FEMALE PHARMACY GRADUATES:
A DESCRIPTIVE STUDY IN WISCONSIN

BY

SURINDER K. SEHGAL

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This thesis is dedicated to Nona Vinmans who was a continuing source of encouragement and inspiration.

TABLE OF CONTENTS

LIST OF TABLES

Page

LIST OF CHARTS

CHAPTER I

INTRODUCTION

Changes in the education and employment of women are the result of changes in our society. Traditionally the male has been considered the provider for his family. Womens' education and subsequent employment were considered appropriate only when they were geared primarily to their role as homemakers.

The increased education of women has been one of the more dramatic educational changes of the post World War II years. The proportion of women enrolled in colleges and universities has increased markedly. From 1954 through 1963 the number of male students increased fifty-seven per cent while the number of female students increased over eighty-three per cent.[1]

The increased number of women obtaining a college

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[1] Mary K. Mullane, "Changing Patterns in Education of Women," Journal of the American Medical Womens Association, (20:10) October 1965, p. 962.

education has been accompanied by an increased number of them studying for professional careers. These professionally educated women are increasingly utilizing their education by practicing their profession outside their homes.[2] In March 1966, 35.6 per cent of the labor force were women and 37.9 per cent of the labor force component classified as "Professional, Technical, and Kindred Workers" were women.[3]

Women in Pharmacy

Women are not new to pharmacy. The first woman pharmacist in America is believed to be Elizabeth Marshall of Philadelphia.[4] She gained her knowledge of pharmacy by serving as an apprentice in her family pharmacy in Philadelphia. Elizabeth Marshall did not have a college degree because when she began practicing, at the beginning of the nineteenth century, there were no colleges of pharmacy in the United States.

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2 Ibid., p. 963.

3 United States Bureau of the Census, Statistical Abstracts of the United States, (87th edition) Washington, D.C., 1966, Table 323, p. 229; For a historical discussion of women in the labor force and additional references see: Shirley E. Greenwald and William I. Greenwald, "Historical Basis for Female Labor Force Participation," Journal of Home Economics, (55:5) May 1963, pp. 348-352.

4 Eunice R. Bonow, She is a Pharmacist, The Grand Council of Kappa Epsilon, Texas, 1958, p. 3.

The interest in women in pharmacy is not new. In 1936 the Executive Committee of the American Association of Colleges of Pharmacy appointed a special committee on the "Status of Women in Pharmacy." This committee concluded, "Pharmacy desires to attract to it students of good character and of superior intelligence. Women of character and intelligence should and do add the necessary leaven to the group. May their ranks increase according to our need for them and their desire to join with the rest of us in advancing the ideas of pharmacy."[5]

A component study of the Pharmaceutical Survey conducted in 1946-1949 concerned women in pharmacy. In this

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5 C. Leonard O'Connell, "Report of the Committee on the Status of Women in Pharmacy," The American Journal of Pharmaceutical Education, (2:1) January 1938, p. 71. The interest of women in pharmacy in the late 1930's was exhibited further by papers such as: Nellie A. Wakeman, "Women in Pharmacy," The American Journal of Pharmaceutical Education, (1:2) April 1937, pp. 146-151; Katherine Graham, "Women Pharmacists in Industry," The American Journal of Pharmaceutical Education, (1:3) July 1937, pp. 330-334; M. V. Del Rosario, "The Philippine Women and the Pharmaceutical Profession," The American Journal of Pharmaceutical Education, (3:2) April 1939, pp. 178-180; Esteban N. Melendez, "Women in Pharmacy in Puerto Rico," The American Journal of Pharmaceutical Education, (4:4) October 1940, pp. 593-594.

study, questionnaires were sent to sixty-five accredited colleges and schools of pharmacy regarding the status of women in pharmacy. The results from fifty-three replies indicated that women pharmacists occupied an important place in the profession and the responding institutions, in general, did not discriminate against women pharmacy students.[6]

The proportion of women pharmacists in the United States is increasing. In 1966, 7.2 per cent of the practicing pharmacists were women compared with 5.2 per cent in 1950. Table 1 presents the per cent of practicing pharmacists in the United States between 1950 through 1966 who were women. The proportion of women in pharmacy should continue to increase as a result of increasing proportion of women enrolled in Schools of Pharmacy in the United States. During the 1958-59 academic year, only 11.5 per cent of the pharmacy students

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6 For detailed findings of this study see: Edward C. Elliott, The General Report of the Pharmaceutical Survey 1946-1949, American Council on Education, Washington, D.C., 1950, pp. 152-154.

TABLE I

PER CENT OF PRACTICING PHARMACISTS IN THE UNITED STATES WHO WERE WOMEN - 1950 THROUGH 1966[a]

Year	Per Cent
1950	5.2
1951	5.7
1952	5.9
1953	5.8
1954	6.5
1955	6.1
1956	6.2
1957	6.4
1958	6.7
1959	6.0
1960	6.5
1961	6.8
1962	6.9
1963	7.5
1964	7.2
1965	7.3
1966	7.2

[a] Source: "Census Data," Proceedings of the National Association of Boards of Pharmacy, 1950 through 1966, Chicago, Illinois.

were women.[7] For the 1966-67 academic year, women comprised 14.7 per cent of pharmacy student enrollment.[8] Furthermore, during these past nine years, the per cent increase of female students has been greater than the increase of male students. Between the 1958-59 and the 1966-67 academic years the Schools and Colleges of Pharmacy in the United States reported a 35.8 per cent increase in women students compared with a 2.2 per cent increase in men students. The total number of students during these years rose by 6.0 per cent.

Previous reasons expressed for women entering pharmacy are probably valid today. The Chairman of the Executive Committee of the American Association of Colleges of Pharmacy said, "Pharmacy is a profession in which women can very well take the place of men, except perhaps in

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7 "Report on Enrollment in Schools and Colleges of Pharmacy, First Semester, Term or Quarter 1959-1960," American Journal of Pharmaceutical Education, (24:1) Winter 1960 p. 74.

8 "Report on Enrollment in Schools and Colleges of Pharmacy, First Semester, Term or Quarter 1966-1967," American Journal of Pharmaceutical Education, (31:1) February 1967, p. 47.

the heavier work connected with a commercial store".[9] Another prominent pharmacist speaking about the entrance of women into pharmacy said "The entrance of women into pharmacy, as, indeed, into all occupations, is but a part of a great world movement for the intellectual, political, and economic emancipation of women."[10]

The increasing proportion of women in pharmacy is of special interest to pharmacists in academic fields. Jack E. Orr, Dean of the College of Pharmacy at the University of Washington wrote, "I hesitate to predict the speed with which the number and proportion of women pharmacists will grow, but I do believe it is inevitable that they will eventually outnumber the men... Pharmacy is an excellent profession for women. They are intelligent and combine this attribute with a compassion for patient problems and welfare not so frequently demon-

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9 "Report of the Executive Committee," The American Journal of Pharmaceutical Education, (1:1) January 1937, p. 67.

10 Wakeman, op. cit., p. 150.

strated by men."[11]

The proportion of women pharmacists is increasing not only in the United States but also in Europe and Great Britain. At a meeting of the Liverpool and district branch of the Pharmaceutical Society of Great Britain and the Liverpool Chemists Association, Dr. J. C. Parkinson Deputy Secretary of the Pharmaceutical Society of Great Britain said:

> Although the total number of pharmacists was expected to increase in the foreseeable future, the most significant change was that the proportion of women would double from 20 per cent in 1962 to 40 per cent in 1982. This suggested that there would be a need to cater for a substantial group of pharmacists who did not want full time jobs. At present the numbers were relatively small and were fully used in locum appointments and other occasional duties. That rather haphazard employment of well-qualified women was very wasteful and posts should be envisaged, both in hospital and retail pharmacy, which were staffed by married women on some sort of shift system. There were all sorts of problems in that connection, such as the need to be at home more during school holidays to mention only one.[12]

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11 Jack E. Orr, "Sex and Pharmacy," Washington - Alaska Pharmacist, (9:2) February 1967, p. 9.

12 "From the Branches and Association - Liverpool," The Pharmaceutical Journal (196:5331) January 1, 1966, pp. 11-12.

These remarks of Dr. Parkinson suggest some of the particular problems encountered by practicing women pharmacists, especially those who are married.

Problems of Working Women

Professionally trained women cannot be expected to practice their profession in a manner comparable to males chiefly due to biological differences. A woman who wants marriage and a family as well as a career must, to some degree, sacrifice one or the other due to limitations of time and energy. This partial sacrifice of home making or a career, or both, results in the existence of a conflict among married women pharmacists.

In an inaugural address delivered at the Womens Medical College of Pennsylvania, Philadelphia on March 6, 1964, Dr. Glen R. Leymaster, President and Dean of the Womens Medical College of Pennsylvania in speaking about women physicians said:

> She (a woman physician) wants to pursue a professional career which is most demanding. At the same time she has the laudable urge to build a nest and fill it with her own, and we

> cannot deny that this conflict often exists. We, on the other hand need not demand that she always tackle both jobs simultaneously. Many do it satisfactorily only if these essentially full-time tasks are done in sequence.
>
> I see many advantages and no insurmountable obstacles, in providing an opportunity for a woman medical student or physician to interrupt her professional career for an interval of home-making. True, many difficulties present themselves but they are minor indeed as compared with the faults of the alternative choices which seem to demand that most women entering medicine abandon their feminine instincts; or, to insist that only superwomen can enter medicine and no ordinary mortals need apply; or else that the physician slight both her family and personal responsibilities. None of these alternatives is a satisfactory general solution for the individual, for the public, or for the profession.[13]

Although Dr. Leymaster was referring specifically to the medical profession, such problems are common to other professional women who are married. The interruption of their career seems to be a major hurdle in the professional career of married women. Dr. Leymaster said further:

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13 Glen R. Leymaster, "Tomorrows Target," Journal of the American Medical Womens Association, (19:10) October 1964, p. 875.

> Most women students manage to complete medical school and at least a portion of their hospital training before the needs of their family force a retrenchment in professional activities. While the children are small, some of the physician-mothers can do so little professional work that they may not only fail to increase their knowledge and skill but in fact lose some that they have already acquired.
>
> After a few years, however, the children are off to school and the physician-mother is ready to return to her professional work. At this point she faces some very difficult decisions. Bluntly put, because of scientific advances, she is far behind the best of her profession. While many jobs are open to her, they are not likely to be the really demanding and professionally rewarding positions. While these are useful tasks and should be done, they may require a level of performance below full capacity for many women.[14]

But this problem is not insurmountable. Women have left their profession and later returned to lead rich and satisfying careers. A woman physician, who opened her office after having not practiced for fifteen years, reported that for the first time she felt she could be both doctor and housewife. She wrote she was satisfying

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[14] Ibid., p. 876.

not only her ego, but also a need for service and was glad to be back.[15]

But there are others, however, who do not share the opinions of Dr. Leymaster. For example, an editorialist wrote:

> Now, let's be done with the returning physician! The sooner she goes out of existence the better. We must help each woman remain at her work throughout her childrearing years. From the day a girl chooses medicine as a career we must be ready to help her foresee and face realistically the problems she will encounter. Later, we must be on hand to help her manage these difficulties when they do occur. Let us stop thinking of getting the retired woman back into practice; let us see that she never feels it necessary to leave.[16]

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15 Eleanor B. Rodgerson, "Out of Practice?," Journal of the American Medical Womens Association, (19:7) July 1964, p. 587.

16 Editorial, "Married Women in the Medical Profession," Journal of the American Medical Womens Association, (18:7) July 1963, p. 568. It is not explained how a woman can be convinced that it is unnecessary to interrupt her practice while she is having a family.

It takes considerable time, dedication and money to become a qualified professional in the health fields. When such a professionally trained woman retires or interrupts her career to marry and raise a family, one might question, particularly for a woman graduating from a tax supported professional school, "Was it worthwhile to educate this person?" The tax payers did, in part, subsidize her education and are they not, therefore, entitled to the benefit of the services which she is educated to perform?

Related Studies

The utilization of professional education by women has become increasingly important because of the increased proportion of women in professional fields. (For example see p. 2). Proposed and completed studies of women physicians exemplify the interest of this subject area. The American Medical Womens Association announced a planned comprehensive study of the uses women make of their medical education. They believed such a study was needed by medical

school admission committees to obtain information on the question, "Does it pay to educate a woman in medicine?" No findings from this study have been published to date.[17]

In 1957, a survey of 1,040 women physicians from the graduating classes of 1925-1940 was published by Dykman and Stalnaker.[18] The purpose of this study was to determine general characteristics such as marital status, educational background, attitudes toward medicine and the extent to which women physicians utilize their medical education. For comparative purposes, data from questionnaires returned by 697 male physicians also were presented. The major

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17 "Aims and Activities, AMWA - Serving Women in Medicine since 1915," Journal of the American Medical Womens Association, (18:1) January 1963, p. 58. Letter to the editor of the Journal of the American Medical Womens Association dated November 21, 1966 requesting information on findings of this study was unanswered.

18 R. A. Dykman and J. M. Stalnaker, "Survey of Women Physicians Graduating from Medical School 1925-1940," Journal of Medical Education, (32:3) part 2, March 1957, pp. 3-38.

findings of this study were:[19]

a) A lower proportion of the women (approximately 57 per cent) were married as compared to men (approximately 95 per cent). A higher proportion of men (19 per cent) had married before or during their medical education than women (15 per cent).

b) In the sample studied, male physicians were the parents of a greater number of children than were women physicians.

c) Men enjoyed more prestige in the profession than women. This was reflected by men having higher salaries, greater number of hospital appointments, publications and membership in professional societies.

d) A higher proportion of the women (33 per cent) than men (6 per cent) had been inactive professionally for a variable period of time since receiving their medical degrees. The average woman in this study had been professionally inactive for more than twice the number of years than the average man in the group. "Only 49 per

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19 Ibid., pp. 33-34.

cent of the women, as contrasted with 89 per cent of the men, had been in exclusive full-time practice since receiving the medical degree."

e) The major reasons resulting in the interruption of professional practice of women were pregnancy, physical disability and family problems. The major reason for men was physical disability.

Another study was conducted in 1963 by Pullum.[20] She obtained her data by interviewing forty of the fifty-eight women medical school graduates in the 1941-1960 classes of Wayne State University. The primary purpose of this study "was to prove or disprove prevalent beliefs about women and medical careers."[21] Twenty-five per cent of the women in this study held degrees in "medically allied fields" prior

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20 Carla A. Pullum, "Women, Medicine and Misconceptions," Journal of the American Medical Womens Association, (18:7) July 1963, pp. 563-565.

21 Ibid., p. 563.

to attending medical school. There were five former registered nurses, three medical technologists, one pharmacist and one nutritionalist among the forty respondents. Another twenty-five per cent of the respondents had a physician in their immediate family. Thus fifty per cent of the respondents had been associated, through family or career, with the medical profession before entering medical school.

Of the forty women interviewed in this study, sixty per cent were married, 2.5 per cent were widowed and 37.5 per cent were single. Approximately four of five (79.2 per cent) of the married respondents had children. In the words of the author of this study, "medicine does not appear to be a great deterrent to marriage and family."[22] More than fifty per cent had married physicians, twenty-five per cent "married other professional men, and the remainder married men with business careers."[23] A majority (77.5 per cent) of the forty physicians were in full time practice, 5.0 per cent were in part time practice and 17.5 per cent were not practicing.

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22 Ibid., p. 563.

23 Ibid., p. 564.

A similar study was conducted in Arkansas in 1964 to determine the marital status and utilization of medical training by women physicians.[24] The sample of physicians in this study consisted of all living women graduates of the University of Arkansas School of Medicine and of all women physicians living in Arkansas in 1964. Based upon the seventy-five responses received, it was reported that 69.3 per cent of the respondents were married and 53.4 per cent had children, 89.4 per cent were in full time medical practice, 9.3 per cent were in part time medical practice and 1.3 per cent were not practicing.

Another study was conducted in Canada to determine how many of the 106 living women graduates of the University of Western Ontario were practicing, how many were married to physicians and what factors affected the careers of women medical graduates.[25] A complete analysis of responses from eighty-

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24 Eva F. Dodge, "Women Physicians of Arkansas," Journal of the American Medical Womens Association, (19:10) October 1964, p. 865.

25 Carol Buck, Mary Scoffield and O. H. Warwick, "A Survey of Women Graduates From a Canadian Medical School," Canadian Medical Association Journal, Vol. 94, April 2, 1966, pp. 712-716.

four respondents who had graduated before 1959 was presented. Of these respondents 84.5 per cent were engaged in medical practice (65.5 per cent full time and 19.0 per cent part time) and 15.5 per cent were not practicing. Sixty-two of these eighty-four respondents were married, forty of them to physicians.[26] This study reported that "child-bearing was the most important determinant of occupational status. Fewer of the women who had borne children were currently engaged in medical work than were either single or childless married women. The apparent contribution of other factors to working status arose from their correlation with child-bearing."[27]

A thesis written in 1940 by Ruth Moote presented a bibliography of women in American Pharmacy.[28] This bibliog-

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26 Ibid., p. 714.

27 Ibid., p. 712.

28 Ruth Moote, "Bibliography of Women in American Pharmacy," Unpublished Bachelor of Science (Pharmacy) thesis, The University of Wisconsin, 1940.

graphy contains briefly annotated citations of articles which mention women pharmacists from 1881 through 1938. It also contains a list dated 1939 of names of previous University of Wisconsin female graduates in pharmacy and the registered women pharmacists and pharmacist assistants in Wisconsin.

Examples of studies conducted with sample of women physicians to describe various aspects of their professional careers have been summarized in this chapter. No current research has been conducted, however, to present a similar description of the growing proportion of women pharmacists.

CHAPTER II

THE STUDY

It is not likely that women pharmacists devote their lives primarily to the practice of their profession. Professor Per Finholt of the Institute of Pharmacy, Oslo University, Norway reported that at any time only forty per cent of the women pharmacists can be expected to be practicing.[1] Thus the increasing proportion of women pharmacists will influence adversely the supply of pharmacists available for practice.

The subject merits investigation when a proportion of the personnel in a profession like pharmacy are not practicing. This descriptive study was undertaken to examine

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[1] "British Pharmacists' Study Tour to Oslo," Institute of Pharmacy Management, Special Reports, The Pharmaceutical Journal, (197:5375) November 5, 1966, p. 497; Caplow notes that "a considerable proportion of the qualified (women) workers in a given area will be out of the labor force at a given moment." See: Theodore Caplow, The Sociology of Work, University of Minnesota Press, Minneapolis, 1954, pp. 235-236.

some aspects of the personal and professional life of women pharmacists, to document and explain evidence of their professional inactivity and to evaluate their influence on the supply of pharmaceutical manpower.

Objectives

More specifically, the objectives of this study were to select a sample of women pharmacists and determine:

1. What factors influenced them to enter pharmacy.
2. What proportion were actively practicing, their fields of practice and reasons for selecting those fields.
3. What proportion were married, at what stage of their career they were married and to describe relevant aspects of their families such as number of children and husband's occupation.
4. What proportion of the time they practiced pharmacy since becoming registered pharmacists.
5. What income they received and what unique problems, if any, they encountered in their professional careers.

6. Their membership in professional organizations and readership of professional journals and publications.

The Sample

The sample consisted of living women pharmacists who had graduated from the University of Wisconsin School of Pharmacy from June 1937 through June 1966 and all women pharmacists who were registered with the Wisconsin State Board of Pharmacy in November, 1966. The names of women who had graduated during the past thirty years from the University of Wisconsin School of Pharmacy were obtained from the records of the Pharmacy School at the University of Wisconsin in Madison, Wisconsin. The addresses of these graduates were obtained from the alumni files of the School of Pharmacy. June 1937 was selected arbitrarily as the cut off date for sample members from this source because earlier graduation and alumni records became increasingly incomplete. Names and addresses of women registered with the Wisconsin State Board of Pharmacy were obtained from the office of the Wisconsin State Board of Pharmacy in Milwaukee, Wisconsin.

Names and addresses of a total of 345 different women pharmacists were obtained. This constituted the sample for the study. Names of 137 (39.7 per cent) sample pharmacists were duplicates, appearing in both State Board of Pharmacy and School of Pharmacy files. The telephone company was consulted to confirm addresses of those pharmacists who had different addresses listed at each of these sources. Forty-nine (14.2 per cent) sample pharmacists were obtained only from the School of Pharmacy files and 159 (46.1 per cent) were obtained only from the files of the Wisconsin State Board of Pharmacy.

Fifty-eight (16.8 per cent) of the women pharmacists in the sample were known to belong to a religious order. Data from these fifty-eight pharmacists were anticipated to be atypical from that obtained from the rest of the sample pharmacists. It was decided, however, to include these pharmacists in the study and to obtain from them whatever data possible. A summary of the data obtained from these pharmacists belonging to a religious order is presented separately in Chapter eleven.

Methodology

A mail questionnaire was considered the most feasible method of collecting data because of the size and distribution of the sample. A cover letter was written and a three page questionnaire was designed. It was believed that if a pharmacist received the questionnaire at her place of practice she probably would be too busy to complete it and would put it aside until she had some free time. Thus she probably would neglect and possibly misplace the questionnaire. At home, however, she likely would have more time to complete the questionnaire. Therefore, wherever possible, the questionnaire was sent to the residential address of the sample pharmacists instead of their pharmacy address.

A pretest was conducted by mailing the cover letter and the questionnaire to twenty-two sample pharmacists, none of whom belonged to a religious order, in the city of Madison, Wisconsin or a nearby suburb. The pretest sample was selected from the Madison area because in the event of a low response or gross misinterpretation of the questionnaire personal

interviews could be conducted to determine the questionnaire's defects.

The pretest questionnaires with cover letter were mailed on Saturday, January 14, 1967. Sample pharmacists were requested to return the questionnaire by Friday, January 20, 1967 (See pretest cover letter and questionnaire in Appendix A.)

By Monday, January 23, 1967 fifteen completed questionnaires were received representing a 68.2 per cent return. An analysis of these fifteen responses revealed no apparent serious defects in the questionnaire. Changes involving instructions to the respondents and layout were incorporated into the questionnaire. The first paragraph of the cover letter also was modified.

The final questionnaire along with the modified cover letter and a return addressed, stamped envelope were mailed to the remaining 323 sample pharmacists on February 1 and 2, 1967. Sample pharmacists were requested to return the completed questionnaires by February 17, 1967. (See cover letter and Questionnaire in Appendix B). A total of 207 questionnaires were received by February 17, 1967. The pretest questionnaires are included in this total. Another four questionnaires were received before the follow-up procedures were completed. Follow-ups could not be conducted with twenty-one sample members who had moved and left no forwarding address. Seven of these twenty-one sample members belong to a religious order. This reduced the sample to 324.

The follow-up of nonrespondents began on Monday, February 20, 1967. Sample pharmacists who had not returned the questionnaire and who were residing in Wisconsin were telephoned and requested to complete and return the questionnaire at their earliest convenience. The telephone numbers of four of these nonrespondents were not available. The pretest nonrespondents also were telephoned.

The telephonic follow-up was productive and resulted in another eighteen questionnaires being mailed to sample pharmacists who had either not received or misplaced their original questionnaire. The telephonic follow-up also helped clarify doubts of some pharmacists, particularly those who were retired and believed their information would not fit into any pattern.

A follow-up letter was mailed on Monday, February 27, 1967 to all out of state nonrespondents and to all nonrespondents in Wisconsin whose telephone number was not known. All of the nonrespondents known to belong to a religious order order received only a mail follow-up even if they resided

in Wisconsin. (See follow-up letter in Appendix C). It was decided that questionnaires received after Saturday, March 11, 1967 would not be used.

The telephonic follow-ups with the nonreligious order subsample residing in Wisconsin were conducted at their residence, not their place of practice. This was done to avoid the distraction and allay the irritation with the study which may have developed if the nonrespondents were contacted while busy at their respective pharmacies. Some degree of active or latent irritation with the study already probably existed as was evidenced by their nonresponse.

It was considered not proper to telephone the religious order nonrespondents at their respective convents to urge their participation in the study. Moreover, their residence telephone numbers were not individually listed and could have been obtained only by inquiring at their place of practice. Thus perhaps the lower response rate from the religious order subsample reflected the sole reliance on a mail follow-up to nonrespondents. (Table II, p. 29).

Telephonic follow-ups were found to be more productive than mail follow-ups. Completed questionnaires were returned

by only eleven (19.0 per cent) of fifty-eight pharmacists who were mailed follow-up letters. However, forty-three (78.2 per cent) completed questionnaires were received from fifty-five telephonic follow-ups.

By March 11, 1967, 265 partially or wholly completed questionnaires were returned, representing an 81.8 per cent response. One questionnaire received after this date was not used. Table 11 presents the proportion of questionnaires returned by sample pharmacists who were or were not members of a religious order.

TABLE 11

PROPORTION OF QUESTIONNAIRE RETURN BY SAMPLE PHARMACISTS WHO WERE AND WERE NOT MEMBERS OF A RELIGIOUS ORDER

Sample Pharmacists	Questionnaires Mailed N	Returned N	Returned %
Not Members of Religous Order	273	232	85.0
Members of Religious Order	51	33	64.7
TOTAL	324	265	81.8

Limitations

The use of a mail questionnaire results in some inherent limitations, such as incomplete replies, unanswered questions and misinterpretation of questions.[2]

It is possible that some woman pharmacists who should have been sample members were omitted unintentionally. This could have happened because of the sample selection process from the School of Pharmacy or Board of Pharmacy files. Women with typically masculine names would not have been selected.

There is no assurance that the nonrespondents were similar to the respondents. The use of two different follow-up methods also results in some limitations. Telephonic follow-ups were the method of choice but economic limitations made it

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2 For a detailed discussion of limitations of mail questionnaires, see; Harper W. Boyd and Ralph Westfall, Marketing Research Text and Cases, Richard D. Irwin, Inc., Homewood, Illinois, Revised Edition, 1964, pp. 575-576; Mildred Parten, Surveys, Polls, and Samples: Practical Procedures, Harper and Brothers, Publishers, New York, 1950, pp. 404-413; Herbert Hyman, Survey Design and Analysis Principles, Cases and Procedures, The Free Press, Publishers, Glencoe, Illinois, Second Printing, September 1957, pp. 143-144; W. Edwards Deming, "On Errors in Surveys," The American Sociological Review, (9:4) August 1944, pp. 359-369.

necessary to restrict telephone follow-ups to nonrespondents residing in Wisconsin. The findings, of course, cannot be projected because of nonrandom sample selection.

CHAPTER III

GENERAL CHARACTERISTICS OF RESPONDENTS

Much of the data collected were demographic in nature to classify the respondents for descriptive purposes. Other data were explanatory or attitudinal to ascertain conscious reasons for behavior or beliefs. The classifications, analyses and discussions presented in this chapter and through chapter ten are based on data from 232 respondents who were not members of a religious order. A separate analysis and discussion of data received from respondents in a religious order are presented in chapter eleven.

Data presented in Chapter three describes the respondents by their geographical distribution, age, whether or not they were a registered pharmacist, and their field of pharmacy in which they were practicing. The reasons reported by some respondents for not being a registered pharmacist or not practicing currently also are presented and discussed.

Geographical Distribution

About two-thirds (66.4 per cent) of the 232 respondents were residing in Wisconsin. The seventy-eight (33.6 per cent) additional respondents were residing in twenty-seven different states. Chart I illustrates the number of respondents residing in each state. About one-third (34.6 per cent) of the out of state respondents were residing in one of the four states bordering Wisconsin. The others were distributed throughout the country with small concentrations in California and New York.

The distribution of the 154 respondents residing in Wisconsin is presented by counties in Chart II. These respondents resided in thirty-five different counties with heavy concentrations in Dane and Milwaukee counties. (See Appendix D for a complete list of the number of respondents from different Wisconsin communities.) The high concentration in Dane and Milwaukee counties is due to a large number of respondents residing in the cities of Madison and Milwaukee.

Age

The respondents were not asked to report their age or date of birth. These data were available from secondary sources. The age of all respondents' who reported completing their phar-

CHART I

DISTRIBUTION OF RESPONDENTS BY STATES

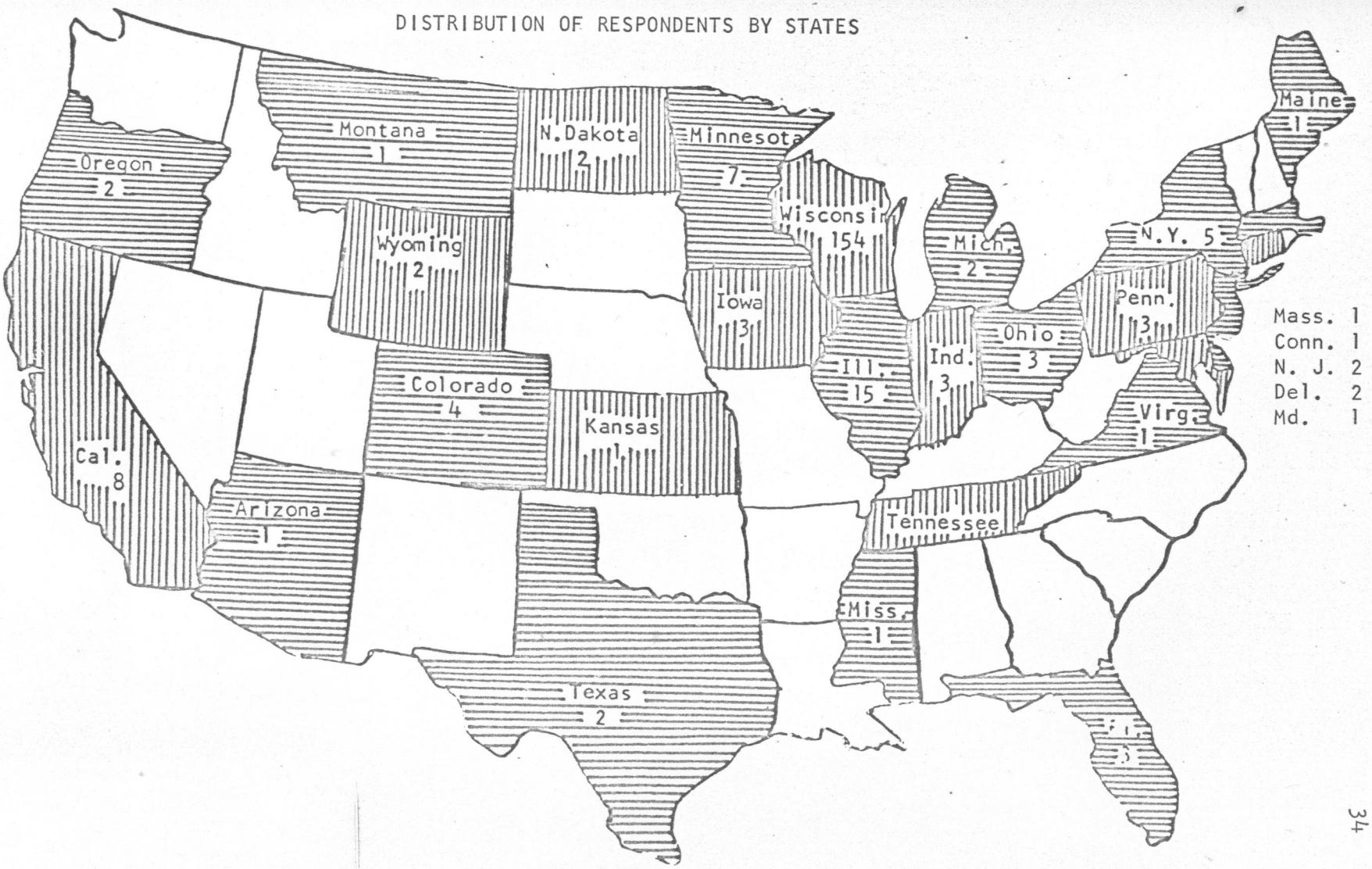
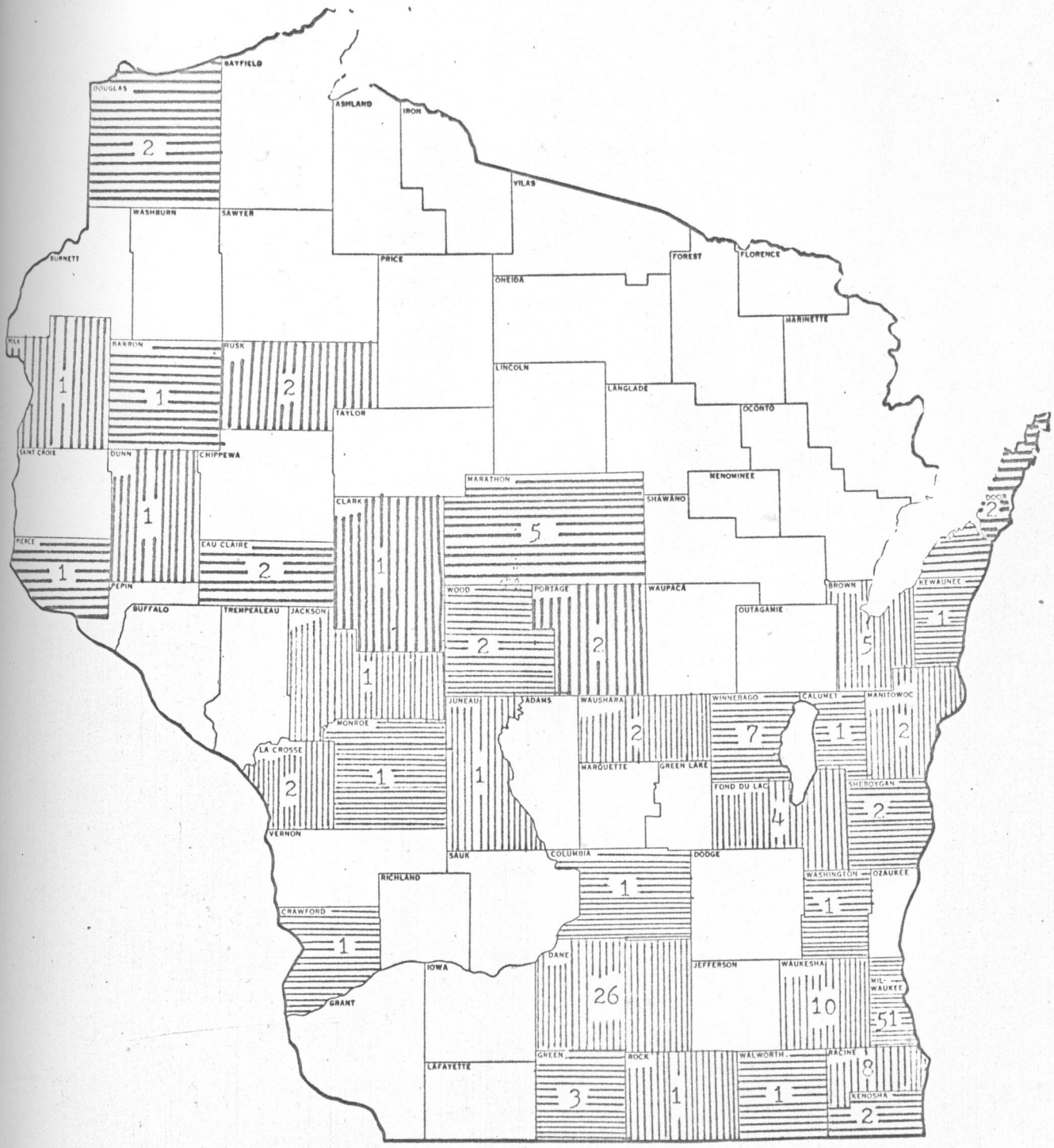


CHART II

DISTRIBUTION OF RESPONDENTS RESIDING IN WISCONSIN BY COUNTIES



macy education at the University of Wisconsin were obtained from the School of Pharmacy files. Ages of the remainder were obtained from the Wisconsin State Board of Pharmacy files.

The age of each respondent as on March 1, 1967 was calculated. They then were classified into age groups. Table III presents the number and per cent of respondents in the different age groups. Approximately two-thirds (69.4 per cent) of the respondents were under forty-five years of age. This finding is comparable to that reported in 1963 by Peterson and Pennell. They reported, "As a group the women pharmacists were younger than the men. Almost two-thirds of the women were under age 45 ... This may reflect the increased enrollment of women in colleges of pharmacy in recent years."[1]

Data reported by Ohvall suggests that World War II perhaps influenced this age distribution of women pharmacists.[2]

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1 Paul Q. Peterson and Maryland Y. Pennell, Health Manpower Source Book Pharmacists, Public Health Service Publication 263, Section 15, U.S. Government Printing Office, Washington, D.C., 1963, p. 8.

2 Richard A. Ohvall, "Pharmacy Manpower in Wisconsin," The Wisconsin Pharmacist, (34:11) November 1965, p. 478.

TABLE III

NUMBER AND PER CENT OF RESPONDENTS BY AGE

Age Group	Number	Per Cent
20 - 24	21	9.1
25 - 29	41	17.7
30 - 34	40	17.2
35 - 39	30	12.9
40 - 44	29	12.5
45 - 49	16	6.9
50 - 54	17	7.3
55 - 59	12	5.2
60 - 64	11	4.7
65 & Over	15	6.5
TOTAL	232	100.0

It is likely that more females entered pharmacy as males had their pharmacy education or practice interrupted by the war. Since that time women seem to have been able to maintain and slowly increase their porportion in pharmacy.

Registration Status of Respondents

Two hundred and seventeen (93.5 per cent) of the 232 respondents were registered pharmacists at the time of the study. Each was registered in from one to five different states. One hundred and twenty-eight respondents (55.2 per cent) were registered only in Wisconsin. Nine additional respondents, not registered in Wisconsin, were registered only in one other state. Sixty-four respondents (27.6 per cent) were registered in two states, nine (3.9 per cent) were registered in three states, five (2.2 per cent) were registered in four states and two (0.9 per cent) respondents were registered in five states. Fifteen respondents (6.5 per cent) were not registered pharmacists at the time of the study.

Reasons for Not Being Registered

Some prospective women pharmacists marry prior to or immediately after their graduation from pharmacy school.

Such women, because of domestic responsibilities, may be precluded from interning and becoming registered during the year after receiving their pharmacy degree. Registered women pharmacists also leave practice to marry and raise a family. These pharmacists may let their registration lapse because of domestic responsibilities.

Only one of the fifteen respondents who was not registered at the time of the study had allowed her original registration to lapse. This respondent moved from Wisconsin to California. She let her Wisconsin registration lapse and did not become registered in California. At the time of the study she was employed as a customer service manager in a pharmaceutical firm.

None of the remaining fourteen respondents had ever been registered. One was a graduate student and another had failed the Wisconsin State Board of Pharmacy examinations in 1966. Of the remaining twelve respondents who had never been registered, seven were completing their internship requirements. Six of these seven interning respondents had graduated in June 1966 whereas one had graduated in June, 1965. Another respondent, a June, 1966 graduate had not started her internship because

she was married, had a child and "wanted to stay home."

There were four respondents who were never registered as pharmacists and never practiced pharmacy although they had graduated before 1960. One respondent, a 1959 graduate, had not even started her internship. This respondent replied that she became married a year after graduation. She reported difficulty in finding a pharmacy in which to intern and at the time of the study she had four children under seven years of age. This respondent, residing in a large metropolitan area in Wisconsin, reported difficulty in finding a place to intern during the two years between graduation and the birth of her first child.

Another respondent, a 1950 graduate, had fulfilled her internship requirements but never became registered as a pharmacist because she had no desire to practice pharmacy. At the time of the study she was teaching, not in a school of pharmacy, and was unmarried. Her reported reasons for not becoming registered were, "I much prefer teaching - better hours, more challenge - never routine - summers off for golf."

A third respondent was a 1956 graduate and though she had completed her internship, she never became registered because

she "did not like the idea of mainly clerking in the drug store while employed as an apprentice." This respondent was married, did not have any children and was primarily occupied maintaining her household.

Another nonregistered respondent was a 1937 graduate who had failed her State Board of Pharmacy examinations. During the thirty years since graduation she held a variety of jobs not involving pharmacy and was "working in an engineering firm" at the time of the study.

Occupational Classsification of the Respondents

Three respondents did not report their field of practice. The fields of practice of the remaining 229 respondents are presented and discussed. Sixty-five (28.4 per cent) of the 229 respondents were not practicing, ten (4.4 per cent) of whom reported being retired. There were nine respondents who did not hold permanent positions but acted as relief pharmacists. All these respondents clearly stated they were relief pharmacists and practiced when regular pharmacists of some pharmacies were on vacation or unable to work due to sickness or an emergency situation. The remaining 155 (67.7 per cent) of the 229 respondents were full time or part time practitioners.

There were nine respondents who simultaneously held two part time positions. Seven of these respondents practiced in a community pharmacy and a hospital pharmacy, one practiced in a clinic pharmacy and a community pharmacy and the other practiced in a clinic pharmacy and a hospital pharmacy. None of these respondents mentioned specifically the number of hours they practiced in each position but reported their total number of hours in practice each week. These nine respondents were classified under two types of practice. The number and per cent of 229 respondents in different fields of practice are presented in Table IV.

In this study 42.4 per cent of the respondents were practicing community pharmacy. Four other studies have reported considerably higher proportions of pharmacists in community practice. A range of from 90.7 per cent to 68.1 per cent of the pharmacists sampled in these studies were reported to be community practitioners.[3] However, these findings were from

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3 "Number Registered Pharmacists Engaged in Practice," National Association of Boards of Pharmacy, 1966 Proceedings, Chicago, Illinois, p. 163; Paul Q. Peterson and Maryland Y. Pennell, Health Manpower Source Book Pharmacists, Public Health Services Publication 263, Section 15, United States Government Printing Office, Washington, D.C., 1963, p. 9; Richard A. Deno, Ralph M. Wilson and Stephen Wilson, Pharmacy in Michigan, J. W. Edwards, Ann Arbor, Michigan, 1956, p. 56; and Robert W. Hammel, "Employment History of University of Wisconsin Pharmacy Graduates: 1951-1955," Unpublished M.B.A. seminar paper, University of Wisconsin, 1956, p. 11.

TABLE IV

NUMBER AND PER CENT OF RESPONDENTS BY FIELD OF PRACTICE

Field of Practice	Respondents Number	Per Cent[a]
Community	97	42.4
Hospital	52	22.7
Clinic	10	4.4
Relief[b]	9	3.9
Industry	2	0.9
Teaching	1	0.4
Graduate Student	2	0.9
Retired	10	4.4
Not Practicing	55	24.0

[a] Nine respondents reported two simultaneous positions in different fields. The per cent total, based upon 229 respondents, exceeds 100 per cent because of these multiple replies

[b] These respondents reported "relief" as their field of practice. Such positions were not permanent and included any combination of community, hospital or clinic pharmacy.

samples which consisted predominantly of male pharmacists.

Conversely, the porportion of women in hospital pharmacy in this study is almost four times the proportion of pharmacists in hospital pharmacy as reported by other studies. Three other studies have reported a range of from 5.7 per cent to 6.8 per cent of the pharmacists sampled to be hospital practitioners.[4] These findings also, however, were from samples which consisted predominantly of male pharmacists.

One explanation for the high proportion of women in hospital pharmacy may be reflected in the dislike some respondents expressed for the "business aspects" of pharmacy which they perceive to be greater in community pharmacy as compared to hospital pharmacy. The respondents' reasons for choosing to practice in a particular field of pharmacy are discussed in chapter six.

Table V presents the age distribution of respondents by field of practice. If those respondents who were engaged in community pharmacy or hospital pharmacy are divided into two age groups, one of below forty-five years of age and the other

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4 National Association of Boards of Pharmacy, 1966 Proceedings, op.cit., p. 163, Deno et al., op.cit., p. 56 and Hammel, op.cit., p. 11

TABLE V

PER CENT OF RESPONDENTS BY AGE IN DIFFERENT FIELDS OF PRACTICE

Field of Practice	N	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 & Over	TOTAL
Community	97	11.3	13.4	21.6	5.2	15.4	6.2	10.3	5.2	5.2	6.2	100.0
Hospital	52	9.6	23.1	19.2	15.4	9.6	5.8	5.8	1.9	7.7	1.9	100.0
Clinic	10	10.0	20.0	10.0	10.0	20.0	20.0	10.0	-	-	-	100.0
Relief	9	-	22.2	11.1	33.4	11.1	11.1	-	11.1	-	-	100.0
Industry	2	50.0	-	-	-	-	-	50.0	-	-	-	100.0
Teaching	1	-	-	-	-	-	100.0	-	-	-	-	100.0
Graduate Student	2	50.0	50.0	-	-	-	-	-	-	-	-	100.0
Retired	10	-	-	-	-	-	-	-	10.0	10.0	80.0	100.0
Not Practicing	55	5.5	20.0	18.2	23.6	10.9	9.1	3.6	7.3	1.8	-	100.0

of forty-five and above, one finds that:

a) In community pharmacy, approximately two out of three respondents (66.9 per cent) are under forty-five years of age.

b) In hospital pharmacy, however, approximately three out of four respondents (76.9 per cent) were under forty-five years of age.

Thus apparently, hospital pharmacy has a higher proportion of younger women pharmacists than does community pharmacy. This may reflect contemporary expansion of pharmaceutical services in hospitals.

Respondents who reported practicing forty or more hours per week were classified as full time practitioners whereas respondents practicing less than forty hours per week were classified as part time practitioners. Almost half (49.4 per cent) of the sixty-nine respondents in full time community, hospital and clinic practice reported practicing forty hours per week. The hours of weekly practice for these respondents ranged from forty to seventy-two hours. Their mean hours of weekly practice was 44.7 hours, the median was forty-one hours and the mode was forty hours.

Over three fifths (62.8 per cent) of seventy-eight respondents in part time community, hospital and clinic practice reported practicing twenty hours or less a week. The hours of weekly practice for these respondents ranged from four to 37.5 hours. Their mean hours of weekly practice was 18.9 hours and the median and mode were twenty hours.

Table VI presents the number and per cent of respondents who were practicing full or part time in community, hospital and clinic pharmacy.

TABLE VI

NUMBER AND PER CENT OF RESPONDENTS PRACTICING FULL OR PART TIME IN COMMUNITY, HOSPITAL AND CLINIC PHARMACY

	Full Time		Part Time	
	No.	%	No.	%
Community	39	40.2	58	59.8
Hospital	25	48.1	27	51.9
Clinic	5	50.0	5	50.0
Total	69	46.0	81[a]	54.0

[a] Nine of these part time respondents were practicing simultaneously in two different fields and are classified twice in this table. Their fields of practice are reported on page 42. Three others did not specify their number of hours but reported simply "part time".

A majority (54.0 per cent) of the 150 respondents were practicing part time. About half of the hospital and clinic pharmacists were practicing on a part time basis whereas sixty per cent of the community pharmacists were practicing part time. These data perhaps reflect the greater availability of part time positions in community pharmacy compared to other pharmaceutical fields. This also may be a likely explanation why most practicing respondents were in community pharmacy. Perhaps more positions in hospital, clinic and even nursing home pharmacies could be staffed readily by women pharmacists if several part time schedules could be established and coordinated.

Reasons for Not Practicing

Fifty-five (24.0 per cent) respondents, who were not retired, reported they were not practicing at the time of the study. Their reasons for not practicing are presented in Table VII. Approximately three out of four of these respondents reported the responsibilities of being a mother and/or housewife as their reasons for not practicing. Six of these forty-two respondents said they were planning to practice at a later date. Another five respondents were not practicing because they were

not registered in the state of their current residence. Three respondents were working in fields other than pharmacy, one in an engineering firm, one was a teacher and another one was helping her husband's business. One respondent had failed the State Board examinations, one was looking for a job and another three respondents did not give any reasons.

TABLE VII

NUMBER AND PER CENT OF RESPONDENTS

BY THEIR REASONS FOR NOT PRACTICING

	Number	Per Cent
Full Time Mother and Housewife	42	76.4
Not Registered in State of Current Residence	5	9.1
Fields Outside Pharmacy	3	5.5
Failed State Board Examinations	1	1.8
Looking for a Job	1	1.8
No Response	3	5.5
	55	100.0

Only one of the fifty-five nonpracticing respondents was single. The five respondents who were not practicing because they were not registered in the state of their current residence had moved there when their husbands transferred to that state. Comments of two of these respondents are presented because they are illustrative of the problems some pharmacists encounter on moving between states.

> I am not registered in this state. I think it is ridiculous that I should have to pay $100 to the National Boards of Pharmacy to get my credentials transferred from one state to another. Seems that this reciprocity could be worked out between states involved. In this era of moving the way we do it would cost me $100 every couple years just to keep my registration current.

Another respondent wrote:

> The state of ... has been exceptionally disagreeable about reciprocating my Wisconsin license. They will not accept all of my internship time, and family responsibilities preclude interning full time.

It is reasonable to expect that these findings underestimate the true proportion of sample women pharmacists who were not registered or practicing. It is likely that they would perceive their behavior, that of not utilizing their professional education, as being socially unacceptable and hence did not return the questionnaire.

CHAPTER IV

MARITAL STATUS AND RELATED CHARACTERISTICS OF RESPONDENTS

The responsibilities concomitant with the various marital statuses are major variables which influence womens participation in the labor force. The significance of these variables has been well documented.[1] The problem revolves around the concepts that the time and energies required for a professional career may preclude a woman from marriage and raising a family. Conversely, the time and energies required for marriage and a family may preclude a woman from a professional career.

Basic to this problem is the tendency in our culture for a husband to be at least as well educated, if not more so, than

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[1] See for example: F. Ivan Nye, Lois W. Hoffman et al., The Employed Mother in America, Rand McNally and Company, Chicago, 1963, 406 pp.; Nancy Seear, "The Future Employment of Women," in B. C. Robers and J. H. Smith, eds., Manpower Policy and Employment Trends, The London School of Economics and Political Science, 1966, pp. 98-110 and Marguerite W. Zapoleon, Occupational Planning for Women, Harper and Brothers, New York, 1961, pp. 9-13.

his wife.[2] Thus the more education a woman obtains, the fewer men there will be available whose educational achievement equals or exceed hers.[3]

This chapter presents data on the marital staus of respondents, the stage of their career they were married, their number of children and the occupation of their husbands. Table VIII presents the marital status of the 232 respondents.

TABLE VIII

NUMBER AND PER CENT OF RESPONDENTS BY MARITAL STATUS

	Number	Per Cent
Married	173	74.6
Single	40	17.2
Widowed	12	5.2
Divorced	6	2.6
Separated	1	0.4
TOTAL	232	100.0

2 See: Zapoleon, Op.Cit., pp. 17-19 for a discussion of differences in motivation toward educational achievement between males and females.

3 Rosemary Pierrel, "Medical Career Interests Among College Women," Journal of the American Medical Womens Association, (19:2) February 1964, p. 136.

Married Women Pharmacists

A comparison of the respondents' marital status with the marital status of the female population of the United States is presented in Table IX. A higher proportion (82.8 per cent) of the respondents were or had been married as compared to the

TABLE IX

PER CENT OF RESPONDENTS AND UNITED STATES FEMALE POPULATION BY MARITAL STATUS

	Respondents	U.S. Female Population[a] (Females fourteen years of age and over are included)
Single	17.2%	20.7%
Married	75.0%[b]	63.9%
Widowed	5.2%	12.5%
Divorced	2.6%	2.9%
	100.0%	100.0%

a Source: "Marital Status of the Population, by Sex and Age: 1965," Statistical Abstracts of the United States 1966, (87th edition) United States Bureau of the Census, Washington D.C., 1966, p. 31.

b One "Separated" respondent was included in the married category for this comparison.

United States female population (79.3 per cent). A pharmacy degree does not seem to be a deterrent to marriage. Females fourteen years of age and over are tabulated in the United States' female population. This probably explains the lower per cent of married and the higher per cent of single women in the population as compared to the sample of women pharmacists. The lower percentage of widowed respondents compared to the female population could be due to sample selection.

The following analysis relates the year the respondents were married with the year of their graduation from pharmacy school. The purpose of this analysis is to ascertain the possible influence of the demands of a pharmacy education and subsequent practice on the timing of their marriage.

The respondents were asked to report only the year in which they graduated and the year they were married. Thus the "years" mentioned in the following analysis refer only to the calendar years in which the respondents' graduation or marriage occurred. For example, a respondent may have graduated in June, 1962 and was married in January, 1963. She was, however, classified as becoming married one year after graduation. Another respondent may have graduated in

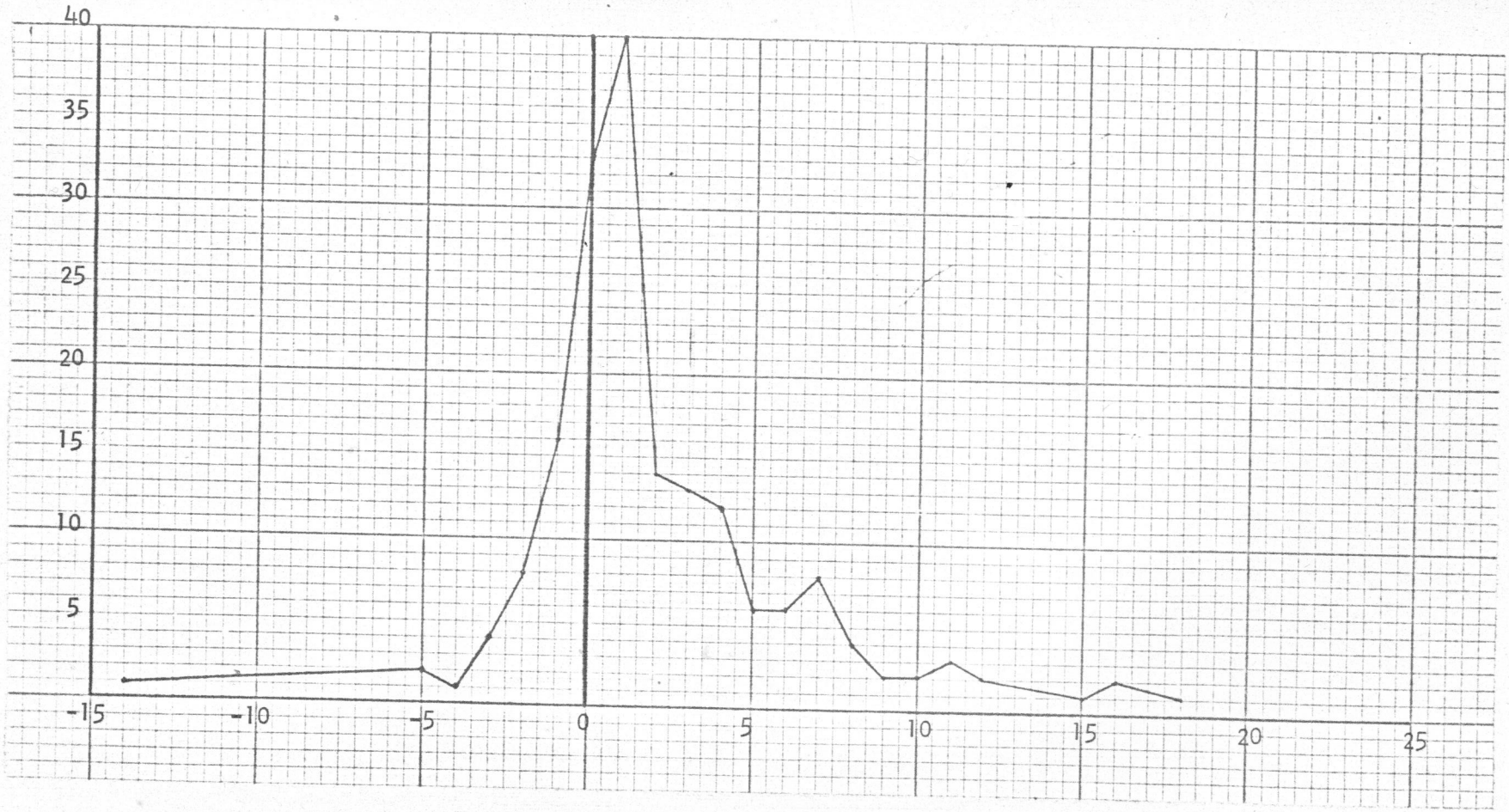
in June, 1962 and was married in December, 1963, eleven months later than the previous respondent. She also received the same classification.

A frequency distribution comparing the number of married respondents and the year they were married as calculated in relation to their year of graduation from pharmacy school is presented in Chart III. A year value of zero was assigned to those respondents getting married during the same year as their graduation from pharmacy school. Those respondents marrying before their year of graduation were assigned negative year values and those marrying after their year of graduation were assigned positive year values. The year value was the number of years before or after their graduation year that they were married.

Ten respondents did not report their year of marriage (two of whom were divorced, two were widowed and one was separated) lowering the number of usable responses for this analysis to 182. Thirty-two (17.6 per cent) of the 182 respondents were married one year or more before graduation, thirty-three (18.1 per cent) of the respondents were married the same year of graduation whereas the remaining 117 (64.3 per cent) respondents were married

CHART III

NUMBER OF RESPONDENTS BY NUMBER OF YEARS BETWEEN THEIR MARRIAGE AND GRADUATION FROM PHARMACY SCHOOL



one year or more after graduation. The number of respondents by their year value of marriage in relationship to graduation from pharmacy school is presented in Appendix E.

Both the mode and median of the distribution are at one year after graduation and the value of the arithmetic mean (with the negative values being subtracted from the positive values) is 2.3 years after graduation. It is interesting to note that all four respondents who were married at least four years prior to their graduation attributed their entrance into pharmacy to their husbands' who were pharmacy students or pharmacists.

Husbands Occupation

Female pharmacists have frequent association with their male counterparts during their professional education and in subsequent practice. Thus one would expect many marriages between male and female pharmacists as a partial result of the social opportunities provided by these professional interactions.

The marriage rate between male and female physicians has been documented. Buck, Scoffield and Warwick studied eighty-four women medical graduates of the University of Western Ontario

and reported that forty of the sixty-two married respondents had married physicians.[4] In another study of forty women physicians, Pullum reported that of twenty-four married respondents "more than 50 per cent married physicians, 25 per cent married other professional men, and the remainder married men with business careers."[5]

The respondents were asked to report the occupation of their husband at the time they were married. Fifty (26 per cent) of the 192 respondents who were married, or had once been married, reported they were married to pharmacists. Sixteen respondents said they were married to men in other medical fields, twelve to physicians and four to dentists.

Of the fifty respondents married to pharmacists, eight were not practicing at the time of the study, two were retired, another was a graduate student and two prac-

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4 Carol Buck, Mary Scoffield and O. H. Warwick, "A Survey of Women Graduates From a Canadian Medical School," Canadian Medical Association Journal, Vol. 94, April 12, 1966, p. 714.

5 Carla A. Pullum, "Women, Medicine and Misconceptions," Journal of the American Medical Womens Association, (18:7) July 1963, p. 564.

ticed as relief pharmacists. The remaining thirty-seven respondents were practicing, twenty-nine in community pharmacy (seven full time and twenty-two part time) seven in hospital pharmacy (five full time and two part time) and one part time in a clinic pharmacy.

Only twenty per cent of the respondents married to pharmacists were not practicing or retired. However, 30.7 per cent of all other respondents were not practicing or retired. Also, 58:0 per cent of respondents married to pharmacists practiced community pharmacy whereas 38.0 per cent of all respondents not married to pharmacists practiced community pharmacy.

Seven of the eight nonpracticing respondents who were married to pharmacists reported the responsibilities of being mother and housewife as their reason for not practicing. The eighth respondent was not registered in the state where she lived.

The remaining married respondents mentioned a broad range of husbands' occupations including lawyer, accountant, engineer, farmer and postal clerk. Excluding pharmacy, the husbands'

occupation mentioned most by the married respondents was "engineer". Twenty-three respondents (12 per cent) reported they married an engineer.

Children

Respondents were asked how many children they had and the years in which their children were born. Only 187 of the 192 married respondents answered this question. Thirty-five respondents said they did not have any children and the number of children reported by the remaining 152 respondents ranged from one to ten. The number and percentage of respondents and the number of their children is presented in Table X.

It was not possible to compare directly these data with the United States Bureau of the Census data because only persons under eighteen years of age are classified as children by the census. An approximate comparison, however, was possible by excluding from the data respondents' children over eighteen years of age. The ages of these children were approximated closely from the reported years in which they were born. Table XI compares the per cent of respondents and the per cent of United States nonfarm families and their number

TABLE X

NUMBER AND PER CENT OF RESPONDENTS
BY THE NUMBER OF THEIR CHILDREN

Number of Children[a]	Respondents	
	Number	Per Cent
None	35	18.7
One	32	17.1
Two	48	25.6
Three	36	19.3
Four or more	36	19.3
TOTAL	187	100.0

[a] A complete list of the number of respondents and the number of their children is presented in Appendix F.

TABLE XI

PER CENT OF RESPONDENTS AND UNITED STATES NONFARM FAMILIES BY THE NUMBER OF THEIR CHILDREN UNDER EIGHTEEN YEARS OF AGE

Number of Children	Respondents (N=187)	United States Nonfarm families[a] (N=47,836,000)
None	27.9%	43.1%
One	18.1%	18.0%
Two	24.7%	17.0%
Three	14.9%	11.1%
Four or more	14.4%	10.8%
	100.0	100.0

[a] Source: "Per cent Distribution of Families by Number of Own Children Under 18 Years Old, by Residence; 1950 to 1965," U.S. Bureau of the Census, Statistical Abstracts of the United States: 1966 (87th edition) Washington D.C., 1966, Table 38, p. 36.

of children under eighteen years of age.

A higher proportion of the respondents (72.1 per cent) had one or more children as compared to the United States nonfarm families (56.9 per cent). It is evident that a professional career did not deter married respondents from having children.

Single Respondents

Forty (17.2 per cent) of the respondents reported that they never had been married. Table XII presents the occupational fields of these single respondents. Most of these respondents were practicing community pharmacy (42.5 per cent) or hospital pharmacy (40.0 per cent).

The number of hours worked weekly by the seventeen single community pharmacists ranged from forty to seventy-two hours a week, with a mean of 44.4 hours per week, a median at forty-one hours and a mode of forty hours per week. There was only one respondent practicing seventy-two hours per week, and she was self employed. At least two other respondents were known to own and operate community pharmacies and they practiced fifty and sixty hours per week respectively. Of the

TABLE XII

PER CENT AND NUMBER OF SINGLE WOMEN PHARMACISTS BY OCCUPATIONAL FIELD

	Number	Per Cent
Community Pharmacy	17	42.5
Hospital Pharmacy	16	40.0
Graduate Student	1	2.5
Pharmacy Professor	1	2.5
Retired	4	10.0
Working in a Field Other Than Pharmacy	1	2.5
	40	100.0

sixteen unmarried hospital pharmacists, thirteen were practicing forty hours per week while three were practicing between forty-one and forty-three hours per week.

Married vs. Single Respondents

There were 97 respondents in community practice of whom seventeen were single and in full time practice. All of the remaining eighty respondents had been or were married. Twenty-two (27.5 per cent) of these eighty married respondents in community pharmacy practiced full time whereas 72.5 per cent practiced part time.

Fifty-two respondents practiced hospital pharmacy of whom sixteen were single and in full time practice. The remaining thirty-six respondents were or had been married. Twenty-five per cent of the married respondents in hospital pharmacy practiced full time whereas seventy-five per cent of them practiced part time.

All ten respondents in clinic pharmacy were married. Fifty per cent of these respondents were in full time practice. All nine respondents who practiced as relief pharmacists were married. Thus a lower proportion of respondents who were or had been married were full time practitioners compared to single respondents. These data clearly illustrate that the responsibilities concomitant with marriage reduced the weekly hours of married respondents' practice.

CHAPTER V

FACTORS WHICH INFLUENCED RESPONDENTS TO STUDY PHARMACY

There are many complex and interrelated variables which influence a young person's selection of a particular career or occupational field. Ginzberg has presented, in a theoretical context, an excellent account of "... the multiplicity of factors that are likely to be operative..." in the process of occupational choice.[1]

Other studies have discussed specifically some of the factors which reportedly influence students to choose pharmacy as an occupation. Steib conducted a survey of 217 prepharmacy students on both the Madison and Milwaukee campuses of the University of Wisconsin. He reported the "recruitment media that most influenced their own decisions to enter pharmacy" to be practicing pharmacists, parents,

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[1] Eli Ginzberg et al., Occupational Choice, Columbia University Press, New York, 1951, p. 30

guidance literature, high school teachers and the student counselling program." Steib further reported "the practicing pharmacists plays by far the greatest role in winning qualified young men and women to a career in pharmacy."[2]

Burlage conducted another study of 385 students who entered the University of Texas College of Pharmacy from September 1960 through the 1962 summer session. He reported the local pharmacist and family influence as two important factors in motivating young people to study pharmacy.[3] These studies suggest that a young person's decision to enter pharmacy is influenced by knowledge obtained from some prior contact with the profession. Such knowledge may be gained from informal discussions about possible careers in pharmacy with the family pharmacist, a family member who is a pharmacist or another acquaintance who is a pharmacist or a pharmacy student. It may be gained more directly if the young person works in a pharmacy in some non-

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2 Ernest W. Steib, "Recruitment For The Profession," School of Pharmacy Bulletin, Extension Services in Pharmacy, The University of Wisconsin Extension Division, Madison, Spring 1962, p. 18.

3 Henry M. Burlage, "Motivating Influences To The Study of Pharmacy," The American Journal of Pharmaceutical Education, (27:1) Winter 1963, p. 80.

professional capacity prior to making a firm career decision.

Sources Stimulating Interest in Pharmacy

The respondents were asked a series of questions to help determine which factors influenced them to study pharmacy. They were asked to report what first stimulated their interest in pharmacy as a career. Twelve respondents did not answer this question. Table XIII shows the per cent of respondents reporting the sources which first stimulated their interest in pharmacy as a career.

TABLE XIII

PER CENT OF RESPONDENTS BY SOURCES THAT FIRST STIMULATED THEIR INTEREST IN PHARMACY

Source	Per Cent[a] (N=220)
Pharmacist	57.3
Parents or Relatives	46.8
Guidance Literature	15.0
High School Teacher	5.9
Others	6.4

[a] Per cents total more than 100.0 because of multiple replies.

Most (57.3 per cent) of the respondents replied "pharmacist". "Parents or relatives" were reported by 46.8 per cent of the respondents, "guidance literature" by 15.0 per cent, "high school teacher" by 5.9 per cent and "other" sources by 6.4 per cent. Of the fourteen respondents reporting "other" sources, seven said a pharmacy student first stimulated their interest in pharmacy, three respondents reported "visit to a school of pharmacy", two said "doctor", one said "friend" and another said "working in a drug store".

Most Influential Factors

Next the respondents were asked to report what influenced them most to study pharmacy. Twenty-one respondents did not answer this question thus lowering the number of respondents to 211. Table XIV presents the per cent of respondents by factors which influenced them most to study pharmacy.

A reported interest in the general sciences was the reason given by most (25.6 per cent) of the respondents. Nine respondents said they were interested in science and wanted a profession, so they chose pharmacy. Variations in the answer of these nine respondents were in the use of the word "career" instead of

TABLE XIV

PER CENT OF RESPONDENTS BY FACTORS INFLUENCING THEM MOST TO STUDY PHARMACY

Factor	Per Cent (N=211)
General Scientific Interest	25.6
Family	19.4
"Medical Type" Career	13.3
Working in a Pharmacy	12.3
Career Potential	9.5
"Like" Pharmacy	8.5
Visit to a School of Pharmacy	4.3
Pharmacy Student	3.8
Other	3.3
TOTAL	100.0

the word "profession" and a reported interest in chemistry, mathematics or both instead of science. Another forty-five respondents reported that what influenced them most to study pharmacy was the fact that they were interested in science. These forty-five respondents differ from the previous nine respondents who specifically mentioned the desire for a career or profession. Variations in the answers of these forty-five respondents consisted of a reported interest in chemistry or mathematics or both instead of science.

Forty-one (19.4 per cent) of the respondents reported some member of their family influenced them most to study pharmacy. "Father" or "family" was the type of answer given most often by this group of respondents. Although not explicitly reported, it is probable that many of these family members were pharmacists. (See pp. 73-76).

Twenty-eight (13.3 per cent) respondents in reporting what influenced them most to study pharmacy gave answers such as "desire for a medical type" career. Most of these respondents did not, unfortunately, elaborate on what they meant by a "medical type" career. Six respondents however did explain

further. Three of them said they wanted a "medical type" career in order to serve humanity or for the good of mankind and thought pharmacy would be appropriate. Two respondents said they wanted to study medicine but were too "squeamish" and chose pharmacy instead. One respondent said she wanted to study medicine but felt this would take too long to finish and so chose pharmacy.

Twenty-six (12.3 per cent) respondents reported working in a pharmacy as having influenced them most to study pharmacy. Again, it is likely that these replies reflect, at least in part, the influence of a pharmacist. Twenty (9.5 per cent) respondents reported they chose to study pharmacy because they felt there was a good future for them in this profession. Career potential influenced these respondents most to study pharmacy. Another eighteen (8.5 per cent) respondents said they chose to study pharmacy because they "like" pharmacy. These respondents did not elaborate on what they "liked" about pharmacy.

Nine (4.3 per cent) respondents said a visit to a school of pharmacy influenced them most to study pharmacy, eight (3.8 per cent) reported a pharmacy student influencing them most to study pharmacy and another seven (3.3 per cent) reported other reasons. Of the seven respondents reporting other reasons,

three reported a doctor influenced them most to study pharmacy. Two other respondents had previously worked as nurses aids and they reported this experience influenced them most to study pharmacy. The remaining two respondents gave unusual but interesting reasons. One respondent reported that at the age of eleven she had casually read about pharmacy in the World Book Encyclopoedia and this led to her interest in pharmacy. The second respondent said that she wrote a vocational paper on pharmacy as a high school student and became so interested in pharmacy that she decided to study pharmacy.

Other Persons' Influence

Ginzberg has written:

> There was a clear indication in our preliminary interviews that almost every individual is influenced in resolving various aspects of his choice by the help which he seeks from key persons or the pressures which key persons exert on him. Parents are frequently found to play a strategic part in the choice process. At other times it is a relative, teacher or friend.[4]

Respondents were asked to report if they had any relatives or friends associated with pharmacy prior to the beginning of their pharmacy education and if these persons had any influence

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[4] Ginzberg, op.cit., p. 36.

on their choosing to study pharmacy. Four respondents did not answer this question. Nearly half (48.7 per cent) of the 228 respondents reported that they had "relatives or friends associated with pharmacy" prior to the beginning of their pharmacy education. No frame of reference was provided for the phrase "associated with pharmacy". This was worded generally so as not to include only registered pharmacists and interpretation was left to the respondents' judgment and recall at that period of her career.

Ninety (39.5 per cent) of the respondents had a relative and twenty-one (9.2 per cent) had a friend "associated" with the profession before they began their pharmacy education. Most (86.5 per cent) of these relatives and friends reportedly influenced the respondents to study pharmacy. Seventy-seven of the respondents reported the relatives as influential. "Father" was the relative mentioned by fifty-one of these respondents. Nineteen of the respondents cited a friend as influential in their decision to study pharmacy.

Influence of Prior Employment

Respondents were asked to report if they were employed in any field of pharmacy or related health area prior to the

beginning of their pharmacy education. Four respondents did not answer the question. Eighty-nine (39.0 per cent) of the 228 respondents reported having worked in a pharmacy or a hospital prior to the beginning of their pharmacy education. Most of these respondents had worked in a community pharmacy for periods ranging from three weeks to almost five years.

Fifty-nine respondents reported having a friend or relative associated with pharmacy prior to the beginning of their pharmacy education, thirty-seven reported having worked in a pharmacy or a related health area prior to the beginning of their pharmacy education and another fifty-two mentioned both. Thus 148 (65.0 per cent) of the 228 respondents reported past association with the profession either by working in a pharmacy or a related health area or due to a relative or friend who was associated with pharmacy prior to the beginning of their pharmacy education.

A majority of the respondents in this study reported a pharmacist as having first stimulated their interest in pharmacy as a career and a majority of the respondents had some type of past association with the profession. Thus there is strong evidence to suggest that a pharmacist was the key person who

helped resolve the occupational choice of a majority of the respondents. It also is likely that a pharmacist was the single most important source influencing the respondents' selection of a career in pharmacy.

CHAPTER VI

REASONS FOR CHOOSING A PARTICULAR FIELD OF PHARMACY

Prospective and neophyte pharmacists must make at least two specific career decisions. They first must choose a field of pharmacy in which to intern and after becoming registered, they must select a field of pharmacy in which to practice.

Ohvall and Hammel reported, in a study based upon 3,135 questionnaires completed by pharmacy students in the third year of their collegiate training, that,"More than half (57.64 per cent) of all respondents ... had definitely decided upon the specific professional field they anticipated entering upon graduation".[1] Thus approximately four out of ten students had not, at about the midpoint of their pharmaceutical education, decided what field of pharmacy to enter.

One of the members of a panel at an internship evaluation seminar held at the University of Wisconsin said that if a pharmacist influences a young person to study pharmacy, then

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[1] Richard A. Ohvall and Robert W. Hammel, "Career Decisions of Pharmacy Undergraduates," American Journal of Pharmaceutical Education, (27:1) Winter, 1963, p. 83.

there was a possibility that the pharmacist and the student he had influenced would later constitute a preceptor-intern team.[2] This illustrates how a pharmacist can influence a prospective pharmacist's choice of practicing in a particular field of pharmacy.

Respondents were asked if they were employed in any field of pharmacy during their pharmacy education and how long they were employed. Five respondents did not answer this question. One hundred and seventy-seven (78.0 per cent) of the 227 respondents reported having worked in a pharmacy during their pharmacy education. Community pharmacy was the field mentioned by almost nine out of ten (88.6 per cent) of the respondents. The duration of their employment ranged from six weeks to three years with the median of five months. It is possible that this experience influenced the respondent selection of a field of pharmacy after their graduation.

It was realized, while analyzing the replies to this question that it was poorly constructed. The type of work performed by the respondent is not determinable nor was she

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[2] William E. Emmons, "Internship Evaluation Seminar," The Wisconsin Mortar & Quill, (5:2) Winter, 1967, p. 8.

asked if this was a full or part time position. Furthermore, it was not asked if this work experience constituted internship before graduation. These are relevant variables about this employment period which should have been ascertained.

Internship After Graduation

Respondents were asked to report if they interned after graduation, the field of pharmacy in which they interned and their reasons for choosing to intern in that field. Fifty respondents did not answer the question on internship after graduation. Of the remaining 182 respondents, two had not interned after graduation one of whom was a 1966 graduate and a young mother. Analysis of the question about internship is based upon 180 responses.

The largest proportion of respondents had interned in community pharmacy and ten respondents reported they had interned in two different fields of pharmacy. The number and per cent of respondents and the different fields of pharmacy in which they interned are presented in Table XV.

Ten of the 180 respondents did not give any reason for interning in a particular field of pharmacy. Table XVI presents

TABLE XV

NUMBER AND PER CENT OF RESPONDENTS BY FIELDS OF PHARMACY IN WHICH THEY INTERNED

	Number	Per Cent[a] (N=180)
Community Pharmacy	113	62.8
Hospital Pharmacy	68	37.8
Clinic Pharmacy	9	5.0

[a] Per cents total more than 100.0 because of multiple replies.

the per cent of 170 respondents and their reasons for selecting a particular field of pharmacy in which to intern.

Forty-two (24.7 per cent) respondents interned in the field of their choice. Replies such as "that is what I wanted" and "field of choice" were received from these respondents as reasons for selecting the field of pharmacy in which to intern. Nearly one out of four (22.9 per cent) respondents reported that they were unable to select the particular field of pharmacy in which

TABLE XVI

PER CENT OF RESPONDENTS BY THEIR REASONS FOR CHOOSING A PARTICULAR FIELD OF PHARMACY IN WHICH TO INTERN

Reason	Respondents Per Cent[a] (N=170)
Field of Choice	24.7
Only Job Available	23.0
Professionalism	16.5
Convenience	10.6
Relative's Pharmacy	10.0
Desire Patient Contact	8.8
Like Type of Work	8.2

[a] Per cents total more than 100.0 because of multiple replies.

they wished to intern. The reasons these respondents interned in a particular field of pharmacy was because that was the only position available at that time. They used phrases such as "it was the only job available", "could not find any other job", "availability", "only offer at that time". It is possible that the unavailability of other positions reflects the geographic immobility of these respondents. Twenty-eight of these thirty-nine respondents interned in a community pharmacy, nine in a hospital pharmacy and two in a clinic pharmacy.

Answers of eighteen (10.6 per cent) respondents indicated that convenience was the reason they chose to intern in a particular field of pharmacy. Fifteen of these respondents mentioned convenience of location while the other three reported convenience of hours they were able to work as the reason they chose that position.

The opportunity to intern in a relative's pharmacy was reported by seventeen (10.0 per cent) respondents as their reason for interning in a particular field of pharmacy. All of these respondents interned in a community pharmacy and reported cryptic reasons such as "father's store", "parent's store",

"family store" or "relative". Only three of these respondents offered further explanations of their reasons. They replied that they chose to intern with a relative because they believed they would learn more in such a position. These explanations likely were rationalizations by the respondents as it probably was more convenient for them to intern in the family pharmacy.

Another fifteen (8.8 per cent) respondents, all of whom had interned in a community pharmacy, explained that the reason they chose to intern in that particular field of pharmacy was because they enjoyed or desired the opportunities for personal contact with their clients. This does not imply that personal contact is not possible in a hospital pharmacy. It is, however, surprising to note that none of the respondents who chose to intern in a hospital pharmacy based their choice on their desire for personal patient contact. Gardner and Moore have characterized pharmacy as a "solitary occupation not requiring frequent dealing with people or close working relationships."[3] Perhaps this was the view held by the respondents electing to intern in a hospital pharmacy.

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[3] Burleigh B. Gardner and David G. Moore, Human Relations in Industry, Richard D. Irwin, Inc., 1955, p. 250.

Fourteen (8.2 per cent) respondents reported they selected a specific field of pharmacy in which to intern because they "liked it". These respondents did not elaborate on their answers but responded simply with statements such as "liked what I did", "like the field of pharmacy", "like the work involved" or simply "like it".

Pharmacy has been described as a marginal occupation because it encompasses the conflicting roles of a profession and business.[4] Twenty-eight (16.5 per cent) respondents reported they chose to intern in a particular field of pharmacy because they favored the professional aspects of the field or they disliked the "business" or "commercial" facet of another field. The strong desire these respondents expressed for the utilization of their professional education resulted in these respondents being classified as "professionally inclined". Some of these responses are presented here to exemplify their content. "Commercial aspect of retail pharmacy did not appeal to me." "Considered hospital pharmacy more professional than drug store."

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[4] Thelma McCormack, "The Druggists' Dilemma: Problems of a Marginal Occupation," American Journal of Sociology, Vol. 61, January 1956, pp. 308-315.

"Closer relationship between doctor and pharmacist - enjoying filling prescriptions rather than merchandising."

"I felt that it would be more rewarding and that I could use more of the skills and knowledge I learned in school, also the 'business' side of retail pharmacy did not appeal to me."

"I felt I would be doing primarily professional work in this field which was true."

"Liked the professional side of pharmacy which is put to constant use in hospital."

Twenty-two of these twenty-eight respondents had interned solely in a hospital pharmacy. Two respondents had interned in both a hospital and community pharmacy. Two others interned in a community pharmacy and another two in clinic pharmacy. One of these respondents who had intered only in a community pharmacy wrote, "Direct contact with patient resulting in better experience - more professional atmosphere."

The seventeen respondents who had interned in their relatives' pharmacy possibly could be classified under 'convenience' also but none of them mentioned convenience factors. Similarly, fifteen respondents who said they chose community pharmacy because it offered them personal patient contact could also be classified as having interned in the field of their choice. This suggests an overlap between the categories of 'professionally inclined',

'desire patient contact', 'field of choice' and 'like it'. All of these categories have a degree of similarity suggesting some positive attitude of the respondent toward the field in which she interned.

Reasons for Selecting Current Field of Practice

Practicing respondents were asked to state their reasons for choosing their particular field of practice. Eighty-seven respondents were not included in this analysis. Sixty-five of these were not practicing at the time of the study, ten of whom were retired. Responses of seven interns were not used. Another fifteen respondents did not give any reasons. Replies of the remaining 145 respondents are presented in Table XVII.

Convenience was the largest single reason for respondents choosing to practice in a particular field of pharmacy. Forty-one (28.2 per cent) respondents, of whom thirty-nine were practicing in a community pharmacy and two in a hospital pharmacy mentioned convenience or factors relating to location, hours or availability of part time positions. Location was mentioned seventeen times, hours suitable for work twenty-two times and availability of part time positions nine times. Some of these forty-one respondents mentioned a combination of these factors.

TABLE XVII

PER CENT OF RESPONDENTS BY THEIR REASONS FOR CHOOSING A PARTICULAR FIELD OF PHARMACY IN WHICH TO PRACTICE

Reason	Respondents Per Cent[a] (N=145)
Convenience	28.2
Professionalism	20.0
Desire Patient Contact	19.3
Self-employed	13.8
Life Type of Work	13.8
Field of Choice	4.8
Only Job Available	3.4
Monetary Reasons	0.7

[a] Per cents total more than 100.0 because of multiple replies.

Twenty-eight (19.3 per cent) respondents, all of whom were practicing in a community pharmacy, said they chose this field because they enjoyed contact with the public and liked meeting and talking to people. Twenty (13.8 per cent) respondents were classified as "self-employed". Nine of these reported "Family store" and another eight said "Self employed" while three said "Husband's store".

Another twenty respondents reported they chose to practice in a particular field of pharmacy because they liked that type of work. These twenty respondents did not offer further explanations for their replies. These replies were categorized as 'like it' and can be examplified by responses such as "Because I like it best"; "Like the work involved".

Seven (4.8 per cent) respondents reported they were practicing in the field of their choice. These seven respondents could not be classified in any other category due to the lack of further information. These respondents gave replies such as "This is what I have always wanted." Another five (3.4 per cent) respondents said the reason they were practicing in that particular field of pharmacy was because that was the only job available at that time.

Only one respondent mentioned monetary reasons as having some influence in her choosing to practice in a particular field of pharmacy. This respondent was practicing in a community pharmacy and said the reasons she chose this field was because she, "Wanted to meet more people and make more money."

Twenty-nine (20.0 per cent) respondents, all in hospital pharmacy, expressed a strong interest and desire for performing the professional functions of pharmacy rather than business functions as their reason for choosing to practice in a hospital. Nine of these twenty-nine respondents gave a similar reply as their reason for choosing to intern in a hospital pharmacy. Seven of these nine respondents did not reiterate under reasons for current practice their reasons for interning in a hospital. They just wrote, "See above" or, "Same as question eight" or a similar reply. The other two respondents had interned in both a community and a hospital pharmacy. These two respondents gave the following reasons for selecting their field of internship and current practice. Under internship one stated:

> I enjoyed hospital pharmacy most but at that time we could not have more than 6 months internship in a hospital - so had 6 months in a drug store.

Under reasons for choosing hospital pharmacy as current field of

practice she wrote:

> Enjoy this field most as it involves more actual pharmacy skills than a drug store does.

The other respondent had interned in a community pharmacy before graduation and in a hospital pharmacy after graduation. Under reasons for interning she said:

> After three months in retail, I wanted to switch to hospital because I was not satisfied - I couldn't get into a hospital until after graduation. I have never had any desire to go back to retail pharmacy since I have been in hospital pharmacy.

Under current practice she wrote:

> I feel I made the best use of my pharmacy knowledge in this field.

Another nine of the twenty-nine respondents offered comparisons between community and hospital pharmacy in their reasons for choosing to practice in a hospital pharmacy. These respondents had experience in both fields of pharmacy and consequently had some basis for comparison. Their replies are presented below.

"It was a challenge after working in a drug store."

"Could see no stimulation from retail work; no real opportunity to utilize professional training and/or education."

"I don't work well with the public in retail pharmacy - and I like the 'pure' pharmacy practice in the hospital. Very little OTC, candy, no cards and I don't care much about how many times the cash register rings."

"I feel I am doing something worthwhile there. I did not like retail work at all."

"Like professionalism as compared to retail pharmacy."

"Did not like retailing. Like more of the dispensing and filling of prescriptions."

"More actual professional work than a community pharmacy."

"It is more oriented toward pharmacy than many retail outlets."

"I feel it is more of a challenge, more educational and more professional than a drug store."

Reasons given by respondents for interning in a particular field of pharmacy were compared with reasons given by respondents for choosing current field of practice. The results are presented in Table XVIII.

The most striking differences in the comparison is the decrease in the proportion of respondents reporting "field of choice" and increase in the proportion of respondents reporting "convenience" for choosing current field of practice as compared to their internship. Almost three times as many respondents reported reasons relating to convenience for choosing their current field of practice compared to reasons for interning in a particular field of pharmacy. The increase in the proportion of respondents reporting "convenience" reasons likely is due

TABLE XVIII

PER CENT OF RESPONDENTS BY THEIR REPORTED REASONS FOR INTERNING AND PRACTICING IN A PARTICULAR FIELD OF PHARMACY

Reasons	Intern Per Cent[a] (N=170)	Practice Per Cent (N=145)
Field of Choice	24.7	4.8
Only Job Available	23.0	3.4
Convenience	10.6	28.2
Relative or Self-Employed[b]	10.0	13.8
Desire Patient Contact	8.8	19.3
Like Type of Work	8.2	13.8
Professionalism	16.5	20.0
Monetary Reasons	-	0.7

[a] Per cents total more than 100.0 because of multiple replies.

[b] These respondents were classified as interning in relative's pharmacy under reasons for interning in a particular field of pharmacy. They were classified as self-employed under reasons for choosing current field of practice.

to family obligations of respondents' taking precedence over their personal preferences. Consequently, respondents were obliged to take positions where location and the hours of practice did not conflict with their family responsibilities. Another difference is the decrease in the proportion of respondents reporting "only job available." This likely is due to more positions being available for registered pharmacists as compared to interns.

Reasons Why Respondents Took Salaried Jobs Not Involving Pharmacy

Before this study was conducted it was known that one registered woman pharmacist held a position not involving pharmacy and at a lower salary than she could have earned as a practicing pharmacist. It therefore was decided to determine if there were respondents who had held salaried jobs not involving pharmacy and their reasons for taking these jobs. The question was worded to avoid respondents from reporting voluntary participation in charitable, church or civic activities.

There were fourteen respondents who had held a salaried job not involving pharmacy. The reported duration of these jobs ranged from one month to ten years and only two respondents

reported the salary they earned. Six of these fourteen respondents reported that the reason they took the job was to help a friend or relative from whom they obtained the job. One respondent said she worked as an assistant in a Veterinarian Hospital at a salary of $240 a month while the regular assistant was on vacation as a favor to a veterinarian friend. Another respondent said she helped a relative with office work at her home part time for ten years. This respondent did not state her hours worked each week but she said she took the job to help her relative.

Another respondent reported she had acted as a secretary to a lawyer friend for four weeks because he needed the help. The fourth respondent said she had worked for a relative and did not give any more information. The fifth respondent had worked as a bookkeeper for two years in a radio station owned by her husband. The sixth respondent also worked as a bookkeeper and secretary for her husband for a salary of $450 a month. The reasons given by this respondent for leaving pharmacy were:

> Varicose veins due to fifteen years of standing as a pharmacist made it necessary for me to find a sitting down job. Also, pharmacy changed a great

> deal during my fifteen years in the field. I became a pharmacist in order to perform a service and truly help sick people. My first years in pharmacy were truly satisfying to me. I loved the idea of compounding a prescription for a particular individual. As compounding died and pharmacy became a cut-and-dried business of buying drug products, marking them up, and selling them up on a prescription basis, I found my pharmacy work giving me no satisfaction whatsoever. The art of pharmacy is gone, I feel, and that is what I had enjoyed - that, along with the service concept.
>
> My husband became the owner of a business of which he was a part when we were married. This ownership occurred three years ago. Since then he has been asking me to consider working for him. I finally agreed this last September. As I find myself trying to be helpful in this new field, I am experiencing the same satisfaction I got from pharmacy as it used to be.

The remaining eight respondents reported jobs ranging from chemistry instructor, doctor's aid to cocktail waitress. The various jobs and the respondents' reasons for taking those jobs are presented below.

One respondent said she worked in an office for two months because she wanted to try something different. Another reported she held a variety of jobs for eight years and mentioned "Depression" as her reason for taking these jobs. A third respondent said she worked as a cocktail waitress for three months because she was not registered in the state she was residing temporarily.

Another respondent worked as a chemistry instructor for one year because she had moved to a state where she was not registered.

Another respondent had "worked as a nurse" for four years because of her desire to be closer to people she served. One respondent worked as a doctor's aide for one year because she could not get a job as a pharmacist. Another respondent had worked as a medical secretary for nine months because that was the only part time job available. One respondent worked as a medical technologist for two years because she said she made more money than she could as a pharmacist.

The respondents were asked to report their salary from nonpharmacy jobs to determine if monetary reasons were perhaps responsible for these women accepting nonpharmacy positions. Twelve of the fourteen respondents did not report their salary from such jobs. One respondent, although not reporting her salary, reported being attracted by higher salary to accept a job as a medical technologist. It is a loss to the profession when individual pharmacists accept positions not requiring their specialized skills.

CHAPTER VII

PATTERN OF PRACTICE OF RESPONDENTS

One of the objectives of this study was to determine the extent to which women pharmacists utilize their professional education by practicing pharmacy. This was determined by comparing the total potential years of practice for each respondent with the number of years that she either was not practicing or was practicing full or part time. The number of years since each respondent's registration as a pharmacist represents the total potential years of practice for that respondent. This total is referred to hereafter as the respondent's professional life.

The respondents were asked to report the number of years that they had practiced full time, part time or not at all since becoming a registered pharmacist. No attempt was made to define full time or part time for the respondents. It was believed that lack of recall would preclude their precise differentiation of these two terms. Thus each respondent

had her own frame of reference within which to define these terms and the probability of overlap is acknowledged. The following data is a presentation of the respondents' approximate pattern of practice acknowledging the limitations imposed by lack of definitions of terms.

Data presented in this chapter are based upon the replies of 207 respondents. Eight interns, two graduate students, two respondents working in industry and one teaching school are among the twenty-five respondents whose data were not used in this chapter. Incomplete data from twelve other respondents also were not included.

The number of years each respondent reported practicing full time, part time and not at all were converted to percentages to make comparisons and classifications. The professional life of each respondent served as the base for the percentage calculations. This set of computations was made individually for the 207 respondents. Thus a respondent who had been registered for ten years and who reported working full time six years, part time three years and not at all for one year would have a professional life of ten years. She would be classified as having practiced full time sixty per cent of her professional life, part time thirty per cent of her professional life, and not at all ten per cent of her professional life.

This process provides a base for classifying and comparing respondents according to the proportion of their professional life they had practiced. This does not, however, obviate the importance of the actual number of years the respondents had been in practice. A respondent who was registered thirty years ago and did not practice at all (100 per cent of her professional life) should be differentiated from another respondent who was registered only one year ago and did not practice at all (100 per cent of her professional life). The respondents' individual replies are presented where they help clarify the data presented.

Fifty (24.2 per cent) of the 207 respondents had practiced full time all of their professional lives. Table XIX presents the number and per cent of these respondents and their number of years in practice. The number of years each of these respondents had practiced full time exclusively ranged from one year to fifty-one years.

Thirty-one of these fifty respondents were unmarried. Eight of the nineteen married respondents did not have any children. The eleven married respondents with children reported using hired help to care for their children while they were practicing.

TABLE XIX

NUMBER AND PER CENT OF RESPONDENTS WHO HAD PRACTICED FULL TIME ALL OF THEIR PROFESSIONAL LIFE BY NUMBER OF YEARS IN PRACTICE

Professional Life In Years	Respondents Number	Per Cent
1 - 5	16	32
6 - 10	7	14
11 - 15	7	14
16 - 20	6	12
21 - 25	4	8
26 - 30	1	2
31 - 35	1	2
36 - 40	4	8
41 - 45	3	6
46 - 50	0	0
51 - 55	1	2
	50	100.0

Another six respondents had practiced part time all of their professional lives. Table XX lists the number of years each of these six respondents practiced part time. The professional life of these respondents ranged from six months to thirty-one years.

TABLE XX

NUMBER OF RESPONDENTS WHO HAD PRACTICED PART TIME ALL OF THEIR PROFESSIONAL LIFE BY NUMBER OF YEARS IN PRACTICE

Professional Life In Years	No. of Respondents
$\frac{1}{2}$	1
1	1
7	1
10	1
12	1
31	1

All six of these respondents were married and five of them had children. Three of the five respondents who had children

reported using hired help to care for their children while they practiced.

There were another six respondents who had never practiced during their professional lives. Table XXI presents the number of respondents who had never practiced and the number of years in their professional lives. Two of these six respondents had been registered for one year whereas one respondent was registered thirty years ago but never practiced. All six of these respondents were married and had children. None of them had hired help to care for their children.

TABLE XXI

NUMBER OF RESPONDENTS WHO HAD NEVER PRACTICED BY THEIR PROFESSIONAL LIFE

Professional Life In Years	No. of Respondents
1	2
7	1
11	1
13	1
30	1

The professional lives of the remaining 145 respondents consisted of various proportions of full time and part time practice and temporary absence from practice. Three tables were prepared for the 207 respondents. One to classify the per cent of their professional lives they had practiced full time, a second for the per cent of their professional lives they had practiced part time and the third for the per cent of their professional lives during which they had not practiced. These data are presented in Tables XXII, XXIII, and XXIV respectively.

Less than half (42.5 per cent) of the respondents had practiced full time more than fifty per cent of their professional lives. Approximately one out of four (27.6 per cent) respondents had practiced full time more than eighty per cent of their professional lives.

Table XXIII shows that eighty-three (40.1 per cent) of the 207 respondents had never practiced part time in their professional lives while forty-seven (22.7 per cent) respondents had practiced part time more than fifty per cent of their professional lives.

TABLE XXII

NUMBER AND PER CENT OF RESPONDENTS AND THE PER CENT OF THEIR PROFESSIONAL LIFE THEY PRACTICED FULL TIME

Per cent of Professional Life Practiced Full Time	Respondents Number	Per Cent
Zero Per Cent	21	10.1
More than 0 Per Cent	186	89.9
More than 10 Per Cent	165	79.8
More than 20 Per Cent	142	68.6
More than 30 Per Cent	123	59.5
More than 40 Per Cent	107	51.7
More than 50 Per Cent.	88	42.5
More than 60 Per Cent	81	39.2
More than 70 Per Cent	65	31.4
More than 80 Per Cent	57	27.6
More than 90 Per Cent	52	25.1
One Hundred Per Cent	50	24.1

TABLE XXIII

NUMBER AND PER CENT OF RESPONDENTS AND THE PER CENT OF THEIR PROFESSIONAL LIFE THEY PRACTICED PART TIME

Percentage of Professional Life Practiced Part Time	Respondents Number	Per Cent
Zero Per Cent	83	40.1
More than 0 Per Cent	124	59.9
More than 10 Per Cent	108	52.2
More than 20 Per Cent	89	43.0
More than 30 Per Cent	78	37.7
More than 40 Per Cent	63	30.4
More than 50 Per Cent	47	22.7
More than 60 Per Cent	33	15.9
More than 70 Per Cent	22	10.6
More than 80 Per Cent	13	6.3
More than 90 Per Cent	7	3.4
One Hundred Per Cent	6	2.9

TABLE XXIV

NUMBER AND PER CENT OF RESPONDENTS AND THE PERCENTAGE OF THEIR PROFESSIONAL LIFE THEY HAD NOT PRACTICED

Percentage of Professional Life Not Practiced	Respondent	
	Number	Per Cent
Zero Per Cent	83	40.1
More than 0 Per Cent	124	59.9
More than 10 Per Cent	109	52.7
More than 20 Per Cent	87	42.0
More than 30 Per Cent	72	34.8
More than 40 Per Cent	49	23.7
More than 50 Per Cent	43	20.8
More than 60 Per Cent	35	16.9
More than 70 Per Cent	29	14.0
More than 80 Per Cent	17	8.2
More than 90 Per Cent	8	3.9
One Hundred Per Cent	6	2.9

Table XXIV shows that almost six out of ten (59.9 per cent) of the respondents had, at one time, interrupted their career. Forty-three (20.8 per cent) of the 207 respondents had not practiced pharmacy for more than fifty per cent of their professional lives whereas seventeen (8.2 per cent) respondents had not practiced for more than eighty per cent of their professional lives.

The cumulative professional life of the 207 respondents was totalled to present an average pattern of practice of a respondent. Table XXV shows the cumulative totals.

TABLE XXV

NUMBER OF YEARS AND PER CENT OF RESPONDENTS PROFESSIONAL LIFE BY TYPE OF PRACTICE

Type of Practice	Cumulative Years of Professional Life	Per Cent of Professional Life
Full Time	1620.5	48.52
Part Time	817.5	24.48
Did Not Practice	902.0	27.00
TOTAL	3340.0	100.00

The cumulative years in full time practice, part time practice and not practicing totalled 1620.5 years, 817.5 years and 902 years respectively. The mean professional life of a respondent was 16.1 years. Assuming the pattern of practice in Table XXV is representative of an average respondent, it can be stated that an average respondent practiced full time about half (48.5 per cent) of her professional life, part time about one fourth (24.5 per cent) and did not practice for about one fourth (27.0 per cent) of her professional life.

Data in Chapter three (p. 47) shows that the average respondent practicing part time practiced about twenty hours a week. Thus it is reasonable to assume that two years of part time practice are equivalent to one year of full time practice. Then the average respondent practiced full time the equivalent of 60.76 per cent of her professional life and did not practice at all the equivalent of 39.24 per cent of her professional life.

Thus the total time devoted by 100 average respondents to professional practice is equivalent to the time devoted by approximately sixty pharmacists who practice full time all of their professional lives. There are also some women pharmacy graduates who do not become registered pharmacists. It is therefore evident that an

additional average respondent in the pharmacy manpower pool contributes something less than a continuous full time practitioner to the profession.

CHAPTER VIII

RESPONDENTS' EARNINGS

Lower pay to female workers for comparable work in the same establishment is not uncommon.[1] Prejudice and discrimination against women pharmacists has been reported, especially in community pharmacy.[2] It is likely that such discrimination is reflected in a lower salary to women pharmacists.[3] Respondents were asked to report their weekly earnings. The objectives of this question were to determine the earnings of respondents, the earnings differential between different fields of pharmacy and the relationship between earnings and tenure as a pharmacist. Also, by comparing respondents' earnings to the reported earning figures for all pharmacists, ascertain the existence of any wage differential.

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1 Report of the Committee on Private Employment to the President's Commission on the Status of Women, October 1963, U. S. Government Printing Office, Washington, D.C., p. 33

2 Jack E. Orr, "Sex and Pharmacy," Washington-Alaska Pharmacist (9:2) February 1967, p. 9.

3 For a commonly held view, see letter from a British woman pharmacist, pp. 122-123.

Data presented here are based upon the answers of 119 respondents. Thirty-six practicing respondents refused to answer this question. Another seventy-seven were not practicing pharmacists.[4]

The practicing respondents were asked to report their weekly salary and the number of hours they practiced each week. Fifty-eight of them reported their hourly earnings with their hours of weekly practice. Sixty-one respondents reported either their weekly or monthly salaries and their hours of weekly practice.

The hourly earnings of respondents reporting a weekly salary were computed by dividing their weekly salary by the number of hours they reported practicing each week. The hourly earnings of respondents reporting a monthly salary were computed by multiplying their monthly salary by twelve to derive their annual salary and dividing their annual salary by fifty-two to obtain their weekly earnings. Their weekly earnings

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[4] These seventy-seven consisted of fifty-five respondents not practicing at the time of the study, ten others who were retired, seven were interns, two were graduate students, two worked in industry and one other who was a professor in a School of Pharmacy.

then were divided by the number of hours they reported practicing each week to obtain their hourly earnings. Wherever a respondent reported practicing part time with variable hours, such as "12 - 14 hours" a week, the arithmetic mean of these figures was used to calculate their hourly earnings.

The hourly earnings of the 119 respondents ranged from $2.00 to $6.00. Thirty-nine respondents reported hourly earnings of $4.00, fourteen reported $5.00, nine reported $4.50 and six reported hourly earnings of $3.50. Table XXVI shows the number and per cent of respondents and the range of their hour earnings. (See Appendix G for a list of the number of respondents and their hourly earnings).

Three respondents reported earnings of less than $3.00 per hour. One respondent who reported an hourly salary of $2.00 was practicing in a pharmacy owned by her husband and another pharmacist offered the following explanation:

> I am sure my hourly salary will throw your average off, but I help my husband not for the money involved, and to demand a raise would cause hard feelings within the corporation since the wife of my husband's partner works as a clerk and is not a pharmacist.

Another respondent whose hourly earnings were computed to be $2.51 reported earning $163.46 per week and was practicing 60 - 70 hours in a hospital pharmacy. The hourly earnings of this respondent were low because she practiced an average of 65 hours per

TABLE XXVI

NUMBER AND PER CENT OF RESPONDENTS BY HOURLY EARNINGS

Hourly Earnings	Respondents	
	Number	Per Cent
$2.00	1	0.8
$2.01 - 2.25	-	-
$2.26 - 2.50	-	-
$2.51 - 2.75	1	0.8
$2.76 - 3.00	4	3.4
$3.01 - 3.25	2	1.7
$3.26 - 3.50	10	8.4
$3.51 - 3.75	8	6.7
$3.76 - 4.00	43	36.1
$4.01 - 4.25	8	6.7
$4.26 - 4.50	15	12.6
$4.51 - 4.75	5	4.2
$4.76 - 5.00	17	14.3
$5.01 - 5.25	2	1.7
$5.26 - 5.50	-	-
$5.51 - 5.75	2	1.7
$5.76 - 6.00	1	0.8
TOTAL	119	99.9

week and offered the following explanation:

> I am the only pharmacist in the hospital pharmacy at present - so work 7 days a week. This, I did for 7 months last year and have been working these hours for the past 5 months. There are no available pharmacists in our area. The situation is critical.

Hourly earnings of over ninety per cent of the respondents ranged from $3.01 to $5.00 per hour. Both the median and mode of hourly earnings were $4.00 and the mean was $4.15. The median hourly earnings of the respondents are comparable to the $3.75 median hourly earnings reported in 1962 for all salaried pharmacists.[5]

One hundred and nine of the 119 respondents reporting usable earnings data were practicing in only one field of pharmacy. Sixty were practicing community pharmacy, forty-two were practicing hospital pharmacy and seven were in clinic pharmacy. Nine other respondents were practicing simultaneously in two different fields of pharmacy and one did not report her field of practice. Table XXVII presents the hourly earnings of the 109 respondents practicing in only one field of pharmacy.

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5 Paul Q. Peterson and Maryland V. Pennell, Health Manpower Source Book Pharmacists, Public Health Service Publication 263, Section 15, United States Government Printing Office, Washington D. C., 1963, p. 25. The median earnings of all salaried pharmacists was reported to be $7,800 annually, which represents hourly earnings of $3.75 at forty hours per week, fifty-two weeks per year.

TABLE XXVII

AVERAGE HOURLY EARNINGS OF RESPONDENTS BY FIELD OF PRACTICE

Field of Practice	N	Mean	Median	Mode
Community Pharmacy	60	$4.16	$4.00	$4.00
Hospital Pharmacy	42	$4.14	$4.00	$4.00
Clinic Pharmacy	7	$4.08	$4.00	$4.00

The mean earnings reported by respondents in hospital and community pharmacy are not appreciably different from the hourly earnings for all respondents. The modal value of $4.00 per hour for respondents in hospital pharmacy is comparable to the $3.97 modal hourly rate for hospital pharmacists as reported in the 1966 Salary Survey conducted by the Wisconsin Hospital Association.[6]

The number of years each respondent has been registered was calculated and compared to her current hourly earnings. Analysis of these data help determine the influence, if any, of tenure as a registered pharmacist on earnings. This analysis is based upon 114 respondents because five of the 119 reporting

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6 Wisconsin Hospital Association 1966 Salary Survey, Wisconsin Hospital Association, 110 East Main Street, Madison, Wisconsin, July, 1966, Table 18, p. 36.

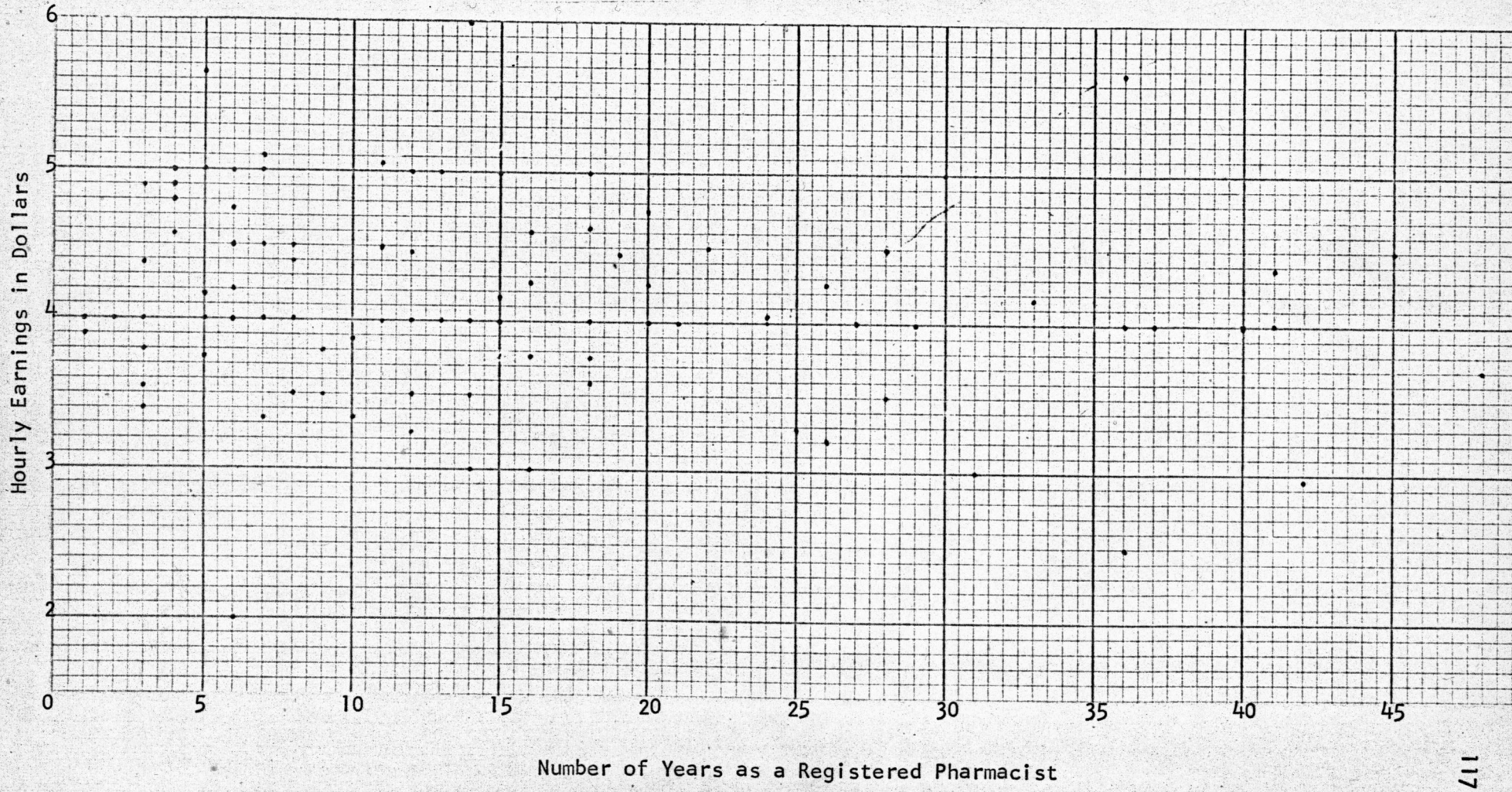
earnings data did not report the year they became registered. A scatter diagram of the number of years since the respondents' registration and their current hourly earnings appears in Chart IV. It is apparent from this diagram that hourly earnings do not tend to rise with increased tenure as a registered pharmacist. A wide range of earnings was found within each of the years since the respondents' registration. For example, of the four respondents who had been registered for fourteen years, one was earning six dollars per hour while another was earning three dollars per hour.

The coefficient of simple correlation was determined by calculating the regression curve of Y on X and the regression curve of X on Y. (See Appendix H for details of calculation). The coefficient of correlation was computed to be 0.151. The coefficient of determination (square of the coefficient of correlation) was 0.0228. This means that only 2.28 per cent of the variation in respondents' earnings is explained by their tenure as a pharmacist.

One possible explanation for the lack of a relationship between earnings and tenure as a pharmacist is the lack of career continuity frequently encountered in the career pattern of women pharmacists. Almost six out of ten respondents in this study had,

CHART IV

SCATTER DIAGRAM RELATING RESPONDENTS' HOURLY EARNINGS TO NUMBER OF YEARS SINCE REGISTRATION



at one time, interrupted their career. Oppenheimer reports that career continuity is essential for women, especially when they are in predominantly male professions like law and medicine where great investments of time, energy and devotion are involved.[7] It is likely that earnings are associated with respondents' lack of career continuity in pharmacy.

Twenty-five of the 119 respondents who reported income data were residing in states other than Wisconsin. The reported earnings of these twenty-five respondents were compared with the earnings of respondents residing in Wisconsin to ascertain any differences. Respondents residing in Wisconsin had mean hourly earnings of $4.087 whereas out of state respondents had mean hourly earnings of $4.390. Five of the twenty-five out of state respondents were residing in California. Their hourly earnings were $4.90, $5.00, $5.05, $5.65 and $6.00 respectively. These were among the highest hourly earnings of all respondents in this study and were largely responsible for the mean hourly earnings of out of state respondents being higher than those of respondents residing in Wisconsin.

In general it can be said that earnings of respondents did not vary appreciably with field of practice or the number of years

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7 Valerie K. Oppenheimer, "The Female Labor Force in the United States: Factors Governing its Growth and Changing Composition," Unpublished Ph.D. dissertation, Department of Sociology, University of California, Berkely, June 1966, p. 155.

since they had been registered. Mean hourly earnings of respondents in clinic pharmacy were lower than the mean earnings of all respondents. However, the seven respondents in clinic pharmacy were considered inadequate to attach any reliability to the difference in mean earnings. On the average there does not appear to be any appreciable difference in earnings of respondents and earnings of all pharmacists.

CHAPTER IX

PROBLEMS UNIQUE TO WOMEN PHARMACISTS

Pharmacy in the United States is a profession comprised largely of male practitioners. A 1962 survey of pharmacists reported that approximately 5.5 per cent of employed pharmacists were female.[1] Thus it is reasonable to anticipate that women pharmacists would encounter problems in their attempts to integrate this predominantly male profession.

Male pharmacists dispensing prescriptions has always been the familiar and traditional pattern in pharmacy in the United States. Laymen are predisposed to have confidence in a person who conforms to the familiar pattern of his profession and to distrust another person who deviates from it.[2] Williams illustrated this in a study of one hundred women for their attitudes towards women physicians. She concluded that "almost everyone assumed that there were sex differences in the quality of medical service."[3]

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1 Paul Q. Peterson and Maryland Y. Pennell, Health Manpower Source Book Pharmacists, Public Health Service Publication 263, Section 15, United States Government Printing Office, Washington, D.C., 1963, p. 9.

2 Josephine J. Williams, "Patients and Prejudice: Lay Attitudes Towards Women Physicians," The American Journal of Sociology, (51:4) January 1946, p. 283.

3 Ibid., p. 287.

Thus one could expect a woman pharmacist to encounter similar attitudes from her patrons in her attempt to assume the pharmacists' role traditionally held by males.

The types of unique problems women pharmacists might encounter are exemplified by three letters written to the editors of The Pharmaceutical Journal. The letters are presented here:[4]

> Sir, - Any profession could no doubt be criticised on specific points for lack of progressiveness. However, when the words "Male Candidate Preferred", appear in connection with an advertisement for a deputy chief pharmacist at a Birmingham hospital, then surely has pharmacy plunged to the depths of backwardness. It is to be regretted.
>
> J. Lowe (Miss)
> Birmingham, 23

A reply to this letter was published in the next issue of The Pharmaceutical Journal.[5]

> Sir, - Miss J. Lowe complains (July 23, p. 97) that an advertisement stating that a male candidate is to be preferred for a certain position "is to be regretted". As a keen student of your "situations vacant" columns, I long ago lost count of the number of advertisements calling specifically for a "lady pharmacist". Logically, Miss Lowe should find those advertisements equally "to be regretted".
> I wonder if she does!
>
> "Chelsea Pensioner"

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4 "Sex Equality," The Pharmaceutical Journal (197:5360) July 23, 1966, p. 97.

5 "Sex Equality," The Pharmaceutical Journal (197:5361) July 30, 1966, p. 119.

The Chelsea Pensioner's letter resulted in the following reply from a "female pharmacist."[6]

> Sir, - Apparently, in all his years of studying the "situations vacant" columns of this journal, "Chelsea Pensioner" (July 30, p. 119) has never understood the true meaning of the advertising euphemisms. As a female pharmacist I can, perhaps enlighten him. Advertisers specifically requesting lady pharmacists are often merely stating that the pay is peanuts. Those who go further and lump us with the aged and infirm by suggesting that their "easy" posts would "suit retired person or lady pharmacist" are sometimes seeking the coverage of a "cheap" certificate. When "progressive" companies are "prepared to consider newly qualified or female" you can bet your Chelsea pension it's a dead-end job - for the female at least. Wilberforce changed certain things, and proprietors no longer dare to advertise for slaves for the dispensing chain. Hence: "Young woman to take charge of busy dispensary." Have no illusions about the young woman being asked to "deputise for the busy proprietor." Usually, this refers to double duty, not to increased status. If Sir likes a long lunch hour he sould say so..
>
> In fairness, the un-enlightened advertiser has some excuse. He is constantly conditioned. Official rates of pay for male and female are not equal. On page and screens the promotional pictures for proprietaries invariably depict a myoptic gentleman in white dispensing the smile, the advice, and the wonder cure. The public is daily taught that a chemist is a man.
>
> To add aesthetic insult to intellectual injury, the manufacturers of professional coats recognize

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6 "Sex Equality," The Pharmaceutical Journal, (197:5365), August 27, 1966, p. 205.

> statistics other than we own. Those pear-shaped garments they produce puzzled me for years until I realized they were designed to fit the mythical figure of a pigeon-chested, pregnant male.
>
> The advertisement which prompted Miss Lowe's remarks (July 23, p. 97) and "Chelsea Pensioner's" response, was probably worded by a predominantly male committee. A flood of female resignations, stating reasons, might cause some change of mind. One surly has a duty to educate the retarded. No one is forced to take employment with bodies who make distinction of status or finance between male and female pharmacists. As there are already many enlightened employers about, the answer to this sort of discrimination is obvious. Show, as well as say, that bright birds are not prepared to live on chicken-feed.
>
> Margaret Little
> London, S.W. 6

Respondents were asked to report if they had encountered any problems unique to women pharmacists. Usable replies were obtained from 209 of the 232 respondents. Nineteen respondents did not answer the question and answers from four respondents such as, "Used to - but not any longer" were not used.

One hundred and thirteen (54.1 per cent) of the 209 respondents reported encountering problems unique to women pharmacists. Most of the older respondents had not encountered unique problems while most of the younger respondents had and expressed strong opinions. Table XXVIII presents the number of

TABLE XXVIII

NUMBER OF RESPONDENTS BY AGE AND IF THEY HAD OR HAD NOT ENCOUNTERED PROBLEMS UNIQUE TO WOMEN PHARMACISTS

Age Group	Number Encountering Problems	Number Not Encountering Problems
20 - 24	12	5
25 - 29	23	11
30 - 34	22	17
35 - 39	17	11
40 - 44	15	12
45 - 49	7	8
50 - 54	6	9
55 - 59	4	7
60 - 64	3	7
65 & Over	4	9
TOTAL[a]	113	96

[a] Twenty-three respondents did not reply to this question

respondents by age and if they had or had not encountered unique problems as women pharmacists.

A majority (61.4 per cent) of all respondents under forty-five years of age reported problems unique to women pharmacists

whereas 62.5 per cent of all respondents forty-five years old and over reported no problems. An explanation for a majority of respondents forty-five years of age and over reporting no problems unique to women pharmacists may be attributed to professional maturity and experience. These older respondents probably had not encountered recent situations which they defined as "unique problems." The younger respondents' replies probably reflected their initial problems in practice and also possibly the critical attitudes of a younger generation. Table XXIX lists the problems unique to women pharmacists as reported by 113 respondents

TABLE XXIX

NUMBER AND PER CENT OF RESPONDENTS BY PROBLEMS REPORTED UNIQUE TO WOMEN PHARMACISTS

Problem	Respondents Number	Per Cent[a] (N=113)
Not Accepted as Pharmacists	41	36.3
Lack of Patron Confidence	31	27.4
Salary Discrimination	25	22.1
Difficulty in Finding Employment	8	7.1
Difficulty in Selling Contraceptives to Male Patrons	10	8.9
Patrons Prefer Dealing With Male Pharmacist	6	5.3

[a] Per cents total more than 100.0 because of multiple replies.

Not Accepted as Pharmacists

Forty-one respondents reported they were not accepted as qualified pharmacists by the patrons and sometimes even by doctors and fellow male pharmacists. These respondents said that many patrons had expressed disbelief upon learning that women could become registered pharmacists. The problems reported by this group of respondents are exemplified by the following responses.

> "At times the public does not readily accept a woman - this acceptance comes after repeated contact and building of confidence."
>
> "Occasionally not accepted by older male pharmacists but mostly not being accepted as a pharmacist by the public until they know me."
>
> "One doctor did not believe women belonged in pharmacy or medicine - constantly harassing."
>
> "Winning public acceptance, and occasionally professional acceptance too."
>
> "General reluctance of most people to believe that a woman could be a pharmacist."
>
> "Nothing Unique - except not being accepted by fellow (men) pharmacists. Hence my owning my pharmacy for twenty-eight years."
>
> "Occasionally a woman pharmacist has trouble convincing the bugging public that she '<u>really</u>' is the pharmacist, and well qualified."

Lack of Patron Confidence

Thirty-one respondents said that at times some of their patrons did not think women were as qualified as men to dispense prescriptions. Respondents reported that some patrons were suspicious of the abilities of women pharmacists. The remarks of some of these thirty-one respondents expressing their patrons' suspicions and distrust are presented.

> "Men and women do not 'trust' a woman to fill their Rx unless assured by a male pharmacist that she is indeed qualified."

> "I believe patients have more confidence in men as pharmacists."

> "Occasionally find people do not have as much trust in me as they would in a man but this does not really bother me. For instance, a lady last week (on phone), after I told her I was a R.Ph., she said 'Are you qualified to answer a question?'"

> "Have had 3 or 4 men say they would go somewhere else rather than have me fill their Rx - last few years people seem not quite so surprised to see a woman pharmacist but still had about one a week question me as to whether I really was a registered pharmacist, and they will check their Rx's quite carefully to see that you gave them the right thing - particularly when they are used to seeing the 'regular man'."

> "I have had patrons open their prescription bottles after I have filled them to check to see if the

'pills' were the right ones. I have found this mistrust mostly in the 30 - 50 year old age group (male). Also, I have had patrons come in, approach me and ask if my 'daddy' were in to fill their prescription and, again, found it hard to convince them that I was a pharmacist. Part of this I believe comes from by 5 feet stature as well as being a woman. Also, I have often found men trying to take advantage of my sex and size in trying to demand illegal refills - only to no avail."

Salary Discrimination

Twenty-five respondents reported a discrimination in salary. All of these respondents clearly mentioned that they received less salary than male pharmacists. The remarks of five respondents are quoted here.

"I feel they are generally paid less than a man."

"Some years ago when I applied for part time work at .....I was told women were paid 50¢/hr less than men because of the large turnover in women. However we were expected to complete the same work as the men."

"Less wages than a male would have been offered."

"I worked at a hospital when first registered in which the women received less salary yet worked the same hours as men."

"Some salary discrimination - Also a fear by employers of giving a woman responsibility."

The average hourly earnings of all respondents as presented on page 114 does not confirm the existence of salary discrimination as perceived by these respondents.

Difficulty in Finding Employment

Eight respondents reported difficulty in finding employment and believed this to be a problem unique to women pharmacists. Examples of these reported reasons are illustrated in the following respondents' statements.

> "Some stores are a little reluctant to hire women."
>
> "Some employers do not care for women pharmacists - ran into this in Wisconsin."
>
> "Not too many years ago my application for a position was turned down in a supposedly 'quality' store because, as the owner said 'you won't be able to carry beer and soft drink cases up and down the basement stairs'. I consider that most unique."
>
> "One pharmacist didn't want to hire a woman R.Ph. because of security reasons, manual labor etc. Also, some pricediscrimination."
>
> "Hesitancy to hire women in age bracket 25 - 45. Fear for store security that seeing a woman pharmacist would encourage a robber. Plain dislike for hiring a woman."
>
> "A reluctance on the part of drug store owners to hire a woman but once hired, all have said that they not only would hire a woman again but would probably give preference to one."

An increasing demand for registered pharmacists may explain why only about seven per cent of the respondents reported difficulty in finding employment. Another reason may be the comparative ease with which women pharmacists can discuss personal

hygiene and birth control problems and products with women patrons. One respondent wrote "a lot of woman customers asking to see me for feminine hygiene information." Astute pharmacy owners and managers likely are aware of this advantage in having women pharmacists on their professional staffs.

Other Problems

Ten respondents reported they had encountered difficulty and even embarrassment when male patrons came to their pharmacy to obtain birth control items. Examples of some of the replies are:

> "Before the pill: having men ask for the pharmacist - finding it was a woman - then either getting embarrassed themselves or trying their darnest to embarrass you by being extremely outgoing and bold - in asking for prophylactics."
>
> "Men found it hard to ask for birth control products; adversely, women found it easier."
>
> "I find being a female a help in dealing with women with 'personal problems' - conversely, I find being female a hinderance in dealing with men with similar problems."
>
> "There is occasionally some embarrassment on the part of a male customer when he wants to purchase prophylactics."
>
> "Occasional reluctance on the part of men to discuss personal problems. Balanced by women anxious to do so."

Another six respondents reported that at times they have had patrons who prefer or even insist on talking to a male pharmacist. None of these respondents, five of whom are quoted here, gave any reason as to why some patrons prefer a male pharmacist.

> "Patient would like to speak to one of the men - this happens on occasion."
>
> "Patients often are used to men pharmacists and prefer dealing with male pharmacists (especially older people, both men and women)."
>
> "Some customers insist on talking to a man."
>
> "The public and other members of the medical profession seem to prefer dealing with a male."
>
> "Some doctors and patients refuse to be helped by a woman. Want man pharmacist."

There could be a variety of reasons for some patrons wanting to talk to a male pharmacist, personal hygiene questions, buying contraceptives or lacking faith in the abilities of a woman pharmacist are possibilities. The recurrence of such experiences, however, seem to be frustrating to some woman pharmacists.

There is likely some overlap in the different categories of problems discussed in this chapter. The categories of "not accepted as a pharmacist", "lack of patron confidence" and "patrons

prefer dealing with male pharmacist" could be the respondents' expression of the same perceived problem. Women pharmacists may become frustrated, discouraged and feel rejected if they perceive and cannot adjust to the above mentioned problems. Thus such problems perhaps could influence some women pharmacists to leave and not return to practice.

CHAPTER X

RESPONDENTS MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS AND READERSHIP OF PROFESSIONAL JOURNALS

Respondents were asked to report the professional organizations to which they belonged and the professional journals and publications they read regularly. This data would reflect partially the efforts of the respondents, particularly those who were not practicing, to maintain professional contact and competency.

Ten respondents left the entire question unanswered. Forty-four (19.8 per cent) of the remaining 222 respondents reported that they did not regularly read any professional journal nor did they belong to any professional organization.

Membership in Professional Organizations

Fifteen of the 232 respondents did not report their membership in professional organizations thus lowering the number of usable replies to 217. Ninety-seven (44.7 per cent) of these 217 respondents did not belong to any professional organization.

The number of professional organizations and the number and per cent of respondents belonging to them are listed in Table XXX.

TABLE XXX

NUMBER AND PER CENT OF RESPONDENTS BY NUMBER OF PROFESSIONAL ORGANIZATIONS TO WHICH THEY BELONG

Number of Professional Organizations	Number of Respondents	Per Cent
None	97	44.7
One	48	22.1
Two	46	21.2
Three	15	6.9
Four	10	4.6
Five	1	0.5
TOTAL	217	100.0

Most of the respondents who reported membership in professional organizations belonged to either one or two professional organizations.

Professional organizations in which membership was reported by four or more respondents are presented in Table XXXI with the number of respondents reporting membership in those organizations. Membership in the American Pharmaceutical Association was reported most often by the respondents.

TABLE XXXI

NUMBER OF RESPONDENTS BY MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Organization	Number of Respondents
American Pharmaceutical Association	83
Wisconsin Pharmaceutical Association	58
American Association of Hospital Pharmacists	21
Wisconsin Association of Hospital Pharmacists	16
National Association of Retail Druggists	13
Illinois Pharmaceutical Association	6

Although 154 respondents were residing in Wisconsin at the time of the study, only about one third of them reported membership in the Wisconsin Pharmaceutical Association.

The fact that almost forty-five per cent of the respondents were not members of any professional organization is indicative of perhaps a serious problem. That is, lack of identification and participation in professional organizations and their activities. This absence of professional involvement may result in diminished professional competency of inactive women pharmacists.

Readership of Professional Journals

Twenty respondents did not report their readership of professional journals thus lowering the number of usable replies to 212. Fifty-one (24.0 per cent) of the 212 respondents reported they did not regularly read any professional journal or publication.

No frame of reference was provided for the phrase "read regularly." This was worded generally and interpretation was left to the respondents' judgment and recall. The remaining 161 respondents reported reading at least one professional journal regularly. Table XXXII lists the number and per cent of respondents by the number of

professional journals they read regularly.

TABLE XXXII

NUMBER AND PER CENT OF RESPONDENTS BY NUMBER OF PROFESSIONAL JOURNALS THEY READ REGULARLY

Number of Professional Journals	Number of Respondents	Per Cent
None	51	24.0
One	29	13.7
Two	47	22.2
Three	43	20.3
Four	26	12.3
Five	7	3.3
Six	6	2.8
Seven or more	3	1.4
TOTAL	212	100.0

The number of journals read regularly by the respondents ranged from one to thirteen, with only three respondents regularly reading more than six journals. The number of journals regularly read by the highest proportion of respondents was two.

Table XXXIII lists the number of respondents who reported reading the six different journals listed in the questionnaire.

TABLE XXXIII

PROFESSIONAL JOURNALS AND NUMBER OF RESPONDENTS READING THEM REGULARLY

Professional Journal	Number of Respondents
Journal of the American Pharmaceutical Association	107
Wisconsin Pharmacist	97
American Druggist	89
Drug Topics	86
American Journal of Hospital Pharmacy	45
NARD Journal	41

The journal reported most often by the respondents was the Journal of the American Pharmaceutical Association which was report-

edly read regularly by 107 (50.5 per cent) of the 212 respondents.

Ninety-seven respondents reported reading the Wisconsin Pharmacist but only fifty-eight respondents reported membership in the Wisconsin Pharmaceutical Association. It is likely that respondents who were not members of the Wisconsin Pharmaceutical Association read the Wisconsin Pharmacist at the pharmacy where they practiced where some other pharmacists received the journal.

A total of thirty-eight respondents named at least one professional publication under the space marked "others" in the questionnaire. The American Professional Pharmacist was the journal mentioned most often by these respondents; it was mentioned sixteen times. The Drug News Weekly was mentioned nine times, The Illinois Pharmacist five times and the Journal of the American Medical Association three times. Fourteen other journals were mentioned less than three times.

Inactive Respondents

Fifty-five respondents were not practicing at the time of the study. One would expect that an inactive pharmacist would regularly read professional and scientific journals to maintain professional contact and competency. This was not the situation, however, with most of the respondents not practicing at the time

of the study. Thirty-four (62.0 per cent) of the fifty-five inactive respondents reported they did not read any journal regularly nor did they belong to any professional organization. Another four inactive respondents did not give any answer. Of the remaining seventeen inactive respondents, seven were not members of any professional organization but all of them reported reading regularly at least one professional journal.

If a woman pharmacist is inactive for prolonged periods and does not read professional and scientific publications, she likely will encounter difficulty when she begins practice again. Not only will she be unaware of recent developments in the profession but she also may find she has diminished skills by being out of contact with the profession. Such an experience could influence some persons to leave practice again.

Continued education is very essential for the professionals who are temporarily inactive. Professional journals and scientific meetings presented by pharmaceutical associations provide a convenient media for such continued education. Over six out of ten inactive respondents in this study were not exposed to the continuing education readily accessible to them through journals and activities of professional organizations. The possible existence of a

serious professional problem, that of diminished competency, is suggested by the above findings for respondents who were inactive or not reading regularly any professional or scientific publications nor belonging to professional organizations.

CHAPTER XI

WOMEN PHARMACISTS IN A RELIGIOUS ORDER

This subsample includes fifty-eight women pharmacists belonging to a religious order, thirty-three of whom were known to reside in Wisconsin. Discussions with knowledgeable people prior to the study made it evident that data obtained from pharmacists belonging to a religious order would be atypical from that obtained from the rest of the sample.[1] Because religious considerations dominate the life of members of a religious order, it was expected that this would be reflected in this group's reasons for entering pharmacy, their pattern of practice and perception of conditions of practice.

Thus data obtained from women pharmacists belonging to a religious order are presented separately in this chapter. These respondents are in addition to the 232 respondents whose

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[1] Discussions were held with Dr. Eunice Bonow, School of Pharmacy, University of Wisconsin, Milwaukee and Miss Vera Appleton, Administrative Assistant of the Wisconsin State Board of Pharmacy, Milwaukee, Wisconsin.

data are discussed in Chapter III through Chapter X. This sub-sample of respondents generally left many of the questions unanswered. Whatever data they reported are presented.

By March 11, 1967 replies were received from thirty-three of the fifty-eight sample members belonging to a religious order. This represents a response rate of 56.9 per cent for this sub-sample and was considerably lower than the 80.8 per cent response rate from women pharmacists who were not members of a religious order.

General Characteristics

Nineteen of the thirty-three respondents were residing in Wisconsin at the time of the study. All thirty-three respondents were registered, thirteen of them were registered in only one state, twelve were registered in two states and the remaining eight were registered in three states. Thirty of these thirty-three respondents were practicing in a hospital pharmacy at the time of the study. Of the three respondents not practicing pharmacy, one reported she was studying for an M.B.A. degree, another said she was teaching chemistry and the third respondent reported that she was a hospital administrator. The number of hours worked per week by the thirty respondents who were

practicing hospital pharmacy ranged from forty to seventy-eight hours per week. Eleven respondents reported working sixty hours or more per week and four of these worked seventy or more hours per week.

Reasons for Entering Pharmacy

The answers given by twenty-six respondents indicated that they were influenced most to enter pharmacy because of a need for pharmacists in their religious order and their decision generally was made by one of their superiors in the order. For example, one respondent wrote, "Obedience to God's will in following the request of a superior."

Two respondents reported they entered pharmacy because they "liked this type of work". Another three respondents mentioned an interest in science subjects as the reason for their choosing to study pharmacy. Two respondents did not give any answer as to what influenced them most to study pharmacy.

Nineteen respondents reported they had worked in a hospital as a nurse or a nurse's aide prior to the beginning of their pharmacy

education. Twenty-two respondents reported they worked in a hospital during their pharmacy education. In answering the question about internships, two respondents did not answer while four said they did not intern after graduation. All of the remaining twenty-seven respondents reported interning in a hospital pharmacy after graduation. In giving their reasons for choosing to intern and later practice in that particular field of pharmacy, twenty-five respondents said they chose that field because that is what they were being prepared for and knew they would be practicing hospital pharmacy after graduation.

Pattern of Practice

None of the thirty-three respondents had even taken a salaried job not involving pharmacy after completion of their intership requirements. Thirty-one of the thirty-three respondents had practiced pharmacy full time ever since becoming registered pharmacists. One respondent reported she had practiced full time for eighteen years, part time for one year but did not give any reason for practicing part time. The other respondent who had not practiced full time reported that she had practiced full time for seventeen years, part time for

five years and did not practice for nine years. In giving her reasons for practicing part time or not at all, this respondent reported suffering from ill health.

The three respondents who were not practicing at the time of the study reported practicing full time since becoming registered. One explanation for these respondents reporting they were in full time practice could be that since they were registered pharmacists in their religious orders, perhaps any duties they performed were considered by them to be "practicing".

Earnings

In answering the question about their weekly salary, eleven respondents did not answer the question at all. Another seven respondents did not mention any figures but reported they were members of a religious order and were working in a hospital run by their order or else said their salary was received by their order. Five respondents in answer to the question about salary wrote "none". Only seven respondents reported their weekly salary and three of these also said that their salary went to their religious order. Two of these three respondents reported a salary of $200 per week whereas the third reported a $150

salary per week. The weekly salary reported by the remaining four respondents was $140, $150, $156 and $200 respectively.

Problems Unique to Women Pharmacists

Only four respondents reported problems unique to women pharmacists. Twenty-eight of them reported no problems while one did not answer the question. Two respondents reporting problems gave replies which did not seem to answer this question. One of them wrote, "If married and have children, (family obligations take priority)." The second respondent wrote, "As pharmacy exists as a profession today there is a good deal of business management which is not appealing to me."

The other two respondents wrote:

> "Pharmacy work requires much standing and lifting - this makes me want to call pharmacy a Man's Profession."

> "As a sister, and being chief pharmacist, it hasn't always been easy to be "over" men - at least some. And I don't blame them. It does deter some men when seeking a position to know they'd be under a woman."

Readership of Professional Journals and Membership in Professional Organizations

On the average, this group of respondents read more journals and belonged to more professional organizations than did respondents not belonging to a religious order.

All of these respondents regularly read at least two journals and twenty-nine respondents regularly read four or more journals. The Journal of the American Pharmaceutical Association, and the American Journal of Hospital Pharmacy were regularly read by thirty-one respondents. Thirty respondents reported regularly reading the American Druggist. Drug Topics was regularly read by twenty-nine respondents and only seven respondents reported regular readership of the Wisconsin Pharmacist. The American Professional Pharmacist was mentioned by nine of the fifteen respondents who reported reading other journals.

Four respondents were not members of any professional organization. With the exception of one respondent belonging to one organization, the remaining twenty-nine respondents belonged to two or more professional organizations.

Twenty-nine respondents reported they were members of the American Pharmaceutical Association. Membership in the American

Association of Hospital Pharmacists was reported by twenty-five respondents, twelve said they belonged to the Wisconsin Association of Hospital Pharmacists and only eight reported membership in the Wisconsin Pharmaceutical Association. Membership in both the American Pharmaceutical Association and the American Association of Hospital Pharmacists was reported by twenty-three respondents.

Conclusion

The group of respondents belonging to a religious order had their professional careers centered in hospitals. This point is illustrated by the thirty-three respondents in this subsample:

a) Nineteen worked in a hospital prior to the beginning of their pharmaceutical education.
b) Twenty-two worked in a hospital during their pharmacy education.
c) Twenty-seven interned in a hospital after graduation.
d) Twenty-five reported choosing hospital pharmacy because they were prepared for this field.
d) Thirty were practicing hospital pharmacy.

Almost all of these pharmacists had practiced full time since registration with approximately one out of three working sixty or

more hours per week. Their readership of professional journals and membership in professional organizations indicates the efforts of these pharmacists to maintain professional contact and competency. As a group they appear to be very conscientious practitioners.

CHAPTER XII

SUMMARY AND CONCLUSIONS

Questionnaires were mailed to a sample of 345 women who were registered pharmacists in Wisconsin or were graduates from the University of Wisconsin School of Pharmacy. The data presented are based upon the 265 returns received, representing an 81.8 per cent response rate. Thirty-three of the 265 respondents were members of religious orders and data from their returns are presented separately in Chapter eleven. Chapters three through ten present data obtained from 232 respondents who were not members of a religious order. The base for percentage calculations varies throughout the chapters depending upon the number of usable replies received.

Approximately two-thirds of the respondents were residing in Wisconsin with concentrations in metropolitan areas of Milwaukee and Madison. A majority of the respondents, (56.9 per cent) were under forty years of age.

Over nine out of ten (93.5 per cent) of the respondents were registered pharmacists. Of the fifteen respondents who

were not registered at the time of the study, only one had allowed her original registration to lapse. None of the remaining fourteen respondents were ever registered. Eight of these were 1965 or 1966 graduates, one other was a graduate student and another had failed her State Board of Pharmacy examinations. The remaining four respondents had not made any effort to become registered.

Fifty-five respondents, (24.0 per cent) were not practicing at the time of the study in addition to ten others who had retired. About three-fourths (76.4 per cent) of the fifty-five nonpracticing respondents reported the obligations of being a mother and housewife as their reason for not practicing.

Community pharmacy was the most often reported field of practice (42.4 per cent) with hospital pharmacy second (22.7 per cent) and clinic pharmacy third (4.4 per cent). The proportion of respondents practicing hospital pharmacy in this study is almost four times the national figure of 5.7 per cent reported by the National Association of Boards of Pharmacy in 1966. Hospital pharmacy has a higher proportion of younger women pharmacists than community pharmacy. A majority of the respondents practicing in the above fields of pharmacy were practicing on a part time basis.

About three-fourths (74.6 per cent) of the respondents were married. A majority of the respondents were married within one year of graduation. Only one of the fifty-five inactive respondents was single. Fifty respondents were married to pharmacists. These respondents were more likely to be practicing, and in community pharmacy, than the other respondents. Marital status seemed to be the greatest determinant of the weekly hours of practice. A pharmacy degree does not appear to be a deterrent to marriage and raising a family.

In analyzing what influenced respondents to study pharmacy, it was observed that a majority of the respondents had been in contact with the profession either by working in a pharmacy or had a relative who was in pharmacy or both. Twenty-eight respondents reported entering pharmacy because they desired a "medical type" of career and forty-three respondents chose to study pharmacy because of their interest in science.

While determining why a respondent chose a particular field of pharmacy in which to intern or practice, it was discovered that twenty-three per cent interned in a particular pharmacy because that was the only position they could find. As registered pharma-

cists, only 3.4 per cent of the respondents reported the same reason for selecting their field of practice. Factors relating to convenience were reported by 10.6 per cent of respondents for choosing a particular field of pharmacy in which to intern. This proportion rose to 28.2 per cent when respondents reported reasons for selecting their current field of practice. Family responsibilities are likely responsible for this increase. The decrease (24.7 per cent to 4.8 per cent) between internship and current practice in the proportion of respondents reporting "field of choice" is also likely due to family obligations. Twenty per cent of the respondents practiced in a hospital pharmacy because they favored the "professional aspects" of the profession and did not like the "business aspects" of pharmacy.

There were fifty respondents (24.1 per cent) who had been in full time practice throughout their professional lives. There were another six respondents who never practiced since graduation. Another six respondents had practiced part time throughout their professional lives. A majority of the respondents who had practiced full time throughout their professional lives were unmarried whereas all twelve respondents who had never practiced full time

were married. Unmarried women pharmacists were able to devote more time to their profession than married women pharmacists due to the absence of marital responsibilities.

A majority of the respondents (59.9 per cent) had interrupted their professional career. About one-fifth (20.8 per cent) of the respondents had practiced part time for more than fifty per cent of their professional lives. Approximately four out of ten (42.5 per cent) of the respondents had practiced full time more than fifty per cent of their professional lives.

The mode and median of the hourly earnings of the respondents were $4.00 and the arithmetic mean was $4.15. There was no appreciable difference between the hourly earnings of respondents in community, hospital or clinic pharmacy. Also, there was no obvious relationship between the hourly earnings of respondents and the number of years they had been registered. Respondents residing in Wisconsin had a mean hourly earning of $4.087, lower than the $4.390 mean hourly earnings for respondents residing in states other than Wisconsin. The earnings of respondents do not show the existence of wage discrimination although twenty-five respondents reported 'Lower Pay' as a problem unique to women pharmacists.

A majority of the respondents under forty-five years of age reported encountering problems unique to women pharmacists. However, a majority of the respondents forty-five years of age and over reported encountering no problems. Forty-one respondents reported that at times, they were not accepted as qualified pharmacists mostly by their patrons but sometimes also by male pharmacists and members of the medical profession. Another thirty-one respondents reported that they felt a lack of patron confidence in their abilities, especially by older male patrons. Other problems unique to women pharmacists as reported by the respondents were difficulty in finding employment, difficulty in selling birth control items to male customers and patrons who prefer and at times insist on dealing with a male pharmacist.

Almost forty-five per cent of the respondents did not hold membership in any professional organization and another twenty-four per cent reported they did not regularly read any professional journal. Of the fifty-five respondents who were not practicing at the time of the study, thirty-four of them did not ready any journal regularly nor did they belong to any professional organization.

The "typical" woman pharmacist described in this study is under forty years of age, married and has a family. She practices approximately twenty hours a week in community pharmacy and earns about $4.00 per hour in this practice. It is likely that she has encountered problems as a woman pharmacist with her patrons or her colleagues. She probably will be in full or part time practice about three fourths of her professional life. This will be her contribution to the pharmacy manpower pool.

APPENDIX A

THE UNIVERSITY OF WISCONSIN
MADISON 53706

OF PHARMACY

The number of women entering pharmacy is increasing every year. The American Association of Colleges of Pharmacy reported that during 1965-66, "the increase of female students is significantly greater than the increase in male students, 7 per cent increase in women compared with a 2.6 per cent increase in men." There is an even more substantial proportion of women pharmacy students in other countries. Nearly 40 per cent of the enrollment of the Canadian colleges of pharmacy and more than half of the pharmacy students enrolled at the University of the Philippines are women.

Information is needed about the career patterns of this increasing proportion of women pharmacists to assess more accurately their influence on the total pharmacy manpower situation. More information also is needed about factors such as marriage, raising a family and any specific problems which influence women pharmacists' professional longevity. Pharmaceutical educators may be able to use these data to assist prospective women pharmacists achieve their educational goals and to help them utilize their education in productive professional careers.

We are conducting a study to provide some of this much needed information about women pharmacists who were educated at the University of Wisconsin or who are or once were registered in Wisconsin. This is part of a series of pharmaceutical manpower studies being conducted at the University of Wisconsin School of Pharmacy. Won't you please help make this study a success by taking a few minutes of your time to complete the enclosed questionnaire and return it in the enclosed, self-addressed, stamped envelope by January 20, 1967? Your confidence, of course, will be respected and the information you supply will be used for statistical purposes only.

Your cooperation in this study will be appreciated.

Sincerely,

S. K. Sehgal
Research Assistant

Mr. Sehgal graduated from pharmacy school and is now one of our graduate students in pharmacy administration. The requested data are for his master's research project.

Richard A. Ohvall
Assistant Professor

CAREER PATTERNS OF WOMEN PHARMACISTS

1. What first stimulated your interest in pharmacy as a career? (Please check as many as applicable).

_____ Guidance Literature _____ High school teachers

_____ Pharmacist _____ Parents or relatives

_____ Other (Please specify) _____

2. What do you think influenced you most to study pharmacy?

_____

_____

INCLUDE ANY REQUIRED PREPHARMACY EDUCATION AND ALL INTERVENING SUMMERS AS THE PERIOD OF "PHARMACY EDUCATION" WHEN ANSWERING QUESTIONS 3, 4 and 5.

3. Were any of your relatives or friends associated with pharmacy prior to the beginning of your pharmacy education? Yes _____ No _____

If "Yes", a) What was their relationship to you? (eg. Uncle, friend etc.) _____

b) Do you think these persons had any influence in your choosing to study pharmacy? Yes _____ No _____

4. Were you employed in any field of pharmacy or related health area prior to the beginning of your pharmacy education? Yes _____ No _____

If "Yes", a) Describe your job _____

b) How long did you hold this job? _____ (Years)

5. Were you employed in any field of pharmacy during your pharmacy education? Yes _____ No _____

If "Yes", a) In which field of pharmacy? (eg. Community, clinic, hospital etc.) _____

b) How long did you work? _____ (months)

6. In which state did you complete your pharmacy education? _____

7. When did you get your pharmacy degree? _____ (Year)

8. After graduation, did you apprentice or intern anywhere as a pre-requisite to registration? Yes _____ No _____

If "Yes", a) In which field of pharmacy? _____

b) Why did you choose to apprentice or intern in this field of pharmacy? _____

9. Are you currently a registered pharmacist in any state? Yes ___ No ___

If "Yes", in what state(s) are you registered? Year of registration?

1. _____ Year _____ 3. _____ Year _____

2. _____ Year _____ 4. _____ Year _____

If "No", were you ever registered in any state? Yes _____ No _____

Please give your reasons for never becoming registered or letting your registration lapse: _____

10. After completing your apprenticeship or internship, did you ever hold a salaried job not involving pharmacy? Yes _____ No _____

If "Yes", a) Describe your job _____

b) How long did you hold this job? _____ (months)

c) What was your salary per month? _____

d) What were your reasons for accepting this job?

_____

11. Are you currently a practicing pharmacist? Yes _____ No _____

If "Yes", a) In which field of pharmacy? _____

b) How many hours do you work per week? _____

c) What is your weekly salary from the above practice? $____

d) Why did you choose to practice in this field?

_____

If "No", please indicate your reasons for not practicing currently:

_____

_____

12. Please list below the number of years you have practiced full time, part time or not at all since becoming a registered pharmacist.

Amount of time	No. of years
a) Full time	_____
b) Part time	_____
c) Not at all	_____

13. What were your reasons for working either part time or not at all since becoming registered? _____

14. Have you ever encountered any problems unique to women pharmacists?

Yes _____ No _____

If "Yes", please describe: _____

15. Marital Status

Single ___ Married ___ Separated ___ Divorced ___ Widowed ___

If not single, a) When did you get married? _____ (Year)

b) What was your husband's occupation at that time?

_____ (Please describe)

c) How many children have you had? _____

d) In what years were they born? ____ ____ ____ ____

e) Did you hire help to look after them while you were practicing? Yes _____ No _____

16. Please check below the professional journals you read regularly and the professional organizations to which you belong:

Journals

____ Journal A.Ph.A. ____ Wis. Pharmacist

____ Amer. Druggist ____ Drug Topics

____ Amer. J. Hosp. Pharm. ____ NARD Journal

Others _____

_____

_____

Professional Organizations

____ APhA ____ WPhA ____ ASHP ____ WSHP ____ NARD

Others (Please specify) _____ _____

Thank you. Your cooperation is sincerely appreciated.

APPENDIX B

THE UNIVERSITY OF WISCONSIN
MADISON 53706

F PHARMACY
Building
Charter Street

February 2, 1967

The proportion of women entering pharmacy is increasing. The American Association of Colleges of Pharmacy reported that during 1965-66, "the increase of female students is significantly greater than the increase in male students, 7 per cent increase in women compared with a 2.6 per cent increase in men." Currently women comprise 14.5 per cent of all pharmacy students in this country. There is an even larger proportion of women pharmacy students in other countries. Nearly 40 per cent of the enrollment of the Canadian colleges of pharmacy and more than half of the pharmacy students enrolled at the University of the Philippines are women.

Information is needed about the career patterns of this increasing proportion of women pharmacists to assess more accurately their influence on the total pharmacy manpower situation. More information also is needed about factors such as marriage, raising a family and any specific problems which influence women pharmacists' professional longevity. Pharmaceutical educators may be able to use these data to assist prospective women pharmacists achieve their educational goals and to help them utilize their education in productive professional careers.

We are conducting a study to provide some of this much needed information about women pharmacists who were educated at the University of Wisconsin or who are or once were registered in Wisconsin. This is part of a series of pharmaceutical manpower studies being conducted at the University of Wisconsin School of Pharmacy. Won't you please help make this study a success by taking a few minutes of your time to complete the enclosed questionnaire and return it in the enclosed, self-addressed, stamped envelope by February 17, 1967? Your confidence, of course, will be respected and the information you supply will be used for statistical purposes only.

Your cooperation in this study will be appreciated.

Sincerely,

S. K. Sehgal
Research Assistant

Mr. Sehgal graduated from pharmacy school and is now one of our graduate students in pharmacy administration. The requested data are for his master's research project.

Richard A. Ohvall
Richard A. Ohvall
Assistant Professor

CAREER PATTERNS OF WOMEN PHARMACISTS

1. What first stimulated your interest in pharmacy as a career? (Please check as many as applicable).

_____ Guidance Literature _____ High school teachers

_____ Pharmacist _____ Parents or relatives

_____ Other (Please specify) _____

2. What do you think influenced you most to study pharmacy?

_____

_____

INCLUDE ANY REQUIRED PREPHARMACY EDUCATION AND ALL INTERVENING SUMMERS AS THE PERIOD OF "PHARMACY EDUCATION" WHEN ANSWERING QUESTIONS 3, 4 and 5.

3. Were any of your relatives or friends associated with pharmacy prior to the beginning of your pharmacy education? Yes _____ No _____

If "Yes", a) What was their relationship to you? (eg. Uncle, friend etc.) _____

b) Do you think these persons had any influence in your choosing to study pharmacy? Yes _____ No _____

4. Were you employed in any field of pharmacy or related health area prior to the beginning of your pharmacy education? Yes _____ No _____

If "Yes", a) Describe your job _____

b) How long did you hold this job? _____ (Years)

5. Were you employed in any field of pharmacy during your pharmacy education? Yes _____ No _____

If "Yes", a) In which field of pharmacy? (eg. Community, clinic, hospital etc.) _____

b) How long did you work? _____ (months)

6. In which state did you complete your pharmacy education? _____

7. When did you get your pharmacy degree? _____ (Year)

PLEASE USE REVERSE SIDE IF ADDITIONAL SPACE IS NECESSARY

8. After graduation, did you apprentice or intern anywhere as a pre-requisite to registration? Yes _____ No _____

If "Yes", a) In which field of pharmacy? _____

b) Why did you choose to apprentice or intern in this field of pharmacy? _____

9. Are you currently a registered pharmacist in any state? Yes ___ No ___

If "Yes", in what state(s) are you registered? Year of registration?

1. _____ Year _____ 3. _____ Year _____

2. _____ Year _____ 4. _____ Year _____

If "No", were you ever registered in any state? Yes _____ No _____

Please give your reasons for never becoming registered or letting your registration lapse: _____

10. After completing your apprenticeship or internship, did you ever hold a salaried job not involving pharmacy? Yes _____ No _____

If "Yes", a) Describe your job _____

b) How long did you hold this job? _____ (months)

c) What was your salary per month? _____

d) What were your reasons for accepting this job?

_____

11. Are you currently a practicing pharmacist? Yes _____ No _____

If "Yes", a) In which field of pharmacy? _____

b) How many hours do you work per week? _____

c) What is your weekly salary from the above practice? $___

d) Why did you choose to practice in this field?

_____

If "No", please indicate your reasons for not practicing currently:

_____

PLEASE USE REVERSE SIDE IF ADDITIONAL SPACE IS NECESSARY

12. Please list below the number of years you have practiced full time, part time or not at all since becoming a registered pharmacist.

Amount of Time	No. of years
a) Full time	_____
b) Part time	_____
c) Not at all	_____

13. What were your reasons for working either part time or not at all since becoming registered? _____

14. Have you ever encountered any problems unique to women pharmacists?

Yes _____ No _____

If "Yes", please describe: _____

15. Marital Status

Single ___ Married ___ Separated ___ Divorced ___ Widowed ___

If not single, a) When did you get married? _____ (Year)

b) What was your husband's occupation at that time?

_____ (Please describe - if student mention field)

c) How many children have you had? _____

d) In what years were they born? ____ ____ ____ ____

e) Did you hire help to look after them while you were practicing? Yes _____ No _____

16. Please check below the professional journals you read regularly and the professional organizations to which you belong:

Journals

____ None

____ Journal A.Ph.A. ____ Wis. Pharmacist Others _____

____ Amer. Druggist ____ Drug Topics _____

____ Amer. J. Hosp. Pharm. ____ NARD Journal _____

Professional Organizations

____ None ____ APhA ____ WPhA ____ ASHP ____ WSHP

Others (Please specify) _____

Thank you. Your cooperation is sincerely appreciated.

APPENDIX C

THE UNIVERSITY OF WISCONSIN
MADISON 53706

F PHARMACY
Building
Charter Street

Some time ago a questionnaire was sent to you requesting information about your pharmaceutical education, practice and other factors which influence the professional longevity of women pharmacists. As of this date we have not received your completed questionnaire.

This study is being conducted to develop a composite career profile of women pharmacists who were educated at the University of Wisconsin or who are or once were registered in Wisconsin. Data from this study will aid us in providing educational and occupational guidance for our increasing proportion of women pharmacy students. Your cooperation is very essential to the success of this study. The data obtained from you will be confidential and used for statistical purposes only. Thus we would appreciate it if you would complete and return the questionnaire to us by the end of the week.

Please accept my sincere thanks if you already have returned the completed questionnaire.

Sincerely,

S. K. Sehgal
Research Assistant

APPENDIX D

NUMBER OF RESPONDENTS RESIDING IN WISCONSIN CITIES

City	Number
Beloit	1
Black River Falls	1
Burlington	1
Chilton	1
Cudahy	3
Edgar	1
Elm Grove	1
Elkhorn	1
Ellsworth	1
Eau Claire	2
Fond du Lac	3
Granton	1
Green Bay	5
Kenosha	2
Kewaunee	1
La Crosse	2
Ladysmith	1
Madison	26
Manitowoc	2
Marshfield	1
Menomonie	1
Milwaukee	48

Monroe	3
Muckwonago	1
Neenah	2
New Lisbon	1
Oconomow	3
Osceola	1
Oshkosh	5
Portage	1
Praire du Chien	1
Racine	5
Rice Lake	1
Sheboygan	2
Sparta	1
Stevens Point	2
Sturgeon Bay	2
Superior	2
Waterford	2
Waukesha	5
Waupun	1
Wausau	4
Wautoma	1
West Bend	1
Wisconsin Rapids	1
TOTAL	154

APPENDIX E

NUMBER OF RESPONDENTS BY THEIR YEAR VALUE OF MARRIAGE IN RELATIONSHIP TO GRADUATION FROM PHARMACY SCHOOL

Year Value	Number of Respondents
-14	1
-5	2
-4	1
-3	4
-2	8
-1	16
0	33
+1	40
2	14
3	13
4	12
5	6
6	6
7	8
8	4
9	2
10	2
11	3
12	2
15	1
16	2
18	1
27	1
TOTAL	182

APPENDIX F

NUMBER OF RESPONDENTS AND THE NUMBER OF THEIR CHILDREN

Number of Children	Number of Respondents
None	35
One	32
Two	48
Three	36
Four	22
Five	9
Six	3
Seven	1
Eight	0
Nine	0
Ten	1

APPENDIX G

HOURLY EARNINGS AND NUMBER OF RESPONDENTS

REPORTING THOSE EARNINGS

Hourly Earnings	Number of Respondents
$2.00	1
$2.51	1
$2.96	1
$3.00	3
$3.20	1
$3.25	1
$3.29	1
$3.33	2
$3.40	1
$3.50	6
$3.53	1
$3.59	1
$3.60	1
$3.70	1
$3.75	4
$3.80	1
$3.88	1
$3.90	2
$4.00	39
$4.02	1
$4.17	3
$4.20	1

$4.25	3
$4.26	1
$4.38	2
$4.40	1
$4.45	1
$4.47	1
$4.50	9
$4.59	1
$4.60	1
$4.63	1
$4.75	2
$4.80	1
$4.90	2
$5.00	14
$5.05	1
$5.10	1
$5.65	1
$5.69	1
$6.00	1
TOTAL	119

APPENDIX H

COMPUTATIONS FOR SIMPLE CORRELATION

DATA

$N = 114$ $\quad\quad$ $\Sigma XY = 6981$
$Y = 1714$ $\quad\quad$ $\Sigma(Y^2) = 39146$
$X = 472$ $\quad\quad$ $\Sigma(X^2) = 1998$

FORMULA[a]

The coefficient of correlation r is equal to

$$r = \sqrt{bY.bX}$$

where bY = regression coefficient from regression line of X on Y
bX = regression coefficient from regression line of Y on X

Computation For bY

$$X = a + bY$$

$$\Sigma(X) = Na + b\Sigma(Y)$$
$$\Sigma(XY) = a\Sigma(Y) + b\Sigma(Y^2)$$

$$472 = 114a + 1714b \quad \ldots(1)$$
$$6981 = 1714a + 39146b \quad \ldots(2)$$

Multiplying (1) by 1714 and (2) by 114

$$809{,}008 = 195{,}396a + 2{,}937{,}796b \quad \ldots(3)$$
$$795{,}834 = 195{,}396a + 4{,}462{,}644b \quad \ldots(4)$$

Subtracting (3) from (4)

$$-13{,}174 = 1{,}524{,}848b$$

$$b = -\frac{13{,}174}{1{,}524{,}848}$$

$$= -.00863$$

[a] Source: Wilfred J. Dixon and Frank J. Massey, Jr., Introduction Statistical Analysis, McGraw-Hill Book Company, Inc., 1957, pp. 199-200.

Computation for bX

$$Y = a + bX$$

$$\Sigma(Y) = Na + b\Sigma(X)$$
$$\Sigma(XY) = a(X) + b\Sigma(X^2)$$

$$1714 = 114a + 472b \quad \ldots(5)$$
$$6981 = 472a + 1998b \quad \ldots(6)$$

Multiplying (5) by 472 and (6) by 114

$$809,008 = 53,808a + 222,784b \quad \ldots(7)$$
$$795,834 = 53,808a + 227,772b \quad \ldots(8)$$

Subtracting (7) from (8)

$$-13,174 = 4,988b$$

$$b = -\frac{13,174}{4,988}$$

$$= -2.64113$$

Computations for r

$$r = \sqrt{bY.bX}$$

$$= \sqrt{-2.64113 \ -0.00863}$$

$$= \sqrt{0.02279}$$

$$= 0.1510$$

Coefficient of Determination

$$r^2$$
$$= 0.151 \times 0.151$$
$$= 0.0228$$

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