumental
Music, Organ
*Music, Piano
*Music, Vocal
*Music — Conducting
*Music Composition
**Education and Music
*Music (BM, Vocal)
Music — BA
Music — MA
Music — Ph.D.
Music, BM
*Music (BM, Comprehensive)
Music (BM, Instrument)
Music — Ethnomusicology
**Music — History
**Music — Theory
Theatre and Drama
*Speech, Drama (BA or B)
Dance
Performing Arts (Music)
Visual Arts
Inter-Arts
Music Therapy
*Arts Administration

FOREIGN LANGUAGES
Foreign Languages
French
**Education and French
German
**Education and German

Italian
Spanish
Portuguese
**Education and Spanish
Russian
Chinese
Japanese
Latin
Education and Latin
*Greek
Hebrew
**Hebrew and Semitic Studies
Arabic
**Scandinavian Studies
Slavic Languages
Polish
African Languages
*East Asian Languages
South Asian Languages

HEALTH PROFESSIONS
Pharmacy Administration
Health Services Administration
**Health Care Fiscal MA
Nursing
**Community Health Nursing
Medicine
*Medical Science, Pre
Oncology
Medical Physics
Occupational Therapy
Pharmacy
Pharmaceutics
History of Pharmacy
Hospital Pharmacy
**Pharmacy — Continuing Education
**Social Studies in Pharmacy
Physical Therapy
Education and Physical Therapy
Environmental Public
**Medical Records Administration
*Veterinary Science
Communicative Disorders
Speech Pathology
Medical Technology
**Medical Technology, 1
Radiological Sciences
Industrial and Environmental
Medical Microbiology
Medical Science
*Medical Genetics
**Physician's Assistant

HOME ECONOMICS
General Home Economics
Home Economics in Business
Home Economics Journalism
Related Art
Apparel Design
Textiles and Clothing
Fashion Merchandising
Textile Science
**Retailing
Consumer Science
Child Development/Family
**Marriage & Family Counseling
**Child Development
Home Economics, Food
Dietetics
Food Administration
*Consumer Service
*Interior Design
Related Art (Committee)

LAW
Law
*Legal Institutions

LETTERS
English
**Education and English
Comparative Literature
Classics
Linguistics
Communication and Pub.
Philosophy
Communication Process
Humanities, Classical
Humanities, Modern
Language Arts
Radio, TV and Film

LIBRARY SCIENCE
Library Science

MATHEMATICS
Mathematics
Applied Mathematics
Education and Mathematics
Statistics
Computer Sciences & Math.

PHYSICAL SCIENCES
Naval Science
*Physical Science
Physics
Physics — Mathematics
Education and Physics
Chemistry
Chemistry Course
Education and Chemistry
**Chemistry — Business
Chemistry — Physics
**Analytical Clinical Chemistry
Pharmaceutical Chemistry
Astronomy
Astronomy — Physics
Meterology
Geology
Geophysics
Geology and Geophysics
Earth Science
Education — Earth Science
**Oceanography and Limn.
Applied Mathematics A
**Physiological Chemistry

PSYCHOLOGY
Psychology

PUBLIC AFFAIRS AND SERVICES
Public Policy and Administration
Recreation Resources
Recreation Program LE
Social Work

Social Welfare
Criminal Justice
Sociology — Correctional
**Legal Institutions
Vocational Rehabilitation

SOCIAL SCIENCES
Social Science
**Social Studies
Anthropology
Economics
Education and Economics
History
*History and Social Science
History of Culture
History of Science
**Education and History
Geography
**Cartography
Education and Geography
Political Science
Education and Political Science
Sociology
**Rural Sociology
Education and Sociology
Education and Rural Sociology
International Relations
Afro-American Studies
Urban Affairs

**Urban Social Institutions
Metropolitan Region Studies
American Institutions
**Ethnic Studies

INTERDISCIPLINARY STUDIES
General Curriculum
Water Chemistry
General Science
Mathematics — Science
*Humanities, Classical
Humanities, Modern
*American Institutions
Social Studies/Languages
Paper Science
**Applied Mathematics, Engineering
Humanism and Cultural
Communication Action
*Ecosystems Analysis
*Environmental Control
Human Adaptability
Growth and Development
*Managerial Systems
Social Change & Development
Population Dynamics
Regional Analysis
Urban Analysis
**Science and Environment
**Environmental Monitor
**Environmental Arts
**Behavioral Science
**Modern American Society
**Comparative Modern In.
**Development

*1973-74 Only
**1977-78 Only

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