A SURVEY OF PRACTICING PHARMACISTS IN WISCONSIN

by

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CHAPTER ONE

INTRODUCTION

A recent study for the American Society of Association Executives lists the major activities of trade associations and professional societies. One such activity is "Employer-Employee Relations" which includes conducting surveys of wages, work schedules, vacations, hiring, terminations, and promotions.[1]

In the field of pharmacy, such data can be useful to schools of pharmacy and state pharmaceutical associations in their efforts to serve the profession. It is helpful for the faculty of a school to know the status of pharmacy practice in the region where most of the school's graduates will be practicing. State pharmaceutical associations also are interested in such data to serve their membership and to help solicit new members.

Pharmacy students and potential students likely will be interested in such data which might answer some important questions these students have about the practice of pharmacy.

Pharmacy practitioners, both owner and salaried, likely will be interested in this information also. In a

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1. George D. Webster, The Law of Associations, American Society of Association Executives, Washington, D.C., 1971, pp. 7-8.

general context, both these groups likely would want to know how their overall pharmacy practice compares with others.

Job Satisfaction

Many researchers have attempted to define and to measure job satisfaction. Job satisfaction is important because it generally is accepted that a satisfied employee is more productive, presents a more favorable occupational image to the public, and is more compatible with his fellow employees. Therefore he is likely to be more valuable to the firm.[2]

Ivancevich and Donnelly took parts of the different definitions by Wherry, Herzberg, Maslow, and Vroom and attempted to present a clear, concise definition of job satisfaction. They defined job satisfaction as "the favorable viewpoint of the worker toward the work role he presently occupies."[3]

Various researchers have studied over forty different potential determinants of job satisfaction.[4] Six of the more prominent of these determinants were among those evaluated in this study.

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2. John M. Ivancevich and James H. Donnelly, "Job Satisfaction Research: A Manageable Guide for Practitioners," Personnel Journal (47:3) March 1968, p. 172.
3. Ibid.
4. Ibid., p. 177.

Age

Ivancevich and Donnelly reported a high level of morale at the start of a worker's career. Morale often declined in the mid-twenties and began to rise in the early thirties. They hypothesized the decline in worker morale during the twenties may be due to factors such as difficulty in adjustment, young family, financial difficulties, and frustrations due to promotion uncertainty.[5]

Sex

The proportion of female to total pharmacy students has increased in the last eleven years. "The number of women in each class increased so that 22 percent of our students are now women as compared with 20 percent a year ago and only 10 percent eleven years ago."[6] Also an increasing proportion of licensed pharmacists in the United States are women.[7]

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5. Ibid., pp. 173-174.

6. "Report on Enrollment in Schools and Colleges of Pharmacy, First Semester, Term, or Quarter, 1970-1971," American Journal of Pharmaceutical Education (35:1) February 1970, p. 95.

7. For example, please see: "Employee Pharmacists Were 57% of Licensees Practicing Retail Pharmacy," Weekly Pharmacy Reports (20:5) February 1, 1971 (p. 2) and "Employee-to-Owner Ratio Grows," American Druggist (163:3) February 8, 1971, p. 41.

After reviewing several studies of sex differences and job satisfaction, Ivancevich and Donnelly reported "it becomes apparent that no conclusive statement can be made as to whether males or females are more satisfied."[8] This conclusion will be tested on the self-satisfaction ratings of male and female pharmacists practicing in Wisconsin.

Skill Utilization

An employee generally will be more satisfied when his work environment allows him to use his skills optimally.[9] Ivancevich and Donnelly reported on a study of 81 female nurses who believed they possessed over 40 different traits pertaining to their jobs.[10] They concluded the less the nurse believed her job demanded the qualities she possessed, the less satisfied she was. This would imply a pharmacist who predominately dispenses prescriptions and discusses prescription and O-T-C medication with patients will be more satisfied than a pharmacist who spends most of his on duty time with functions that require him to use little of his professional knowledge.

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8. Ivancevich and Donnelly, op. cit., p. 174.
9. Ibid.
10. Ibid., p. 175.

Voice in Operating Policies

Ivancevich and Donnelly did not reach any conclusions on this aspect of job satisfaction; however, they implied a satisfied worker likely would have some control over the work process.[11] This may be compared to pharmacists' responses in this survey as to whether or not they have a voice in determining operating policies and procedures for the pharmacy in which they practice. It is not feasible for salaried pharmacists' views to be considered by management for every decision. However, it is believed those salaried pharmacists who are consulted on pertinent decisions would be more satisfied than those who are not.

Compensation

There are two opposing schools of thought as to the extent and manner in which compensation influences job satisfaction. Some believe absolute compensation levels affect job satisfaction more than relative levels do and others believe the opposite. Ivancevich and Donnelly reported satisfaction seems to be dependent on relative and not absolute compensation levels. More job dissatisfaction can be attributed to perceived inequities in wages and salaries than to exact amounts of compensation.[12]

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11. Ibid., p. 176.

12. Ibid.

A pharmacist who had been employed at a pharmacy for several years likely would be displeased if a recently licensed pharmacist was hired for the same compensation then received by the senior salaried pharmacist. It is believed this occurs quite frequently. One could say this is unfair to the senior pharmacist; however, it is possible, but unlikely, that the junior pharmacist is equally prepared to discuss medications with physicians and patients and otherwise contribute to the success of the pharmacy and hence is deserving of an equal rate of compensation.

Job Level

Porter studied the relationship between levels within managerial ranks and job satisfaction.[13] He concluded different degrees of satisfaction may be due in part to greater opportunity to satisfy ego, autonomy, and self-actualization needs at higher levels. This finding suggests job satisfaction rises as one proceeds up the management ladder.

Herzberg, Mausner, and Snyderman discussed the Motivation versus Hygiene theory of job satisfaction. Two separate sets of factors were reported to operate

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13. Lyman W. Porter, "Job Attitudes in Management: II. Perceived Importance of Needs as a Function of Job Level," Journal of Applied Psychology (47:2) April 1963, p. 141.

independently to produce satisfaction and dissatisfaction. Where their respondents reported "feeling happy" with their jobs, they most frequently mentioned factors related to their tasks. These factors indicated they were successful in the performance of their work and there was the possibility of professional growth. These factors were labeled "motivators."[14]

When feelings of unhappiness were reported, these likely were not associated with the job itself but with conditions which surround doing the job. These factors were labeled "hygiene," for they act in a manner similar to the principles of medical hygiene. Hygiene is not a curative but operates to remove health hazards from the environment of man. Likewise, when deleterious factors in the context of a job are present, they serve to foster poor job attitude. Supervision, interpersonal relations, physical working conditions, salary, company policies and administrative practices, benefits, and job security were presented as a partial list of factors of "hygiene."[15]

Both kinds of factors meet the needs of employees, but it is primarily the "motivators" that serve to increase job satisfaction. When factors of "hygiene" fall

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14. Frederick Herzberg, Bernard Mausner, and Barbara Block Snyderman, The Motivation to Work, John Wiley and Sons, Inc., New York, 1967, p. 113.

15. Ibid.

below a certain level, job dissatisfaction results. Hygiene factors appear to cause job dissatisfaction but they appear not to lead to positive job attitudes.[16]

It was believed an individual's overall satisfaction with his job is the result of a large number of orientations to specific aspects of the job. The individual arrives at a balance of the pros and cons of his job that can be expressed in an overall job satisfaction score.[17]

Hammel found the self-rated satisfaction mean of pharmacists who did not advise others to enter pharmacy but who did advise them not to enter pharmacy to be much lower than the self-rated satisfaction mean of his entire respondent group. The difference between the two was significant.[18]

He noted some students should not be advised to enter pharmacy to reduce the likelihood of professional misfits entering the profession. He concluded satisfaction within pharmacy appears to be reflected to others.[19]

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16. Ibid., p. 114.

17. Ivancevich and Donnelly, op. cit., p. 172.

18. R. W. Hammel, "Employment History of University of Wisconsin Pharmacy Graduates: 1951-1955," Unpublished M.B.A. paper, University of Wisconsin, Madison, Wisconsin, 1956, pp. 61-62.

19. Hammel, op. cit., pp. 74-75.

Zis reported staff pharmacists' job satisfaction is highly influenced by three basic social interactions, those between: (1) the pharmacist and his own job environment, (2) the staff pharmacist and other pharmacists in the community, and (3) the staff pharmacist and working society in general, both nonprofessional and professional.[20]

Zis emphasized "the most consistent breeding ground for job dissatisfaction is the individual's working environment itself." He believed because many grievances are looked upon as petty that "much employee unrest is nurtured by the lack of communication of the staff pharmacist and his supervisors."[21]

Many of the underlying causes of job dissatisfaction are intangible factors. Further, Zis acknowledged "opportunities for advancement, recognition of individual achievement and communication of ideas between employee and employer are not easily put into writing."[22]

Pharmacy Unions

"Unionization of retail pharmacists continued to gain momentum last fortnight."[23] Activities cited in the

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20. Burton J. Zis, "Pharmacy Unrest: A Look at Some Underlying Causes," Illinois Pharmacist (34:4) April 1970, p. 124.

21. Ibid.

22. Ibid.

23. "Pace of Union Drives Intensifies," American Druggist (161:3) February 9, 1970, p. 20.

article were:

1. Thirty-four pharmacists employed by Thrifty drug chain will be represented by the Retail Clerks International Association, Local 99.

2. The Indiana Pharmacists Guild in Indianapolis began an organizing drive.

3. The Chemical Workers Union in Omaha, Nebraska, is representing pharmacists employed by Skaggs.

4. The Metropolitan Guild of Pharmacists in Washington, D.C. has been designated as the bargaining agent for about 200 Drug Fair pharmacists.

5. The Retail Clerks International Association in Washington, D.C. was negotiating with Peoples Drug Chain.

Several state pharmaceutical associations have mounted anti-union drives in an attempt to stop the growth of the union movement in pharmacy. The Ohio State Pharmaceutical Association hired a pharmacist for the newly created post of Field Secretary. The Ohio Association also has a new committee, the Pharmacist Employee Economics Committee (PEEC) and the President of the Association stated he was "confident that the PEEC will eliminate any future growth of pharmacy unions or guilds which have already eaten away at the integrity of pharmacy by resorting to unnecessary strikes."[24]

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24. "Assns Mount Anti-Union Drives," American Druggist (161:4) February 23, 1970, p. 15.

The Indiana Pharmaceutical Association issued the statement, "The Indiana Pharmaceutical Association, as a matter of policy, shall discourage membership on the part of pharmacists in unions or guilds."[25]

The Kansas Pharmaceutical Association is opposed to pharmacy unions and has decided to "support any member when his ability to continue his existing practice is threatened by activities of organized labor."[26]

Another union was formed in 1970 with "99" as the last two digits of its four digit designator. The new union, Local 1299 of the Retail, Wholesale, Department Store Union, has started an extensive membership drive in the Miami Beach area. Besides Local 1299 there are at least three other pharmacy unions in the United States with "Local" numbers ending in the digits 99. These are 1199 in New York City, Local 1099 in Philadelphia, and Local 99 in Arizona. By using the numbers "99," the unions hope to gain some psychological strength from the large New York City Local 1199, Drug and Hospital Union.[27] Some of Local 1299's objectives are: (1) Improved working conditions for pharmacists, (2) Elimination of nonprofessional duties, (3) Limit the work week to a maximum of

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25. Ibid.

26. "Kansas Assn Will Fight Unions," American Druggist (161:8) April 20, 1970, p. 25.

27. "'99' Unions Formed by RxMen," American Druggist (162:4) August 24, 1970, p. 17.

40 hours, and (4) Eliminate "double-shifting" whereby one pharmacist works a double shift during vacations and when another pharmacist is sick.[28]

During the fall of 1970, Local 1199 of New York City negotiated a new contract. Besides pharmacists, Local 1199's membership includes check-out clerks, drivers, stockmen, dishwashers, pantrymen, soda fountain help, cashiers, cosmeticians, and drug and cigar sales clerks. Some of the items sought by the union were a ten percent premium for Sunday work, Martin Luther King's birthday added to the list of holidays, and maternity leave with the right to reinstatement.[29]

Following Local 1199's new contract, New York City pharmacists' salaries increased by 31 percent. A subsequent spot check on prescription prices found a three to eight percent increase at sampled pharmacies. Some of the pharmacy owners reportedly were considering a reduction in the hours of employment and eliminating free delivery service. One owner was considering the possibility of a $1.00 delivery charge for all orders.[30]

Local 1199's new contract may have reduced the demand for salaried pharmacists. For example, when an official

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28. Ibid., p. 18.

29. "1199 Negotiates New Contract in N.Y.," American Druggist (162:6) September 21, 1970, p. 18.

30. "Union's 31% Pay Raise Boosts Prices of Rx's," American Druggist (162:9) November 2, 1970, p. 20.

of a drug chain in New York which recently had 30 units with full-scale prescription departments was asked why the chain sold or abandoned the prescription department in more than ten of these outlets, he replied,

> "There's only one reason. High labor costs. We just cannot afford to pay the current union scale for pharmacists and operate a profitable Rx department. We tried to stimulate Rx traffic by deep cut prices, but could not generate enough business to pay the pharmacist and still leave us a little profit."[31]

In Chicago, unionization and resulting higher labor costs have induced many pharmacy owners to analyze their prescription department operations. Some have decreased their prescription department hours which reduced the number of pharmacist man-hours needed.[32]

Many hospital pharmacists would like their professional association to act as a collective bargaining agent for them on salary and related matters. A spokesman for the American Society of Hospital Pharmacists reported the members "still appeared to be about evenly split" on the issue.[33]

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31. "Are Pharmacists Pricing Themselves Out of the Market," American Druggist (163:11) May 31, 1971, pp. 11-12, 14.

32. Dan Kushner, "Straight Talk," American Druggist (163:12) June 14, 1971, p. 47.

33. "'Union' Role is Urged for ASHP," American Druggist (161:1) January 12, 1970, p. 26.

David L. Howard, Director of Pharmacy at Brooklyn Hospital, New York City, stated, "We cannot ask the professional person to divorce his economic goals from his professional goals."[34]

There is an increasing acceptance of collective bargaining by professionals such as teachers, nurses, physical therapists, engineers, and physicians.[35] Lantos stated,

> "There are those who say that a professional association cannot adequately fulfill its professional objectives if it must also be concerned with the economic welfare of its members. I think that an association should be concerned with the total welfare of its members. Professional objectives cannot be achieved if the members of the profession do not have economic satisfaction. Many similar associations of employed professionals such as the National Education Association and the American Nurses Association, are now engaged in collective bargaining for their members."[36]

Pharmacists discussed the union and labor situation at the 1970 annual convention of the Pharmaceutical Association of British Columbia. A spokesman for this organization reported the response to the union plans was

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34. Ibid.

35. Ibid.

36. Robert L. Lantos, "In the Hospital," American Druggist (163:2) January 25, 1971, p. 3.

enthusiastic. However, only slightly more than 200 of the 1500 members of the association reportedly were at the convention.[37]

Physicians may consider a union as a means to obtain more favorable reimbursement and fringe benefits. For example, Dohnalek wrote, "Let us form a union to see that we receive benefits commensurate with our training and responsibilities. I have compiled a comprehensive plan to protect our interests, and will send it to anyone interested."[38]

In a similar letter, Lamb wrote, "I also note that there are a large number of physicians who are finally waking up to the fact that now is the time to start forming a union. The mere fact that we are not offering any vocal or physical resistance to these remarks and plans has encouraged more and more people to assume the attitude that the medical profession must knuckle under to any group proposing to dictate what medical fees shall be."[39]

The President of the Mount Sinai Hospital Pharmacy Association related how the hospital's 15 pharmacists took

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37. "Canadian RxMen Ponder Unionization," Drug Topics (114:21) October 12, 1970, p. 12.

38. D. W. Dohnalek, "Forming a Union," American Medical News (14:4) February 1, 1971, p. 5. Dohnalek's comprehensive plan is located in Appendix A.

39. R. R. Lamb, "The Need For an MDs' Union," American Medical News (13:27) July 13, 1970, p. 5.

legal action via their association to form a labor organization which excluded nonprofessional employees. Link explained, "The association was formed out of a desire to have the best possible working conditions so that the best possible patient care could be realized. Nonprofessional labor tools such as strikes which would endanger patient welfare, are not used."[40]

Luther R. Parker, Executive Secretary of the Texas Pharmaceutical Association, stated,

> "My answer to the question of collective bargaining in pharmacy must be no. It is no, whether conducted by trade unions or by organized pharmacy. A union is a union. Regardless of what you call it, collective bargaining is a union tactic, and an organization utilizing this approach to deal with employer-employee relations is assuming the role of a union."[41]

Parker believes the solution to the economic problems of salaried pharmacists is the development and implementation of guidelines for employer-employee relations. Describing the Texas guidelines, he stated, "We feel we have an effective mechanism within the professional organization to represent the interests of both employee and employer members, without the necessity of drawing a hard bargaining

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40. "'Union' Role Is Urged for ASHP," op. cit., p. 28.

41. Ibid.

line between them." He also stated,

> "We feel that to place employee members on one side of a table and employer members on the other side of that table, to battle out economic matters would surely shatter any semblance of a united professional organization which we have been able to achieve to this point. We would, thereby, be sacrificing effectiveness in all other areas of professional challenge."[42]

Parker also expressed the disadvantages of collective bargaining when he stated,

> "(an) effort to stabilize employer-employee relations through association-mediated guidelines avoids many of the disadvantages of collective bargaining. The involvement of pharmacists in strikes is unquestionably inconsistent with professional objectives and responsibilities. Yet a pharmacist involved in a union--whether the union is a pharmacist organization or a trade union--must strike if the group votes to do so, or run the certain risk of being fined. He can also be forced to picket. Take away these sticks and what does a union have with which to threaten management into compliance with their demands."[43]

Parker also noted union contracts dictate firm commitments for pharmacists and contract violations are not tolerated.

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42. Ibid.

43. Ibid.

Later in 1970 and by a vote of 1883 to 603, members of the ASHP voted support of a proposed "economic status program." This program approves collective bargaining by the ASHP chapters "when economic problems of employment cannot be resolved" through other means.[44]

At the 1971 APhA convention in San Francisco, it was up to the House of Delegates of the ASHP to "vote yes or no on the specific issue of a collective bargaining role for the hospital pharmacists' organization." A roll-call vote resulted in a 101 to 16 vote in favor of collective bargaining. This was a ratio of six to one, compared with the three to one vote which resulted when the total ASHP membership voted earlier on an "expression of opinion."[45]

Affiliated chapters of the ASHP were authorized to engage in collective bargaining when....

> "(1) Professional prerogatives of the pharmacist are endangered by the lack of effective representation.
>
> (2) Wages or conditions of employment are below acceptable levels.
>
> (3) The environment in which the profession is practiced is not conducive to good patient care.
>
> (4) Good faith attempts have failed to remedy the above situations."[46]

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44. "'99' Unions Formed By RxMen," op. cit., p. 18.

45. "ASHP OK's Collective Bargaining," American Druggist (163:8) April 19, 1971, p. 56.

46. Ibid.

The ASHP's collective bargaining role was limited to helping its chapters with legal, financial, and statistical information.

In contrast to the ASHP, the APhA opposes collective bargaining by professional associations. During the APhA special House of Delegates meeting in 1969, the APhA Executive Director William S. Apple remarked, "APhA is not ready to turn the profession of pharmacy over to organized labor."[47] At the 1970 convention, APhA President William B. Hennessy stated, "Pharmacists who are looking toward collective bargaining as a solution to their professional problems are deluding themselves." He went on to say,

> "In the privacy of their own consciences, many pharmacists are worried about the new technology and a new person taking over most of their historical functions. A major threat to all practicing pharmacists today is the lack of public appreciation from (sic) the non-mechanical functions of the pharmacist. We have failed to get the message across that the public should pay the pharmacist for what he does with his brain rather than what he does with his hands when he delivers pharmaceutical services. Unfortunately we also have failed to get the same message across to some pharmacists."[48]

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47. Robert F. Steeves, "Washington," American Druggist (161:1) January 12, 1970, p. 6.

48. "APhA Votes To...Reject Unionism," American Druggist (161:9) May 4, 1970, pp. 23-24.

Near the end of 1970, the APhA's Academy of General Practice invited "employee pharmacists who have .... problems in terms of working conditions, fringe benefits, or professional respect .... to send a description of the difficulty to the academy." The academy reportedly will use the data to "develop an extensive case history on specific problems regarding employer/employee relations."[49]

APhA President William R. Whitten stated, "If I were to make a comparison between the present tendency of pharmacists to join unions and guilds compared with the interest shown 18 months ago, it would be my view that this interest has waned considerably." After discussing the types of assistance pharmacy associations may provide for their members, Whitten stated,

> "The alternative to providing this kind of assistance to our members is, I'm afraid, collective bargaining through labor organizations. As Professor Charles M. Rehmus of the University of Michigan has stated: 'For groups of professionals who have not yet embraced the union model, alternatives still remain open. Which of the alternatives they will embrace depends, I think, not so much upon their fundamental ideologies, as upon the choices that their employers leave open to them.'"[50]

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49. "Teleflashes," American Druggist (162:12) December 14, 1970, p. 1.

50. "Pharmacists' Interest In Joining Unions Waning, Whitten Observes," The APhA Newsletter (9:17) August 22, 1970, pp. 1, 4.

At the 1971 APhA convention, the House of Delegates adopted a recommendation by the Policy Committee of Professional Affairs that "no change be made in the present policy of the association with regard to becoming a collective bargaining unit."[51]

The APhA's legal division expressed what it believed would happen if the ASHP adopted the "Policy on Economic Status" proposed by the ASHP's Board of Directors. This expression irritated some members of the ASHP because it coincided with the ASHP's annual election of officers, and the ASHP's ballot included a "straw vote" question on the collective bargaining issue. Hence, some ASHP members felt the APhA was attempting to influence them to vote against the proposal that the ASHP assume a collective bargaining role.[52]

At about the same time, a questionnaire sent to all pharmacy board secretaries asked their opinions of board responsibilities in strike situations and if the boards had plans for handling strikes. The results of the questionnaire itself were not too important as only eight questionnaires were returned. Three of the eight secretaries believed a pharmacy board should "use its good offices, or act as mediator in some way, to head off a

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51. "ASHP OK's Collective Bargaining," op. cit., p. 56.

52. "Did APhA Sway Bargaining Vote?," American Druggist (162:2) July 27, 1970, p. 15.

threatened strike, or to settle a strike in progress."[53]

The questionnaire provoked Fred Mahaffey, Executive Director-Secretary of the National Association of Boards of Pharmacy to wire all state board secretaries: "Re American Druggist questionnaire on unionism, would advise withholding answer until entire matter is reviewed by counsel." It was believed action taken by state pharmacy boards in response to a strike involving pharmacists could subject the board to the provisions of the Federal Taft-Hartley law, and possibly even the state's own labor laws.[54]

S. Charles Savio, Executive Secretary of the Pharmaceutical Society of the State of New York, explained it was impossible for the Society to become a bargaining agent for its members, whether employers or employees. Savio stated,

> "The union has a lot of power in this state, and the minute we try to establish ourselves as bargaining agents for employed men, the union would instantly throw pickets up around the stores or institutions employing them. In addition, the union would challenge our right to represent such individuals every step of the way."[55]

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53. "Boards Cautioned Re Labor Role," American Druggist (161:13) June 29, 1970, p. 23.

54. Ibid.

55. "N.Y. Society Struggles To Democratize Itself," American Druggist (161:4) February 23, 1970, pp. 17-18.

The pharmacy class of 1970 was surveyed through the opinions of deans of 69 of the 73 pharmacy schools in the United States. The deans were polled on the basis of their ostensible familiarity with the thinking of the students in the graduating class.[56]

> "...about 60% (of the deans) feel that the class of 1970 shows less resistance than earlier classes did to the idea of some kind of labor organization for employed pharmacists .... and .... about 40% (of the deans) feel that the current graduating class is more resistant to unionization of pharmacists."[57]

Varro E. Tyler, Jr., Dean of Purdue University School of Pharmacy, stated, "Students seem to be averse to unions made up by outside organizations, but might consider professional guilds or unions controlled by pharmacists."[58]

Another viewpoint on pharmacy unions was expressed in a publication directed to pharmacy students.

> "Call it "union"; call it "guild"; call it "association." Under any term, it still stands for organization. A strong employee organization has the ability to bargain with organized management. This need not, and should not, be concerned only with

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56. "Some Pharmacy Deans Detect Growth of Pro-Union Attitude Among 1970 Graduates," American Druggist (161:8) April 20, 1970, pp. 10-14.

57. Ibid., p. 11.

58. Ibid., p. 12.

> wages, seniority systems, vacations, and the like, but could, and should also be a potent force for improving patient pharmaceutical care. It's a realistic solution in today's marketplace. It could ensure that the pharmacist's prerogatives, responsibilities and independence are preserved. It could also serve to protect the interests of the patient."[59]

Irwin Kaplan, Professional Services Director for the 463 unit SupeRx Drug Chain stated,

> "How will the pharmacist protect himself from an over-supply in his profession? In the past, he has relied on state pharmacy associations and his ability to influence legislation, such as stringent license and reciprocal requirements. But in the future, this will probably be accomplished by increased organization. Call it union, call it guild, call it association or any other term. It stands for increased organization. The main purpose will be job security and wage bargaining."[60]

A hospital pharmacist sent a questionnaire to 400 chief pharmacists in hospitals throughout the United States and received 191 replies.[61] The results were tabulated on the bases of five different types of hospitals

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59. "Chains, Unions and Employment," Action in Pharmacy (3:4) December 1970, p. 1.

60. "Candid Kaplan," American Druggist (163:10) May 17, 1971, pp. 29-30.

61. "Benjamin Teplilsky, "What Chief Hospital RxMen Think About Unions," Pharmacy Times (37:2) February 1971, pp. 46-53.

located in nine geographic regions of the United States.

Some overall results of the ten-question survey were:

Question 1) "Do you feel that professionals need a union?"

Yes 20% No 80%

Question 2) "Are unions a threat to pharmacy's professional status?"

Yes 69% No 31%

Question 3) "Do you feel that your staff pharmacists favor joining a union?"

Yes 23% No 77%

Question 4) "Would you object to your employees joining a union?"

Yes 49% No 51%

Question 5) "Do you feel that unions will assure economic security to pharmacists?"

Yes 31% No 69%

Question 6) "Do you believe that pharmacists would participate in strikes if they belonged to unions?"

Yes 45% No 55%

Question 7) "Do you feel that pharmacy organizations should act as a bargaining agent for pharmacists?"

Yes 74% No 26%

The responses of those pharmacists who responded Yes to this question were classified by the type of representation they desired.

1. twenty-nine percent desired a combination of local, state, and national representation.
2. twenty-five percent desired only state representation.
3. fifteen percent desired only national representation.

4. fourteen percent desired only local representation.
5. eight percent desired a combination of local and state representation.
6. seven percent desired a combination of state as well as national representation.

Question 8) "Should a pharmacist join a trade union if his pharmaceutical organization does not provide bargaining means for him?"

Yes 22% No 78%

Question 9) "Do you feel that belonging to a trade union, in which pharmacy is in the minority, will submerge the demands and needs of the pharmacist?"

Yes 79% No 21%

Question 10) "Do unions in pharmacy pose a threat to pharmacy organizations?"

Yes 64% No 36%

Rayburn believes many pharmacists are alarmed at the rate which food interests are acquiring pharmacies and such acquisitions may necessitate the unionization of pharmacists. He also believes many pharmacists think professional associations should adopt collective bargaining so pharmacy unions can be averted. He concludes,

> "Pharmacists should consider all aspects of the unionization problem before deciding on their own individual course of action. Unions are designed for the self-interest of the members and they have the power to impose disciplinary sanctions on their members for reasons which relate to the union's well being, rather

than the interest and well being of either the individual member or the general public."[62]

Similar Studies

Several pharmacy associations have surveyed their membership or samples thereof within the past few years in an attempt to obtain more professional, occupational, and economic information on pharmacists in their respective states.

Professor C. Boyd Granberg of the College of Pharmacy, Drake University, in conjunction with the Iowa Pharmaceutical Association, conducted such a study. They used the same questionnaire and coding scheme developed by the author for the survey in Wisconsin. In September, 1970, they mailed 1,542 questionnaires to pharmacists registered in Iowa, including some pharmacists not residing in the state. By their deadline date, 311 useable questionnaires or 20.2 percent of the original mailing were returned.[63]

The author obtained a copy of their data cards and some selective comparisons were made between the two studies. These comparisons appear in appropriate places throughout this report.

An Employer-Employee Commission of the Michigan State Pharmaceutical Association was appointed in 1965. Its

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62. J. Michael Rayburn, "Pharmacy Unions," Drug Topics (114:26) December 21, 1970, pp. 16, 24, 26.

63. "1970 Economic Survey of Iowa Pharmacists," Iowa Pharmacist (26:6) June 1971, p. 14.

members were four employee pharmacists in community practice, one hospital pharmacist, four employer pharmacists, and an educator who was appointed Chairman of the Commission.[64] Their sample was selected by sending questionnaires to every fifth active association member. The Commission obtained information in the following five areas from 122 of the Association's members: (1) general information; (2) professional relations between employer and employee pharmacists; (3) participation in professional and educational meetings and seminars; (4) salaries and schedules for salaried pharmacists; and (5) fringe benefit policies and duties of salaried pharmacists. These data were analyzed and utilized by the Commission to publish "Suggested Guidelines Regarding the Employment of Pharmacists in Michigan."[65]

Opinions vary on the value of such guidelines to pharmacy. One of their weaknesses is illustrated by Kushner's analysis,

> "Will intra-professional guidelines, as advocated by the American Pharmaceutical Assn and a growing number of state pharmaceutical associations, work in situations where employers and employees are pharmacists? Perhaps. The trouble is that guidelines are, essentially,

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64. Robert C. Johnson, "A Guideline in Michigan for... Employer-Employee Relations," Journal of the American Pharmaceutical Association (NS6:10) October, 1966, p. 535.

65. Ibid., pp. 536-537.

> gentlemen's agreements--and gentlemen's agreements don't stand up long when basic economic interests are in conflict. Guidelines need teeth. They could work if they incorporated mechanisms not only for discussion--but also, when all else fails, for compulsory arbitration."[66]

A Committee of the Pennsylvania Pharmaceutical Association surveyed 2878 pharmacists in Pennsylvania in 1967. It surveyed pharmacists' salaries, hours of practice, professional relations, and fringe benefits. Eight hundred and thirty-nine useable questionnaires were returned to the Committee. Respondents were quite evenly divided between owner and nonowner groups and there was good representation for most age groups.[67]

The Illinois Pharmaceutical Association established an Ethics and Grievance Committee in the spring of 1969. Pharmacy owners and staff pharmacists of chain, hospital, and independent pharmacies were represented on this Committee. No survey of the membership was conducted; however, the Committee made some recommendations which represented the opinions of the group.[68]

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66. Dan Kushner, "Straight Talk," American Druggist (161:4) February 23, 1970, pp. 11, 33.

67. Richard L. Sedam, "Salaries and Schedules-Employee Pharmacists," The Pennsylvania Pharmacist (50:5) December 1968, p. 4.

68. "Professional Employment Standards for Pharmacists in Illinois," Illinois Pharmacist (33:11) November 1969, pp. 547-553.

A Commission of The Allegheny County Pharmaceutical Association drafted some guidelines which were not intended to be "hard and fast rules." It was the Commission's intention to provide guidelines for reasonable policies for pharmacists in the Allegheny County area.[69]

Some guidelines also were drafted for the Texas Pharmaceutical Association. They covered duties of the employee pharmacist, salaries and hours of practice, fringe benefit policies, and intra-professional relations. Some procedures for hiring professional personnel were promulgated and the "Model Agreement Between Salaried Pharmacist and Pharmacy Owner" of the American Pharmaceutical Association was recommended if it was found to be desirable by both the employer and the salaried pharmacist.[70]

In December, 1968, the Alabama Pharmaceutical Association surveyed pharmacists practicing in Alabama to obtain data on the "economic situation of the employee pharmacist" in that state. No guidelines were written; however, the results of the survey were tabulated and presented along with interpretative comments by the Executive Director of the Association.[71]

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69. "Employer-Employee Guidelines Allegheny County Pharmaceutical Association," P.A.R.D. Bulletin (65:9) September 1969, pp. 14-15.

70. "Texas Guidelines for Employer-Employe Relations," Texas Pharmacy (88:11) November 1969, pp. 8-10.

71. Launia L. Thagard, "Economic Survey of Employee Pharmacists," Alabama Pharmaceutical Association (1969).

An Employee-Employer Relations Committee of the Indiana Pharmaceutical Association surveyed pharmacists in Indiana in December, 1969. The survey covered six areas: general information, professional relations, salaries, fringe benefits, duties, and comments. The results of the survey were utilized to publish a Model Agreement and an Employment Checklist.[72]

Need for This Study

The Board of Directors and the Executive Director of the Wisconsin Pharmaceutical Association, Mr. W. Allen Daniels, desired to obtain an objective appraisal of pharmacy practice in Wisconsin. It was believed meaningful information on economic, manpower and conditions of practice criteria could be obtained only by surveying all practicing pharmacists in Wisconsin.

It also was desired to obtain pharmacists' opinions on arbitration by pharmacy associations and on pharmacy unions as well as their attitudes toward their present position in pharmacy and toward pharmacy as an occupation.

A "Committee of Salaried Pharmacists" was appointed by the Board of Directors and the Committee will use data from this survey to write guidelines for relationships between owners and salaried pharmacists in Wisconsin.

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72. "Report of Salary-Benefits-Working Conditions Survey," Indiana Pharmaceutical Association, Inc. (1970).

Objectives

The major objectives of this study are to determine:

1. The relationship of pharmacists' salaries to other potentially meaningful variables.

2. The percentage of pharmacists' time while on duty which is spent dispensing prescriptions, discussing prescription and O-T-C medication with patients, and other professional functions.

3. The percentage of pharmacists who believe the prescription department in which they practice is adequate in size, adequately staffed, well lighted, has an adequate professional reference library, and is clean and uncluttered.

4. If an oral or written description of duties and responsibilities is given the pharmacist at the onset of his employment.

5. The fringe benefits offered to or received by pharmacists in Wisconsin.

6. If salaried pharmacists believe they have a real opportunity to attend professional conventions, seminars, and meetings.

7. How pharmacists rate their present position in pharmacy.

8. How pharmacists feel about changing their occupation.

9. If pharmacists desire pharmaceutical associations to arbitrate disputes between owners and salaried pharmacists.

10. Pharmacists' attitudes toward the unionization of pharmacists.

CHAPTER TWO

METHODOLOGY

The primary data utilized in this study were obtained by mail questionnaires sent to practicing pharmacists in Wisconsin. Statistical analyses of the returns were made with various computer programs.

The Survey

A list of all pharmacists registered in Wisconsin as of June 1, 1970 was obtained from the Wisconsin Pharmacy Examining Board. Two faculty members of the School of Pharmacy, University of Wisconsin, deleted from the total list those registrants whom they believed were not currently practicing pharmacy. These two people were not familiar with all registered pharmacists in Wisconsin, hence, a question in the questionnaire asked recipients if they were currently practicing pharmacy full-time, part-time, or were retired. Only data from those respondents practicing pharmacy full or part-time were used in the study. Also, by observing addresses on the list, those pharmacists who were registered in Wisconsin but residing outside the state were excluded from the survey.

The list of pharmacists in Wisconsin included three groups: (1) new registrants registered in the spring of 1970 (42); (2) reciprocal licenses granted by the Pharmacy

Examining Board in the spring of 1970 (10); and (3) those pharmacists who had returned their license renewal forms by May 31, 1970 (3304).

The total number of pharmacists in these three groups was 3356. Of these, 662 were residing outside of Wisconsin and an additional 405 were removed from the list because it was believed they were not currently practicing pharmacy. Besides those pharmacists who were retired, the not actively practicing group contained some pharmacists who were in dental school, teaching in some capacity, attending graduate school, attending medical school, or serving in the armed forces. The total number of questionnaires mailed on July 5, 1970 was 2289.

A number of researchers have reported response rates to mail questionnaires are influenced by the use or nonuse of return postage and by different types of postage. For example, Ferriss reported a difference of 53.7 percent in response rates between two samples of sociology instructors. One sample received a stamped return addressed envelope and the rate of response for this sample was 66.1 percent. The other sample received no return envelope or stamp and the rate of response for this sample was 12.4 percent. The difference in these two percentages (53.7%) was significant at the .001 level.[1]

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1. Abbott L. Ferriss, "A Note On Stimulating Responses To Questionnaires," American Sociological Review (16:2) April 1951, pp. 247-249.

Price divided the members of The Southern Sociological Society who were not members of the American Sociological Society into two groups. Each group was sent identical membership invitations, membership cards, and return envelopes, but only one group was provided with a stamp on the return envelope. After six months, 26.3 percent of the stamp sample had become members of the national organization while only 17.3 percent of the nonstamp sample became members. The difference in these two percentages (9%) was significant at the .001 level.[2]

Gullahorn and Gullahorn reported stamped return envelopes were returned more frequently than business-reply envelopes. However, these differences were not significant.[3]

To test the possibility of different stamps affecting the percentage of response, the list of 2289 practicing pharmacists residing in Wisconsin was divided into three groups with a different combination of stamps used for each.[4]

Each of the 2289 potential respondents was sent a stamped return envelope along with the questionnaire. The

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2. D. O. Price, "On the Use of Stamped Return Envelopes With Mail Questionnaires," American Sociological Review (15:5) October 1950, pp. 672-673.

3. Jeanne E. and John T. Gullahorn, "An Investigation of the Effects of Three Factors On Responses To Mail Questionnaires," Public Opinion Quarterly (27:2) Summer 1963, pp. 294-296.

4. Please see Appendix B for the results of this exercise.

return envelope was addressed for return to the School of Pharmacy, University of Wisconsin, Madison, Wisconsin.

No follow-up letters were sent. The questionnaires were anonymous, hence letters would have had to be sent to virtually all 2289 potential respondents which would require added expense for stamps and another address list. Lack of time also was a consideration.

The Questionnaire

The questionnaire included questions modeled for comparison with findings reported in various economic, personnel, and pharmaceutical publications. Two subscale derivations of Hoppock's Job Satisfaction Blank No. 1 were used to measure the satisfaction of pharmacists in Wisconsin.[5]

Recipients of the questionnaire were asked to check only one statement in each of two series of statements, one which best indicated their satisfaction with their present position in pharmacy and another which best indicated how they felt about changing their occupation.

Numbers were assigned to the statements in each series, then respondents' choices were added and averaged to determine a mean score indicating relative satisfaction.

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5. R. Hoppock, Job Satisfaction, Harper and Brothers, New York, 1935.

Parallel modifications of the Hoppock Job Satisfaction Scales were used by Schwebel and Hammel to differentiate job satisfaction of pharmacists.[6,7]

The questionnaire was pretested on five registered pharmacists who also were graduate students in Pharmacy Administration at the School of Pharmacy, University of Wisconsin. The questionnaire was revised and a final copy typed in such a manner that three pages on both sides contained the questionnaire as well as a cover letter.[8]

This size was considered practical for several reasons: (1) the questionnaire was not too tedious to complete; (2) the number of pages, mailing envelope, the folded return-addressed stamped envelope weighed only one ounce; and (3) the number of questions placed on the three-page questionnaire could be coded on one computer input card per questionnaire. Each computer input card contains eighty columns.

The questionnaires were numbered chronologically as they were received and, when possible, coded immediately.

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6. Milton Schwebel, The Interests of Pharmacists, King's Crown Press, New York, 1951, pp. 17, 72-73.

7. R. W. Hammel, "Employment History of University of Wisconsin Pharmacy Graduates: 1951-1955," Unpublished M.B.A. paper, University of Wisconsin, Madison, Wisconsin, 1956, pp. 64-65, and p. 8 of Appendix I.

8. Please see Appendix C for a copy of the revised questionnaire and cover letter.

Each answer was assigned a code number from zero to nine as well as a specific column on the computer input card. Appropriate categories were designated for the open-ended questions and the author coded these himself. Two undergraduate students were employed under the direct supervision of the author to code the questions that required only a mechanical transfer of data from the questionnaire to the coding sheets.

The completed coding forms were taken daily to the University of Wisconsin Social Science Building for keypunching, a mechanical process for transferring data from coding forms to computer input cards. This work was done daily because it would have taken considerable time to complete if it had been stockpiled until all the returned questionnaires were coded. A duplicate deck of computer input cards was produced and stored at a different location in event the original deck was destroyed or lost.

Statistical Analyses

Calculations were made using the Univac 1108 computer at the University of Wisconsin Computer Center (UWCC). The majority of the statistical analyses were calculated at the five percent level of significance using Chi-Square

test of significance.[9,10] Chi-Square tests were conducted using the Statjob CROSSTAB program. The T-test was utilized to compare the relative satisfaction means of various groups of respondents and the majority of these means were compared at the 99 percent confidence interval.[11]

Limitations

Some of the limitations of this study were: (1) there has been considerable publicized controversy over the unionization of professionals. Some of the answers and opinions elicited by the questionnaire could be professionally acceptable answers and opinions, but not necessarily the respondent's true answers and opinions; (2) some respondents knew the author and/or his major professor and this could have biased their responses; (3) some groups of pharmacists are over-represented in the results as these groups had a higher rate of response than others. For example, survey respondents were more representative of the pharmacist population on the basis of sex than on the basis of owner or salaried pharmacist status; (4) lack of time

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9. The Chi-Square test of significance is discussed in Appendix D.

10. Levels of significance and confidence intervals are discussed in Appendix E.

11. The T-Test for the difference between population means is discussed in Appendix F.

and money to send follow-up letters to elicit a higher rate of response; (5) misjudgements in editing the responses to open-ended questions; (6) mechanical errors in transferring data from coding sheets to computer input cards; (7) respondents interpreting words or terms differently than they were intended to be interpreted. An example would be the term "arbitration;" (8) respondents might have answered the last part of the questionnaire less precisely than the first part due to fatigue or lack of interest; (9) respondents were requested to provide their salary range instead of absolute dollar amounts; (10) incomplete questionnaires were returned by some respondents; (11) forcing respondents' answers into categories such as "Yes," "No," or "Do Not Know"; and (12) other limitations which will be discussed in the analyses.

CHAPTER THREE

FINDINGS

The findings of this study include: (1) questionnaire response; (2) a comparison of characteristics of respondents with Wisconsin Pharmacy Examining Board data; (3) pharmacists' salary ranges; (4) conditions of employment; (5) prescription department adequacy; (6) receipt or nonreceipt of a description of salaried pharmacists' duties and responsibilities; (7) pharmacists' fringe benefits; (8) pharmacists' professional participation and relationships; (9) pharmacists' satisfaction; (10) pharmacists' attitudes toward arbitration by pharmaceutical associations; (11) pharmacists' attitudes toward pharmacy unions; and (12) benefits, working conditions, and environmental factors mentioned by respondents as conducive to a satisfying and rewarding job in pharmacy.

Questionnaire Response

Twelve-hundred and fifty-four questionnaires (54.8%) had been returned by the cut-off date, September 15, 1970. Of these, 1186 or 51.8 percent of the initial mailing were useable. Not all questions on some questionnaires were answered but the questionnaire was deemed useable if the majority of the questions were answered and the respondent was actively engaged in the practice of pharmacy in

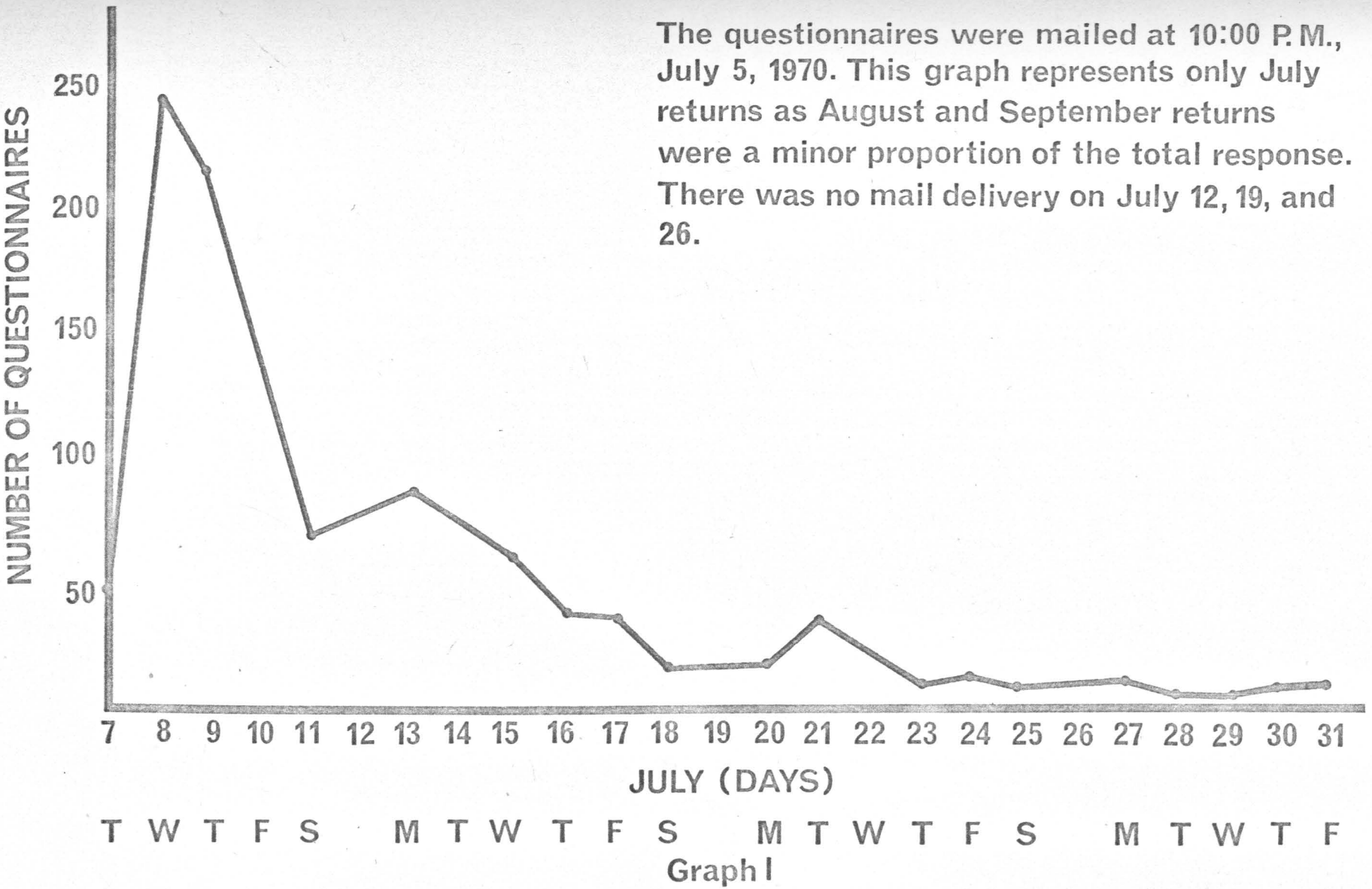
Wisconsin. The deadline for return of the questionnaires was arbitrarily set for September 15, 1970 as it would be costly to keep running computer programs to incorporate small numbers of additional questionnaires. Also, if a pharmacist was going to respond, it was believed he or she would have done so by then. Over 95 percent of the returned questionnaires were received within 30 days, excluding Sundays, after the questionnaires were sent. However, almost 90 percent of the returns were received within fifteen days. Please see Graph 1 on page 44.

Number of Days	Cumulative Response
3	40.1%
6	63.7
9	77.7
12	83.5
15	89.1
18	91.9
30	96.4
40	98.6
52	100.0

Representativeness of Response

Tables 1 through 4 classify and compare information from the 1186 practicing pharmacists who provided useable data for this survey with pharmacist data reported for the

Graph 1. Number of Questionnaires Returned vs Time.



The questionnaires were mailed at 10:00 P.M., July 5, 1970. This graph represents only July returns as August and September returns were a minor proportion of the total response. There was no mail delivery on July 12, 19, and 26.

Graph I

Pharmacy Examining Board.[1] Table 1 shows pharmacists classified by the principal place in which they practice and indicates the representativeness of the survey respondents. The apparent variation in the "other" category is due to the Pharmacy Examining Board's inclusion in their report of pharmacists in nondispensing occupations such as detailing, teaching, and manufacturing. Pharmacists known or believed to be in such pharmaceutical fields were excluded from the survey, and most respondents in its "other" category were practicing in nursing home pharmacies.

Age data from the two sources are not exactly comparable since for the Board's data, pharmacists who are just 60 years old are included in the "over 60" category (Table 2). It still is apparent that a higher proportion of younger and middle-aged pharmacists voluntarily participated in the survey. This increased participation likely reflects their greater interest and concern with the subject matter covered by the questionnaire. It also reflects a number of older pharmacists excluded from the survey due to their retired status.

Survey respondents were more representative of the pharmacist population on the basis of sex than on the basis of owner or salaried pharmacist status (Tables 3 and 4).

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1. Karl W. Marquardt, "1970 Wisconsin Pharmacy Board Convention Report," The Wisconsin Pharmacist (39:11) November 1970, p. 435.

Table 1

PLACE OF PRACTICE

	Pharmacy Examining Board		Study	
	No. RPh	Percent	No. RPh	Percent
Community	1,971	82.7%	985	83.1%
Hospital	335	14.0	186	15.7
Other	76	3.3	15	1.2
Totals	2,382	100.0%	1,186	100.0%

Table 2

AGE CATEGORY

	Pharmacy Examining Board		Study	
	No. RPh	Percent	No. RPh	Percent
Under 30	461	19.4%	286	24.0%
30-60	1,363	57.2	744	63.6
Over 60	558	23.4	140	12.0
Totals	2,382	100.0%	1,170	100.0%

16 nonrespondents

Table 3

PHARMACISTS' SEX

	Pharmacy Examining Board		Study	
	No. RPh	Percent	No. RPh	Percent
Male	2,148	90.2%	990	90.2%
Female	234	9.8	108	9.8
Totals	2,382	100.0%	1,098	100.0%

88 nonrespondents

Table 4

PHARMACISTS' STATUS

	Pharmacy Examining Board		Study	
	No. RPh	Percent	No. RPh	Percent
Salaried	1,560	65.5%	638	57.6%
Sole Owner	593	24.9	237	21.4
Partner	229	9.6	233	21.0
Totals	2,382	100.0%	1,108	100.0%

78 nonrespondents

The 593 pharmacists listed as "sole owner" in the Board data include both sole proprietors and corporate owners. Corporate owners or shareholders are included in the "partner" category in the survey data. Accordingly, partial or sole owners represent 42.4 percent of survey respondents, but only 34.5 percent of the pharmacist population. This finding suggests greater interest in the survey among owners than among salaried pharmacists.

Pharmacists' Salaries

Pharmacists' salaries were analyzed by dividing the total respondent group into different subgroups. Do pharmacists' salaries increase as their years of practice increase? Do pharmacists' salaries vary by the size of the city or town in which they practice? The next section of this paper attempts to answer these and other questions.

Salary and Years of Practice

When respondents' salaries are compared to the number of years they have practiced pharmacy, one notes the tendency for salary to increase with years of practice (Table 5).[2] For example, pharmacists with less than two

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2. When a Chi-Square analysis is performed in this study, the calculated Chi-Square value is given at the bottom of the table. Comparison of this value to Chi-Square table values will show significant or nonsignificant differences in the data. For example, in Table 5, the calculated Chi-Square (x^2) is 164.20. The Chi-Square table shows a value of 37.65 with 25 degrees of freedom (Cont.)

Table 5

SALARY AND YEARS OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	3	3%	7	6%	44	39%	37	33%	16	14%	5	5%
between 2 and 5	10	7	5	3	37	26	50	35	25	17	16	11
between 5 and 10	16	9	6	3	25	14	64	35	39	21	35	19
between 10 and 15	13	6	4	2	30	15	48	24	43	21	63	31
between 15 and 20	9	5	5	3	17	9	35	19	37	20	84	45
over 20 years	28	8	32	10	71	21	62	19	61	18	77	23
Totals	79	7%	59	5%	224	19%	296	26%	221	19%	280	24%

27 nonrespondents

$x^2 = 164.20$ (25 d.f.) $C.V._{(.05)} = 37.65$

years' practice reported modal salaries of $10,001 to $12,000; those with between two and five years or between five and ten years' practice reported $12,001-$14,000; and all three groups with over ten years' practice reported modal salaries of over $16,000.

Despite the general tendency noted above, 23 percent of respondents with ten to fifteen years' practice; seventeen percent with fifteen to twenty years; and 39 percent with over twenty years' practice reported salaries of $12,000 or less, and many of these respondents held full-time positions. Conversely, over half (52%) of respondents with less than two years' experience reported salaries in excess of $12,000.

Salary and Place of Practice

The modal or most frequently reported salary range for all respondents and for three respondent groups was from $12,001 to $14,000 (Table 6). Most respondents (54/79) in the under $8,000 category reported only part-time practice. Also, 68 percent of pharmacists in

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2. (Cont.)
at the five percent level of significance. Since 164.20 is greater than 37.65, there is a significant difference between respondents' salary and age at the five percent level of significance. Please see Appendix D for a sample calculation of Chi-Square and for reasons Chi-Square has not been calculated for all tables.

Table 6

SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	55	8%	33	5%	127	19%	142	21%	110	16%	212	31%
Chain	4	3	2	1	17	11	63	41	37	24	32	21
Clinic	6	5	7	5	26	20	33	25	33	25	28	21
Hospital	14	8	15	8	54	30	56	31	38	21	5	3
Other	0	0	2	20	0	0	2	20	3	30	3	30
Totals	79	7%	59	5%	224	19%	296	26%	221	19%	280	24%

27 nonrespondents

independent, full-line practice; 86 percent in chains (four or more units); 71 percent in clinics; 55 percent in hospitals; and 80 percent in other pharmacy practice reported salaries over $12,000 a year.

Salary and years of practice were determined for each place of practice category. Salary ranges for hospital pharmacists are shown in Table 7. The hospital pharmacist who has been in practice longer generally earns a larger salary. For example, hospital pharmacists who have practiced less than two years have a modal or most frequent salary range of $10,001 to $12,000. This also is the most frequent salary range for the between two and five years group. However, the between five and ten years group has a modal salary of $12,001 to $14,000. There is a bimodal salary range for the between ten and fifteen years group; both the $12,001 to $14,000 range and the $14,001 to $16,000 range. The between fifteen and twenty years group has a modal salary of $14,001 to $16,000. The over twenty years group has a bimodal salary range, both of which are less than that reported for the between fifteen and twenty years group.

The salary ranges for each category of clinic or prescription pharmacy pharmacists are shown in Table 8. Similar to hospital pharmacists, it appears their modal range increases with years of practice and then decreases for the group of pharmacists who have practiced over twenty years. Except for the less than two years and the

Table 7

HOSPITAL PHARMACY: SALARY AND YEARS OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	3	9%	5	15%	12	36%	11	33%	2	6%	0	0
between 2 and 5	2	7	1	3	17	55	9	29	2	7	0	0
between 5 and 10	3	9	4	11	6	17	13	37	7	20	2	6%
between 10 and 15	3	11	0	0	7	25	8	29	8	29	2	7
between 15 and 20	1	5	1	5	3	14	5	24	11	52	0	0
over 20 years	2	6	4	12	9	27	9	27	8	24	1	3
Totals	14	8%	15	8%	54	30%	55	30%	38	21%	5	3%

5 nonrespondents

Table 8

CLINIC OR PRESCRIPTION PHARMACY: SALARY AND YEARS OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	0	0	0	0	6	75%	0	0	2	25%	0	0
between 2 and 5	1	6%	0	0	3	18	7	41%	3	18	3	18%
between 5 and 10	3	13	0	0	2	8	7	29	7	29	5	21
between 10 and 15	0	0	1	4%	4	14	9	32	8	29	6	21
between 15 and 20	1	5	0	0	1	5	8	36	4	18	8	36
over 20 years	1	3	6	18	10	29	2	6	9	27	6	18
Totals	6	5%	7	5%	26	20%	33	25%	33	25%	28	21%

2 nonrespondents

over twenty years groups, the majority of clinic or prescription pharmacists earn more than $12,000 per year.

Salary ranges for each category of independent full-line pharmacy pharmacists are shown in Table 9. Again the modal salary generally increases with years of practice. While it does not decrease for either the between fifteen and twenty years or over twenty years categories, 40 percent of the over twenty years group earns $12,000 or less, a finding which likely reflects a higher proportion of part-time practitioners in this group. The modal salary range for the three largest number of years practiced categories was over $16,000. This larger modal salary range reflects the large number of pharmacist owners of independent full-line pharmacies who responded to this survey. Pharmacist owners as a group are more likely to have practiced longer than nonowner pharmacists.

Salary ranges for chain pharmacists are shown in Table 10. Chain pharmacists practicing less than two years have a trimodal salary range spanning from $10,001 to $16,000. All other categories of chain pharmacists except the fifteen to twenty year group have modal salaries of $12,001 to $14,000. The majority of this group who have practiced between fifteen and twenty years earn a salary of over $16,000.

Table 9

INDEPENDENT FULL-LINE PHARMACY: SALARY AND YEARS OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	0	0	2	6%	16	44%	16	44%	2	6%	0	0
between 2 and 5	6	10%	3	5	16	26	19	31	10	16	7	11%
between 5 and 10	8	9	1	1	16	18	28	31	16	18	22	24
between 10 and 15	9	7	3	2	18	14	26	20	22	17	53	40
between 15 and 20	7	6	4	3	13	10	16	13	20	16	65	52
over 20 years	25	11	20	9	46	20	37	16	40	17	65	28
Totals	55	8%	33	5%	125	18%	142	21%	110	16%	212	31%

18 nonrespondents

Table 10

CHAIN FULL-LINE PHARMACY: SALARY AND YEARS OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$12,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	0	0	0	0	10	29%	10	29%	10	29%	5	14%
between 2 and 5	1	3%	0	0	1	3	15	46	10	30	6	18
between 5 and 10	2	6	1	3%	1	3	15	47	8	25	5	16
between 10 and 15	1	8	0	0	1	8	5	39	4	31	2	15
between 15 and 20	0	0	0	0	0	0	6	35	2	12	9	53
over 20 years	0	0	1	4	4	16	12	48	3	12	5	20
Totals	4	3%	2	1%	17	11%	63	41%	37	24%	32	21%

no nonrespondents

Salary and Status

When salary ranges were analyzed by owner or salaried pharmacist status, both the sole owner and the partner classification (which includes corporate shareholders) reported modal salaries of over $16,000 (Table 11). The distribution of salaries for salaried pharmacists generally reflects the extent of their responsibility as indicated by respondents' manager, assistant manager, staff, or part-time status. The one respondent who reported part-time status and salary over $16,000 was a recent former owner whose salary may reflect the agreement under which his pharmacy was sold.

The salary and status data obtained in the Iowa study are quite comparable to those for Wisconsin (Table 12). The modal salary ranges are the same in all five of the six comparable categories. Part-time practitioner data were excluded in the Iowa study.

Employee pharmacists in Michigan reportedly gained 5.8 percent in salary from May, 1970 to January, 1971. The 5.8 percent represented an increase of $15 per week and it also represented a 58.3 percent increase in the median salary since the fall of 1965. The Michigan State Pharmaceutical Association found the median salary for employee pharmacists in January, 1971 to be $275 for a 42-hour week.[3]

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3. "Mich. Employee Pharmacists," Weekly Pharmacy Reports (20:27) July 5, 1971, p. 1.

Table 11

SALARY AND STATUS

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried												
manager	4	2%	5	2%	32	14%	80	36%	60	27%	43	19%
assistant manager	1	1	6	4	24	17	69	48	34	24	10	7
staff	10	4	27	10	102	38	82	31	37	14	7	3
part-time	54	79	4	6	9	13	0	0	0	0	1	1
Sole owner	7	3	9	4	25	11	21	9	39	17	127	56
Partner	3	1	8	3	32	14	44	19	51	22	92	40
Totals	79	7%	59	5%	224	19%	296	26%	221	19%	280	24%

27 nonrespondents

Table 12

SALARY AND STATUS: IOWA STUDY

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried												
manager	2	4%	5	9%	11	19%	23	40%	7	12%	9	16%
assistant manager	1	4	2	7	10	36	9	32	4	14	2	7
staff	8	13	6	10	22	37	21	35	2	3	1	2
part-time	0	0	0	0	0	0	0	0	0	0	0	0
Sole owner	1	1	3	4	9	11	17	20	15	18	38	46
Partner	3	4	2	3	13	19	13	19	18	26	19	28
Totals	15	5%	18	6%	65	22%	83	28%	46	16%	69	23%

15 nonrespondents

Table 13 shows salary ranges for most categories of sole owner pharmacists. The modal salary range for all three groups of pharmacist owners was over $16,000. This salary also reportedly was earned by a majority of these three groups of pharmacist owners. There were no hospital pharmacy owners and only one "other" pharmacy owner responding to this survey. When discussing data in Table 9, the relationship between high salary ranges, independent full-line pharmacists, and ownership was suggested. The data in Table 12 support this relationship.

Table 14 contains salary range data for categories of partner or shareholder pharmacists. Partner or shareholder pharmacists who practice in clinic or prescription pharmacies reportedly earn a modal salary of $14,001 to $16,000. Both independent and chain full-line partners or shareholders reported modal salaries of over $16,000. The majority of clinic and independent full-line partners or shareholders earn over $14,000 while the majority of chain full-line partners or shareholders earn over $16,000.

The salary ranges for all categories of managers or chief pharmacists are reported in Table 15. The modal salary range for hospital chief pharmacists, clinic, and independent full-line pharmacy managers was $12,001 to $14,000. The modal salary range for chain full-line pharmacy managers was over $16,000. As a total group, the majority of managers or chief pharmacists earn a salary greater than $12,000; however, the majority of chain

Table 13

SOLE OWNER: SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	7	3%	9	4%	22	10%	21	10%	35	17%	117	55%
Chain	0	0	0	0	0	0	0	0	0	0	2	100
Clinic	0	0	0	0	3	21	0	0	3	21	8	57
Other	0	0	0	0	0	0	0	0	1	100	0	0
Totals	7	3%	9	4%	25	11%	21	9%	39	17%	127	56%

9 nonrespondents

Table 14

PARTNER OR SHARE HOLDER: SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	2	1%	5	3%	29	16%	35	19%	37	20%	75	41%
Chain	0	0	0	0	0	0	2	29	1	14	4	57
Clinic	1	3	2	5	3	8	7	18	13	34	12	32
Other	0	0	1	50	0	0	0	0	0	0	1	50
Totals	3	1%	8	3%	32	14%	44	19%	51	22%	92	40%

3 nonrespondents

Table 15

MANAGER OR CHIEF PHARMACIST: SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	3	5%	1	2%	14	23%	20	33%	11	18%	12	20%
Chain	0	0	0	0	4	7	18	31	17	29	19	33
Clinic	0	0	1	3	4	13	12	39	8	26	6	19
Hospital	1	1	2	3	10	14	28	41	24	35	4	6
Other	0	0	1	20	0	0	2	40	0	0	2	40
Totals	4	2%	5	2%	32	14%	80	36%	60	27%	43	19%

2 nonrespondents

full-line pharmacy managers earn a salary greater than $14,000.

Salary ranges for all categories of assistant managers or assistant chief pharmacists are shown in Table 16. With the exception of the one pharmacist in the "other" category, the modal range for all groups of assistant managers and assistant chief pharmacists was $12,001 to $14,000, the same as that for most groups of managers and chief pharmacists.

Staff pharmacists' salary ranges are shown in Table 17. It is reasonable to expect staff pharmacists to earn less than sole owners, partners or shareholders, managers (chief pharmacists) and assistant managers (assistant chief pharmacists). Hospital staff pharmacists reported modal salaries of $10,001 to $12,000, while the chief pharmacist and assistant chief pharmacist groups reported modal salaries of $12,001 to $14,000.

Clinic or prescription pharmacy staff pharmacists earn a modal salary of $10,001 to $12,000. Sole owners of a clinic or prescription pharmacy earn a modal salary of over $16,000, partner or shareholder pharmacists earn modal salaries of $14,001 to $16,000, and managers and assistant managers earn a modal salary of $12,001 to $14,000.

Independent full-line pharmacy staff pharmacists also reported modal salaries of $10,001 to $12,000. Sole owners and partner or shareholder pharmacists of independent

Table 16

ASSISTANT MANAGER OR ASSISTANT CHIEF PHARMACIST: SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	1	2%	1	2%	11	21%	25	48%	11	21%	3	6%
Chain	0	0	2	4	7	12	28	49	15	26	5	9
Clinic	0	0	2	17	1	8	6	50	2	17	1	8
Hospital	0	0	1	5	5	23	10	46	5	23	1	5
Other	0	0	0	0	0	0	0	0	1	100	0	0
Totals	1	1%	6	4%	24	17%	69	48%	34	24%	10	7%

no nonrespondents

Table 17

STAFF PHARMACIST: SALARY AND PLACE OF PRACTICE

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	6	5%	14	11%	48	38%	41	32%	16	13%	3	2%
Chain	0	0	0	0	6	22	15	56	4	15	2	7
Clinic	0	0	2	6	14	44	8	25	7	22	1	3
Hospital	4	5	11	14	34	45	18	24	9	12	0	0
Other	0	0	0	0	0	0	0	0	1	100	0	0
Totals	10	4%	27	10%	102	39%	82	31%	37	14%	6	2%

4 nonrespondents

full-line pharmacies earn a modal salary of over $16,000 while managers and assistant managers both reported modal salaries of $12,001 to $14,000.

Chain full-line staff pharmacists had modal salaries of $12,001 to $14,000 which is larger than the three previously mentioned groups of staff pharmacists. For comparison purposes, the number of chain full-line pharmacy owners and of partners and shareholders are too small to be meaningful.

Sixty-eight part-time salaried pharmacists who responded to the survey could be classified by salary earned and place of practice. Fifty-four of the 68 earned less than $8,000 per year, and 36/54 were employed in independent full-line pharmacies, 9/54 practiced in hospital pharmacies, 5/54 practiced in clinic or prescription pharmacies, and 4/54 practiced in chain pharmacies.

Salary and Age

As a pharmacist gains experience he or she should become more valuable to the pharmacy in which they practice and logically would earn a larger salary. This appears to be the case with one exception (Table 18). Pharmacists who are less than 30 years old reportedly earn modal salaries of $12,001 to $14,000; those age 30 to 45 and those age 46 to 60 reported over $16,000; but those over 60 years of age, $10,001 to $12,000.

Table 18

SALARY AND AGE

	less then $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
under 30	17	6%	11	4%	82	29%	103	36%	45	16%	28	10%
30-45	25	5	15	3	67	13	119	24	114	23	165	33
46-60	9	4	14	6	36	16	47	21	45	20	73	33
over 60	27	20	17	13	36	27	24	18	15	11	14	11
Totals	78	7%	57	5%	221	19%	293	26%	219	19%	280	24%

38 nonrespondents

$x^2 = 173.88$ (15 d.f.) $C.V._{(.05)} = 24.996$

Further analysis attempted to determine why older pharmacists apparently earn less than younger pharmacists. Of the 133 pharmacists over 60 years of age, 34 were pharmacy owners and 20 were part-time pharmacists. It is possible many of the 34 owner pharmacists over 60 years of age reported as salary their withdrawal from their practice. This may be a relatively small amount which undervalues their worth to the pharmacy. Some, however, may be operating marginal practices.

Fifteen of the twenty part-time pharmacists age 60 and over earned less than $8,000 per year. Regardless of this and the abovementioned exception, it appears older pharmacists' (over 60 years of age) salaries have not kept pace with those of younger pharmacists (60 years of age and less).

Salary and Hours Practiced Per Week

Table 19 discloses salary ranges for all categories of hours practiced per week. Not unexpectedly, the modal salary range for pharmacists practicing less than 35 hours per week was less than $8,000. For the next three categories--35-39, 40-44, and 45-49 hours per week--the modal salary range was $12,001 to $14,000. All groups of pharmacists who practiced more than 49 hours a week had modal salaries over $16,000.

Table 19

SALARY AND HOURS PRACTICED PER WEEK

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
0 - 29	55	69%	6	8%	12	15%	2	3%	3	4%	2	3%
30 - 34	6	33	4	22	5	28	0	0	2	11	1	6
35 - 39	3	14	3	14	4	19	7	33	2	10	2	10
40 - 44	2	1	29	7	104	26	144	36	76	19	41	10
45 - 49	4	2	4	2	44	19	71	31	52	23	52	23
50 - 54	2	1	6	3	25	14	32	18	41	23	75	41
55 - 59	1	1	1	1	9	11	19	24	13	16	37	46
60 - 64	1	1	4	5	9	11	12	15	13	16	40	51
65 and over	2	3	1	2	11	17	9	14	17	26	25	38
Totals	76	7%	58	5%	223	19%	296	26%	219	19%	275	24%

39 nonrespondents

Salary and Population

Data in Table 20 indicate pharmacists who practice in towns or small cities earn a larger salary than do pharmacists who practice in larger cities. The modal salary range for pharmacists practicing in communities of less than 5,000 population and in cities with 5,000 to 10,000 population was over $16,000. However, 123/228 (54%) of the sole owner pharmacists in this survey practiced in towns or cities of 10,000 or less population and the majority of sole owner pharmacists earn a salary greater than $16,000. These factors likely are major reasons for the high modal salary of respondents practicing in smaller communities. For all other population categories, the modal salary range was $12,001 to $14,000.

Salary and Years Pharmacists Held Their Current Position

The modal or most frequently reported salary range for all respondents and for two respondent groups was from $12,001 to $14,000 (Table 21). All other groups of pharmacists classified by years they have held their present position reported modal salaries of over $16,000.

Thirty percent of those pharmacists who have held their position less than two years and 44 percent of those pharmacists who have held their present position between two and five years reported earning a salary over $14,000.

Table 20

SALARY AND POPULATION

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 5,000	20	10%	11	5%	34	16%	45	22%	27	13%	71	34%
5,000- 10,000	7	6	6	5	22	18	26	21	28	23	34	28
10,001- 25,000	6	5	3	3	27	23	33	28	22	18	28	24
25,001- 50,000	11	6	12	7	31	18	48	27	38	21	37	21
50,001-100,000	10	6	11	7	29	18	43	26	42	26	29	18
over 100,000	24	7	15	4	80	22	100	28	63	17	81	22
Totals	78	7%	58	5%	223	19%	295	26%	220	19%	280	24%

32 nonrespondents

$x^2 = 37.40$ (25 d.f.) $\quad C.V._{(.05)} = 37.65$

Table 21

SALARY AND YEARS PHARMACISTS HELD THEIR CURRENT POSITION

	less then $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
less than 2	21	7%	15	5%	81	27%	92	31%	50	17%	38	13%
between 2 and 5	17	6	9	3	53	18	83	29	77	27	50	17
between 5 and 10	18	8	12	5	38	17	50	22	32	14	77	34
between 10 and 15	7	6	8	7	17	14	24	20	22	18	45	37
between 15 and 20	6	6	5	5	8	8	27	25	22	21	38	36
over 20 years	8	7	10	9	27	24	20	18	18	16	31	27
Totals	77	7%	59	5%	224	19%	296	26%	221	19%	279	24%

30 nonrespondents

$x^2 = 96.56$ (25 d.f.) $C.V._{(.05)} = 37.65$

However, 40 percent of those pharmacists who have held their present position for over twenty years reported earning a salary of $12,000 or less.

It is possible a high percentage of the 38 pharmacists who have held their present position less than two years and reported earning $16,000 or more have acquired a pharmacy or have manager or chief pharmacist status. It also is possible some of the pharmacists who have held their position for over twenty years and report earning a salary of $10,000 or less are pharmacy owners who have reported only periodic withdrawals from their pharmacy. Such pharmacies may be marginal or submarginal operations.

Salary and Respondents' Sex

Modal salary ranges were determined for male and female pharmacists (Table 22). Male pharmacists reported modal salaries of $12,001 to $14,000 while female pharmacists reported less than $8,000. Most of this difference can be attributed to the 44 of 72 pharmacists who reported practicing part-time being female. Of these 44 part-time female pharmacists, 34 reported earning less than $8,000 per year. Four female salaried pharmacists who practiced full-time in independent full-line pharmacies reported earning less than $8,000 per year. The other six full-time practitioners were hospital pharmacists.

Table 22

SALARY AND SEX

	less than $8,000		$8,000-$10,000		$10,001-$12,000		$12,001-$14,000		$14,001-$16,000		over $16,000	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Male	33	3%	40	4%	182	19%	259	27%	204	21%	257	26%
Female	43	42	13	13	28	27	14	14	5	5	0	0
Totals	76	7%	53	5%	210	19%	273	25%	209	19%	257	24%

108 nonrespondents

Pharmacists' Professional Functions

Modal ranges of the percent of on duty time a pharmacist spends dispensing prescriptions, discussing prescription and O-T-C medication with patients, and other professional functions are shown in Table 23. Since the scope of "other professional functions" is not precisely definable, it was left to the self-definition of each respondent. The survey respondents as a group reported they spend over 75 percent of their time on such functions.

The modal range of independent full-line pharmacists fell below this group mode into the 51 to 75 percent category.

One could hypothesize that groups of pharmacists would be increasingly satisfied with their present position in pharmacy and with pharmacy as an occupation on the basis of the amount of time they spend dispensing prescriptions, discussing prescription and O-T-C medication with patients, and other professional functions. This concept was analyzed and is reported on page 181.

Modal ranges of the percent of on duty time a pharmacist spends on professional functions are shown by pharmacy status in Table 24. Sole owners and partner or shareholder pharmacists reported a modal range of 51 to 75 percent of their time performing such functions while the modes of all groups of salaried pharmacists were over

Table 23

TIME SPENT ON PROFESSIONAL FUNCTIONS AND PLACE OF PRACTICE

	less than 25 percent		25 to 50 percent		51 to 75 percent		over 75 percent	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Independent	30	4%	168	24%	284	41%	206	30%
Chain	14	9	32	21	39	25	69	45
Clinic	2	1	9	7	17	13	107	79
Hospital	12	7	12	7	34	19	125	68
Other	0	0	0	0	0	0	10	100
Totals	58	5%	221	19%	374	32%	517	44%

16 nonrespondents

Table 24

TIME SPENT ON PROFESSIONAL FUNCTIONS AND STATUS

	less than 25 percent		25 to 50 percent		51 to 75 percent		over 75 percent	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Sole owner	11	5%	71	30%	98	42%	54	23%
Partner or share holder	9	4	51	22	90	39	81	35
Salaried								
Manager or chief pharmacist	17	8	43	19	67	30	97	43
Assistant manager or assistant chief pharmacist	10	7	17	12	41	29	74	52
Staff pharmacist	11	4	35	13	57	21	163	61
Part-time	0	0	4	6	21	29	47	65
Totals	58	5%	221	19%	374	32%	516	44%

17 nonrespondents

75 percent. All classes of owners necessarily spend more time on the general operation and management of their pharmacies. While these duties are not classified as professional functions, they are necessary for the successful operation of the pharmacy.

When the responses of pharmacists in Iowa and Wisconsin are compared, the percentage of their on duty time spent on professional functions is quite similar (Table 25). The modes for each status category are identical except for assistant manager or assistant chief pharmacist. This class of pharmacists in Iowa had bimodal response of "51 to 75 percent" and "over 75 percent."

The data provided by pharmacists both in Wisconsin and in Iowa contrast with data provided by Ralph Nader's Center for Study of Responsive Law. The two-volume study, titled "The Closed Enterprise System" reports over 60 percent of practicing pharmacists devote a majority of their working hours to nonprofessional tasks.[4]

Number of Prescriptions Dispensed

All pharmacists were asked, "What is the average number of original and renewed prescriptions (or medication orders) dispensed per day in the pharmacy?" The categories

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4. "Pharmacists' Professionalism Hurts Consumers, Nader Group Says," Weekly Pharmacy Reports (20:24) June 14, 1971, p. 8.

Table 25

TIME SPENT ON PROFESSIONAL FUNCTIONS AND STATUS: IOWA STUDY

	less than 25 percent		25 to 50 percent		51 to 75 percent		over 75 percent	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Sole owner	5	6%	19	21%	42	47%	23	26%
Partner or share holder	9	12	22	30	26	35	17	23
Salaried								
Manager or chief pharmacist	4	7	6	11	18	32	29	51
Assistant manager or assistant chief pharmacist	3	11	1	4	12	43	12	43
Staff pharmacist	3	5	3	5	12	20	42	70
Totals	24	8%	51	17%	110	36%	123	40%

3 nonrespondents

of prescriptions dispensed per day along with the frequency of pharmacists' replies for each are as follows:

Number per Day	Frequency
less than 25	34
25 to 50	207
51 to 100	478
101 to 150	196
151 to 200	77
201 to 300	80
over 300	76

The most frequently checked category was 51 to 100 prescriptions or medication orders per day.

Prescription Department

The prescription department is the physical working environment with which practicing pharmacists are most likely to identify and which is likely to influence not only their efficiency but also their attitude toward and satisfaction with their position in pharmacy. Pharmacists were asked if they believed their prescription department was: (1) Adequate in size; (2) Adequately staffed; (3) Well lighted; (4) Had adequate equipment and stock; (5) Had an adequate professional reference library; and (6) Was clean and uncluttered. The majority of both salaried pharmacists and owners replied affirmatively to all six criteria, but in each instance a higher proportion

of owners than salaried pharmacists did so (Table 26).

The differences between the two groups of pharmacists averaged eight percent and ranged from close agreement (2%) on lighting to a twelve percent difference in opinion on the adequacy of a professional reference library. Inadequate size is the unfavorable factor noted most often, with both groups rating adequate lighting and adequate equipment and stock relatively high. Tables 27 through 32 present more detailed data on prescription department evaluations. For example, hospital pharmacists are more likely to believe their department is inadequate in size and understaffed (Tables 27 and 28), while salaried chain pharmacists are more likely to believe their pharmacy has an inadequate professional reference library and is unclean or cluttered (Tables 31 and 32).

Description of Duties and Responsibilities

Lack of a clear understanding of one's duties and responsibilities in any working relationship may lead to poor performance as well as to dissatisfaction with one's position. To obtain an indication of how well duties and responsibilities are communicated to practicing pharmacists, they were asked, "Does the employer provide the salaried pharmacist with a description of the duties and responsibilities of the position at the onset of his employment?"

Table 26

DESIRABLE PRESCRIPTION DEPARTMENT STANDARDS

	Salaried	Owner
Size	75%	86%
Staff	86	96
Light	97	99
Equipment and stock	92	99
References	83	95
Clean and uncluttered	85	93

Table 27

ADEQUATE SIZE

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	230	80%	56	20%
Chain	120	82	26	18
Clinic	59	74	21	26
Hospital	112	61	71	39
Other	3	50	3	50
Subtotals	(524)	(75%)	(177)	(25%)
Owner				
Independent	332	85%	60	15%
Chain	8	89	1	11
Clinic	50	93	4	7
Other	3	100	0	0
Subtotals	(393)	(86%)	(65)	(14%)
Totals	917	79%	242	21%

27 nonrespondents

Table 28

ADEQUATELY STAFFED

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	266	93%	19	7%
Chain	119	82	27	18
Clinic	69	86	11	14
Hospital	138	76	44	24
Other	6	100	0	0
Subtotals	(598)	(86%)	(101)	(14%)
Owner				
Independent	367	95%	18	5%
Chain	9	100	0	0
Clinic	52	98	1	2
Other	3	100	0	0
Subtotals	(431)	(96%)	(19)	(4%)
Totals	1,029	90%	120	10%

37 nonrespondents

Table 29

WELL LIGHTED

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	275	96%	11	4%
Chain	140	96	6	4
Clinic	80	100	0	0
Hospital	178	97	6	3
Other	5	83	1	17
Subtotals	(678)	(97%)	(24)	(3%)
Owner				
Independent	387	99%	5	1%
Chain	9	100	0	0
Clinic	53	100	0	0
Other	3	100	0	0
Subtotals	(452)	(99%)	(5)	(1%)
Totals	1,130	97%	29	3%

27 nonrespondents

Table 30

ADEQUATE EQUIPMENT AND STOCK

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	268	94%	18	6%
Chain	132	90	14	10
Clinic	77	96	3	4
Hospital	162	89	21	11
Other	6	100	0	0
Subtotals	(645)	(92%)	(56)	(8%)
Owner				
Independent	390	99%	3	1%
Chain	9	100	0	0
Clinic	54	100	0	0
Other	3	100	0	0
Subtotals	(456)	(99%)	(3)	(1%)
Totals	1,101	95%	59	5%

26 nonrespondents

Table 31

ADEQUATE REFERENCE LIBRARY

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	231	81%	54	19%
Chain	113	78	31	22
Clinic	74	93	6	7
Hospital	158	86	26	14
Other	5	83	1	17
Subtotals	(581)	(83%)	(118)	(17%)
Owner				
Independent	373	95%	19	5%
Chain	8	89	1	11
Clinic	49	91	5	9
Other	3	100	0	0
Subtotals	(433)	(95%)	(25)	(5%)
Totals	1,014	88%	143	12%

29 nonrespondents

Table 32

CLEAN AND UNCLUTTERED

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	245	86%	40	14%
Chain	116	80	29	20
Clinic	73	91	7	9
Hospital	157	87	23	13
Other	3	50	3	50
Subtotals	(594)	(85%)	(102)	(15%)
Owner				
Independent	357	92%	29	8%
Chain	7	78	2	22
Clinic	53	98	1	2
Other	3	100	0	0
Subtotals	(420)	(93%)	(32)	(7%)
Totals	1,014	88%	134	12%

38 nonrespondents

If the query was answered affirmatively, respondents then were asked to check whether the description was presented as: (1) a clear, concise written description; (2) an unclear or incomplete written description; (3) a clear, concise oral description; or (4) an unclear or incomplete oral description (Table 33).

About 31 percent (215/695) of the salaried pharmacists reported they received no description of their duties and responsibilities, either written or orally, and about 23 percent (85/374) of the owners agreed that none was given to salaried pharmacists. A high disparity of agreement to this question was evident between chain owners and chain salaried pharmacists.

Nine pharmacists, two salaried and seven owners, or about one percent of all respondents, reported descriptions were given or received, but did not specify in what manner and how adequately.

About one out of eight pharmacists reported receipt or granting of clear, concise written descriptions, but when a description of duties is given or received, it most likely is orally. Although 500 or about 47 percent of respondents referred to clear, concise oral statements, 61 percent (227/374) of the owners did so compared to only 39 percent (273/695) of the salaried pharmacists. What is clear and concise to an owner who is familiar with a given practice easily could be unclear or incomplete to one as

Table 33

DESCRIPTION OF DUTIES

	None		Yes - 1		Yes - 2		Yes - 3		Yes - 4	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaries										
Independent	97	34%	16	6%	1	0	127	45%	41	15%
Chain	40	27	20	14	4	3%	62	42	20	14
Clinic	31	39	10	13	1	1	27	34	10	13
Hospital	45	25	58	30	7	4	54	30	16	9
Other	2	33	0	0	0	0	3	50	1	17
Subtotals	(215)	(31%)	(104)	(15%)	(13)	(2%)	(273)	(39%)	(88)	(13%)
Owner										
Independent	76	24%	15	5%	2	1%	193	60%	29	9%
Chain	0	0	1	11	0	0	6	67	2	22
Clinic	9	21	3	7	0	0	27	64	2	5
Other	0	0	1	50	0	0	1	50	0	0
Subtotals	(85)	(23%)	(20)	(5%)	(2)	(1%)	(227)	(61%)	(33)	(9%)
Totals	300	28%	124	12%	15	1%	500	47%	121	11%

117 nonrespondents + 9 unqualified replies

yet quite unfamiliar with the pharmacy's operating policies and procedures and his related responsibilities.

The Iowa data suggest a larger percentage of salaried pharmacists are not provided with a description of duties than is the case in Wisconsin (37% to 31%). Also, a larger percentage of pharmacist owners in Iowa reportedly do not provide their pharmacists with a description of duties (26% to 23%). Regardless of such minor differences, the general data for the two states are similar (Table 34).

Pharmacists' Fringe Benefits

Rosefsky discussed three fringe benefits for pharmacists and recommended considering the ultimate safety factor of the "fringe benefits" to the employee, his family, the firm, and the proprietor. He believes health insurance as well as periodic review of health plans are important. He favors income disability protection as it could be a vital bridge to rehabilitation. Public liability insurance also is important as the lack of this "fringe benefit" could affect the pharmacy as well as the employee.[5]

Olsen reports the Pharmaceutical Society in New York has been providing "benefits" for many years for their member owners and their employees. He stated, "these benefits included life insurance, hospitalization,

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5. Robert S. Rosefsky, "Money Counts," American Druggist (162:2) July 27, 1970, p. 4.

Table 34

DESCRIPTION OF DUTIES: IOWA STUDY

	None		Yes - 1		Yes - 2		Yes - 3		Yes - 4	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaries										
Independent	20	36%	1	2%	0	0	19	35%	15	27%
Chain	13	33	7	18	0	0	14	36	5	13
Clinic	8	40	0	0	0	0	10	50	2	10
Hospital	10	45	5	23	1	5%	3	14	3	17
Other	1	20	2	40	0	0	22	40	0	0
Subtotals	(52)	(37%)	(15)	(11%)	(1)	(1%)	(48)	(34%)	(25)	(18%)
Owner										
Independent	32	28%	7	6%	0	0	70	60%	7	6%
Chain	0	0	0	0	0	0	3	100	0	0
Clinic	3	20	1	7	1	7%	9	60	1	7
Other	0	0	0	0	0	0	2	100	0	0
Subtotals	(35)	(26%)	(8)	(6%)	(1)	(1%)	(84)	(62%)	(8)	(6%)
Totals	87	31%	23	8%	2	1%	132	48%	33	12%

32 nonrespondents + 2 unqualified replies

compensation for accidental injuries, and the payments that are designated as 'major medical'."[6]

Thomas W. Whalen, pharmacist-owner of Whalen Drugstore in Petersburg, Ill., explains a method used to keep employee morale high is to make it possible for these personnel to have a vested interest in the pharmacy. "One of the things I try to impress on our people is that I have their interests at heart."[7]

Throughout the 1960's fringe benefits for most employees have risen sharply. A U.S. Chamber of Commerce survey of 146 firms reported employees' fringe benefits represented 31.7 percent of employers' payroll expenses in 1969.[8] Five years ago the then Executive Director of the Michigan State Pharmaceutical Association reported "fringe benefits are of increasing influence" in a pharmacist's choice of employment.[9] Larger proportions of pharmacy school graduates are accepting positions in hospital and chain pharmacies which are comparatively large employers who are likely to have comprehensive fringe benefit programs.

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6. Paul C. Olsen, "The Problems Corner," Drug Topics (114:23) November 9, 1970, p. 42.

7. "Pharmacist's Attitudes Towards Employees Stirs Work Efforts," Drug Topics (114:17) August 17, 1970, p. 56.

8. "Labor Letter," The Wall Street Journal (51:39) December 8, 1970, p. 1.

9. Robert C. Johnson, "A Guideline in Michigan for Employer-Employee Relationships," Journal of the American Pharmaceutical Association (NS6:10) October 1966, p. 536.

Opinions are divided on the merit or wisdom of extensive fringe benefits. Some programs such as Social Security and Workmen's Compensation are required by law. Beyond that, some pharmacists would rather pay and others prefer to receive the cost of other benefits directly as extra earnings to be saved or spent in a manner which the individual chooses.

Some persons, however, may be unwilling or unable to plan for their future and an extensive fringe benefit program may promote their security as well as improve their morale and efficiency. Also on a group basis, employers often can provide individual fringe benefits at a lower cost per employee, treat the cost as a tax-deductible expense, and possibly reduce the turnover rate of desirable employees.

Benefits were reported by 638 full-time and 72 part-time salaried pharmacists. Inclusion of part-time practitioners was deemed valid since either they reported receipt or nonreceipt of a given benefit such as discounts on personal purchases in the same proportion as full-time practitioners, or they did not answer the individual question, and, as nonrespondents, did not influence the classified response to that question.

The fringe benefit data thus are based on the replies of a total of 710 full- and part-time salaried pharmacists. The nonresponse to individual questions, however, ranged from fifteen to 130.

Discounts on Personal Purchases

Only five percent of salaried pharmacists reported they receive no discount on personal purchases, with purchases at cost the most typical (Table 35). There is a notable difference, however, between the place of practice and type discount received, with "cost plus" the most representative for chain pharmacists. In 1965, 80 percent of a sample of salaried pharmacists in Michigan reported they received personal purchases at their employers' cost.[10]

Bonus

About 37 percent of all salaried respondents reported receipt of an annual bonus, a fringe benefit found most frequently in independent practice (Table 36). In 1965, bonuses were received by 44 percent of salaried pharmacists in Michigan,[11] but this figure reportedly dropped to 43 percent in 1968 and 35.5 percent in 1970.[12]

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10. Johnson, op. cit., p. 535.

11. Ibid.

12. "Mich. RxMen's Salaries Rise 27%," American Druggist (162:10) November 19, 1970, p. 13.

Table 35

DISCOUNTS ON PERSONAL PURCHASES

	Purchase at cost		Percent discount		Cost plus		None	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Independent	217	76%	50	18%	14	5%	1	0
Chain	28	20	47	33	65	46	2	1%
Clinic	61	76	9	11	9	11	1	1
Hospital	107	60	13	7	27	15	32	18
Other	7	100	0	0	0	0	0	0
Totals	420	61%	119	17%	115	17%	36	5%

20 nonrespondents

Table 36

BONUS

	Yes		No	
	No.	Percent	No.	Percent
Independent	158	55%	128	45%
Chain	52	37	90	63
Clinic	33	41	47	59
Hospital	16	9	164	91
Other	1	14	6	86
Totals	260	37%	435	63%

15 nonrespondents

Hospitalization Insurance

Seven of ten salaried pharmacists reported their employers provide partial or complete payment for hospitalization insurance, a fringe benefit most common to chain and hospital pharmacists (Table 37). Trends in the popularity of this fringe benefit are indicated by data from the Michigan studies which reported only sixteen percent of salaried pharmacists received hospitalization insurance in 1965,[13] but 69 percent in 1968 and 75.4 percent in 1970.[14]

Professional Liability Insurance

While the majority of salaried pharmacists in hospitals and extended care facilities must provide their own professional liability insurance, this fringe benefit is common in other type practices (Table 38).

Life Insurance

Over 40 percent of salaried pharmacists reported receipt of partial or completely paid life insurance, but this fringe benefit is common only among chain and hospital pharmacists (Table 39). Comparable data for salaried

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13. Johnson, op. cit.

14. "Mich. RxMen's Salaries Rise 27%," op. cit.

Table 37

HOSPITALIZATION INSURANCE

	Entirely Paid		Partially Paid		None	
	No.	Percent	No.	Percent	No.	Percent
Independent	99	35%	40	14%	147	51%
Chain	38	27	94	66	10	7
Clinic	35	44	26	33	19	24
Hospital	31	17	120	67	29	16
Other	2	29	3	43	2	29
Totals	205	29%	283	41%	207	30%

15 nonrespondents

Table 38

PROFESSIONAL LIABILITY INSURANCE

	Yes		No	
	No.	Percent	No.	Percent
Independent	145	51%	140	49%
Chain	90	63	52	37
Clinic	48	61	31	39
Hospital	55	31	124	69
Other	3	43	4	57
Totals	341	49%	351	51%

18 nonrespondents

Table 39

LIFE INSURANCE

	Entirely Paid		Partially Paid		None	
	No.	Percent	No.	Percent	No.	Percent
Independent	30	10%	28	10%	228	80%
Chain	44	31	66	46	32	23
Clinic	19	24	8	10	53	66
Hospital	60	34	47	26	72	40
Other	0	0	0	0	7	100
Totals	153	22%	149	21%	392	56%

16 nonrespondents

pharmacists in Michigan were 22 percent in 1965,[15] 50 percent in 1968, and 51.2 percent in 1970.[16]

Income Loss Protection

Partial or complete payments for policies for protection against loss of income are provided to less than 30 percent of the salaried pharmacists and are fairly common only among chain pharmacists (Table 40).

Provision of Professional Attire (Professional Jacket)

Chain pharmacists also are more likely to be provided with a jacket or other professional attire (Table 41).

Retirement Program

Chain and hospital pharmacists are likely to receive partial or complete payment for retirement programs, but this benefit is available only to about two out of five (41%) total respondents (Table 42). The Michigan surveys reported fourteen percent of salaried pharmacists had some form of retirement program benefit in 1965.[17] This

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15. Johnson, op. cit.
16. "Mich. RxMen's Salaries Rise 27%," op. cit.
17. Johnson, op. cit.

Table 40

INCOME LOSS PROTECTION

	Entirely Paid		Partially Paid		None	
	No.	Percent	No.	Percent	No.	Percent
Independent	38	13%	13	5%	235	82%
Chain	29	20	41	29	72	51
Clinic	12	15	12	15	56	70
Hospital	23	13	24	13	132	74
Other	0	0	1	14	6	86
Totals	102	15%	91	13%	501	72%

16 nonrespondents

Table 41

PROVISION OF PROFESSIONAL ATTIRE

	Yes		No	
	No.	Percent	No.	Percent
Independent	133	47%	153	53%
Chain	105	74	37	26
Clinic	41	51	39	49
Hospital	25	14	154	86
Other	0	0	7	100
Totals	304	44%	390	56%

16 nonrespondents

Table 42

RETIREMENT PROGRAM

	Entirely Paid		Partially Paid		None	
	No.	Percent	No.	Percent	No.	Percent
Independent	26	9%	10	3%	250	88%
Chain	33	23	70	49	39	28
Clinic	15	19	6	8	59	74
Hospital	49	27	75	42	55	31
Other	1	14	0	0	6	86
Totals	124	18%	161	23%	409	59%

16 nonrespondents

proportion increased to 41 percent in 1968 and to 42 percent in 1970.[18]

Profit-Sharing Program and Stock Purchase Options

Less than twenty percent of salaried pharmacists benefit from a profit-sharing program (Table 43), and only about ten percent from a stock purchase option (Table 44). The increased availability of the stock purchase option benefit to chain pharmacists would be expected due to the open trading of some chain pharmacies' stocks.

Joseph M. Long, President of Longs Drug Stores, believes chain employees should own some stock in the company they serve. Long believes "when a person owns part of a company, he works a little harder," and this practice has sharply reduced employee turnover with his firm.[19]

Overtime Compensation

About one-half of the respondents reported some form of overtime compensation, with remuneration at their

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18. "Mich. RxMen's Salaries Rise 27%," op. cit.

19. George Klinger, "Chains Seen Capturing Greater Share of Market," Drug Topics (115:10) May 10, 1971, p. 4.

Table 43

PROFIT-SHARING PROGRAM

	Yes		No	
	No.	Percent	No.	Percent
Independent	49	17%	237	83%
Chain	66	46	76	54
Clinic	13	16	67	84
Hospital	5	3	174	97
Other	0	0	7	100
Totals	133	19%	561	81%

16 nonrespondents

Table 44

STOCK PURCHASE OPTIONS

	Yes		No	
	No.	Percent	No.	Percent
Independent	7	2%	279	98%
Chain	54	38	88	62
Clinic	7	9	73	91
Hospital	2	1	176	99
Other	2	29	5	71
Totals	72	10%	621	90%

17 nonrespondents

regular salary rate the most typical (Table 45). An unknown proportion of the 352 pharmacists who reported no such compensation may have little or no overtime, or they may be employed in a managerial or supervisory capacity.

A survey in 1969 of a sample of salaried pharmacists in Alabama reported overtime compensation information supplied by 46 hospital pharmacists and 176 community pharmacists.[20] Among hospital pharmacists, 45 percent reported no overtime, while 30 percent received overtime at regular rates, eight percent at premium rates, and fifteen percent received other time off. Among community pharmacists, 56 percent reported no overtime, while twenty percent received overtime at regular rates, four percent received premium rates, and twenty percent received other time off.

Sundays and Holidays

Pharmacists were asked if they offer or receive an increased rate of pay for working Sundays or holidays. Pharmacists who do not work those days were provided an alternative response, "Do not work those days."

Approximately the same percentage of salaried and owner pharmacists in all categories either do not work

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20. Launia L. Thagard, "Economic Survey of Employee Pharmacists," Alabama Pharmaceutical Association (1969).

Table 45

OVERTIME COMPENSATION

	Yes Unspecified		Regular rate		Premium rate		Extra time off		Other		None	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	2	1%	95	34%	7	3%	20	7%	1	0	151	55%
Chain	2	1	31	22	45	32	6	4	0	0	57	40
Clinic	1	1	14	18	4	5	7	9	0	0	52	67
Hospital	2	1	26	15	36	20	17	10	6	3%	89	51
Other	0	0	2	29	1	14	1	14	0	0	3	43
Totals	7	1%	168	25%	93	14%	51	8%	7	1%	352	52%

32 nonrespondents

those days or do not offer or receive an increased rate of pay for working then (Table 46).

Number of Days Sick Leave

The high nonresponse (130) to the question on the number of days sick leave allowed each year reflects this fringe benefit's general inapplicability to part-time salaried pharmacists as well as the lack of a definite sick leave policy on the part of many employers (Table 47). The many "do not know" and "flexible" responses also support this conclusion. Further, it is unlikely many independent pharmacist employers would dock a full-time salaried pharmacist who was ill for a short period of time but, conversely, it also is unlikely many employers could continue compensating ill salaried pharmacists indefinitely. Among employers who have a definite sick leave policy, two weeks or fourteen days a year was most typical.

Paid Vacations

Two weeks paid vacation is typical for independent salaried pharmacists, but the majority of chain and hospital pharmacists reported they receive three or four week vacations (Table 48). In the "five or more weeks" category, ten hospital pharmacists reported five weeks' vacation, and one reported six; two independent pharmacists reported seven weeks' vacation; and one chain pharmacist

Table 46

EVENINGS AND HOLIDAYS

	Do Not Work		No for Both		Yes for Both		Yes for Sunday No for Holidays		No for Sunday Yes for Holidays		Yes for Sunday Do Not Work Holidays		No for Sunday Do Not Work Holidays	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried														
Independent	71	25%	193	68%	2	1%	2	1%	1	0				
Chain	25	18	84	59	1	1	1	1	27	19	0	0%	14	5%
Clinic	53	67	25	32	0	0	0	0	0	0	0	0	4	3
Hospital	42	23	119	66	5	3	3	2	8	4	0	0	1	1
Other	4	57	3	43	0	0	0	0	0	0	0	0	2	1
Subtotals	(195)	(28%)	(424)	(61%)	(8)	(1%)	(6)	(1%)	(36)	(5%)	0	0	0	0
											(0)	(0%)	(21)	(3%)
Owner														
Independent	81	23%	224	65%	3	1%	4	1%	4	1%				
Chain	1	11	6	67	0	0	0	0	2	22	1	0%	29	8%
Clinic	38	79	8	17	0	0	0	0	0	0	0	0	0	0
Other	2	100	0	0	0	0	0	0	0	0	0	0	2	4
Subtotals	(122)	(30%)	(238)	(59%)	(3)	(1%)	(4)	(1%)	(6)	(1%)	0	0	0	0
											(1)	(0%)	(31)	(8%)
Totals	317	29%	662	60%	11	1%	10	1%	42	4%				
											1	0%	52	5%

91 nonrespondents

Table 47

ANNUAL NUMBER OF DAYS SICK LEAVE

	0 Days		1 - 5 Days		6 - 10 Days		11 - 20 Days		21 - 30 Days		Unlimited		Do Not Know		Flexible	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Independent	99	44%	3	1%	11	5%	8	4%	3	1%	21	9%	51	22%	31	14%
Chain	35	29	5	4	15	13	16	13	10	8	11	9	17	14	10	8
Clinic	16	23	3	4	5	7	9	13	1	1	5	7	18	26	13	19
Hospital	6	4	2	1	23	15	84	54	21	13	8	5	11	7	2	1
Other	2	29	0	0	0	0	1	14	0	0	0	0	4	57	0	0
Totals	158	27%	13	2%	54	9%	118	20%	35	6%	45	8%	101	17%	56	10%

130 nonrespondents

Table 48

WEEKS PAID VACATION

	None		One		Two		Three		Four		Five or more	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Independent	7	3%	9	4%	165	71%	46	20%	5	2%	2	1%
Chain	0	0	4	3	36	26	42	31	54	39	1	1
Clinic	0	0	1	1	39	54	21	28	13	18	0	0
Hospital	3	2	2	1	32	19	54	33	63	38	11	7
Other	1	17	0	0	4	67	1	17	0	0	0	0
Totals	11	2%	16	3%	276	45%	164	27%	135	22%	14	2%

94 nonrespondents

reported an eight week vacation. The high nonresponse (94) reflects the general inapplicability of this fringe benefit to part-time practitioners.

Automatic Cost of Living Increase

An automatic cost of living increase is available to only about one out of ten (11%) salaried pharmacists, and is fairly common only among hospital practitioners (Table 49). A survey among pharmacists in Indiana indicated 9.5 percent of salaried pharmacists surveyed in that state receive automatic cost of living increases.[21]

Flexible Schedule

While not a fringe benefit in the traditional sense, some salaried pharmacists enjoy a flexible schedule which will enable them to participate in civic, political, fraternal and related community activities. The data reported in Table 50 are in response to the question, "Are work schedules adjusted so you can participate in civic and club activities?" The 32 "other" replies were affirmative but qualified such as, "If I give a week's notice." Also it is probable some of the negative

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21. "Report of Salary-Benefits-Working Conditions Survey," Indiana Pharmaceutical Association (1970).

Table 49

AUTOMATIC COST OF LIVING INCREASE

	Yes		No	
	No.	Percent	No.	Percent
Independent	11	4%	248	96%
Chain	6	5	127	95
Clinic	4	6	68	94
Hospital	50	30	115	70
Other	0	0	7	100
Totals	71	11%	566	89%

73 nonrespondents

Table 50

WORK SCHEDULES ADJUSTED

	Yes		No		Other	
	No.	Percent	No.	Percent	No.	Percent
Independent	208	74%	66	23%	8	3%
Chain	80	56	56	39	6	4
Clinic	46	58	26	33	7	9
Hospital	134	75	33	19	11	6
Other	5	71	2	29	0	0
Totals	473	69%	183	27%	32	5%

22 nonrespondents

responses merely reflect the respondents' disinterest in active participation in such activities.

Salary/Fringe Benefit Reviews

In response to the question, "Is there a periodic review of salaries and/or fringe benefits for salaried pharmacists?" respondents were offered the unqualified alternatives, "Yes" and "No," and if the response was "Yes," the pharmacist was requested to report the frequency of the periodic review. These replies were classified into quarterly, semiannual, annual, biennial, indefinite, and "do not know" categories.

The majority of independent and clinic salaried pharmacists reported there was no periodic review of their salaries or fringe benefits, and slightly less than half of chain salaried pharmacists also reported no such review (Table 51). On the other hand, only fourteen percent of the hospital pharmacists reported no periodic review, while 65 percent of the hospital pharmacists reported an annual review of salaries and/or fringe benefits.

The most frequent response by independent pharmacy owners (42%) indicated they conduct an annual review of salaries and/or fringe benefits. Most chain pharmacy owners (5/9) do not conduct periodic review, while 56 percent of the clinic pharmacy owners reported they do.

In summary, a majority of owners and salaried pharmacists did report a periodic review is conducted,

Table 51

PERIODIC REVIEW OF SALARIES AND/OR

	No		Yes (not qualified)		Yes (quarterly)	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	167	63%	11	4%	3	1%
Chain	65	47	16	12	2	1
Clinic	44	59	1	1	0	0
Hospital	24	14	10	6	0	0
Other	3	13	0	0	0	0
Subtotals	(303)	(46%)	(38)	(6%)	(5)	(1%)
Owner						
Independent	101	35%	22	8%	2	1%
Chain	5	56	0	0	0	0
Clinic	7	18	2	5	1	3
Other	1	50	0	0	0	0
Subtotals	(114)	(34%)	(24)	(7%)	(3)	(1%)
Totals	417	42%	62	6%	8	1%

188 nonrespondents

FRINGE BENEFITS

Yes (semi-annual)		Yes (annual)		Yes (biennial)		Yes (indefinite)		Yes (do not know)	
No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
13	5%	63	24%						
18	13	25	18	2	1%	5	2%	1	0
4	5	20	27	4	3	3	2	6	4%
19	11	114	65	1	1	3	4	1	1
2	29	2	29	7	4	2	1	0	0
(56)	(8%)	(224)	(34%)	0	0	0	0	0	0
				(14)	(2%)	(13)	(2%)	(8)	(1%)
26	9%	120	42%						
1	11	2	22	5	2%	9	3%	2	1%
4	10	22	56	0	0	0	0	1	11
0	0	1	50	2	5	0	0	1	1
(31)	(9%)	(145)	(43%)	0	0	0	0	0	0
				(7)	(2%)	(9)	(3%)	(4)	(1%)
87	9%	369	37%	21	2%	22	2%	12	1%

with an annual review by far the most frequently mentioned. The high nonresponse to this question, the "do not know" and unqualified affirmative replies, plus some of the difference noted in responses between owners and salaried pharmacists, all indicate a lack of communication. The twelve percent difference in the negative response (34% vs 46%) between salaried pharmacists and pharmacist owners, for example, suggests an owner may review a salaried pharmacist's salary and fringe benefits without the salaried pharmacist realizing the owner has done so.

Pharmacists' Professional Participation and Relationships

Do salaried pharmacists believe they have a real opportunity to attend continuing education functions? Do owners or salaried pharmacists appear to attend continuing education functions more frequently? Is one group more likely than the other to belong to professional associations? These and related questions are examined next.

Membership in Pharmacy Associations

Pharmacists were asked to check the pharmacy associations to which they belong: county or local, ACA, APhA, ASHP, NARD, WPhA, and WSHP, and were provided an "other" category for the listing of additional pharmacy organizations. Most respondents belong to three or more pharmacy

associations (Table 52). Hospital pharmacists as a group belong to more associations than do any other class of salaried pharmacists, and independent owners tend to belong to more pharmacy associations than do other classes of owners. Salaried pharmacists appear to be about five times more likely than owners not to be a member of any association (15% to 3%).

Almost four out of five respondents (78 percent) belong to WPhA, but among owners 90 percent (423/470) are members compared to about 70 percent (494/710) of salaried pharmacists (Table 53). WPhA's membership of 1,889 pharmacists included 668 of the 822 (81%) pharmacist owners in Wisconsin and 1,221 salaried pharmacists.[22] Thus between the two groups of pharmacists, about 35 percent of WPhA's active members are owners, and about 65 percent are salaried pharmacists.

Assistance in Paying Professional Association Dues

Pharmacists were asked if employers assisted salaried pharmacists in the payment of professional association dues and, if "Yes," if such dues were paid a) entirely by the employer, or b) partially by the employer (Table 54). Eighty-four percent (549/654) of the

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22. Personal communication, W. Allen Daniels, Executive Director, Wisconsin Pharmaceutical Association, February 11, 1971.

Table 52

MEMBERSHIP IN PHARMACY ASSOCIATIONS

	None		One		Two		Three		Four		Five		Six or more	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried														
Independent	52	18%	53	18%	76	26%	84	29%	24	8%	1	0	0	0
Chain	16	11	22	15	49	34	55	38	4	3	0	0	0	0
Clinic	9	11	16	20	24	30	27	33	5	6	0	0	0	0
Hospital	29	16	16	9	38	20	43	23	24	13	27	15%	9	5%
Other	1	14	2	29	4	57	0	0	0	0	0	0	0	0
Subtotals	(107)	(15%)	(109)	(15%)	(191)	(27%)	(209)	(29%)	(57)	(8%)	(28)	(4%)	(9)	(1%)
Owner														
Independent	9	2%	26	6%	63	16%	133	33%	153	38%	17	4%	3	1%
Chain	0	0	1	11	2	22	3	33	2	22	1	11	0	0
Clinic	4	7	4	7	8	15	25	46	9	17	4	7	0	0
Other	0	0	0	0	0	0	2	67	0	0	1	33	0	0
Subtotals	(13)	(3%)	(31)	(7%)	(73)	(16%)	(163)	(35%)	(164)	(35%)	(23)	(5%)	(3)	(1%)
Totals	120	10%	140	12%	264	22%	372	32%	221	19%	51	4%	12	1%

6 nonrespondents

Table 53

MEMBERSHIP IN WPhA

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	202	70%	88	30%
Chain	115	79	31	21
Clinic	55	68	26	32
Hospital	119	64	67	36
Other	3	43	4	57
Subtotals	(494)	(70%)	(216)	(30%)
Owner				
Independent	367	91%	37	9%
Chain	9	100	0	0
Clinic	44	81	10	19
Other	3	100	0	0
Subtotals	(423)	(90%)	(47)	(10%)
Totals	917	78%	263	22%

6 nonrespondents

Table 54

ASSIST IN PAYING ASSOCIATION DUES

	No		Yes Entirely		Yes Partially	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	225	87%	29	11%	6	2%
Chain	99	72	24	17	14	10
Clinic	59	78	12	16	5	7
Hospital	159	91	9	5	6	3
Other	7	100	0	0	0	0
Subtotals	(549)	(84%)	(74)	(11%)	(31)	(5%)
Owner						
Independent	190	68%	71	25%	15	5%
Chain	7	78	2	22	0	0
Clinic	21	55	13	34	3	8
Other	1	50	1	50	0	0
Subtotals	(219)	(68%)	(87)	(27%)	(18)	(6%)
Totals	768	78%	161	16%	49	5%

202 nonrespondents + 6 unqualified "Yes"

salaried pharmacists replied in the negative, and 68 percent (219/324) of the owners agreed. Two salaried pharmacists and four owners, or about one percent of total respondents, reported assistance in dues payment but did not qualify it as partial or complete. If dues assistance is provided, it appears to be about three times as likely to be complete rather than partial.

A higher percentage of Wisconsin respondents, both salaried and owner, reported they either receive no assistance or offer no assistance in paying professional association dues than did their counterparts in the Iowa study (Table 55).

In a study in Michigan, 94.5 percent of salaried pharmacists and 72 percent of owners reported the employer does not assist salaried pharmacists in the payment of dues.[23] Among a sample of salaried pharmacists in Indiana, 79.5 percent reported no dues payment assistance.[24] A comparable figure of 70.4 percent was reported by salaried pharmacists in Pennsylvania.[25] In Alabama, about 85 percent (39/46) of a sample of hospital pharmacists and about 76 percent (133/176) of a sample of salaried community pharmacists reported no dues payment assistance.[26]

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23. Johnson, op. cit.

24. "Report of Salary-Benefits-Working Conditions Survey," op. cit.

25. Richard L. Sedam, "Employer-Employee Relations," The Pennsylvania Pharmacist (51:2) September 1969, p. 23.

26. Thagard, op. cit.

Table 55

ASSIST IN PAYING ASSOCIATION DUES: IOWA STUDY

	No		Yes Entirely		Yes Partially	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	35	64%	11	20%	9	16%
Chain	36	95	1	3	1	3
Clinic	11	55	6	30	3	15
Hospital	18	82	3	14	1	5
Other	3	75	1	25	0	0
Subtotals	(103)	(74%)	(22)	(16%)	(14)	(10%)
Owner						
Independent	53	57%	32	34%	8	9%
Chain	1	50	0	0	1	50
Clinic	7	58	4	33	1	8
Other	0	0	2	100	0	0
Subtotals	(61)	(56%)	(38)	(35%)	(10)	(9%)
Totals	164	66%	60	24%	24	10%

60 nonrespondents + 3 unqualified "Yes"

Opportunity To Attend Professional Meetings

All pharmacists were asked if salaried pharmacists had a real opportunity to attend professional conventions, seminars, and meetings and, if "Yes," whether their expenses were paid 1) entirely by the employer, 2) partially by the employer, or 3) entirely by the salaried pharmacist (Table 56). About 40 percent (263/650) of the salaried pharmacists did not believe they had a real opportunity to attend such meetings, but only nineteen percent (63/329) of the owners who responded to this question believed this was true.

Twenty-four respondents who believe salaried pharmacists have such an opportunity did not qualify their response. The three methods of financing salaried pharmacists' attendance at professional meetings are of comparable popularity, with hospital pharmacists the group most likely to receive complete expenses.

A higher percentage of salaried pharmacists in Wisconsin than in Iowa believe they do not have a real opportunity to attend professional conventions, seminars, and meetings (Table 57). Also, 54 percent of salaried pharmacists in Iowa reported their employer pays either all or part of their expenses, and only 39 percent of the salaried respondents in Wisconsin reported this to be the case.

Table 56

OPPORTUNITY TO ATTEND PROFESSIONAL MEETINGS

	No		Yes		Yes - 1		Yes - 2		Yes - 3	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried										
Independent	115	45%	4	2%	27	10%	54	21%	58	22%
Chain	75	54	0	0	16	12	16	12	31	22
Clinic	37	50	2	3	12	16	8	11	15	20
Hospital	33	19	7	4	71	41	46	27	16	9
Other	3	43	0	0	1	14	0	0	3	43
Subtotals	(263)	(40%)	(13)	(2%)	(127)	(20%)	(124)	(19%)	(123)	(19%)
Owner										
Independent	53	19%	8	3%	78	28%	69	25%	70	25%
Chain	4	44	1	11	1	11	1	11	2	22
Clinic	6	15	1	3	13	33	14	35	6	15
Other	0	0	1	50	0	0	0	0	1	50
Subtotals	(63)	(19%)	(11)	(3%)	(92)	(28%)	(84)	(26%)	(79)	(24%)
Totals	326	33%	24	2%	219	22%	208	21%	202	21%

207 nonrespondents

Table 57

OPPORTUNITY TO ATTEND PROFESSIONAL MEETINGS: IOWA STUDY

	No		Yes		Yes - 1		Yes - 2		Yes - 3	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried										
Independent	13	24%	2	4%	17	31%	13	24%	10	18%
Chain	14	36	0	0	4	10	10	26	11	28
Clinic	6	30	0	0	3	15	11	55	0	0
Hospital	2	9	0	0	10	45	6	27	4	18
Other	0	0	0	0	1	25	1	25	2	50
Subtotals	(35)	(25%)	(2)	(1%)	(35)	(25%)	(41)	(29%)	(27)	(19%)
Owner										
Independent	18	19%	0	0%	37	39%	26	27%	14	15%
Chain	0	0	0	0	1	33	1	33	1	33
Clinic	0	0	0	0	4	33	5	42	3	25
Other	1	100	0	0	0	0	0	0	0	0
Subtotals	(19)	(17%)	(0)	(0%)	(42)	(38%)	(32)	(29%)	(18)	(16%)
Totals	54	22%	2	1%	77	31%	73	29%	45	18%

In the Michigan survey, 45 percent of salaried pharmacists and 32 percent of the owners believed salaried pharmacists had no opportunity to attend professional meetings, but 25 percent of the salaried pharmacists and 34 percent of the owners reported employer assistance in the payment of expenses for those who did attend.[27] About 51 percent of a sample of salaried pharmacists in Indiana believed they had no opportunity to attend professional meetings.[28]

Forty-one percent of salaried pharmacists in Pennsylvania reported no such opportunity, but expenses were borne partially or entirely by the owner for about half of those who did have the opportunity to attend.[29] While salaried pharmacists in Alabama were not asked about their opportunity to attend professional meetings, about nineteen percent (33/176) of community pharmacists and about 57 percent (26/46) of hospital pharmacists reported their employers pay "education-seminar expenses."[30]

In a study limited to the 48 mainland states, Smith and Scruggs attempted "To determine what proportion of

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27. Johnson, op. cit.

28. "Report of Salary-Benefits-Working Conditions Survey," op. cit.

29. Sedam, op. cit., pp. 8, 22-23.

30. Thagard, op. cit.

employers provided continuing education for their professional employees and to determine what proportion of those who provided continuing education for their employed professionals also paid for part or all of it." They defined the word, "provided," to mean offered, sponsored or provided. They found hospital pharmacists, nurses, and physicians reportedly were provided with continuing education more frequently than community and chain pharmacists (Table 58).[31]

In a survey at the Philadelphia College of Pharmacy and Science, Professor Maven A. Myers asked students, "Assume you agree that criteria for on campus interviews are desirable. What should such criteria include?" One of ten criteria listed was "employer encourages pharmacist attendance at continuing education programs," and this criterion was checked by 67 percent of the respondents. Also, 67 percent was the highest percentage of students which checked any of the ten criteria.[32]

Professional Meetings Attended

In response to the question, "Approximately how many professional conventions, seminars, and meetings did you

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31. Mickey C. Smith and James A. Scruggs, "Continuing Education as a Fringe Benefit of Employment," Journal of the American Pharmaceutical Association (NS10:10) October 1970, pp. 560-562.

32. "Should Screening Work Both Ways," American Druggist (161:12) June 15, 1970, pp. 12-14.

Table 58

PERCENT OF INSTITUTIONS WHICH PROVIDED CONTINUING EDUCATION FOR THEIR EMPLOYED PROFESSIONALS: SMITH AND SCRUGGS STUDY

Professionals	Number Employing	Number Providing Benefit	Percent Providing Benefit
Hospital pharmacists	149	114	67%
Community pharmacists	79	22	28
Chain pharmacists	48	11	23
Nurses (hospitals)	151	145	96
Physicians (hospitals)	83	63	76

attend in the past year?," over a third of all pharmacists reported zero or none (Table 59). Salaried pharmacists were more likely not to have attended a single meeting (37%) than were pharmacist owners (29%). The proportion of salaried pharmacists not attending a single meeting (37%) is close to the proportion (40%) who believe they had no real opportunity to do so. Salaried pharmacists, however, were more likely than owners to attend approximately a meeting or more a month.

A higher percentage of both salaried and owner pharmacists in Iowa than in Wisconsin reported they attended professional conventions, seminars, or meetings in the past year (Table 60). This author is unable to arrive at an objective explanation as to why pharmacists in Iowa reportedly attend more continuing education functions than do pharmacists in Wisconsin.

Review New Products and Literature

Pharmacists were asked, "Do all pharmacists have the opportunity to review new products and professional literature while on duty?," and were given alternative answers of "Yes," "No," and an open-end "other." Of the 23 pharmacists checking "other," most explained they occasionally or often have this opportunity, but not routinely so (Table 61). The replies of owners and salaried pharmacists in chain pharmacies indicated this opportunity is not as prevalent therein as in other practices.

Table 59

PROFESSIONAL MEETINGS ATTENDED

	None		1 - 3		4 - 6		7 - 9		10 - 12		More than 12	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried												
Independent	119	45%	102	38%	26	10%	7	3%	10	4%	2	1%
Chain	62	43	57	40	17	12	3	2	4	3	0	0
Clinic	31	40	29	38	11	14	3	4	3	4	0	0
Hospital	32	18	93	53	26	15	7	4	11	6	5	3
Other	1	17	5	83	0	0	0	0	0	0	0	0
Subtotals	(245)	(37%)	(286)	(43%)	(80)	(12%)	(20)	(3%)	(28)	(4%)	(7)	(1%)
Owner												
Independent	112	30%	189	51%	47	13%	10	3%	7	2%	3	1%
Chain	3	33	4	44	1	11	1	11	0	0	0	0
Clinic	12	23	30	57	7	13	1	2	1	2	2	4
Other	0	0	0	0	1	50	1	50	0	0	0	0
Subtotals	(127)	(29%)	(223)	(52%)	(56)	(13%)	(13)	(3%)	(8)	(2%)	(5)	(1%)
Totals	372	34%	509	46%	136	12%	33	3%	36	3%	12	1%

88 nonrespondents

Table 60

PROFESSIONAL MEETINGS ATTENDED: IOWA STUDY

	None		1 - 3		4 - 6		7 - 9		10 - 12		More than 12	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried												
Independent	9	16%	43	74%	3	5%	1	2%	2	3%	0	0
Chain	11	28	22	56	6	15	0	0	0	0	0	0
Clinic	0	0	14	70	5	25	1	5	0	0	0	0
Hospital	3	14	9	41	7	32	1	5	0	0	2	9%
Other	0	0	4	67	2	33	0	0	0	0	0	0
Subtotals	(23)	(16%)	(92)	(63%)	(23)	(16%)	(3)	(2%)	(2)	(1%)	(2)	(1%)
Owner												
Independent	15	29%	102	20%	20	39%	4	8%	2	4%	0	0%
Chain	0	0	3	100	0	0	0	0	0	0	0	0
Clinic	1	7	9	60	4	27	0	0	1	7	0	0
Other	1	50	1	50	0	0	0	0	0	0	0	0
Subtotals	(17)	(10%)	(114)	(70%)	(24)	(15%)	(4)	(2%)	(3)	(2%)	(0)	(0%)
Totals	40	13%	206	67%	47	15%	7	2%	5	2%	2	1%

4 nonrespondents

Table 61

REVIEW NEW PRODUCTS AND LITERATURE

	Yes		No		Other	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	244	87%	32	11%	5	2%
Chain	111	78	26	18	5	4
Clinic	69	86	9	11	2	3
Hospital	153	85	21	12	6	3
Other	6	86	1	14	0	0
Subtotals	(583)	(84%)	(89)	(13%)	(18)	(3%)
Owner						
Independent	349	95%	13	4%	5	1%
Chain	7	78	2	22	0	0
Clinic	44	94	3	6	0	0
Other	2	100	0	0	0	0
Subtotals	(402)	(95%)	(18)	(4%)	(5)	(1%)
Totals	985	88%	107	10%	23	2%

71 nonrespondents

In response to an identical question in the Michigan survey, 90 percent of owners but only 72 percent of salaried pharmacists answered affirmatively.[33]

Voice in Determining Policies and Procedures

There was considerable variation between salaried and owner pharmacists' replies to the question, "Do all pharmacists have some voice in determining operating policies and procedures for the pharmacy?" On an unqualified basis, slightly over half (51%) of the salaried pharmacists responded affirmatively compared to about three-fourths (74%) of the owners who did so (Table 62). If the partial positive reply, "sometimes," is considered, the difference narrows to about thirteen percent; 79 percent compared to 92 percent. The difference is understandable if some respondents interpreted the question to mean all operating policies and procedures, since some decisions are and should be the sole prerogative of the owner(s) of any enterprise.

Salaried pharmacists in Alabama were asked a similar question about their "voice in policy making" in the pharmacies in which they practiced. However, about 70 percent (124/176) of community pharmacists replied

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33. Johnson, op. cit.

Table 62

VOICE IN POLICIES AND PROCEDURES

	Yes		No		Sometimes	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	141	50%	61	22%	79	28%
Chain	68	49	38	27	34	24
Clinic	36	46	17	22	26	33
Hospital	98	54	29	16	53	29
Other	6	86	0	0	1	14
Subtotals	(349)	(51%)	(145)	(21%)	(193)	(28%)
Owner						
Independent	262	74%	30	8%	61	17%
Chain	6	67	1	11	2	22
Clinic	35	74	3	6	9	19
Other	1	50	1	50	0	0
Subtotals	(304)	(74%)	(35)	(9%)	(72)	(18%)
Totals	653	60%	180	16%	265	24%

88 nonrespondents

affirmatively as did about 78 percent (36/46) of the hospital pharmacists in the sample.[34]

Professional Respect

In response to the question, "Do you feel that there is a mutual professional respect between employer and salaried pharmacist(s)?," pharmacists were offered a "Yes," "No," and open-end "other" response. About 81 percent (562/691) of all salaried pharmacists answered affirmatively while about 96 percent (363/378) of the owners did so (Table 63). Chain pharmacists reported less likelihood of mutual respect among pharmacists than did other practitioners. There was no predominate reply to the "other" option but most were more negative rather than positive. Examples include: "Partial professional respect," "Lacking on occasion," "Only sometimes," and "Younger grads tend to discount capabilities of older grads."

Employment Agreements

Written employment agreements between owners and salaried pharmacists apparently are in effect for less than ten percent of the practicing pharmacists (Table 64). There is close concurrence among respondents to this

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34. Thagard, op. cit.

Table 63

MUTUAL PROFESSIONAL RESPECT

	Yes		No		Sometimes	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	249	87%	30	11%	6	2%
Chain	93	65	36	25	13	9
Clinic	60	77	15	19	3	4
Hospital	154	86	18	10	7	4
Other	6	86	1	14	0	0
Subtotals	(562)	(81%)	(100)	(14%)	(29)	(4%)
Owner						
Independent	315	96%	4	1%	8	2%
Chain	7	78	2	22	0	0
Clinic	39	98	1	2	0	0
Other	2	100	0	0	0	0
Subtotals	(363)	(96%)	(7)	(2%)	(8)	(2%)
Totals	925	87%	107	10%	37	3%

117 nonrespondents

Table 64

WRITTEN EMPLOYMENT AGREEMENT

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	11	4%	259	96%
Chain	12	9	128	91
Clinic	8	10	69	90
Hospital	21	12	150	88
Other	0	0	7	100
Subtotals	(52)	(8%)	(613)	(92%)
Owner				
Independent	25	9%	259	91%
Chain	1	11	8	89
Clinic	7	18	31	82
Other	0	0	2	100
Subtotals	(33)	(10%)	(300)	(90%)
Totals	85	9%	913	91%

188 nonrespondents

question with only about eight percent (52/665) of salaried pharmacists and about ten percent (33/333) of the owners answering in the affirmative. This finding is similar to that reported for 35 graduates of the St. Louis College of Pharmacy. Only four had written employment contracts, three of whom were in hospital pharmacy.[35]

Pharmacists' Hours Per Week

Pharmacists were asked to report the average number of hours they practice per week. Their specific replies were coded into eight categories or ranges of hours. The modal range of hours per week was the same for all groups of salaried pharmacists--40 to 44 hours (Table 65).

The modal range of hours differed, however, for the various types of owners. Pharmacist owners of independent pharmacies practiced a modal range of 60 or more hours per week. The survey included few chain owners but of those who responded to this question, three practiced 45 to 49 hours and another three reportedly practiced 50 to 54 hours a week. Clinic pharmacy owners practiced a modal range of 45 to 49 hours. While the modal range for all salaried pharmacists was 40 to 44 hours a week, the range of modal hours for all owner pharmacists was 60 or more hours. About 65 percent of all owners practiced 50 or more hours a week.

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35. "St. Louis Surveys 1970 Graduating Class," Illinois Pharmacist (34:12) December 1970, p. 416.

Table 65

HOURS PRACTICED PER WEEK

	0 - 29		30 - 34		35 - 39		40 - 44	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried								
Independent	7	3%	4	2%	9	4%	111	46%
Chain	2	1	0	0	1	1	70	50
Clinic	0	0	0	0	4	5	40	53
Hospital	5	3	4	2	2	1	116	68
Other	0	0	0	0	1	14	5	72
Subtotals	(14)	(2%)	(8)	(1%)	(17)	(3%)	(342)	(54%)
Owner								
Independent	5	1%	4	1%	5	1%	45	11%
Chain	0	0	0	0	0	0	2	22
Clinic	2	4	1	2	0	0	8	15
Other	0	0	1	33	0	0	1	33
Subtotals	(7)	(2%)	(6)	(1%)	(5)	(1%)	(56)	(12%)
Totals	21	2%	14	1%	22	2%	398	36%

89 nonrespondents

45 - 49		50 - 54		55 - 59		60 and over	
No.	Percent	No.	Percent	No.	Percent	No.	Percent
64	27%	29	12%	10	4%	7	3%
38	27	17	12	6	4	7	5
19	25	10	13	2	3	0	0
19	11	17	10	3	2	5	3
0	0	1	14	0	0	0	0
(140)	(22%)	(74)	(12%)	(21)	(3%)	(19)	(3%)
66	17%	96	24%	55	14%	120	30%
3	33	3	33	0	0	1	11
18	33	11	20	5	9	9	17
0	0	1	33	0	0	0	0
(87)	(19%)	(111)	(24%)	(60)	(13%)	(130)	(28%)
227	21%	185	17%	81	7%	149	14%

Another and perhaps more meaningful analysis of hours is shown in Table 66 which is based upon individual replies only, and not upon classes or ranges of hours. Here for example, one notes a higher number of independent owners (68) reported they practice 50 hours a week than the number who reported any other specific number of hours. Depending on how one defines "average," he could say pharmacists (owners and salaried) in Wisconsin practice an average of 40, 46 or 48 hours per week.

A special analysis of data for 66 pharmacies in Wisconsin for 1970 disclosed the following:

(1) these pharmacies were open an average of 70 hours per week

(2) the proprietor practiced an average of 53 hours per week

(3) salaried pharmacists practiced an average of 42 hours per week.[36]

The responses from a national sample of 3,759 self-employed physicians under age 65 to a survey in 1970 indicate solo practitioners had a median of 62 professional hours per week compared to 63 such hours for physicians in partnerships and group practices.[37] These "professional hours" are not directly comparable to those reported in

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36. Personal communication, George F. Slavin, Jr., Editor, Lilly Digest, June 15, 1971.

37. Arthur Owens, "Solo vs Partnership: A New Economic Comparison," Medical Economics (48:6) March 15, 1971, pp. 81-87.

Table 66

AVERAGE HOURS PER WEEK

Pharmacist Classification	Mean	Median	Mode
Independent Owner (N=396)	53.4	51	50 (n=68)
Independent Salaried (N=241)	44.5	44	40 (n=44)
Chain Owner (N=9)	50.4	48	45 & 50 (n=2)
Chain Salaried (N=141)	46.1	44	44 (n=31)
Clinic Owner (N=54)	49.2	48	48 & 50 (n=7)
Clinic Salaried (N=75)	44.2	44	40 (n=17)
Hospital (N=171)	42.8	40	40 (n=87)
Other Owner (N=3)	42.0	40	none
Other Salaried (N=7)	41.1	40	40 (n=4)
Totals (N=1,097)	48.0	46	40 (n=204)

89 nonrespondents

this study, however, since they included all "professional activity" such as travel, meetings and conventions, and practice-connected paper work.

Age and Hours

Pharmacists' hours per week were compared to their age categories. Twenty percent of the pharmacists over 60 years old reportedly practiced less than 30 hours a week (Table 67). A larger proportion (47%) of pharmacists less than 30 years old practiced only 40 to 44 hours per week than did pharmacists in other age categories.

Middle-aged pharmacists generally practice the most hours per week. For example, the age group which has the largest percent of its members practicing 45 to 49 hours is the 30 to 45 year old group. This same age group has the largest percent in the 50 to 54 hours category. However, the age group 46 to 60 has a higher percent of its members represented in both the 55 to 59 and in the 60 and over hours per week categories. The comparatively high proportion (30%) of pharmacists in this age group who practice 55 or more hours a week likely is due to a higher incidence of ownership among these respondents.

Population and Hours

Pharmacists' hours also were categorized by the size of the town or city in which they practiced. There is a noticeable tendency for pharmacists to practice fewer hours

Table 67

HOURS PER WEEK AND PHARMACISTS' AGE

	0 - 29		30 - 34		35 - 39		40 - 44	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Less than 30	20	7%	1	0	7	2%	134	47%
30 - 45	30	6	3	1%	7	1	144	28
46 - 60	7	3	6	3	2	1	74	33
Over 60	27	20	8	6	6	4	44	32
Totals	84	7%	18	2%	22	2%	396	34%

28 nonrespondents

45 - 49		50 - 54		55 - 60		60 and over	
No.	Percent	No.	Percent	No.	Percent	No.	Percent
60	21%	37	13%	12	4%	15	5%
110	22	103	20	38	7	73	14
38	17	32	14	25	11	42	19
17	12	12	9	5	4	19	14
225	19%	184	16%	80	7%	149	13%

as the size of the community increases (Table 68). For example, about 58 percent of the pharmacists who practice in towns of less than 5,000 population reported they practice 50 or more hours a week. For communities of 5,000 to 10,000 population, only 39 percent of the pharmacists reported practicing 50 or more hours per week; 10,001 to 25,000 population - 35 percent; 25,001 to 50,000 population - 29 percent; 50,001 to 100,000 population - 27 percent; and over 100,000 population - 29 percent.

The modal range of hours for pharmacists practicing in towns of less than 5,000 population was 60 or more hours per week, while the modal range for all other population categories was 40 to 44 hours. The higher incidence of long hours in smaller communities likely is associated with ownership.

Pharmacists' Evening Hours

Pharmacists were asked the average number of hours they practice each week after 6:00 p.m. Independent and chain salaried pharmacists practice a modal range of eight to eleven evening hours a week (Table 69). All other categories of salaried pharmacists had modes of zero evening hours per week.

Chain owner pharmacists were most likely to practice eight to eleven evening hours a week. For other categories of owner pharmacists except independents, the modes were zero evening hours per week. Independent owner pharmacists

Table 68

HOURS PER WEEK AND POPULATION

	0 - 29		30 - 34		35 - 39		40 - 44	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Less than 5,000	11	5%	4	2%	9	4%	31	15%
5,000- 10,000	9	7	1	1	4	3	38	31
10,001- 25,000	7	6	1	1	2	2	48	40
25,001- 50,000	11	6	4	2	2	1	68	38
50,001-100,000	18	11	4	2	2	1	66	39
Over 100,000	27	7	4	1	3	1	144	39
Totals	83	7%	18	2%	22	2%	395	34%

25 nonrespondents

45 - 49		50 - 54		55 - 60		60 and over	
No.	Percent	No.	Percent	No.	Percent	No.	Percent
31	15%	36	17%	33	16%	52	25%
23	19	24	20	2	2	21	17
21	18	19	16	7	6	15	13
40	23	27	15	10	6	15	8
34	20	20	12	10	6	16	9
78	21	59	16	19	5	31	8
227	20%	185	16%	81	7%	150	13%

Table 69

EVENING HOURS PER WEEK AND STATUS

	0		1 - 3		4 - 7		8 - 11		12 - 15		16 - 19		20 and over	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried														
Independent	15	6%	31	13%	58	24%	88	36%	41	17%	7	3%	3	1%
Chain	4	3	7	5	23	16	62	44	32	23	4	3	10	7
Clinic	39	53	14	19	11	15	7	9	3	4	0	0	0	0
Hospital	69	40	35	20	28	16	14	8	13	8	7	4	5	3
Other	7	100	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(134)	(21%)	(87)	(14%)	(120)	(19%)	(171)	(27%)	(89)	(14%)	(18)	(3%)	(18)	(3%)
Owner														
Independent	38	10%	83	21%	90	23%	102	26%	59	15%	14	4%	14	4%
Chain	0	0	1	11	2	22	6	67	0	0	0	0	0	0
Clinic	23	43	13	24	9	17	6	11	2	4	1	2	0	0
Other	3	102	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(64)	(14%)	(97)	(21%)	(101)	(22%)	(114)	(24%)	(61)	(13%)	(15)	(3%)	(14)	(3%)
Totals	198	18%	184	17%	221	20%	285	26%	150	14%	33	3%	32	3%

83 nonrespondents

also had a modal range of eight to eleven hours. Only about twenty percent of all respondents reported they practiced twelve or more evening hours a week. Based on the total response to this question, only eighteen percent (198/1103) of all pharmacists do not have any evening hours.

Pharmacists' Sunday Hours

Pharmacists were asked to report the average number of hours they practiced on Sundays each month. The most frequent response for all groups except for salaried independent and salaried and owner chain pharmacists was zero hours (Table 70). The most frequent classification for salaried independent pharmacists was eight to eleven Sunday hours a month. The most frequent responses from the chain salaried pharmacists place them in the sixteen to nineteen hour category. About three out of five (60%) salaried chain pharmacists practice twelve or more Sunday hours a month. Only about 30 percent (335/1105) of all respondents who answered this query do not have any Sunday hours.

Emergency Service

Pharmacists were asked if 24-hour emergency service was offered at the pharmacy in which they practiced. Chain pharmacies were the least likely group to provide this service, but for all types of pharmacies, about 71 percent

Table 70

SUNDAY HOURS PER MONTH AND STATUS

	0		1 - 3		4 - 7		8 - 11		12 - 15		16 - 19		20 and over	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Salaried														
Independent	42	17%	11	5%	35	14%	58	24%	34	14%	32	13%	32	13%
Chain	33	23	5	4	8	6	11	8	14	10	46	32	25	18
Clinic	51	69	8	11	9	12	2	3	2	3	2	3	0	0
Hospital	51	30	11	6	9	5	29	17	16	9	33	19	21	12
Other	7	100	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(184)	(29%)	(35)	(5%)	(61)	(10%)	(100)	(16%)	(66)	(10%)	(113)	(18%)	(79)	(12%)
Owner														
Independent	102	25%	17	4%	61	15%	75	19%	51	13%	48	12%	47	12%
Chain	2	22	1	11	0	0	1	11	2	22	3	33	0	0
Clinic	44	81	2	4	3	6	3	6	1	2	0	0	1	2
Other	3	100	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(151)	(32%)	(20)	(4%)	(64)	(14%)	(79)	(17%)	(54)	(12%)	(51)	(11%)	(48)	(10%)
Totals	335	30%	55	5%	125	11%	179	16%	120	11%	164	15%	127	11%

81 nonrespondents

ostensibly provided 24-hour emergency service (Table 71). This figure likely is higher now than it was in mid-1970. Recently the Department of Health and Social Services announced an increase of twenty cents in the fee for dispensing prescriptions under Wisconsin's Medicaid program if pharmacists meet five criteria, one of which is the provision of 24-hour emergency service.[38]

Pharmacists also were asked if all pharmacists employed at the pharmacy shared in providing this emergency service. Of those pharmacists who reported the service was provided, 60 percent reported the service was shared by all pharmacists. However, since an affirmative response is automatic for a pharmacy staffed by a single pharmacist, this analysis does not tell us how well the service is shared at multi-pharmacist outlets in which an owner-salaried pharmacist relationship exists.

The pharmacists who reported 24-hour emergency service was available from the pharmacy where they practiced were asked if extra compensation was given to the pharmacist for providing the service, and also if they believed it was necessary to provide or receive additional compensation therefore. A majority (88%) of the pharmacists reported

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38. "Application for Patient Service Groups Classification for Pharmacy," Wisconsin State Department of Health and Social Services, and the Department Memorandum dated May 1, 1971.

Table 71

24-HOUR EMERGENCY SERVICE

	Service Offered				All Pharmacists Provide			
	Yes		No		Yes		No	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Independent	531	79%	145	21%	308	58%	220	42%
Chain	47	30	108	70	31	63	18	37
Clinic	84	63	50	37	63	76	20	24
Hospital	151	83	32	17	81	54	68	46
Other	8	89	1	11	7	88	1	12
Totals	821	71%	335	29%	490	60%	327	40%

30 nonrespondents

335 negatives plus four additional nonrespondents

extra compensation was not given for providing 24-hour emergency service (Table 72).

Salaried pharmacists were about evenly divided on the necessity--desirability may have been a better term here--of receiving extra compensation for providing emergency service. However, a clear majority of sole owners as well as partners and corporate shareholders did not believe such additional compensation to be necessary. This divergence of opinion signals another area of potential misunderstanding and ill will that may be avoided or at least minimized by a clear description of the responsibilities of a position at the time of employment.

Performance Evaluation

Pharmacists were asked, "Is there a periodic evaluation of salaried pharmacist's performance?" and provided with possible "Yes," "No," and "If Yes, how frequent?" responses. The affirmative replies were classified as daily, quarterly, semi-annual, annual, indefinite, and "do not know." The majority of all salaried respondents except hospital pharmacists reported there was no periodic evaluation (Table 73). Seventy-nine percent of the hospital pharmacists reported a periodic evaluation was made, and 51 percent of all hospital pharmacists reported an evaluation was conducted on an annual basis.

Table 72

COMPENSATION FOR 24-HOUR EMERGENCY SERVICE

	Extra Compensation Provided				Extra Compensation Necessary			
	Yes		No		Yes		No	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried								
Manager	27	20%	108	80%	63	47%	70	53%
Assistant Manager	11	16	59	84	34	51	33	49
Staff	37	20	151	80	86	45	104	55
Part-time	4	9	40	91	21	46	25	54
Subtotals	(79)	(18%)	(358)	(82%)	(204)	(47%)	(232)	(53%)
Sole Owner	16	9%	164	91%	47	26%	135	74%
Partner or share holder	5	3	179	97	35	19	145	81
Subtotals	(21)	(6%)	(343)	(94%)	(82)	(23%)	(280)	(77%)
Totals	100	12%	701	88%	286	36%	512	64%

335 negatives plus
50 nonrespondents

335 negatives plus
53 nonrespondents

Table 73

PERIODIC EVALUATION OF SALARIED PHARMACISTS' PERFORMANCE

	No		Yes (not qualified)		Yes (daily)		Yes (quarterly)		Yes (semi-annual)		Yes (annual)		Yes (indefinite)		Yes (do not know)	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried																
Independent	207	80%	3	1%	8	3%	5	2%	4	2%	19	7%	8	3%	4	2%
Chain	74	55	10	7	3	2	11	8	16	12	9	7	2	1	10	7
Clinic	57	79	2	3	1	1	2	3	2	3	3	4	4	6	1	1
Hospital	36	21	7	4	3	2	4	2	29	17	87	51	2	1	2	1
Other	6	86	1	14	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(380)	(59%)	(23)	(4%)	(15)	(2%)	(22)	(3%)	(51)	(8%)	(118)	(18%)	(16)	(2%)	(17)	(3%)
Owner																
Independent	166	59%	19	7%	23	8%	11	4%	12	4%	34	12%	11	4%	4	1%
Chain	6	67	0	0	0	0	0	0	1	11	1	11	0	0	1	11
Clinic	15	42	0	0	2	6	2	6	3	8	12	33	2	6	0	0
Other	2	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotals	(189)	(58%)	(19)	(6%)	(25)	(8%)	(13)	(4%)	(16)	(5%)	(47)	(14%)	(13)	(4%)	(5)	(2%)
Totals	569	59%	42	4%	40	4%	35	4%	67	7%	165	17%	29	3%	22	2%

215 nonrespondents

The majority of all owner pharmacists except clinic pharmacy owners reported they did not conduct an evaluation of salaried pharmacists' performance. Both the high nonresponse to this question and the indication that only about two out of five owners (42%) periodically evaluate salaried pharmacists' performance suggest greater utilization of this management technique would improve both pharmacists' performance and satisfaction with their positions in pharmacy. Parenthetically, it should be noted the "daily," "indefinite," and "do not know" affirmative replies do not suggest the type of formal evaluation which is most likely to minimize misunderstandings, to improve performance, and to foster greater satisfaction with one's position.

Undisturbed Meal Periods

Pharmacists were asked, "Do all pharmacists have an undisturbed meal period?" Possible responses were "Yes," "No," and "Other," with an opportunity for respondents to qualify their answers. The replies were fairly evenly divided with a slightly higher percentage of salaried pharmacists (50%) than owner pharmacists (48%) responding affirmatively (Table 74). It appears chain pharmacists in both the owner and salaried pharmacist categories have less of an opportunity for an undisturbed meal period with about two-thirds of both groups responding negatively.

Table 74

UNDISTURBED MEAL PERIOD

	Yes		No		Other	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	124	44%	147	52%	11	4%
Chain	48	33	93	65	3	2
Clinic	48	60	30	38	2	3
Hospital	124	67	52	28	8	4
Other	5	83	1	17	0	0
Subtotals	(349)	(50%)	(323)	(46%)	(24)	(3%)
Owner						
Independent	178	49%	179	49%	10	3%
Chain	2	22	6	67	1	11
Clinic	25	50	25	50	0	0
Other	1	50	1	50	0	0
Subtotals	(206)	(48%)	(211)	(49%)	(11)	(3%)
Totals	555	49%	534	48%	35	3%

62 nonrespondents

Typical comments associated with the "Other" category were: "Usually, however if only pharmacist on duty, it is not uncommon to be called away from lunch"; "One-man operation - you never know"; "Ocasionally disturbed by emergencies"; "With the exception of one day a week"; and, "On call if needed."

Termination Agreements

About 47 percent of hospital pharmacists but only fifteen percent of all respondents replied affirmatively to the question, "Is there an agreement between the employer and salaried pharmacist regarding termination of employment?" (Table 75). About eighteen percent (120/658) of salaried pharmacists responded "Yes" compared to only about ten percent (32/331) of the owners. Since the question did not ask about a written agreement, it is possible more salaried pharmacists than owners believe such agreements exist. It also may mean one group of respondents is less representative of its class of practicing pharmacists in Wisconsin than the other, or that there are real differences among salaried and owner pharmacists as to what a "termination of employment" agreement is.

Pharmacists' Satisfaction

Twenty years prior to this study, Schwebel obtained both the specific position and the overall occupational

Table 75

TERMINATION OF EMPLOYMENT AGREEMENT

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	15	6%	253	94%
Chain	17	12	120	88
Clinic	9	12	68	88
Hospital	79	47	90	53
Other	0	0	7	100
Subtotals	(120)	(18%)	(538)	(82%)
Owner				
Independent	22	8%	261	92%
Chain	1	11	8	89
Clinic	8	22	29	78
Other	1	50	1	50
Subtotals	(32)	(10%)	(299)	(90%)
Totals	152	15%	837	85%

197 nonrespondents

satisfaction of a sample of 450 practicing pharmacists in New York State.[39] Fifteen years ago Hammel reported comparable data from a sample of 333 pharmacy graduates of the University of Wisconsin for the years 1951 through 1955.[40] Both researchers used satisfaction scales which were adapted from Hoppock's Job Satisfaction Blank No. 1.[41] For comparability, similar scales were used in this study.

Pharmacists were asked to check one statement which best indicated how they rated their present position in pharmacy. These statements and the frequency with which they were checked are:

	f	No.	
I dislike it	32	1	
On the whole I don't like it	47	2	
I am indifferent to it	31	3	
I like it a little	24	4	
I like it fairly well	97	5	
On the whole I like it	239	6	
I like it a good deal	98	7	$\bar{x} = 6.75$
I like it very much	274	8	
I am enthusiastic about it	252	9	

There were ninty-two nonrespondents to this question. Assigning the number "1" to the most unfavorable statement

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39. Milton Schwebel, The Interests of Pharmacists, King's Crown Press, Columbia University, N.Y.C., 1951.

40. R. W. Hammel, "Employment History of University of Wisconsin Pharmacy Graduates: 1951-1955," Unpublished M.B.A. paper, University of Wisconsin, Madison, Wisconsin, 1956.

41. R. Hoppock, Job Satisfaction, Harper and Brothers, New York, 1935.

("I dislike it") and progressively higher consecutive numbers up to "9" for the most favorable statement ("I am enthusiastic about it") produced a weighted mean or average of 6.75 for the 1,094 pharmacists who rated their present position in pharmacy.

Pharmacists also were asked to check one statement which best indicated how they felt about changing their occupation. The statements and the frequency with which they were checked are:

	f	No.	
I would quit pharmacy at once if I could get anything else to do	14	1	
I would take almost any other field in which I could earn as much as I am earning now	41	2	
I would like to leave the field of pharmacy altogether	19	3	
I would like to remain a pharmacist and change my line of work in pharmacy	65	4	
I would like to change my present job for another job in pharmacy in the same line of work	49	5	
I am not eager to give up pharmacy but I would do so if I could get into a better field	311	6	$\bar{x} = 6.36$
I cannot think of any field of work for which I would give up pharmacy	336	7	
I would not exchange pharmacy for any other field	270	8	

There were 80 nonrespondents to this question. Assigning the number "1" to the most unfavorable statement and progressively higher consecutive numbers up to "8" for

the most favorable statement produced a weighted mean or average of 6.36 for the 1,106 pharmacist respondents.

The average ratings for different subgroups of pharmacists were compared to determine the extent of difference, if any, between them. The T-test was used in order to compare these findings with results previously reported by Schwebel and Hammel.[42]

Quantification of the self-rated satisfaction scale on how pharmacists rated their present position in pharmacy is referred to hereinafter as "position satisfaction" while average ratings for the scale on pharmacy as an occupation are referred to as "occupation satisfaction." The sample size "n" or "N" varies in these analyses due to partial nonresponse.

The self-rated satisfaction means of pharmacists responding to the Iowa study were compared to the self-rated means of pharmacists in the Wisconsin survey. One would hypothesize there would be no difference between the self-rated satisfaction means of practicing pharmacists in these two contiguous states.

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42. For an example of the application of the T-test, please see Appendix F. One asterisk denotes a T-value which is significant at the 95 percent level and two asterisks denote a T-value which is significant at the 99 percent level.

Position Satisfaction

Iowa Pharmacists	Wisconsin Pharmacists
(N=301)	(N=1094)
7.00	6.75

T = 1.85

Occupation Satisfaction

Iowa Pharmacists	Wisconsin Pharmacists
(N=292)	(N=1106)
6.48	6.36

T = 1.18

While in both cases pharmacists practicing in Iowa had higher self-rated satisfaction means than did pharmacists practicing in Wisconsin, neither difference was significant.

Satisfaction and Ownership

Pharmacists in the Wisconsin survey who were classified as "sole owner" or as "partner or shareholder" were combined into an owner category. Other respondents were classified together as nonowners to compare the relative satisfaction of these two subgroups. Part-time pharmacists' ratings were deleted for this comparison.

Position Satisfaction

Owners (n=414)	Nonowners (n=610)	Total Mean (N=1094)
7.18	6.43	6.75

T = 5.61**

Occupation Satisfaction

Owners (n=425)	Nonowners (n=609)	Total Mean (N=1106)
6.57	6.15	6.36

T = 4.20**

The owners rated themselves more satisfied than did nonowners in both their present position and in pharmacy as an occupation. In both ratings, the differences were significant. Schwebel reported no significant difference between his subgroups of owners and nonowners, but Hammel found significant differences between them similar to those reported here.[43]

Chain vs Nonchain Pharmacists

A recent article reported "...better than eight pharmacists in ten are happy to be with a drug chain."[44]

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43. Schwebel, op. cit., p. 18, and Hammel, op. cit., p. 72.

44. "What 1,000 Chain Pharmacists Think," Chain Store Age, Drug Store Edition (47:3) March 1971, p. 26.

This statement is based on an 83 percent positive response from a national sample of "over 1,000" chain pharmacists to the query, "Do you <u>like</u> working for a chain?" The position and occupation satisfaction of chain pharmacist respondents to this survey were compared to those of all nonchain pharmacists.

Position Satisfaction

Chain Pharmacists (n=146)	Nonchain Pharmacists (n=943)	Total Mean (N=1094)
6.03	6.89	6.75

T = 4.87**

Occupation Satisfaction

Chain Pharmacists (n=154)	Nonchain Pharmacists (n=947)	Total Mean (N=1106)
6.02	6.42	6.36

T = 2.91**

In both analyses, chain pharmacists scored below the satisfaction means while nonchain pharmacists scored above. Furthermore, both differences are significant, and the greatest difference is between the subgroups' evaluations of their present positions in pharmacy.

One partial explanation for chain pharmacists' lower satisfaction is that few individuals in this category are

owners, while a higher proportion of nonchain pharmacists are so classified. To determine the influence of this variable, the satisfaction means of just full-time salaried pharmacists in both chain and nonchain groups were compared.

Position Satisfaction

Salaried Chain (n=134)	Salaried Nonchain (n=476)	Total Mean (N=1094)
5.77	6.62	6.75

T = 4.13**

Occupation Satisfaction

Salaried Chain (n=141)	Salaried Nonchain (n=468)	Total Mean (N=1106)
6.06	6.18	6.36

T = 0.75

While both subgroups are below the total respondent means and part of the difference in average ratings may be explained by absence of ownership, chain pharmacists still are less satisfied with both their position in pharmacy and with pharmacy as an occupation than are nonchain pharmacists. The satisfaction differential again is greatest in the position category, and the difference in occupation satisfaction is not significant.

The subgroups of salaried chain and salaried nonchain pharmacists were further refined by excluding therefrom hospital pharmacists' ratings as well as those of owners and part-time practitioners.

Position Satisfaction

Salaried Chain	Salaried Nonchain	Total Mean
(n=134)	(n=302)	(N=1094)
5.77	6.51	6.75

T = 3.39**

Occupation Satisfaction

Salaried Chain	Salaried Nonchain	Total Mean
(n=141)	(n=304)	(N=1106)
6.06	6.19	6.36

T = 0.78

In this analysis, salaried chain pharmacists again are less satisfied than are their nonchain colleagues, and the satisfaction differential is significant only for respondents' present positions.

Schwebel did not have a chain pharmacist category in his study, but he reported a significantly higher percent of dissatisfied pharmacists were engaged in community practice.[45]

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45. Schwebel, op. cit., p. 21.

Hammel also found a higher proportion of dissatisfied pharmacists among the community practitioner group, but the difference was not significant.[46]

Satisfaction and Community Size

One may hypothesize that pharmacists practicing in smaller communities are more satisfied than are their more urban colleagues. Pharmacists practicing in towns and small cities are likely to have closer relationships both with prescribers and with patients in their communities. They meet other health professionals as well as their patrons not only professionally, but also at church and school activities, and at civic, fraternal, and social functions. Also they have more opportunity to be civic leaders due to the smaller number of college-educated professionals in their communities.

To test the above hypothesis, the self-rated satisfaction means of pharmacists practicing in communities with less than 10,000 population were compared to those of pharmacists practicing in cities of 10,000 and greater population.

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46. Hammel, op. cit., p. 73.

Position Satisfaction

Less than 10,000	10,000 and Over	Total Mean
(n=305)	(n=785)	(N=1094)
7.08	6.62	6.75

T = 3.25**

Occupation Satisfaction

Less than 10,000	10,000 and Over	Total Mean
(n=304)	(n=798)	(N=1106)
6.59	6.29	6.36

T = 2.82**

On both scales, pharmacists practicing in the smaller communities scored above the total sample mean while the more urban pharmacists scored below. The difference on both scales was significant, with pharmacists from smaller communities reporting the greatest satisfaction. Hammel also found pharmacists practicing in communities of less than 10,000 population were more satisfied. However, in his study the difference was not significant, possibly because of the smaller number of respondents in his survey.[47]

In a similar test, pharmacists practicing in communities with less than 5,000 population were compared

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47. Hammel, op. cit., p. 74.

to those of pharmacists practicing in cities of 5,000 and greater.

Position Satisfaction

Less than 5,000 (n=188)	5,000 and Over (n=902)	Total Mean (N=1094)
7.03	6.69	6.75

T = 2.02*

Occupation Satisfaction

Less than 5,000 (n=194)	5,000 and Over (n=908)	Total Mean (N=1106)
6.54	6.33	6.36

T = 1.71

Pharmacists from smaller communities in both cases reported the greatest satisfaction, however, only the position satisfaction question difference was significant (95 percent confidence level).

Satisfaction and Age

Hoppock reported a general tendency for job satisfaction to rise with increased age.[48] This concept was tested by comparing the self-rated satisfaction scores of

48. R. Hoppock, "Age and Job Satisfaction," Psychological Monographs (47:2) 1936, pp. 115-118.

pharmacists less than 30 years of age with those of pharmacists 30 years of age and older.

Position Satisfaction

Less than 30 Years (n=276)	30 Years and Over (n=801)	Total Mean (N=1094)
6.36	6.88	6.75

T = 3.55**

Occupation Satisfaction

Less than 30 Years (n=273)	30 Years and Over (n=827)	Total Mean (N=1106)
5.98	6.49	6.36

T = 4.66**

On both scales pharmacists aged 30 and over were significantly more satisfied than were their younger colleagues. The difference in degree of satisfaction was greater for pharmacy as an occupation than for respondent's present position in pharmacy. While Schwebel found no significant differences in satisfaction levels on the basis of age category, his findings are not directly comparable since he eliminated both pharmacists over 60 years of age and those with less than three years' experience from his sample.[49]

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49. Schwebel, op. cit., p. 14.

It is possible younger pharmacists as a group are less satisfied due to idealism and restlessness when changes in the profession do not occur as rapidly as they would like. It also is possible the younger pharmacists have not adjusted completely to the transition from their recent academic role to that of full-time practitioners. Further, there are few pharmacy owners less than 30 years old, and, as was noted previously, pharmacy owners are significantly more satisfied than are nonowners. Finally, older pharmacists are more likely to have had a number of different positions in pharmacy and, by the process of self-selection, now are practicing in an environment which they find to be personally and professionally compatible.

Satisfaction and Sex

The increased number of female pharmacists and of female pharmacy students suggested the advisability of comparing the self-rated satisfactions of male and female practitioners.[50]

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50. For example, please see: "Employee Pharmacists Were 57% of Licensees Practicing Retail Pharmacy," Weekly Pharmacy Reports (20:5) February 1, 1971 (p. 2) and "Employee-to-Owner Ratio Grows," American Druggist (163:3) February 8, 1971, p. 41.

Position Satisfaction

Female	Male	Total Mean
(n=99)	(n=914)	(N=1094)
6.90	6.70	6.75

T = 0.85

Occupation Satisfaction

Female	Male	Total Mean
(n=104)	(n=916)	(N=1106)
6.58	6.32	6.36

T = 1.59

While male pharmacists scored below both total sample means and female respondents scored above, the differences are not significant, due in part to the comparatively small size of the sample of female pharmacists. Hammel also found increased satisfaction among female pharmacists, but again the difference was not significant.[51]

Satisfaction and Years of Practice

The average satisfaction of pharmacists who had practiced less than five years was compared to that of pharmacists who had practiced for five years or more.

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51. Hammel, op. cit., p. 68.

Position Satisfaction

Less than 5 Years	5 Years and More	Total Mean
(n=248)	(n=843)	(N=1094)
6.26	6.88	6.75

T = 4.09**

Occupation Satisfaction

Less than 5 Years	5 Years and More	Total Mean
(n=245)	(n=859)	(N=1106)
5.95	6.48	6.36

T = 4.67**

As would be expected for the analysis of the self-rated satisfaction of pharmacists under age 30 against that of pharmacists aged 30 and over, pharmacists with five or more years practice were significantly more satisfied both with their present positions and with pharmacy as an occupation than were their colleagues with less experience. The possible reasons for the differences likely are similar to those previously suggested for subgroups of pharmacists classified by age. The findings reported herein differ from Schwebel's, however, who reported no significant differences in satisfaction among pharmacists with different years of experience.[52] The different findings likely are due in part both to Schwebel's smaller sample and to his

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52. Schwebel, op. cit., p. 18.

exclusion of the youngest and of the oldest groups of pharmacists in his study.

Satisfaction and Professional Functions

Pharmacists were asked, "What percent of your time while on duty is spent dispensing prescriptions, discussing prescription and O-T-C medications with patients, and other professional functions?" The satisfaction of pharmacists who reported they spend less than 25 percent of their time performing the abovementioned functions was compared with that of pharmacists who reportedly spend 25 percent or more of their time on such functions.

Position Satisfaction

Less than 25 Percent	25 Percent or More	Total Mean
(n=54)	(n=1025)	(N=1094)
6.37	6.76	6.75

T = 1.76

Occupation Satisfaction

Less than 25 Percent	25 Percent or More	Total Mean
(n=54)	(n=1037)	(N=1106)
5.74	6.38	6.36

T = 2.90**

The group of pharmacists who reported they spend 25 percent or more of their on duty time performing different professional functions rated themselves more satisfied in both their present position and with pharmacy as an occupation than did the other subgroup of respondents. The difference was significant, however, only for occupational satisfaction. The T-test may have been significant for both types of satisfaction were it not for the small size (n=54) of the subgroup of pharmacists reporting less than 25 percent of their time spent on professional functions.

Schwebel divided his sample of pharmacists into groups spending "0 to 25 percent" and from "26 to 100 percent" of their time on professional activities. He reported a significant difference between the two groups with the latter group being the most satisfied.[53] Hammel tested the satisfaction level of pharmacists who spent 25 percent or less of their time on professional activities against that of pharmacists who spent more than 75 percent of their time on such functions. The latter group was the most satisfied, but the difference was not significant.[54]

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53. Schwebel, op. cit., p. 22.

54. Hammel, op. cit.

Satisfaction and Voice in Determining Operating Policies and Procedures

Salaried pharmacists were divided into two categories, those who reported they had a voice in determining the operating policies and procedures in the pharmacy where they practice and those who reported they did not have a voice in such matters. The relative satisfaction of these two subgroups was compared.

Position Satisfaction

Those who had a voice in operating policies and procedures	Those who did not have a voice	Total Mean
(n=341)	(n=138)	(N=1094)
6.98	5.34	6.75

T = 6.69**

Occupation Satisfaction

Those who had a voice in operating policies and procedures	Those who did not have a voice	Total Mean
(n=336)	(n=137)	(N=1106)
6.39	5.87	6.36

T = 3.08**

The group which reported they had a voice in determining operating policies and procedures rated themselves significantly more satisfied than did the group which reported they lacked such a voice.

Satisfaction and Opportunity to Attend Professional Meetings

Salaried pharmacists again were divided into two categories, those who reported they had a real opportunity to attend professional conventions, seminars, and meetings and those who reported they lacked such an opportunity. The relative satisfaction of these two subgroups was compared.

Position Satisfaction

Those who had an opportunity to attend meetings (n=381)	Those who had no opportunity to attend meetings (n=262)	Total Mean (N=1094)
6.97	6.35	6.75

T = 4.03**

Occupation Satisfaction

Those who had an opportunity to attend meetings (n=373)	Those who had no opportunity to attend meetings (n=250)	Total Mean (N=1106)
6.38	5.87	6.36

T = 2.73**

The group which reported they had a real opportunity to attend such functions rated themselves significantly more satisfied than did the group which reported they lacked the opportunity to attend such functions. Just how "real" the opportunity or lack thereof to attend professional functions is, in each instance, a matter of conjecture. Respondents' beliefs therein, do, nonetheless, seem to influence their self-rated satisfaction both with pharmacy and with their current positions.

Satisfaction and Hours Practiced Per Week

Pharmacists classified as "sole owner" or as "partner or shareholder" were combined into one category. This category was divided into two subgroups, those practicing less than 55 hours per week and those practicing 55 or more hours per week. The relative satisfaction of these subgroups was compared.

Position Satisfaction

"Owners" practicing less than 55 hours per week (n=246)	"Owners" practicing 55 or more hours per week (n=160)	Total Mean (N=1094)
7.13	7.27	6.75

T = 0.67

Occupation Satisfaction

"Owners" practicing less than 55 hours per week (n=250)	"Owners" practicing 55 or more hours per week (n=167)	Total Mean (N=1106)
6.60	6.53	6.36

T = 0.33

The group which practices 55 or more hours per week rated themselves more satisfied in their present position in pharmacy than did the group which practices less than 55 hours per week. The ratings were reversed for the occupation satisfaction question, however, and the differences for neither rating were significant.

Pharmacists classified as manager (chief pharmacist), assistant manager (assistant chief pharmacist), and staff pharmacist were combined into a salaried pharmacist category. Part-time pharmacists' ratings were deleted for this comparison. This salaried pharmacist category was divided into two subgroups, those practicing less

than 45 hours per week and those practicing 45 or more hours per week. The relative satisfaction of these subgroups was compared.

Position Satisfaction

"Nonowners" practicing less than 45 hours per week	"Nonowners" practicing 45 or more hours per week	Total Mean
(n=360)	(n=246)	(N=1094)
6.42	6.45	6.75

T = 0.17

Occupation Satisfaction

"Nonowners" practicing less than 45 hours per week	"Nonowners" practicing 45 or more hours per week	Total Mean
(n=366)	(n=239)	(N=1106)
6.20	6.05	6.36

T = 1.81

Salaried pharmacists who practice 45 or more hours per week rated their present position higher than those who practiced less than 45 hours per week. However, the salaried pharmacist groups, as did the owner groups, reversed their ratings for the occupation satisfaction question. The differences for both ratings were not significant.

Satisfaction and Evening Hours Practiced Per Week

Salaried pharmacists were divided into two categories, those who practice zero evening hours per week and those who practice one or more evening hours per week. The relative satisfaction of these subgroups was compared. Part-time pharmacists' ratings were omitted for this comparison.

Position Satisfaction

0 Evening hours per week (n=129)	1 or more evening hour(s) per week (n=479)	Total Mean (N=1094)
6.86	6.32	6.75

T = 2.58**

Occupation Satisfaction

0 Evening hours per week (n=128)	1 or more evening hour(s) per week (n=479)	Total Mean (N=1106)
6.15	6.15	6.36

T = 0

Salaried pharmacists not practicing any evening hours per week rated their position significantly higher than did those who practice one or more evening hour(s) per week. However, the subgroups had identical occupation ratings.

Satisfaction and Sunday Hours Practiced Per Month

Salaried pharmacists were divided into two categories, those who practice zero Sunday hours per month and those who practice one or more Sunday hour(s) per month, and the relative satisfaction of these subgroups was compared. Again, part-time pharmacists' ratings were deleted for this comparison.

Position Satisfaction

0 Sunday hours per month (n=173) 6.79	1 or More Sunday hour(s) per month (n=436) 6.28	Total Mean (N=1094) 6.75

T = 2.70**

Occupation Satisfaction

0 Sunday hours per month (n=177) 6.40	1 or More Sunday hour(s) per month (n=431) 6.04	Total Mean (N=1106) 6.36

T = 2.43*

Salaried pharmacists who do not practice on Sunday rated themselves more satisfied than did those who practice on Sunday in both their present position and in pharmacy as a profession. In both ratings, the differences

were significant with the occupation satisfaction rating significant only at the 95 percent level.

Satisfaction and Pharmacists' Meal Period

Pharmacists were asked, "Do all pharmacists have an undisturbed meal period?" Possible responses were "Yes," "No," and "Other," with an opportunity for respondents to qualify their answers. The satisfaction means of those pharmacists who reported they did not have undisturbed meal periods were compared to the satisfaction means of those pharmacists who reported they did have undisturbed meal periods. All pharmacists except those who qualified their responses were included in this analysis.

Position Satisfaction

No undisturbed meal periods (n=499)	Undisturbed meal periods (n=528)	Total Mean (N=1094)
6.50	6.95	6.75

T = 3.49**

Occupation Satisfaction

No undisturbed meal periods (n=505)	Undisturbed meal periods (n=522)	Total Mean (N=1106)
6.16	6.50	6.36

T = 3.48**

On both scales, pharmacists who reportedly had undisturbed meal periods scored above the total sample mean while the pharmacists who did not have undisturbed meal periods scored below. The difference in means for both scales was significant.

The satisfaction means of only salaried pharmacists who had undisturbed meal periods were compared to those of salaried pharmacists who did not have undisturbed meal periods. Part-time pharmacists' ratings were omitted for this comparison.

Position Satisfaction

No undisturbed meal periods (n=276)	Undisturbed meal periods (n=303)	Total Mean (N=1094)
6.16	6.65	6.75

T = 2.77**

Occupation Satisfaction

No undisturbed meal periods (n=279)	Undisturbed meal periods (n=298)	Total Mean (N=1106)
5.98	6.27	6.36

T = 2.12*

While both subgroups are below the total respondent means and part of the difference in average satisfaction ratings may be explained by absence of ownership, salaried

pharmacists who do not have undisturbed meal periods are significantly less satisfied than those salaried pharmacists who do have undisturbed meal periods. However, the difference in means for the occupation satisfaction question is significant only at the 95 percent level.

Satisfaction and Salary

Salaried pharmacists were divided into two categories, those who earn $12,000 or less and those who earn more than $12,000 per year, and the relative satisfaction of these subgroups was compared. Part-time pharmacists' ratings were deleted for this comparison.

Position Satisfaction

$12,000 and less per year (n=198)	Over $12,000 per year (n=406)	Total Mean (N=1094)
6.17	6.56	6.75

T = 2.12*

Occupation Satisfaction

$12,000 and less per year (n=195)	Over $12,000 per year (n=408)	Total Mean (N=1106)
6.24	6.09	6.36

T = 1.03

While both subgroups are below the total respondent means and once again, part of the difference in average ratings may be explained by absence of ownership, as a group the salaried pharmacists who earn $12,000 or less per year are significantly less satisfied in their current position than salaried pharmacists who earn more than $12,000 per year. This difference was significant only at the 95 percent level. Even though the occupation satisfaction means for both groups are below the total respondent mean, the difference is not significant and the group which earns $12,000 or less has a higher occupation satisfaction mean than does the group which earns over $12,000 per year.

Satisfaction and Description of Duties

Salaried pharmacists again were divided into two categories, those who were not given a description of their respective duties and those who were given either a clear and concise oral or written description of duties. The relative satisfaction of these subgroups was compared. Again, part-time pharmacists' ratings were deleted for this comparison. Also deleted were those of salaried pharmacists who reported they received a description of duties but did not classify the description as well as those of respondents who reported they received an unclear or incomplete description of duties. This was done

because it was believed it would be more meaningful to compare the satisfaction means of the two polar subgroups.

Position Satisfaction

No description received	Clear, concise oral or written description received	Total Mean
(n=191)	(n=316)	(N=1094)
5.88	7.01	6.75

T = 6.04**

Occupation Satisfaction

No description received	Clear, concise oral or written description received	Total Mean
(n=186)	(n=317)	(N=1106)
5.94	6.38	6.36

T = 2.91**

Salaried pharmacists who reported they received a clear, concise oral or written description of duties rated themselves significantly more satisfied than did salaried pharmacists who reported they received no description of duties. The large T-value (6.04) may indicate a description of duties is important for the satisfaction of salaried pharmacists, especially satisfaction pertaining to their present position in pharmacy.

All classifiable respondents were divided into two other categories, those who did not provide or receive a description of duties plus those who either provided or received an unclear or incomplete oral or written description thereof, and those who provided or received either a clear, concise oral or written description plus those who did not specify the type of description provided or received. The relative satisfaction of these two subgroups was compared. Analysis of these differences was suggested by the large T-value obtained when the polar classifications for only salaried pharmacists were compared in the previous analysis.

Position Satisfaction

Group A (n=418)	Group B (n=595)	Total Mean (N=1094)
6.10	7.16	6.75

T = 8.35**

Occupation Satisfaction

Group A (n=413)	Group B (n=598)	Total Mean (N=1106)
6.03	6.55	6.36

T = 5.20**

The difference in satisfaction means for both groups was significant with the groups providing or receiving a

clear, concise oral or written or an unqualified description of duties scoring above the total respondent means.

Satisfaction and Group Practice

All classifiable respondents were divided into two other categories, those who practice alone and those who practice with at least one other pharmacist, and the relative satisfaction of these subgroups was compared. These data could possibly be misleading because it is likely most of the nonhospital pharmacists who reported they practiced alone were owners, and it already has been reported that owners were significantly more satisfied than were salaried pharmacists.

Position Satisfaction

Practice alone	Group practice	Total Mean
(n=277)	(n=737)	(N=1094)
6.87	6.67	6.75

T = 1.34

Occupation Satisfaction

Practice alone	Group practice	Total Mean
(n=283)	(n=731)	(N=1106)
6.43	6.27	6.36

T = 1.45

Both subgroups were below the total respondent means and there were no significant differences between the satisfaction means of the subgroups. However, in both cases the group which practiced alone scored higher than the group of pharmacists who reported they practice with at least one other pharmacist.

Satisfaction and Prescriptions

Salaried pharmacists were divided into two categories, those who reported they practice in pharmacies where an average of 100 or less original and renewed prescriptions were dispensed per day and those who practiced in pharmacies where over 100 prescriptions were dispensed per day. The relative satisfaction of these two subgroups was compared. Part-time pharmacists' replies were deleted for this comparison.

Position Satisfaction

100 or less prescriptions per day	over 100 prescriptions per day	Total Mean
(n=296)	(n=304)	(N=1094)
6.26	6.60	6.75

T = 1.99*

Occupation Satisfaction

100 or less prescriptions per day	over 100 prescriptions per day	Total Mean
(n=294)	(n=301)	(N=1106)
6.17	6.12	6.36

T = 0.37

Both subgroups scored below the total respondent means and only the difference in position satisfaction means was significant, and then only at the 95 percent level.

Satisfaction and WPhA Membership

Pharmacists who belong to their respective pharmacy associations may be more interested in the profession and therefore more satisfied with both their present position in pharmacy and with pharmacy as an occupation. To test this hypothesis, self-rated satisfaction means of pharmacists who belong to WPhA were compared to those of pharmacists who do not belong to WPhA.

Position Satisfaction

WPhA members (n=845)	WPhA nonmembers (n=243)	Total Mean (N=1094)
6.87	6.28	6.75

T = 3.88**

Occupation Satisfaction

WPhA members (n=849)	WPhA nonmembers (n=250)	Total Mean (N=1106)
6.44	6.10	6.36

T = 3.01**

On both scales pharmacists who were members of WPhA were significantly more satisfied than were those pharmacists who were not members. Also, in both cases the WPhA members were above the total respondent means while the nonmembers rated themselves below the total respondent means.

In comparing the 57 most satisfied and the 47 least satisfied pharmacy graduates in his study, Hammel found no significant difference between the self-rated satisfaction of members and nonmembers of WPhA. However, he did find a smaller percentage of the dissatisfied group and a higher percentage of the satisfied group belonged to WPhA.[55]

Spouses' Contentment

To evaluate a variable which may be associated with satisfaction in pharmacy, respondents were asked, "If married, is your spouse content with your present job?" Approximately eight out of ten pharmacists (79%) replied affirmatively (Table 76). Aside from chain pharmacists, whether or not a pharmacists' spouse reportedly is content does not seem to be related to the pharmacist's position or status in pharmacy. There were 249 nonrespondents to this question along with nineteen

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55. Hammel, op. cit., p. 72.

Table 76

IS SPOUSE CONTENT WITH YOUR JOB?

	Yes		No	
	No.	Percent	No.	Percent
Salaried				
Independent	180	80%	44	20%
Chain	76	65	41	35
Clinic	52	80	13	20
Hospital	111	83	22	17
Other	5	83	1	17
Subtotals	(424)	(78%)	(121)	(22%)
Owner				
Independent	258	82%	57	18%
Chain	5	71	2	29
Clinic	35	83	7	17
Other	1	100	0	0
Subtotals	(299)	(82%)	(66)	(18%)
Totals	723	79%	187	21%

249 nonrespondents,

19 unmarried,

and eight "do not know"

pharmacists who reported they were unmarried and eight who reported "do not know."

Satisfaction and Spouses' Contentment

It is possible many respondents' reported evaluation of their spouses' contentment is but a reflection of their own satisfaction or lack thereof. To test this hypothesis, the self-rated satisfaction means of pharmacists who reported their spouse was content were compared to the means of those pharmacists who reported their spouse was not content with their present job.

Position Satisfaction

Spouse content (n=721)	Spouse not content (n=186)	Total Mean (N=1094)
7.31	4.88	6.75

T = 16.2**

Occupation Satisfaction

Spouse content (n=687)	Spouse not content (n=181)	Total Mean (N=1106)
6.68	5.23	6.36

T = 12.08**

In both ratings, pharmacists who reported their spouse was content with their present position scored

above the total respondent mean and those pharmacists who reported their spouse was not content scored below the total respondent mean. The differences in both cases were significant.

Attitudes Toward Arbitration by Pharmaceutical Associations

Pharmacists were asked, "Should pharmaceutical associations, when invited, involve themselves in arbitrating a dispute between an owner and a salaried pharmacist?" The possible responses were "Yes," "No," and "Other," with an opportunity for respondents to qualify their replies. The replies are reported on the basis of respondents' owner or salaried pharmacist status and their place of practice (Table 77).

Among the eight qualified replies, three were a qualified "Yes" and five a qualified "No." A majority of salaried pharmacists were not unqualifiedly in favor of such arbitration and they were about equally divided in their evaluation of this concept. However, a majority of owners (55%) registered their disapproval of such arbitration.

During the summer of 1970 a national sample of members of the American Society of Hospital Pharmacists voted about three to one (1883 to 603) to support a proposed "economic status program" which would approve

Table 77

ARBITRATION BY PHARMACEUTICAL ASSOCIATIONS

	Yes		No		Other	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	119	44%	134	50%	15	6%
Chain	78	55	57	40	7	5
Clinic	37	51	30	41	5	7
Hospital	82	47	75	43	18	10
Other	5	83	1	17	0	0
Subtotals	(321)	(48%)	(297)	(45%)	(45)	(7%)
Owner						
Independent	134	37%	200	56%	20	6%
Chain	4	44	4	44	1	12
Clinic	23	46	27	54	0	0
Other	1	50	1	50	0	0
Subtotals	(162)	(39%)	(232)	(55%)	(21)	(5%)
Totals	483	44%	529	49%	66	6%

100 nonrespondents + 8 qualified replies

collective bargaining by ASHP chapters "when economic problems of employment cannot be resolved" through other means.[56] Hospital pharmacists in Wisconsin seem more evenly divided on this issue.

Salaried pharmacists in Iowa are more favorably inclined to such arbitration than are their counterparts in Wisconsin with a clear majority favoring this approach (Table 78). Also a larger proportion of pharmacist owners in Iowa than in Wisconsin (44% vs 39%) reportedly would favor such arbitration.

Respondents' replies to the association arbitration question also were analyzed by status and by membership or lack thereof in the Wisconsin Pharmaceutical Association. Nonmember owners object to the concept in greater proportions than do owners who also are WPhA members (Table 79). The opposite relationship, however, seems true for salaried pharmacists.

Pharmacy Unions

In response to the query, "What is your attitude toward the unionization of pharmacists?," respondents were offered five alternatives ranging from "strongly opposed" to "strongly favorable." Their replies are summarized on the bases of salaried or owner status and by their place of practice (Table 80). The majority of all subgroups of

56. "'99' Unions Formed by RxMen," American Druggist (162:4) August 24, 1970, p. 17.

Table 78

ARBITRATION BY PHARMACEUTICAL ASSOCIATIONS: IOWA STUDY

	Yes		No		Other	
	No.	Percent	No.	Percent	No.	Percent
Salaried						
Independent	33	59%	20	36%	3	5%
Chain	25	64	10	26	4	10
Clinic	15	75	3	15	2	10
Hospital	15	68	5	23	2	9
Other	2	40	1	20	2	40
Subtotals	(90)	(63%)	(39)	(27%)	(13)	(9%)
Owner						
Independent	54	41%	68	52%	10	8%
Chain	0	0	3	100	0	0
Clinic	11	85	2	15	0	0
Other	1	50	1	50	0	0
Subtotals	(66)	(44%)	(74)	(49%)	(10)	(7%)
Totals	156	53%	113	39%	23	8%

19 nonrespondents

Table 79

ARBITRATION BY PHARMACEUTICAL ASSOCIATIONS:
WPhA MEMBERSHIP STATUS

	Yes		No		Other	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Sole Owner						
WPhA member	75	41%	99	54%	9	5%
Nonmember	3	17	13	72	2	11
Partner or Share Holder						
WPhA member	77	39	107	55	10	5
Nonmember	7	33	13	62	0	0
Manager						
WPhA member	77	50	70	45	7	5
Nonmember	30	51	25	42	3	5
Assistant Manager						
WPhA member	49	48	45	44	7	7
Nonmember	21	58	13	36	2	6
Staff Pharmacist						
WPhA member	92	49	78	42	17	9
Nonmember	34	51	28	42	4	6
Part-time Pharmacist						
WPhA member	6	26	16	70	1	4
Nonmember	12	32	22	58	4	10
Totals	483	44%	529	49%	66	6%

100 nonrespondents + 8 qualified replies

Table 80

ATTITUDE TOWARD UNIONIZATION OF PHARMACISTS

	Strongly Opposed		Opposed		Undecided		Favorable		Strongly Favorable	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried										
Independent	114	40%	69	24%	49	17%	28	10%	23	8%
Chain	47	33	30	21	31	22	22	15	11	8
Clinic	27	35	16	21	15	19	15	19	4	5
Hospital	76	42	46	25	25	14	20	11	12	7
Other	0	0	1	17	2	33	1	17	2	33
Subtotals	(264)	(38%)	(162)	(23%)	(122)	(18%)	(86)	(12%)	(52)	(7%)
Owner										
Independent	237	62%	79	21%	39	10%	19	5%	7	2%
Chain	5	56	0	0	2	22	1	11	1	11
Clinic	30	56	11	20	9	17	3	6	1	2
Other	2	67	1	33	0	0	0	0	0	0
Subtotals	(274)	(61%)	(91)	(20%)	(50)	(11%)	(23)	(5%)	(9)	(2%)
Totals	538	47%	253	22%	172	15%	109	10%	61	5%

42 nonrespondents + 11 qualified replies

salaried pharmacists except "other" are either "strongly opposed" or "opposed" to unionization, with the greatest negative proportions reported by hospital and independent practitioners. The 54 percent negative response from salaried chain pharmacists may be compared with a 65 percent "No" response from a national sample of chain pharmacists to the question, "Do you believe in unions for pharmacists?"[57]

Except for the three responses from "other" owners, the greatest negative reaction to the concept of the unionization of pharmacists was reported by pharmacist owners of independent pharmacies. By major subgroups, a greater disapproval of unionization was registered by owner than by salaried pharmacists, 81 percent to 61 percent.

Pharmacists in Iowa appear to agree closely with practicing pharmacists in Wisconsin in their overall negative attitude towards unionization (Table 81).

Pharmacists' response to the unionization question also was analyzed on the bases of status and by membership or lack thereof in the Wisconsin Pharmaceutical Association (Table 82). Regardless of respondents' status, a higher proportion of WPhA members than nonmembers was strongly opposed to the unionization of pharmacists.

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57. "What 1,000 Chain Pharmacists Think," op. cit., p. 27.

Table 81

ATTITUDE TOWARD UNIONIZATION OF PHARMACISTS: IOWA STUDY

	Strongly Opposed		Opposed		Undecided		Favorable		Strongly Favorable	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Salaried										
Independent	27	47%	11	19%	14	24%	3	5%	3	5%
Chain	12	31	12	31	6	15	5	13	4	10
Clinic	6	30	6	30	4	20	1	5	3	15
Hospital	6	27	9	41	2	9	4	18	1	5
Other	4	80	1	20	0	0	0	0	0	0
Subtotals	(55)	(38%)	(39)	(27%)	(26)	(18%)	(13)	(9%)	(11)	(8%)
Owner										
Independent	83	60%	32	23%	18	13%	4	3%	1	1%
Chain	1	33	1	33	0	0	1	33	0	0
Clinic	7	47	4	27	1	7	2	13	1	7
Other	1	50	1	50	0	0	0	0	0	0
Subtotals	(92)	(58%)	(38)	(24%)	(19)	(12%)	(7)	(4%)	(2)	(1%)
Totals	147	49%	77	25%	45	15%	20	7%	13	4%

9 nonrespondents

Table 82

ATTITUDE TOWARD UNIONIZATION OF PHARMACISTS: WPhA MEMBERSHIP STATUS

	Strongly Opposed		Opposed		Undecided		Favorable		Strongly Favorable	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Sole Owner										
WPhA member	119	60%	42	21%	26	13%	8	4%	3	2%
Nonmember	11	48	6	26	5	22	1	4	0	0
Partner or Share Holder										
WPhA member	134	65	38	19	15	7	11	5	6	3
Nonmember	10	45	5	23	4	18	3	14	0	0
Manager										
WPhA member	64	40	44	28	25	16	18	11	6	4
Nonmember	21	34	16	26	6	10	11	18	7	11
Assistant Manager										
WPhA member	36	36	15	15	26	26	17	17	6	6
Nonmember	12	32	10	26	3	8	7	18	6	16
Staff Pharmacist										
WPhA member	77	40	43	22	36	19	20	10	14	7
Nonmember	22	31	11	16	13	19	11	16	11	16
Part-time Pharmacist										
WPhA member	17	63	4	15	6	22	0	0	0	0
Nonmember	15	33	19	42	7	16	2	5	2	5
Totals	538	47%	253	22%	172	15%	109	10%	61	5%

42 nonrespondents + 11 qualified replies

Eleven pharmacists or approximately one percent of the respondents gave qualified replies to this question. These eleven replies are not incorporated into either Table 80 or 82. These qualifications generally were based on whether or not the union would be administered by a pharmacist, or whether the union would be so administered as well as limit its membership to pharmacists.

Factors Conducive for a Satisfying and Rewarding Job

Pharmacists were asked, "What benefits, working conditions, and environmental factors do you believe are most conducive for a satisfying and rewarding job in pharmacy?" Due to the wide variation in responses to this open-end question, the replies were edited into six categories. The categories and the number and percent of the total respondent group which mentioned these factors are shown in Table 83.

A respondent could have mentioned an item in either a positive or negative manner. For example, he could have reported the benefits he has with his present position are as good as he can expect. Conversely, a respondent could have mentioned the benefits which he felt were lacking with his position and which ostensibly contributed to his dissatisfaction. Both replies would have been categorized in the benefits category.

Table 83

FACTORS CONDUCIVE FOR A SATISFYING AND REWARDING JOB

	Respondents Who Mentioned Items Listed Below		Respondents Who Did Not Mention Items Listed Below	
	No.	Percent	No.	Percent
Benefits	495	42%	691	58%
Working Conditions	461	39	725	61
Professional Relations	231	19	955	81
Personal Factors	228	19	958	81
Environmental Factors	93	8	1093	92
Academic Factors	31	3	1155	97

Suggestions and Remarks

Pharmacists were asked for their suggestions and remarks. Since the question was open-ended, their comments were quite varied. The responses were placed into five categories with the number of respondents who mentioned each item (Table 84).

Representative suggestions and remarks, both positive and negative, included:

1. "Unionization is a must in my view, if we are ever able to stabilize the Rx price."

2. "I originally took up pharmacy because I admired the pharmacist I worked for and wanted to follow in his footsteps, so it has always been my chosen vocation. However, my classmates in high school who took up dentistry or law or even truck-driving are now at a more desirable income level. I don't feel that pharmacy offers sufficient financial return in this day and age for the time and education invested."

3. "I think four years of college is enough for those students who just want to own a drugstore or work as a pharmacist in one. Those who want to do chemical or other research work or specialize can take more intensive courses. Also those going into pharmacies should have a better knowledge of bookkeeping, income tax, and modern business methods."

4. "The "cowboy economy" of Erhlich's Population Bomb is reflected in the # of graduates from the school. Make the # less so as to reduce the tendency for the profession to fall farther behind the trades in $ and control of it's own destiny."

5. "I do not feel that unionization is the answer to pharmacies current problems--at least not as far as the term unionization is now used... I do think, however, that a professional Guild-type organization could serve a necessary and useful function..."

Table 84

SUGGESTIONS AND REMARKS

	No. of Mentions	Percent of Mentions
Associations	74	21%
Education	52	15
Unions	45	13
Government	20	6
Other	160	46

835 nonrespondents

6. "I cannot think of a profession I'd rather be in, except at times the hours get long also I have (an) option to buy into (the) business in ten years which is attractive. I do not believe the Assoc. should arbitrate salary disputes because of obvious prejudice toward pharmacy owners."

7. "Pharmaceutical associations should be the sole "Bargaining Agent." There is no need for unionization of pharmacy. A pharmacists license and the state and federal laws give the pharmacists a closed shop."

8. "I worked 23 years for doctor-owned clinic and do not advise it. They under pay and ask too much. Then (I) bought a store of my own and worked very long hours but I got the profits. Have sold out and done mostly relief work since."

9. "We best get these problems down to the grass root pharmacists, your letter admits you need more knowledge.... heck, we've known this for the last 5 years, but just try and find the time to solve them--pretty hard to with all the "free" services we provide."

10. "Pharmacy is way behind in the advancement of the members of the profession. Individual ownership concept precludes the possibility of general economic advancement of non-owners, since (the) owner first worries about his investment before that of his profession on a whole. Profit sharing of Rx dept. or Co-op setup of Rx dept., with investment and separate management of general merchandise areas would increase professional image."

11. "Pharmacy needs a strong voice to speak for them at present, none of our present associations seem to be doing the job. Is unionization the answer?-- I don't know. To be unionized is to be nonprofessional. Is that what we want?"

12. "Have experienced some discrimination in the salary areas, suspected due to sex since all duties and functions performed as done by the male and at least equally as well if not better in some areas."

13. "I'm prejudiced, but it is my opinion that a professional should not need a union to insure his economic and working stability--at present I would refuse to join."

CHAPTER FOUR

SUMMARY AND RECOMMENDATIONS

Practicing pharmacists in Wisconsin were surveyed by mail questionnaire to obtain information on economic, manpower, conditions of employment, and unionization matters. Pharmacists' satisfaction with their present position in pharmacy and with pharmacy as an occupation also were determined. Twenty-two hundred and eighty-nine pharmacists were sent questionnaires, 1254 were returned (54.8%) and of these, 1186 (51.8%) were useable.

The following information was collected and analyzed: (1) pharmacists' salary ranges; (2) pharmacists' professional activities; (3) prescription department adequacy; (4) adequacy of description of duties and responsibilities; (5) pharmacists' fringe benefits; (6) pharmacists' professional participation and relationships; (7) pharmacists' satisfaction; (8) pharmacists' attitudes toward arbitration by pharmaceutical associations; (9) pharmacists' attitudes toward pharmacy unions; and (10) factors conducive for a satisfying and rewarding job.

Summary of Findings

Pharmacists' salaries tend to increase with years of practice. However, 39 percent of the pharmacists with

over twenty years' practice reported salaries of $12,000 or less and many of these respondents reportedly held full-time positions. As one would expect, pharmacists' salaries tended to reflect the degree of responsibility they have. The modal salary range for staff pharmacists was $10,001 to $12,000; for managers and assistant managers it was $12,001 to $14,000; and sole owners and partner pharmacists had modal salary ranges of over $16,000. Pharmacists who practice in towns and small cities tend to earn larger salaries than those pharmacists who practice in larger cities. This finding likely is due in part to the larger frequency of ownership by pharmacists practicing in these smaller communities. To some extent it also likely reflects the working of supply and demand.

The most frequent category of responses for all groups except independent full-line pharmacists on the percent of on duty time spent dispensing prescriptions, discussing prescription and O-T-C medication with patients and other professional functions was over 75 percent. The most frequent category checked by independent full-line pharmacists was 51 to 75 percent. This also likely reflects the larger incidence of ownership in the independent full-line pharmacy category and the higher proportion of time required for managerial functions.

Seventy-five percent of salaried pharmacists reported the prescription department in which they practice to be adequate in size; 86 percent - adequately staffed;

97 percent - adequately lighted; 92 percent - adequate equipment and stock; 83 percent - adequate reference library; and 85 percent reported the prescription department where they practice to be clean and uncluttered. Owner pharmacists' responses agreed closely with those of salaried pharmacists' with an average of eight percent difference between them.

Five hundred or about 47 percent of all respondents reported receipt or granting of a clear, concise oral description of duties and responsibilities. Sixty-one percent (227/374) of the owners, but only 39 percent (273/695) of the salaried pharmacists, held this view. However, what is clear and concise to an owner may easily be unclear to a salaried pharmacist who is unfamiliar with the pharmacy's operating policies and procedures.

Ninty-five percent of salaried pharmacist respondents reported they receive some form of discount on personal purchases and approximately 37 percent reported receipt of an annual bonus. Seven of ten salaried pharmacists reported their employers provide them with either partial or complete payment of hospitalization insurance. Forty-nine percent also are provided professional liability insurance. Forty-three percent of salaried pharmacists receive life insurance, either entirely or partially paid by their employer.

Twenty-eight percent of salaried pharmacists are provided income loss protection insurance while 44 percent are provided professional attire. Forty-one percent receive some type of a retirement program while only nineteen percent have profit-sharing programs. Only ten percent of salaried pharmacists are granted stock purchase options. Three hundred and fifty-two (52%) salaried pharmacists reported they received no overtime compensation; however, an unknown proportion of these pharmacists may practice little or no overtime or they may be employed in a managerial or supervisory capacity.

About forty percent (263/650) of salaried pharmacists reported they have no real opportunity to attend professional conventions, seminars, and meetings. Only nineteen percent of the owner pharmacists reported such was the case. Eighty-one percent of hospital pharmacists' reported they have an opportunity to attend such functions, and 41 percent of all hospital pharmacists reported their expenses are paid entirely by their employer.

Self-rated satisfaction means for various groups of pharmacists were compared to determine if differences between them were statistically significant. The following comparisons were found to have statistically significant differences for both present position and pharmacy satisfaction scales at the 99 percent level. The

first listed subgroups below were the most satisfied.

(1) owner vs nonowner pharmacists

(2) nonchain vs chain pharmacists

(3) pharmacists practicing in towns or cities less than 10,000 population vs those practicing in larger cities

(4) pharmacists age 30 or more vs those less than age 30

(5) pharmacists with five or more years' experience vs those with less than five years' experience

(6) salaried pharmacists who had a voice in determining operating policies and procedures vs those who lacked such a voice

(7) salaried pharmacists who had a real opportunity to attend professional functions vs those who lacked a real opportunity to attend such functions

(8) pharmacists with undisturbed meal periods vs those with disturbed meal periods

(9) salaried pharmacists who receive either a clear, concise oral or written description of duties vs those who receive no description of duties

(10) pharmacists who provided or received a clear, concise oral or written description plus those who reported they either received or provided a description but did not specify what type vs those who do not provide or receive a description of duties plus those who either provided or received an unclear or incomplete description

(11) WPhA members vs nonmembers

(12) pharmacists who reported their spouse was content with respondent's position in pharmacy vs those who reported the opposite.

The following comparisons were found to have statistically significant differences for only the position satisfaction scale at the 99 percent level. Once again, the first listed subgroups were the most satisfied.

(1) salaried nonchain vs salaried chain pharmacists

(2) salaried nonchain (excluding hospital and part-time) vs salaried chain pharmacists

(3) salaried (practice zero evening hours per week) vs salaried pharmacists who practice one or more evening hour(s) per week

(4) salaried (practice zero Sunday hours per month) vs salaried pharmacists who practice one or more Sunday hour(s) per month

(5) salaried (undisturbed meal periods) vs salaried pharmacists who do not have undisturbed meal periods.

Likewise, the following comparison was found to be statistically significant for only the occupation satisfaction scale at the 99 percent level. The first listed subgroup was the most satisfied.

(1) pharmacists who spend 25 percent or more of their on duty time performing professional functions vs those who spend less than 25 percent of their on duty time performing such functions.

Forty-eight percent (321/663) of salaried pharmacists reported they were unqualifiedly in favor of arbitration by pharmaceutical associations while only 39 percent (162/415) of owner pharmacists reported they favored such action.

Sixty-one percent (426/676) of salaried pharmacists reported they were opposed to pharmacy unions while 81 percent (365/447) of the owner pharmacists reported such opposition. Also, 67 percent (122/179) of the hospital pharmacists reported they were opposed to pharmacy unions.

Some variation between owner and salaried pharmacists' replies to such questions as salaried pharmacists having a "real opportunity" to attend professional meetings, receiving a "clear and concise" description of duties and responsibilities, or the adequacy of the reference library are not unusual.

These differences may exist for a number of reasons including respondents' different frames of reference. An example would be in response to the question, "Does the employer assist the salaried pharmacist in the payment of professional association dues?" There is some possibility of a difference in interpretation as to the scope of organizations covered by the term "professional association." Also, a difference may result from the number of pharmacy associations to which an owner pays his salaried pharmacist's dues. An owner who pays salaried pharmacists' dues in WPhA likely would respond affirmatively to the above question, but salaried pharmacists in that pharmacy who pay their county pharmaceutical society or other dues may reply "no."

The above and some of the other variations in owner-salaried pharmacists' responses apparent in this thesis likely would be reduced considerably with greater communication among pharmacists, and, where feasible, by the use of written "understandings" or "agreements" to reduce the possibility of future misconceptions and misunderstandings.

Recommendations

The following recommendations are based on the findings in this study:

(1) All salaried pharmacists should receive a clear and concise oral or written description of their duties and responsibilities. The large T-value (6.03) obtained when salaried pharmacists' position satisfaction means were compared indicates this may be an important reason for salaried pharmacists' lack of satisfaction with their position in pharmacy. Also, many misunderstandings between owners and salaried pharmacists may be aleviated by better communication between the affected parties. This would apply not only for a description of duties but for any other area when conflicts of opinion arise.

(2) All salaried pharmacists should have the opportunity to attend professional conventions, seminars, and meetings. About 40 percent of salaried pharmacist respondents reported they have no such opportunity. These pharmacists are less satisfied both with their current positions in pharmacy and with pharmacy as an occupational field than are pharmacists who reported a real opportunity to attend professional functions.

(3) All pharmacists should belong to the Wisconsin Pharmaceutical Association. Since WPhA is the professional and legislative spokesman for pharmacy in Wisconsin, 100 percent support by pharmacists in the state is important. Respondent pharmacists belonging to WPhA were found to be significantly more satisfied on both satisfaction scales than those respondents not belonging to WPhA. It is believed active participation in one's professional associations tends to increase his feeling of belonging. Receipt of and reading of professional journals also helps to increase one's knowledge of innovations in pharmacy and strengthens one's professional identification.

(4) A similar study should be done periodically to update statistical information likely to be of greatest benefit to the profession. Obsolete data may cause more problems than a lack of data.

APPENDIX A

AMERICAN MEDICAL UNION

AMERICAN MEDICAL UNION

The AMA is a satisfactory organization for Scientific and Educational purposes. However it fails to protect the economics of the individual doctor's practice, and recently has appeared to be working against the private practitioner's interests.

A crisis is at hand. It is obvious that the government, labor unions, and left wing organizations are bent on the destruction of private medical practice and reducing doctors incomes to levels not commensurable with their education and responsibilities. This is obvious from the following facts:

1. It has been proposed that more medical services be provided at a lower total cost. Doctors to do more and more work for less and less pay.

2. More doctors to be produced, so doctors will be forced to accept whatever a Socialistic government is willing to offer.

3. Training of para-medical personnel to further decrease a doctor's chance for private practice.

Therefore to protect our interests from the onslaught of the left wing planners, I feel that the same tactics as used by union labor to protect and enhance the interests of their members should be undertaken by physicians. (If you can't beat them, join them). An American Medical Union with strong bargaining powers should be formed. The best negotiators should be hired. As a sole practitioner I am not able to do this, as I will have difficulty supplying copies as requested by other physicians. United we will stand, divided we will fall.

An example of what benefits should be strived for in negotiations whether with Clinics, Hospitals, Medical Corporations, so-called Pre-Paid Groups, government agencies, VA Hospitals, Labor Union sponsored Groups or any other employer:

1. Base pay for all doctors of $30.00 an hour.

2. Base pay to be increased 1% for each year of practice experience.

3. Base pay to be increased 10% for each year of residency beyond the one year of internship.

4. Base pay to be increased 5% for Board eligible and 10% for Board Certified Specialists.

5. Time and a half pay beyond 40 hour week.

6. Double time for Sunday, Holidays and birthday.

7. Travel time for Doctors working at more than one location to be compensated the same as regular working time.

8. Mileage for house calls, travel between hospitals, clinics, etc. to be paid for at 15 cents a mile, and increased as travel costs increase; or leased costs and all operating costs to be paid by the employing agency.

9. Vacation time. 2 weeks paid vacation per year for all doctors. After each additional 5 years of practice experience, one additional week of vacation up to a maximum of 6 weeks paid vacation a year.

10. Post-Graduate Time
Two weeks of paid post graduate time each year with all expenses paid including travel to and from an approved post graduate course or medical meetings.

11. Fully paid Hospitalization Insurance, for doctor's family.

12. $50,000 Life Insurance.

13. Social Security.

14. Complete Mal-Practice Coverage Insurance paid.

15. For each year of practice, each doctor to receive retirement pay of 2 and 1/2% of base pay, after the age of 65. Maximum retirement pay after 40 years to be 100% of base pay.

16. All equipment, uniforms, supplies and office space to be provided. Owners of present offices or clinics to be paid monthly rental on their investment.

17. Each physician to have a total of 3 employees paid by the employing agency. This to include nurses, technicians, secretaries, cleaning personnel, etc. dependent upon type of practice. Selection of the employees to be made by the individual physician.

18. For Medical Students: The full cost of education including living costs, tuition, and all expenses to be loaned by the government. This plus interest to be repaid at the rate of 10% each year for the first 10 years of practice.

19. Base Pay and Fringe Benefits to be increased annually in the same proportion as the average of wages and benefits paid to the major unions such as the United Auto Workers, Steelworkers, and Truckers are increased.

20. All physicians already in practice to be allowed to continue in present locations. Priorities for needed location of practitioners to be made in each state--to be filled by newly graduated physicians. These physicians to remain in such location for a minimum of 5 years before being allowed to move to a more desirable location or to take residency training.

21. In case of a deadlock in negotiations between the Medical Union and the government or other employing agency, instead of an actual strike, physicians to supply services on a private basis only, until the differences are resolved.

If you agree in general with most of the above items would you ask AMA NEWS to print this so we can get even greater response.

D. W. Dohnalek, M.D.

APPENDIX B

STAMP EXERCISE

STAMP EXERCISE

To test the possibility of different types of stamps affecting the rate of response to the mail questionnaire, the 2289 questionnaires were divided into three equal subsamples of 763 each. The subsamples were selected by using every third address from the Pharmacy Examining Board Address List for each subsample. The Pharmacy Board list had addresses listed in order from the earliest to the most recent dates of original licensure.

Subsample "1" utilized a flag (noncommemorative) stamp both for the original mailing and for the return address envelope. Subsample "2" was mailed with a flag (noncommemorative) stamp and the return address envelope had a commemorative stamp. Subsample "3" used a commemorative stamp both for the original mailing and for the return envelope. Four designs of commemorative stamps were utilized: Haida Ceremonial Canoe, African Elephant Herd, American Bald Eagle, and The Age of Reptiles.

The 1254 useable returned questionnaires were divided among the subsamples as follows: subsample "1" - 424 returns (55.6%); subsample "2" - 405 returns (53.1%); and subsample "3" - 425 returns (55.7%).

	Responded	Did Not Respond	Totals
Subsample "1"	424	339	763
Subsample "2"	405	358	763
Subsample "3"	425	338	763
Totals	1254	1035	2289

$$x^2 = 1.34 \text{ (2 d.f.)}$$

The importance of placing stamps on return addressed envelopes has been reported in the literature, but it does not appear to make any difference on response rates as to the type of stamp utilized. The chi-square value reported above is not significant (see Appendices D and E).

APPENDIX C

THE QUESTIONNAIRE AND COVER LETTER

THE UNIVERSITY OF WISCONSIN
MADISON 53706

OL OF PHARMACY
acy Building
orth Charter Street

June 70

Dear Colleague:

What is the status of pharmacy practice in Wisconsin? Meaningful answers to economic, manpower, specialization, and unionization questions can be sought only with greater knowledge than we now possess.

We and the Board of Directors of the Wisconsin Pharmaceutical Association need an objective appraisal of both the conditions of practice and the opinions of all practicing pharmacists in the state. The following questionnaire was prepared and pretested in cooperation with an ad hoc committee of the Association.

Your experience and opinions are important. Sharing them with us is vital for the success of this project. Will you take about 10 minutes now to help us by returning this anonymous questionnaire? Please answer all applicable questions.

Your help will be greatly appreciated.

Sincerely,

David Forbes

David S. Forbes, R.Ph.
A.F.P.E. Fellow

R. W. Hammel

R. W. Hammel, R.Ph., Professor
of Pharmacy Administration

1. General Information

A. What is the population of the city in which you work?

___less than 5,000 ___10,001-25,000 ___50,001-100,000

___5,000-10,000 ___25,001-50,000 ___over 100,000

B. Please check the number of years you have practiced as a registered pharmacist.

___less than 2 ___between 5 & 10 ___between 15 & 20

___between 2 & 5 ___between 10 & 15 ___over 20 years

C. Which one below best describes the principal place in which you practice pharmacy?
___hospital pharmacy
___clinic or prescription pharmacy
___independent full-line pharmacy
___chain full-line pharmacy (4 or more units)
___other (please specify)_____

D. Which of the below best describes your position in pharmacy?
___sole owner
___partner or shareholder
salaried pharmacist
___manager (chief pharmacist)
___assistant manager (assistant chief pharmacist)
___staff pharmacist
___not actively practicing

E. How many years have you held this position?
___less than 2 ___between 5 & 10 ___between 15 & 20
___between 2 & 5 ___between 10 & 15 ___over 20 years

F. What is your age?
___less than 30, ___30-45, ___46-60, ___over 60

G. Sex: ___male ___female

H. Approximate annual pharmacy salary (from item checked in 1.C. above).
___under $8,000 ___$10,001-12,000 ___$14,001-16,000
___$8,000-10,000 ___$12,001-14,000 ___greater than $16,000

I. What per cent of your time while on duty is spent dispensing prescriptions, discussing prescription and O-T-C medications with patients, and other professional functions?
___less than 25% ___51-75%
___25-50% ___over 75%

J. Work schedule: (please complete all three)
___average number of hours per week
___average number of evening hours per week (after 6 PM.)
___average number of Sunday hours per month

K. Please check the pharmacy associations to which you belong.
___ACA ___NARD
___APhA ___WPhA
___ASHP ___WSHP
___County or local association ___other _____

L. Approximately how many professional conventions, seminars and meetings did you attend in the past year? _____

2. General Pharmacy Information:

A. How many pharmacists and interns (including owners, if registered) are employed at this pharmacy?

___full-time pharmacists

___part-time pharmacists

___interns

B. What is the average number of original and renewed prescriptions (or medication orders) dispensed per day in the pharmacy?

___under 25 per day ___101-150 ___over 300

___25-50 ___151-200

___51-100 ___201-300

C. Is 24-hour emergency service offered through the pharmacy?

___yes ___no

If yes:

a. Do all pharmacists share in providing this service?
___yes ___no

b. Is extra compensation provided for this service?
___yes ___no

c. Do you feel it necessary to provide or receive additional compensation for this service? ___yes ___no

D. Do you believe the prescription department:

a. is adequate in size? ___yes ___no

b. is adequately staffed? ___yes ___no

c. is well lighted? ___yes ___no

d. has adequate equipment and stock? ___yes ___no

e. has an adequate professional reference library?
___yes ___no

f. is clean and uncluttered? ___yes ___no

3. Does the employer provide the salaried pharmacist with a description of the duties and responsibilities of the position at the onset of his employment?

___yes ___no

If yes, which one of the following statements best describes the manner in which the description was presented?

___A clear, concise written description of duties

___An unclear or incomplete written description of duties

___A clear, concise oral description of duties

___An unclear or incomplete oral description of duties

4. Do all pharmacists have an undisturbed meal period?

___yes ___no ___other _____

5. Are work schedules adjusted so you can participate in civic and club activities?
___yes ___no ___other_____

6. Do all pharmacists have the opportunity to review new products and professional literature while on duty?
___yes ___no ___other_____

7. Do all pharmacists have some voice in determining operating policies and procedures for the pharmacy?
___yes ___no ___sometimes

8. Do you feel there is a mutual professional respect between employer and salaried pharmacist(s)?
___yes ___no ___other_____

9. Fringe benefits you presently offer or are allowed: (please check those applicable)

a. discounts on personal purchases
___purchases at cost
___percent discount
___cost plus

b. ___bonus

c. hospitalization insurance
___partially paid
___entirely paid

d. ___professional liability insurance for the salaried pharmacist(s)

e. life insurance
___partially paid
___entirely paid

f. income loss protection
___partially paid
___entirely paid

g. ___provision of professional attire (professional jacket)

h. retirement program
___partially paid
___entirely paid

i. ___profit-sharing program

j. ___stock purchase options

k. ___other fringe benefits_____

10. Do you offer or receive compensation for overtime? ___yes ___no
If yes: ___regular rate ___extra time off
___premium rate ___other_____

11. Do you offer or receive an increased rate of pay for working:
Sundays ___yes ___no
Holidays ___yes ___no
Do not work these days_____

12. What is the number of days' sick leave allocated to salaried pharmacists per year? _____

13. What is the maximum number of weeks' paid vacation per year granted to salaried pharmacists?
_____weeks after _____ years' service

14. Is there a provision for automatic cost of living increases for salaried pharmacists? ___yes ___no

15. Professional conventions, seminars and meetings:
A. Does the salaried pharmacist have a real opportunity to attend such functions? ___yes ___no

If yes, expenses are paid:
___entirely by employer

___partially by employer

___entirely by salaried pharmacist

B. Does the employer assist the salaried pharmacist in the payment of professional association dues? ___yes ___no

If yes, dues are paid:
___entirely by employer

___partially by employer

16. Is there a periodic review of salaries and/or fringe benefits for salaried pharmacists? ___yes ___no

If yes, how frequent? _____

17. Is there a periodic evaluation of salaried pharmacist performance? ___yes ___no

If yes, how frequent? _____

18. Is there a written employment agreement between the owner and salaried pharmacist? ___yes ___no

19. Is there an agreement between the employer and salaried pharmacist regarding termination of employment?
___yes ___no

20. If married, is your spouse content with your present job?
___yes ___no

Comment: _____

21. Please check one of the following statements which best indicates how you rate your present position in pharmacy.
___I dislike it
___On the whole I don't like it
___I am indifferent to it
___I like it a little
___I like it fairly well
___On the whole I like it
___I like it a good deal
___I like it very much
___I am enthusiastic about it

Why do you feel this way? _____

_____

22. Please check one of the following statements which best indicates how you feel about changing your occupation.

___I would quit pharmacy at once if I could get anything else to do

___I would take almost any other field in which I could earn as much as I am earning now

___I would like to leave the field of pharmacy altogether

___I would like to remain a pharmacist and change my line of work in pharmacy

___I would like to change my present job for another job in pharmacy in the same line of work

___I am not eager to give up pharmacy but I would do so if I could get into a better field

___I cannot think of any field of work for which I would give up pharmacy

___I would not exchange pharmacy for any other field

23. Should pharmaceutical associations, when invited, involve themselves in arbitrating a dispute between an owner and a salaried pharmacist?

___yes ___no ___other_____

24. What is your attitude toward the unionization of pharmacists?

___strongly opposed

___opposed

___undecided

___favorable

___strongly favorable

25. What benefits, working conditions, and environmental factors do you believe are most conducive for a satisfying and rewarding job in pharmacy?

_____

_____

_____

_____

_____

_____

26. Suggestions and remarks:

Thank you. Your cooperation is appreciated.

APPENDIX D

CHI-SQUARE TEST FOR INDEPENDENCE

CHI-SQUARE TEST FOR INDEPENDENCE

This test is based on the assumption that if the variables being tested are independent of the classification, approximately the same percentage of observations will occur in each classification for all of the tested variables.

The general procedure for using the chi-square test is:

1. A hypothesis is formulated, such that, if the hypothesis is true, experimental data should, on the average, tend to show certain frequency characteristics which are referred to as expected or theoretical frequencies and these are computed.

2. The observed frequencies are obtained from the sample.

3. These two sets of frequencies are compared by computing the statistic "chi-square" which depends upon the differences between the observed frequencies and the corresponding theoretical frequencies.

4. The computed value of chi-square is compared with the known theoretical distribution of chi-square in order to determine if the

value of chi-square is significantly different from zero.

The total number of questionnaires returned was obtained by adding the number of questionnaires returned from each subsample. The hypothesis to be tested is, there was no effect on the rates of response of the three subsamples when three different combinations of stamps were used. Please see Appendix B for a discussion of the three different subsamples.

	Responded	Did Not Respond	Totals
Subsample "1"	424 (417.6)	339 (344.7)	763 (33.3%)
Subsample "2"	405 (417.6)	358 (344.7)	763 (33.3%)
Subsample "3"	425 (417.6)	338 (344.7)	763 (33.3%)
Totals	1254 (1252.8)	1035 (1034.1)	2289 (99.9%)

$$x^2 = 1.34 \text{ (2 d.f.)}$$

If the variables were independent of the classification, approximately 33.3 percent of the 1254 questionnaire returns would be expected to be from subsample "1" and approximately 33.3 percent of the 1035 questionnaires not returned would be expected to belong to the same subsample. Similar values were calculated for each of the variables and are shown parenthetically in the above table.

The chi-square value for the distribution was determined by taking the sum of the squared difference between each observed value and theoretical value and dividing by the theoretical value:

$$x^2 = \frac{(424 - 417.6)^2}{417.6} + \frac{(405 - 417.6)^2}{417.6} + \frac{(425 - 417.6)^2}{417.6}$$

$$+ \frac{(339 - 344.7)^2}{344.7} + \frac{(358 - 344.7)^2}{344.7} + \frac{(338 - 344.7)^2}{344.7}$$

$$x^2 = 1.34$$

Since there were two variables and three classifications, the null hypothesis was tested with two degrees of freedom [(2-1)(3-1)].

At the 95 percent confidence level, the critical limit of x^2 (d.f. = 2) is 5.99. Since the observed chi-square value of 1.34 is less than the critical limit, the null hypothesis of independence was accepted.

As a general rule of thumb, the expected frequency in any cell should not be less than five. For this reason the statistic "chi-square" has not been calculated for all tables.

For further discussion of the statistic "chi-square," please see Samuel B. Richmond, Statistical Analysis, The Ronald Press Company, New York, 1964, pp. 290-303.

APPENDIX E

HYPOTHESIS TESTING

HYPOTHESIS TESTING

As long as sample data are used, it is impossible to be completely certain if the hypothesis being accepted or rejected is true. However, if a hypothesis is accepted or rejected it is important to state a probability that a mistake has been made. If this probability of making a mistake is small enough, we may act as if we were certain we have been right in accepting or rejecting the hypothesis. What this means is when we are dealing with a sample it is necessary to agree that if the probability of being wrong is quite small, it will be ignored. The probability of accepting a true hypothesis is the "confidence level" and the probability of rejecting a true hypothesis is the "significance level." Frequent use is made of the five and one percent "significance levels" and 95 and 99 percent "confidence levels." More information pertaining to both significance and confidence levels can be found in: Thomas H. Wonnacott and Ronald J. Wonnacott, Introductory Statistics, John Wiley and Sons, Inc., New York, 1969, pp. 167-174.

APPENDIX F

T-TEST FOR THE DIFFERENCE BETWEEN POPULATION MEANS

T-TEST FOR THE DIFFERENCE BETWEEN POPULATION MEANS

The example which follows illustrates the use of the T-test in testing the null hypothesis of no difference between the population self-rated position satisfaction means of owner and salaried pharmacists.

An estimate of the variance, or degree of dispersion, between the population values first must be obtained from sample data.

Owner Pharmacists

X	F	FX	FX^2
1	10	10	10
2	15	30	60
3	8	24	72
4	4	16	64
5	30	150	750
6	67	402	2412
7	40	280	1960
8	101	808	6464
9	139	1251	11259
	414	2971	23051

Nonowner Pharmacists

X	F	FX	FX^2
1	22	22	22
2	28	56	112
3	22	66	198
4	19	76	304
5	61	305	1523
6	160	960	5760
7	47	329	2303
8	150	1200	9600
9	101	909	8181
	610	3923	28003

$$S_1^2 = \frac{n_1 \Sigma FX^2 - (\Sigma FX)^2}{n_1 (n_1 - 1)} \qquad S_2^2 = \frac{n_2 \Sigma FX^2 - (\Sigma FX)^2}{n_2 (n_2 - 1)}$$

$$S_1^2 = \frac{(414)(23051) - 8826841}{(414)(413)} \qquad S_2^2 = \frac{(610)(28003) - 35389929}{(610)(609)}$$

$$S_1^2 = 4.189 \qquad S_2^2 = 4.554$$

$$\bar{x}_1 = \frac{FX}{F} = \frac{2971}{414} = 7.18 \qquad \bar{x}_2 = \frac{FX}{F} = \frac{3923}{610} = 6.43$$

An estimate of the pooled variance (S_p^2) of the two populations being tested was obtained in the following manner:

$$S_p^2 = \frac{(n_1 - 1)\, S_1^2 + (n_2 - 1)\, S_2^2}{n_1 + n_2 - 2}$$

$$S_p^2 = \frac{(413)(4.189) + (609)(4.554)}{414 + 610 - 2}$$

$$S_p^2 = 4.406$$

The pooled variance then was substituted in the following formula to obtain the value of T.

$$T = \frac{X_1 - X_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$T = \frac{7.18 - 6.43}{\sqrt{4.406 \left(\frac{1}{414} + \frac{1}{610}\right)}}$$

$$T = 5.61$$

At the 99 percent confidence level, the hypothesis of no significant difference can be rejected if a value of T equal to or greater than plus or minus 2.576 is obtained. The critical value at the 95 percent confidence level would be plus or minus 1.96.

Since the observed value of T (5.61) is greater than 2.576, there is sufficient evidence to reject the hypothesis of no difference between the self-rated satisfaction means of owner and salaried pharmacists. For other examples of the application of the T-test, please see: Robert Ferber, Statistical Techniques in Market Research, McGraw-Hill, New York, 1949, pp. 118-119.

BIBLIOGRAPHY

Books

Ferber, Robert, Statistical Techniques in Market Research, McGraw-Hill, New York, 1949.

Herzberg, Frederick, Mausner, Bernard and Snyderman, Barbara Block, The Motivation To Work, John Wiley and Sons, Inc., New York, 1967.

Hoppock, Robert, Job Satisfaction, Harper and Brothers, New York, 1935.

Richmond, Samuel B., Statistical Analysis, The Ronald Press Company, New York, 1964.

Schwebel, Milton, The Interests of Pharmacists, King's Crown Press, New York, 1951.

Webster, George D., The Law of Associations, American Society of Association Executives, Washington, D.C., 1971.

Wonnacott, Thomas H. and Wonnacott, Ronald J., Introductory Statistics, John Wiley and Sons, Inc., New York.

Government Publications

"Application For Patient Service Groups Classification For Pharmacy," Wisconsin State Department of Health and Social Services, and the Department Memorandum dated May 1, 1971.

Periodicals

"APhA Votes...Reject Unionism," American Druggist (161:9) May 4, 1970, pp. 23-24.

"Are Pharmacists Pricing Themselves Out of the Market?," American Druggist (163:11) May 31, 1971, pp. 11-12, 14.

"ASHP OK's Collective Bargaining," American Druggist (163:8) April 19, 1971, pp. 56, 72.

"Assns Mount Anti-Union Drives," American Druggist (161:4) February 23, 1970, p. 15.

"Boards Cautioned Re Labor Role," American Druggist (161:13) June 29, 1970, p. 23.

Periodicals - Cont.

"Canadian RxMen Ponder Unionization," Drug Topics (114:21) October 12, 1970, p. 12.

"Candid Kaplan," American Druggist (163:10) May 17, 1971, pp. 29-30.

"Chains, Unions and Employment," Action in Pharmacy (3:4) December 1970, p. 1.

"Did APhA Sway Bargaining Vote?," American Druggist (162:2) July 27, 1970, p. 15.

Dohnalek, D. W., "Forming a Union," American Medical News (14:4) February 1, 1971, p. 1.

"1199 Negotiates New Contract in N.Y.," American Druggist (162:6) September 21, 1970, p. 18.

"Employee Pharmacists Were 57% of Licensees Practicing Retail Pharmacy," Weekly Pharmacy Reports (20:5) February 1, 1971, p. 2.

"Employee-To-Owner Ratio Grows," American Druggist (163:3) February 8, 1971, p. 41.

"Employer-Employee Guidelines Allegheny County Pharmaceutical Association," P.A.R.D. Bulletin (65:9) September 1969, pp. 14-15.

Ferriss, Abbott L., "A Note On Stimulating Responses To Questionnaires," American Sociological Review (16:2) April 1951, pp. 247-249.

Gullahorn, Jeanne E. and Gullahorn, John T., "An Investigation of the Effects of Three Factors On Responses To Mail Questionnaires," Public Opinion Quarterly (27:2) Summer 1963, pp. 294-296.

Hoppock, R., "Age and Job Satisfaction," Psychological Monographs (47:2) 1936, pp. 115-118.

Ivancevich, John M. and Donnelly, James H., "Job Satisfaction Research: A Manageable Guide For Practitioners," Personnel Journal (47:3) March 1968, pp. 172-177.

Johnson, Robert C., "A Guideline in Michigan For... Employer-Employee Relations," Journal of the American Pharmaceutical Association (NS6:10) October 1966, pp. 534-537.

Periodicals - Cont.

"Kansas Assn Will Fight Unions," American Druggist (161:8) April 20, 1970, p. 25.

Klinger, George, "Chains Seen Capturing Greater Share of Market," Drug Topics (115:10) May 10, 1971, p. 4.

Kushner, Dan, "Straight Talk," American Druggist (161:4) February 23, 1970, pp. 11, 33.

Kushner, Dan, "Straight Talk," American Druggist (163:12) June 14, 1971, pp. 19, 40-48.

"Labor Letter," The Wall Street Journal (51:39) December 8, 1970, p. 1.

Lamb, R. R., "The Need For an MDs' Union," American Medical News (13:27) July 13, 1970, p. 1.

Lantos, Robert L., "In the Hospital," American Druggist (163:2) January 25, 1971, p. 3.

Marquardt, Karl W., "1970 Wisconsin Pharmacy Board Convention Report," The Wisconsin Pharmacist (39:11) November 1970, pp. 435, 439.

"Mich. Employee Pharmacists," Weekly Pharmacy Reports (20:27) July 5, 1971, p. 1.

"Mich. RxMen's Salaries Rise 27%," American Druggist (162:10) November 16, 1970, p. 13.

"N.Y. Society Struggles To 'Democratize Itself," American Druggist (161:4) February 23, 1970, pp. 16, 18.

"1970 Economic Survey of Iowa Pharmacists," Iowa Pharmacist (26:6) June 1971, pp. 14-15.

"'99' Unions Formed By RxMen," American Druggist (162:4) August 24, 1970, pp. 17-19.

Olsen, Paul C., "The Problem Corner," Drug Topics (114:23) November 9, 1970, p. 42.

Owens, Arthur, "Solo vs Partnership: A New Economic Comparison," Medical Economics (48:6) March 15, 1971, pp. 81-87.

"Pace of Union Drives Intensifies," American Druggist (161:3) February 9, 1970, pp. 20, 44.

"Pharmacist's Attitudes Towards Employees Stirs Work Efforts," Drug Topics (114:17) August 17, 1970, p. 56.

Periodicals - Cont.

"Pharmacists' Interest In Joining Unions Waning, Whitten Observes," The APhA Newsletter (9:17) August 22, 1970, pp. 1, 4.

"Pharmacists' Professionalism Hurts Consumers, Nader Group Says," Weekly Pharmacy Reports (20:24) June 14, 1971, p. 8.

Porter, Lyman W., "Job Attitudes in Management: II. Perceived Importance of Needs as a Function of Job Level," Journal of Applied Psychology (47:2) April 1963, pp. 141-148.

Price, D. O., "On the Use of Stamped Return Envelopes With Mail Questionnaires," American Sociological Review (15:5) October 1950, pp. 672-673.

"Professional Employment Standards for Pharmacists in Illinois," Illinois Pharmacist (33:11) November 1969, pp. 547-553.

Rayburn, J. Michael, "Pharmacy Unions," Drug Topics (114:26) December 21, 1970, pp. 16, 24, 26.

"Report on Enrollment in Schools and Colleges of Pharmacy, First Semester, Term, or Quarter, 1970-1971," American Journal of Pharmaceutical Education (35:1) February 1970, pp. 92-99.

Rosefsky, Robert S., "Money Counts," American Druggist (162:2) July 27, 1970, p. 4.

"St. Louis Surveys 1970 Graduating Class," Illinois Pharmacist (34:12) December 1970, p. 416.

Sedam, Richard L., "Employer-Employee Relations," The Pennsylvania Pharmacist (51:2) September 1969, pp. 8, 22-23.

Sedam, Richard L., "Salaries and Schedules-Employee Pharmacists," The Pennsylvania Pharmacist (50:5) December 1968, p. 4.

"Should Screening Work Both Ways," American Druggist (161:12) June 15, 1970, pp. 12-14.

Smith, Mickey C. and Scruggs, James A., "Continuing Education as a Fringe Benefit of Employment," Journal of the American Pharmaceutical Association (NS10:10) October 1970, pp. 560-562.

Periodicals - Cont.

"Some Pharmacy Deans Detect Growth of Pro-Union Attitude Among 1970 Graduates," American Druggist (161:8) April 20, 1970, pp. 10-14.

Steeves, Robert F., "Washington," American Druggist (161:1) January 12, 1970, p. 6.

"Teleflashes," American Druggist (162:12) December 14, 1970, p. 1.

Teplilsky, Benjamin, "What Chief Hospital RxMen Think About Unions," Pharmacy Times (37:2) February 1971, pp. 46-53.

"Texas Guidelines For Employer-Employe Relations," Texas Pharmacy (88:11) November 1969, pp. 8-10.

"'Union' Role is Urged For ASHP," American Druggist (161:1) January 12, 1970, pp. 26, 28.

"Union's 31% Pay Raise Boosts Prices of Rx's," American Druggist (162:9) November 2, 1970, p. 20.

"What 1,000 Chain Pharmacists Think," Chain Store Age, Drug Store Edition (47:3) March 1971, pp. 26-28.

Zis, Burton J., "Pharmacy Unrest: A Look at Some Underlying Causes," Illiñois Pharmacist (34:4) April 1970, pp. 124-125.

Unpublished Materials

Hammel, R. W., "Employment History of University of Wisconsin Pharmacy Graduates: 1951-1955," Unpublished M.B.A. paper, University of Wisconsin, 1956.

"Report of Salary-Benefits-Working Conditions Survey," Indiana Pharmaceutical Association, Inc., 1970.

Thagard, Launia L., "Economic Survey of Employee Pharmacists," Alabama Pharmaceutical Association, 1969.