

# *A History of Pharmacy Administration*

This chronicle of human and academic events is dedicated to all those men and women who have been, are, and will become a party to the growth and development of pharmacy administration as a major discipline in the education of a pharmacist. It says to those who were here that they are a part of the future. It reminds those of the future that they have real and human roots in the past.

## PREFACE

In 1979 Joseph L. Fink III as Chairman of the Sections of Teachers of Pharmacy Administration appointed a Special Committee on the History of the Discipline of Pharmacy Administration. In his charge to the Committee on August 15, 1979, he wrote: "The project for this committee to tackle is the preparation of a paper to document the evolution of the discipline, beginning with the early programs and graduate students. It may be possible to include also some information about some pharmacy administration "notables" as well as some shifts in direction of the discipline, e.g., the relatively recent emphasis on social and behavioral sciences. At a minimum the document should be prepared for distribution to Section members, pharmacy school libraries and the American Institute of the History of Pharmacy. Optimally, it may be possible to have the report printed in the American Journal of Pharmaceutical Education and/or Pharmacy in History."

The general idea was to take some advantage of the life experiences and knowledge of certain persons who were knowledgeable of past years and people. The result was to be a report in the next year or two much as any other "committee report." The first committee report on July 22, 1980, suggests an initial problem and began with these comments: "The Committee has spent this past year developing an approach to a task which can be a glossed-over statement or a well-documented account of both what has occurred and some of the reasons and results of the occurrences. It seems apparent to the Committee that the only way to present the history of the rocky road of pharmacy administration is to cite occurrences, name names, document dates, and give inciteful observations along the way to today as well as what might possibly be projected for tomorrow."

The literature contains many papers and reports which document in detail the facts, perceptions, programs, problems, and other information which will add to the reader's appreciation and growth. For this reason these literature citations are referenced as an addendum for ready use. Their reading will make many things come to life and create a greater understanding of "why" for contemporary issues and situations in pharmacy administration.

In the final analysis history is a documentary about people. Time is finite and infinite, and it serves only to create an orderly record of sequential events. Events are happenings that indicate activities which are cataloged by time. People, however, are perpetrators of events at certain times; therefore, the historical development (or the lack of it) of pharmacy administration must be a documentation of names of those who participated in such a way as to be recognized or cataloged somewhere in available documents in connection with significant events at certain times.

It must be understood that the beginning is designated as the year 1900 only because the recorded literature for the system of educational-associative pharmacy began officially with the printed Proceedings of the American Conference of Pharmaceutical Faculties in the year 1900. Other

evidence of academic activity is cited by other journals and newspaper-type publications which carry biased perceptions when education was an alternative for some of the apprentice experience. The endpoints of events recorded here are not consistent. Although some events represented by tabular data could not be updated as time passed, the officers of the Section of Teachers are recorded into 1987 because of published election details, and recent journal references are easily added.

The content is a joint effort of the Committee. Dr. McEvilla developed the core of the material on Faculty Growth and Development. Dr. Hammel described the Course Content and Resource Materials. Dr. DeSalvo recounted the Role of the Section of Teachers. Twenty professors created the base for the Future of the Discipline, and Dr. Evanson filled in the genesis of the early history and graduate programs plus the appended details. Others who contributed backup data and details are acknowledged elsewhere.

There are many anecdotal stories that could be included, if time had permitted generating a collective recall and space permitted publication. However, with a special interest in the people involved, this is not a human interest story of these people, and personal events are used only to examine their impact on the events described.

The substance of this document should be in every library that has pharmacy's journals and reports. Some of it comes from minutes and special reports. The content does not represent just another committee report since it represents the lives and times and accomplishments of hundreds of men and women who dedicated their lives and daily efforts to teaching, research and service while creating, defining, nurturing, developing, and refining a discipline often not accepted by other colleagues, not clearly defined in all schools by their own colleagues, and serving in academic isolation except for the Section of Teachers support, programs and seminars.

If this narration carries a sense of frustration - it was always prevalent. If it portrays accomplishments - they were achieved in many ways by many people. If it suggests a comradeship of people and purpose - it was the foundation for all that transpired. If it offers the roots from which growth has started and insight into the future growth direction of its branches - it will have been abundantly worth the time and effort to make it a contribution to the literature of pharmacy administration.

August 31, 1985

Robert V. Evanson  
Joseph D. McEvilla  
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## ACKNOWLEDGEMENTS

No document of this type and span of time gets done without the help of many people in addition to those responsible for its development. There are many who inadvertently and unknowingly contributed merely by being a part of the system during the past 85 years. Much appreciation goes to the people who were responsible for the reports and publications wherein the information is made available over time. Journal editors have a large role in what is to be known and easily recalled for posterity. A large measure of experiential recall from the living is also necessary to add the flavor often lost in the printed word, and special effort to make both available must be recognized as a small measure of thanks and appreciation.

Christopher A. Rodowskas offered his unpublished paper "What Happened to Management in the Curriculum" of July, 1981, as a means of interpreting the essence of the Teachers Seminars, one of which he helped to plan as Executive Director of the American Association of Colleges of Pharmacy.

Dr. Albert B. Fisher, Jr., President of the American Foundation for Pharmaceutical Education, gave freely of his time and effort to compile a lengthy list of the special Teaching Fellows in Pharmacy Administration and to update the list of all graduate fellowships granted to pharmacy administration graduate students as regular, Walgreen or Pfizer awards. He also provided the AFPE minutes to show how the Teaching Fellow program was conceived and implemented.

David L. Wingate, Corporate Manager of Recruitment, Walgreen Company, offered the research effort to bring together the details, dates and names of participants in ten of the twelve Walgreen Seminar programs. Dr. Harry A. Smith and Dr. Dean E. Leavitt supplied the other two. The history of the development of teaching personnel in pharmacy administration would be incomplete without the recognition of Charles R. Walgreen, Jr. and the Walgreen Company's contributions of time, effort, talent, financial resources, and general operating information and data for teacher training and direct use in the classroom.

Caroline R. Leavitt, Research Assistant at APhA headquarters, made a supreme effort to verify the details of the Fellows and officers of the Academy of Pharmaceutical Sciences' Section on Economics, Social and Administrative Science.

The development of the graduate programs would not have been possible without the direct recall of early events not only by the authors but also Mickey C. Smith, Albert W. Jowdy, and William S. Apple.

Thirty professors were invited to contribute a one-page statement on their perceptions of the future of pharmacy administration with assurance of confidentiality to insure candor and constructive, critical analysis. Twenty replies were received and provide the substance of Chapter VII. It is fitting and proper, aside from their individual comments, to recognize them for their effort and opinions. In alphabetical order with current

school affiliation, they are: H. John Baldwin (Wyoming), Norman A. Campbell (Rhode Island), William H. Campbell (Washington), T. Lee Hageboeck (Butler), Robert W. Hammel (Wisconsin), Delton C. Huffman (Tennessee), Albert W. Jowdy (Georgia), Kenneth W. Kirk (Texas), Holly L. Mason (Purdue), Patrick L. McKercher (Wayne State), Walter J. Morrison (Arkansas), Arthur A. Nelson (Nebraska), Dev S. Pathak (Ohio State), Christopher A. Rodowskas (Howard), Kenneth R. Shrader (Northeast Louisiana), Mickey C. Smith (Mississippi), Kenneth A. Speranza (Connecticut), Jesse E. Stewart (Illinois), Albert I. Wertheimer (Minnesota) and Alan P. Wolfgang (Utah). Noteworthy is the spread of geographical location and the range in age from some of the oldest to some of the youngest in age and experience.

Pharmacy administration graduate students at Purdue University 1980-1982 searched the journals and created the basic sources found in the Bibliography of Publications in Appendix III.

Carol Edmundson, Secretary in the Department of Pharmacy Practice, Purdue University, performed with patience a meticulous job of putting together the pieces and chapters, making corrections, additions and some rewrites, and getting it all out of the processor in camera-ready quality.

Each of the writers' schools contributed financially in his time to prepare the material and assist in selective editing. However, the Editor wishes to recognize the interest, encouragement and patience of Dr. Robert K. Chalmers whose support in faculty time helps to make this document one of the most costly reports published in the name of, by, or for any AACP Section of Teachers.

Most importantly to the ultimate success of this project, Robert E. Slater, Director of Marketing Services and Customer Affairs, Marion Laboratories, Kansas City, Missouri, has supported the project from the beginning with the assurance that this document would be published and printed in some suitable form when completed.

Finally - and with some sense of apology - the members of the Section must be recognized for their personal and collective interest displayed by continual and annual impatiently patient queries as to when this would be completed. Your patience is hereby rewarded.

Robert V. Evanson, Editor

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## CHAPTER I THE FORMATIVE YEARS

### Prologue

What is today greatly depends upon what was yesterday and helps shape the future of what will be tomorrow. Too often, in the zeal to affect changes which create new attitudes, suggest new procedures or technology or seek to define new goals, some individuals and groups tend to ignore, to forget, or to overlook the value of this simple reflection on time and events. So it is with the development and growth of pharmacy administration as an instructional discipline within the framework of pharmacy education. The history of a part is always affected by the history of the whole system. Likewise, the prejudices of the day may be the remains of attitudes formed 100 years past. Therefore, to understand why and what pharmacy administration is, a glance backward to the roots of pharmacy as an occupation, a trade, and a profession is both interesting and revealing.

### The Beginning

For a discipline to exist academically, there must be an academic system. It is necessary to recognize in the beginning a pure system of apprenticeship which has been the hallmark of a trade. The druggist was a merchant who also compounded drugs sold pursuant to prescription orders and also many sold over the counter. Therefore, the roots of pharmacy and its learning mode are firmly entrenched in the need to know how to "keep a shop" or "run a business." Evidently pharmacists themselves determined that certain learning values could be accomplished best in a non-store, school system dedicated primarily to science in conjunction with practical store training. The first such effort formed the Philadelphia College of Pharmacy in 1821, and four more schools over the next thirty years: Massachusetts College of Pharmacy—1823; College of Pharmacy of the City of New York--1829; Maryland College of Pharmacy--1841; and Cincinnati College of Pharmacy—1850(1).

It must be understood that licensure as a pharmacist did not require college attendance; that some credit for attendance became accepted and credited against total time required for licensure; and that the time in school was one year. Further, the limited time involved was considered to be best used to create scientific and professional knowledge not always available in all drug stores, even though all druggists were legally capable of giving an apprenticeship. As long as their products could pass the board exams, they could gain cheap help in exchange for whatever service they performed to train the apprentice.

In order to provide some coordinated instruction, the College of Pharmacy of New York City attempted to organize the first college association on October 15, 1851, by calling a meeting of schools. Delegates from the Philadelphia and Boston colleges attended. This established a subsequent meeting of delegates from the five schools and the Richmond Pharmaceutical Association with pharmacists from Connecticut and San Francisco (21 men) in Philadelphia and formed the American

Pharmaceutical Association on October 5, 1852(2). A second effort by the Maryland College of Pharmacy created the first national pharmacy education association in the United States. The Conference of Colleges of Pharmacy was started at the Baltimore meeting of the American Pharmaceutical Association in 1870. However, after a stormy existence it had died of heart failure in 1885(3).

Because the American Pharmaceutical Association's programs dealt almost entirely with professional interests, some druggists formed the National Retail Druggists Association (NRDA) as a business association in 1883. On August 18, 1887, this group joined with the A.Ph.A. to expand its interests to include the business side of the retail drug store in a newly created Section on Commercial Interests. On August 18, 1937, then Chairman, Roland T. Lakey, introduced the change of name to "The Section on Pharmaceutical Economics to represent more truthfully what should be the Section's basic philosophy in a changing practice environment"(4). Sections on Education and on Legislation also were created in 1887 and were merged in 1889 to satisfy the separate and collective interests of educators and board members.

These organizations still did not perform the functions demanded by education and practice, so in 1898 retail druggists formed the National Association of Retail Druggists (NARD), and the educators formed the American Conference of Pharmaceutical Faculties (ACPF) in 1900. Boards of Pharmacy members completed the basic structure with the National Association of Boards of Pharmacy in 1904(5,6).

A major problem in the development of pharmacy administration as a recognized discipline is characterized by the continued and sometimes competitively heated rivalry between the so-called professional and so-called business attitudes and functions inherent in pharmacy practice versus operating "a pharmacy". Insight to this problem is best gained through yesterday's discussions, debates and decisions which served to shape the structure and content of the discipline today.

The academic-retail rivalry is best depicted in a report by Professor Joseph P. Remington in 1907 when he reported to the ACPF on his delegacy to the NARD Convention. At that time the A.Ph.A. was pressuring the system to require all apprentices to attend college to become licensed to practice pharmacy. In his report, Remington noted in part:

"We all have the idea . . . that this is a body which is alone concerned in the business affair of 'druggists', . . . . but the members of that association, we must not forget, are interested in the same subjects that we are, and at the present time there is a good deal of uncertainty and indecision on the part of retail druggists. They do not understand, and some of them said to me, 'We who were at the meeting of the American Pharmaceutical Association don't understand what all this row and bother concerning colleges was about. Now, we are interested in colleges--we have to be; but can you, can your organization do anything which will relieve the scarcity of drug clerks?'

There is a presumed relationship between experience and commercial ability. However, as long as pharmacy schools have existed, the pressure for commercial courses has existed. Rufus A. Lyman in 1912 made a commonly accepted statement of the colleges' general reaction:

"There has been a popular demand for courses in our schools which familiarize our students with the commercial side of pharmacy. Some of us, in an attempt to please our friends, have introduced such courses under the names of business methods, accounting, etc. They consist of a few lectures, or at best of one or two hours a week for a semester. Such courses may be entertaining to the student, but they have little or no educational value. Such information can be acquired to much better advantage, under present conditions, by store experience" (12).

The opposite attitude was expressed generally by L. E. Sayre to the Section on Education and Legislation.

"Should business training be included in the course of study? Unquestionably, since modern practical pharmacists are often more concerned with purchasing and vending of pharmaceutical supplies than with manufacturing them, students must be in some wise prepared for this phase of their work. Business training is a factor important enough to make or mar future success" (13).

These divergent positions represent the conflict which has preceded almost every effort to increase courses or expand the course content in pharmacy administration—even to the 1980's in some pharmacy schools. It is noteworthy that the Pharmaceutical Syllabus, First Edition, 1910, gave suggested outlines which offered about 65 hours of required work in a total curriculum of 1000 hours—for the complete pharmaceutical course. Specifically, there were 300 hours of Materia Medica, 400 hours of Chemistry, and 300 hours of Pharmacy (laboratory and theoretical). The 300 hours of Pharmacy were distributed as: 25 to Theory of Pharmacy, 65 to Practice, 65 to Manufacturing, 50 to Dispensing, 20 to Latin, 10 to Arithmetic, 10 to Bookkeeping, 50 to Commercial Pharmacy and 5 to Jurisprudence. However, there was much criticism that the courses as outlined were not well organized (14).

At the same time the ACPF's Committee on Degrees was proposing a system which would require three years for a Graduate in Pharmacy degree, a Pharmaceutical Chemist degree for four years of high school plus three years of pharmacy, a B.S. in Pharmacy for one more year and a Doctor of Pharmacy for two more years more than the Pharmaceutical Chemist degree. The Committee assumed that only the first two degrees named would be needed for the practice of pharmacy. In fact, Professor Remington suggested the Doctor of Pharmacy (P.D.) be issued for three years (15).

With growth of the National Association of Boards of Pharmacy, and the need for cooperation between education and testing agencies, a Joint

They (NARD) passed a resolution adhering to the drug apprenticeship. Naturally they would. Naturally they don't want to give up a young man who has been their assistant and upon whom they have to depend, and they want also to have that young man attend college while he is in the drug store. You see the bearing—they want to encourage him. They want to feel that the college has asked a young man not to throw away that clinical instruction, or that which is equivalent to clinical instruction by a doctor, while he attends classes"(7).

In addition to the non-educator problems, the Conference also had problems with non-members. In 1906, President Kaufman noted a membership of 23 schools, whereas the secretary's list contained over eighty schools of pharmacy(8). By 1909 the number increased to 29 with fifty non-members. At the same time, President Hynson looked to the sins of the fathers being visited upon the children. He noted one sin: that the Gentiles should be fellow heirs of the same body. One example cited was the possible exclusion of some candidates from college because they were poor versus rich. He then stated:

"The Gentile spirit of Commerce, which daily becomes more and more a necessary part of the pharmacist's equipment; is that to be despised and still kept out of the holy place? The Gentile spirit of a practically utilitarian curriculum is clamoring for admission. Is that to be ignored? Professionalism may still hold place, but it must be under the new dispensation and must be of a kind that fits a new era; that shows itself equal to the requirements of this day and generation"(9).

Related to the quality of students and learning potential, the age and background of the "young men" of the day offered problems. Laws allowed registration as an apprentice at fourteen years of age. One year of high school training was required beginning with the 1911-1912 school year, and the Conference was urging schools to enforce it if standards were to be raised(10). No doubt the majority of college students had already worked one or two years and naturally knew what pharmacy was all about and had preconceived notions of college. Perhaps this led J. W. Sturmer, while discussing the reasons for student attrition in 1912, to comment that:

"No other vocational schools . . . find it incumbent upon them to combat this invidious influence (distaste for science courses) which endeavors to exalt commercialism by belittling scientific attainment. And we have here one, though not the only one, the percentage of failures in pharmacy schools is exceptionally high. Every college man of discernment recognizes the fact that retail pharmacy is a business; that commercial skill is desirable, indeed, is necessary. But as long as we have compounding and dispensing of medicinal materials, Pecunia must in Pharmacy remain wedded to Science; there can be no divorce" (11).

Committee on Questions and Examinations of the NABP and ACPF was formed and the two associations held joint meetings. In its August 7, 1915, report the Committee stated: "The practice of pharmacy usually entails extensive merchandising and the commercial training of the pharmacist must be such as will enable him to protect his interests in every instance." The report goes on to record the details of information and expertise needed to be successful, and it continues with: "If then commercial training is a necessary requirement for the pharmacist, the college of pharmacy that would live up to its principles and do its whole duty, has no alternative in the matter; excuses and evasion cannot be tolerated, it must include commercial training of its students as a part of its course of instruction"(16).

One of the difficult areas of cooperation was evidently in the examining area, and this led to the suggestion by the Committee on Questions and Examinations to suggest in 1916 that all members of faculties of the schools be enrolled in distinct departments (of the Association) under a chairman to facilitate subject area development. The areas listed were: (1) Physics and Chemistry; (2) Pharmacy and Dispensing; (3) Botany and Pharmacognosy; (4) Physiology and Pharmacology; (5) Bacteriology and Immunology; and (6) Commercial and Legal Pharmacy. Each of these could then generate annual reports on teaching and examination to bring better order out of the existing opinions and practices(17). This is the first record of a breakdown of subject areas—especially for association activity in which commercial pharmacy gained some official status.

The proposed area groups were formed, and a list of teachers, who were involved as resources for board examination questions, was prepared. To expedite the work, Chairman Henry Kraemer asked certain members to act as temporary chairmen of the sections. Professor Cornelius Osseward (Washington) was appointed for Commercial and Legal Pharmacy. Other members who enrolled are listed here to acknowledge their pioneering efforts in support of the early development of commercial pharmacy.

#### COMMERCIAL AND LEGAL PHARMACY(18)

Charles H. Stocking, University of Oklahoma . . . . .	Norman, Okla.
N. P. Hanson, University of Nebraska . . . . .	Lincoln, Neb.
W. G. Hastings, University of Nebraska . . . . .	Lincoln, Neb.
J. E. LeRossignol, University of Nebraska . . . . .	Lincoln, Neb.
C. R. Martin, University of Nebraska . . . . .	Lincoln, Neb.
A. L. Metz, Tulane University . . . . .	New Orleans, La.
George S. Brown, Tulane University . . . . .	New Orleans, La.
F. W. Nish, California Col. of Phar . . . . .	San Francisco, Cal.
Harvey B. Wylie, California Col. of Phar . . . . .	San Francisco, Cal.
F. J. Blumenschein, Pittsburgh Col. of Phar . . . . .	Pittsburgh, Pa.
Brother Cyprian, Notre Dame University . . . . .	Notre Dame, Ind.
E. C. Hossler, Med. Col. State of S. C. . . . .	Charleston, S. C.
Henry P. Hynson, University of Maryland . . . . .	Baltimore, Md.
Louis J. Burger, University of Maryland . . . . .	Baltimore, Md.
Charles O. Lee, Purdue University . . . . .	W. Lafayette, Ind.

Charles B. Jordan, Purdue University ..... W. Lafayette, Ind.  
Cornelius Osseward, University of Washington ..... Seattle, Wa.  
Ray Stanley, Buffalo Col. of Phar ..... Buffalo, N. Y.  
P. Mullins, Meharry Pharm. College ..... Nashville, Tenn.  
C. A. Duncan, Baylor University ..... Dallas, Texas  
Oscar C. Dilly, Louisville Col. of Phar ..... Louisville, Ky.  
N. A. Briscoe, State University of Iowa ..... Iowa City, Iowa  
R. A. Stevenson, State University of Iowa ..... Iowa City, Iowa  
Clyde M. Snow, University of Illinois ..... Chicago, Ill.

At the same time President Rufus A. Lyman (Nebraska), noting that research along pharmaceutical lines was woefully lacking, decided to appoint men "prominent because of their research, and every individual I believe to be a man of action" as a Research Committee "to promote pharmaceutical research and thereby elevate pharmacy, professionally and otherwise." Notably, and apparently in conformance with Dean Lyman's philosophy of education, no one was appointed for the sub-section on commercial pharmacy(18).

The committee work did not materialize over the next two years. Then it was decided to make each committee member a chairman of a subcommittee in the subject areas and to allow these men to select their own members from among persons who had shown an interest in the past. Dr. Charles O. Lee (Purdue University) became the first such chairman of the Commercial and Legal Pharmacy section(19). His first major contribution was to make a survey of the 44 member schools to determine the extent of subject area teaching. Only 31 schools replied. Based upon the information as reported below, Dr. Lee concluded that there was a lack of unanimity in the courses; that the major text used was "given too much to trivial things, and nonessentials;" that more use of expert lecturers should be encouraged; and that the courses failed to follow the outline in the Syllabus(20). Details of his report noted that for the schools which replied:

25 offered courses in commercial pharmacy ranging from 3 to 90 hours of instruction.

20 offered courses in legal pharmacy ranging from 5 to 25 hours.

4 offered a few special lectures.

6 offered no work in either commercial or legal pharmacy.

15 of the 25 offered text book information.

10 used O'Connor's Commercial Pharmacy.

1 used Gano's Commercial Law.

5 additional references were cited as:

Mason--The Druggist and His Profits

Nystrom—Retail Selling and Store Management

Hollingforth—Advertising and Selling

Pierce—Business Forms

Hess—Productive Advertising(20).

During this period of time a seemingly continuous debate set the tone of consideration and attitudes for the next thirty years. A review of some of the comments will record this debate for insight and analysis. In 1916, on behalf of the Committee on Curriculum, Theodore Bradley (Boston) stated:

"Business and law sub-courses are very proper parts of the curriculum . . . A knowledge of general and pharmaceutical business practice is an exceedingly important asset for the pharmacist, and there is no question of its value, but these subjects are of an intensely practical nature and the time required to master them is relatively small in amount when compared with the time required for subjects that are theoretical as well as practical"(21).

In 1918 President Henry Kraemer, (Michigan) who was instrumental in establishing the six sections in 1916, discussed the values of commercial pharmacy in his annual address which led to a later debate over establishing two classes of colleges. Salient excerpts from his remarks convey the philosophical and practical frustrations of the period.

"As commonly practiced, however, it (pharmacy) is a business, and it is difficult to make anyone conceive or conclude it to be a profession, as either law or medicine are commonly recognized. A pharmacy no longer means the place where drugs are bought and sold, medicinal preparations made and the physicians prescription's compounded; it is usually a department store and the sale of drugs is so restricted that it would hardly pay the clothing bills of any retail druggist's family. . . . In the opening paragraph of his address before the South Dakota Pharmaceutical Association in August, 1917, he (Doctor James H. Beal) says,—'Whether for good or ill, the practice of pharmacy has altered from a semiprofessional occupation to one which is largely commercial. Nothing can be gained by closing our eyes to the fact. The change is here and must be reckoned with,' . . .

"The time has come for us to change our methods of procedure in accordance with economic laws. Our colleges must either train men for an occupation or for a profession. If a college is to fit them for an occupation the curriculum should be largely commercial, and if it is intended to prepare them for a profession the prescribed course of study must be of a professional character. Our Boards of Pharmacy must very soon

take cognizance of these two kinds of graduates . . . .

"All writers on subjects pertaining to pharmacy, and this includes some of the most thoughtful minds in our country, seem to feel that commercialism as we see it has come to stay. If the teachers of this Conference are satisfied with the evidence as presented, then we must provide for two classes of colleges—the one to be called 'Colleges for Druggists' for the training of retail druggists; and the other to be designated as the 'College of Pharmacy' for the education of those who are to become acquainted with the science and art of Pharmacy and are expected to give themselves entirely to the practice of professional pharmacy"(22).

Immediately following President Kraemer's remarks, Dean Frederick J. Wulling (Minnesota) presented the only scheduled paper of the convention. His regard for the subject was indicated, when relating it to consistent standards: "If in the past professional ideals and forethought had been more universal among pharmacists, standards would have increased more rapidly and the insidious aggression of commercialism would not have been possible. Commercialism is right and good, and just as respectable as professionalism if in its place and if recognized as such, but camouflaged as pharmacy it is syncophantic and parasitic"(23).

The general topic was raised again by Professor George C. Diekman (Columbia), Chairman of the Committee on Examination Questions, in 1921, when he observed that a dichotomy of opinion existed between educators and pharmacists on commercial pharmacy values.

"The inclusion of questions in this topic among those of other subjects has given rise to much controversy. Many teachers take a firm stand against the inclusion of this subject in the college course or in State Board examinations. On the other hand, many pharmacists successfully engaged in the retail branch of the profession take the opposite view. There also seems to exist a difference of opinion relative to the kind of instruction which should be classified under commercial pharmacy . . . It would seem to me that a pharmacist conducting his business under proper business methods and in accordance with recognized business principles, can give better service to the public and protect its interests in a more substantial manner than can the one who conducts his affairs in a haphazard manner as far as business methods are concerned. A number of factors obliging the pharmacist to give better attention to the purely commercial part of his profession are steadily at work"(24).

This general, negative attitude led to the first entry on a consideration of graduate work. It seems that Mr. Liggett of the drug chain decided to start his own school of pharmacy in which commercial training would be the principal feature. He was ready to spend \$250,000 to satisfy pharmacy's real needs for training. However, Theodore J. Bradley, then Dean of the Massachusetts College of Pharmacy, prevailed

upon Liggett to help Massachusetts develop a special one-year graduate program with the Harvard Graduate School of Business Administration. The program could be taken only by registered pharmacists or graduates of a recognized college of pharmacy. Bradley described it as an interesting experiment(24).

During this period the basic education requirements were progressing to four years of high school. The Association had manipulated its 48 members into a minimum three-year degree program. In 1923 the Committee on Curriculum and Teaching Methods presented a tentative four-year course outline for the B.S. degree, but it did not include a required course in commercial pharmacy(25). However, in his 1925 President's Address, Charles W. Johnson (University of Washington) noted the availability of good business training in colleges of business administration and suggested they be used. He also pointed out that a good way to upgrade the three-year program to a "real degree" program would be to have pharmacy students spend the fourth year in business courses(26). Thirty years later this same idea was proposed as one of the reasons for the ways to justify the resolution of the five-year program issue. In both instances, the curriculum was extended with little or no additional work in business courses as part of the core subject matter.

Teachers conferences were initiated in 1925 as functional groups to promote scholarly effort among teachers with similar interests. Characteristically, the three conferences were Chemistry, Materia Medica, and Pharmaceutical Laboratory. One of the first papers in the latter group was "The Pricing of Prescriptions" by E. Fullerton Cook (Philadelphia)(27). At the same meeting the members changed the name of the organization to the American Association of Colleges of Pharmacy, and this gave rise to the concept and practice of the "Conference of Teachers" in an association of colleges as dues paying members. The Conference on Pharmaceutical Laboratory was changed to the Conference on Pharmacy in 1926. A major step was taken when John G. Beard (North Carolina) presented a paper on "Merchandising Courses" before the general convention. It was an excellent review of positions taken by members on commercial pharmacy as a discipline of instruction(28). W. Groggin Crockett also discussed "The Teaching of Commercial Pharmacy in the School of Pharmacy of the Medical College of Virginia(29).

A significant development occurred during the 1926-1927 year with the appointment of a special committee to study the question of teaching commercial pharmacy. The members of the committee were: John G. Beard, Chairman (North Carolina), Clyde M. Snow (Illinois), Howard C. Newton (Creighton), Theodore J. Bradley (Massachusetts), Charles Caspari (St. Louis) and W. Groggin Crockett (Med. College of Virginia). It is evident that Beard and Crockett generated some interest in their discussion previously cited. A commentary on the report is in order to indicate the committee's dilemma.

The committee was charged to make "a thorough study of the amount and nature of commercial pharmacy that member colleges should offer," because "this whole matter is so debatable, so important, and at present is in

such a chaotic stage as to warrant the sort of study it will never get from a committee of ordinary character." A mail survey was sent to 200 faculty members asking each to give in his/her own way "an outline showing the character and amount of courses bearing on commercial transactions that might well be in our college curricula." Replies from 55 persons (27.5 percent) ranged from short answers to lengthy dissertations. There was not enough agreement on any point to suggest an association policy.

Group I teachers were convinced that such study of commercial pharmacy has no place in the three-year scheme of instruction. Group II wanted to wait to see how retail pharmacy developed in the future before making a decision. Group III expressed the slim majority opinion of the replies that schools should recognize such instruction in their curricula without apology, but there was no agreement as to the character or amount of the subject matter. "They would not substitute a training in trade for necessary studies in science, but it is their belief that neither the professional ability of graduates nor the maintenance of health protection would be lessened materially by requiring in three- and four-year courses such subjects as accountancy, advertising, commercial law, store management, retail salesmanship, etc." The committee encouraged floor discussion but could offer no recommendations(30).

President David B. R. Johnson (Oklahoma) not only initiated the study of commercial interests by appointing the committee, he also took the liberty to appoint a college man in each of the NABP's nine districts and arranged to have as many joint meetings as possible to develop a better understanding between the boards and colleges. The primary reason was to see if a standard curriculum could be developed as a means of quality control(31). The lasting value was the creation of the structure of the NABP-AACP District Meetings of Boards and Colleges which has withstood highs and lows of mutual interest for these past 57 years to serve as a grass roots sounding board in matters of education and licensure.

Because of the indecision of the convention, President Edward Spease (Western Reserve, Cleveland)(32) was requested to organize a meeting of a teacher's conference on commercial pharmacy. The Chairman of the Executive Committee, Dean Charles B. Jordan (Purdue), approved this action, and such a conference meeting was organized for the convention in 1928. Professor John G. Beard chaired the meeting and stated it's objective "to determine, if possible, whether business courses should be offered in schools of pharmacy and if they should, what their character and amount ought to be." Discussion papers presented included: "Construction Discussion of Present Day Text books on Commercial Pharmacy" by W. Bruce Philip, and "Business Training in Schools of Pharmacy" by Rufus A. Lyman(33).

An interesting excerpt from President Spease's address to the 1928 convention adds a second dimension to the commercial problem of the day. He quoted an article, which he noted as "one of the best articles on our problems and one that is straight talk," from Drug Markets (September, 1927, p. 257) entitled "'De-Bunking' Drug Distribution" as follows: "Pharmaceutical preparations and the true practice of ethical pharmacy are

factors to be reckoned with, for in spite of their woeful decline, they are prime necessities. They seem to have no place in the chain type distribution, not even an excuse for selling bathing caps, candy and lip sticks and I am more and more coming to the conclusion that eventually they will have to develop a distribution of their own which may well become the foundation of a revivified and purified profession of pharmacy."(32)

(It may be noted here for the unfamiliar that in the management of the AACP structure, the Chairman of the Executive Committee was the "business manager" or the "quasi-executive director" of the Association with the power to approve, implement, or avoid projects, and he carried some longevity of power in tenure.)

A general discussion of these papers followed and included these persons as a matter of record: Dean Jordan, Dean Spease, E. Fullerton Cook, Dean Lyman (Nebraska), C. Leonard O'Connell (Pittsburgh), John G. Beard, Charles H. Stocking (Michigan), Dean Adolf Ziefle (Oregon Agricultural), Dean Earl L. Serles (South Dakota), Dean Edward C. Callaway (Des Moines), Dean L. D. Havenhill (Kansas), Dean Theodore J. Bradley (Massachusetts), Dean Charles E. F. Mollett (Montana), and Dean Frederick J. Wulling (Minnesota). The flavor and extent of the remarks concerning the organization of the group are not recorded. Dean Lyman then made the motion to ask the AACP to recognize an organization to be known as a Conference on Commercial Pharmacy. Professor Beard and Professor Stocking were elected Chairman and Secretary for 1928-1929 term(34).

Under unfinished business, the convention adopted the name "Conference" for each of the various subsection groups previously described. Then "Professor Beard moved that a conference on commercial pharmacy be held at the annual meeting and under the auspices of the Association. The Motion was seconded by Dean (Wortley F.) Rudd (Medical College of Virginia)." An interesting and at times probably heated debate followed wherein Dean Wulling said the "Association has no authority to grant the request because its constitution makes no reference to commercial pharmacy." Beard reported that "about twenty teachers had attended and all took an active part in the discussion, but no recommendations were made other than to request the conference be perpetuated as a permanent part of the Association's machinery."

Dean Lyman noted that he and Dean Wulling know it is essential for a druggist to stay in business, but such instruction could not be a part of pharmacy instruction at Nebraska and Minnesota, but students could go to the colleges of commerce. Dean Wulling then stated: 'that the Association is now on record as having approved going into side-lines. 'Our real judges,' he said, 'are going to be those of a future generation when pharmacy will have become established more distinctly, than at the present day, as a profession. The future historian is going to settle this question with regard to the rightness of it. Minnesota will never teach commercial pharmacy because it is inconsistent with pharmaceutical curricula.' There was some discussion on the name, but it was referred to a committee for reconsideration in 1929(35).

The process was completed in 1929 along with another significant event. Among the papers presented was one on "A Course in Store Management" in which Professor Floyd J. LeBlanc cited the establishment of a model drug store to serve as a laboratory for management instruction at South Dakota. This lead to a motion by the attendees to recommend that the Association study the feasibility of establishing modern model drug stores in colleges. Participants recorded that year (and not previously noted) include: Daniel H. Spencer (Kansas), B. Olive Cole (Maryland), Elmer L. Hammond (Mississippi), Alfred W. Pauley (St. Louis), and Paul C. Olsen (Philadelphia). Professor O'Connell reported several names and moved the name be changed to the Conference of Teachers of Pharmaceutical Economics. This name was officially approved, on motion by Dean Lyman, by the Association(36).

Amid the great and continued debate of professionalism versus commercialism, and unaware of the true scope of their vision, a few forward-looking deans and professors insisted that the substance of economics and management had a rightful place in the education of pharmacists. On August 21, 1928, the Conference of Teachers of Commercial Pharmacy officially was a recognized part of the academic structure. The change of name to the Conference of Teachers of Pharmaceutical Economics the next year brought an end, not only to the 1920's and the three-year degree structure, but also to the beginning of what was to become the discipline of pharmacy administration.

#### Growth and Transition

The most difficult of activities is the breaking away from old habits, the emergence from the womb or cocoon, becoming an adult--any change that requires some degree of metamorphosis in the process in order to be complete. So it was as a motley scattering of commercial pharmacy courses were shepherded into the fold of pharmacy education by a few creative deans and professors who believed that a successful professional practitioner also had to be a profit-minded manager (Business was the word of the era). In overcoming the negative attitudes of the day, these leaders also had the foresight to begin the change of the concept to pharmaceutical economics as a focal point. No one argued against the need for economic knowledge as a basis for business decision-making. Many argued against the impending encroachment of commercial courses for which the economics served as a precursor.

It is also necessary to understand that these early meetings were not large. In fact, the large colleges may have had five or ten faculty members, and only the dean and maybe one or two others attended meetings. It is no wonder that the AACP acquired the nickname of a "dean's club" even into the nineteen fifties and sixties. Regardless of its founding by deans and a few faculty members, and regardless of small attendance at its early meetings, the Conference of Teachers of Pharmaceutical Economics gave status to a subject area and gave substance to it as a fledgling discipline in pharmacy education.

The subject matter included anything not specifically included in the

four "scientific" conferences. In 1930, Dean Jordan gave the first paper on extension work in which he envisioned a person who would hold programs on the Purdue campus and also would travel to stores when asked for advice. Dean Roland T. Lakey gave a paper on "Projective method of Teaching Pharmaceutical Economics." He took the position that using outside courses was no good because of the inherent biases of psychology, sociology and economics teachers and the lack of pharmacy student appeal. So the City College of Detroit set its own course of projects. Each student went to a particular person, got information requested, and wrote up a report to the class. Also, with 1,200 drug stores available, students made up window displays and put them into store windows for a week, making their own placards and signs. The course was a five-hour program with two hours for the display project. The ratio of drug stores to population, and the use of outside speakers in courses completed the first official conference program(36).

In 1931, Dean C. Leonard O'Connell spoke at length and led a discussion on "The Status of Pharmaceutical Economics." Some excerpts from his remarks serve to note both the need and caution of the times and the members present.

"Unqualified recognition will have to be based on the value of and the necessity for such training. The objection to business in a profession and disdain of monetary profit is losing ground in the minds of educators. Schools of pharmacy have failed to equip students to adapt themselves to their environment. The essential function of the pharmacist is professional but the function of colleges should be broadened to include some economic instruction. If colleges do not meet this need willingly there will be danger of over-emphasis upon the economic aspect and that would be bad for the future development of pharmacy . . . .

"There has been much talk about pharmaceutical economics but there is grave danger of courses deteriorating into a course of show card writing while the crying need is for fundamental principles governing the entire field. There should be some acquaintance with human behavior with special concern on how people act and little about the reason for the action. The study is needed so that teachers can get a foundation upon which to build a superstructure . . . .

"In opening the discussion, Mr. Bruce Philip said that principles of economics should be taught, there should never be deviation from fundamentals except to bring them into the drug store . . . .

"Dr. Olsen found after taking up his work at the Philadelphia College of Pharmacy that 'teaching business subjects in the abstract and teaching them in a way that will interest pharmacy students is quite a different problem.'

"He found it necessary to acquire familiarity with the business problems of pharmacy and has acquired a strong conviction that there is a tendency to regard retail pharmacy as the only outlet for graduates of pharmacy while the fact is that only about fifty percent do go into that field. If study of business problems is confined to the problems of the retail store, the interest of the other group is not reached at all. More important still many of the men who are conducting retail stores are not acquainted with the problems of the retailer. Every student should have a knowledge of the whole field."

"Mr. Lehman, speaking as a retailer, expressed agreement with Dr. Olsen. Students misunderstand wholesalers, manufacturers, and jobbers unless they are taught their problems . . . .

"Business subjects planned for inclusion in the new Syllabus were presented by Dr. Paul C. Olsen. Other schools like engineering and architecture want their students to know something about economics so pharmacy may profit by their experience. At Dean Beard's suggestion he had conferred with two professors at the University of Pennsylvania, S. Howard Patterson and Carl Schultz, who have written a successful book on practical economics. With their cooperation an outline was prepared covering economics as they thought it should be in a course in pharmacy. Reference was made to the preamble to the outline appearing in the Syllabus which is a justification for the course. The ideal way to teach economic theory to pharmacy students is to start with the things they are familiar with and then proceed to more detailed considerations of specific applications of economic principles of their own problems . . . .

"Chairman O'Connell expressed the opinion that it will not do to be arbitrary about getting time. There must be agreement among educators that a well rounded course is necessary and the time will be obtainable. What is done in this field must be comparable to economics in any field. All our courses must be of university value . . . .

"Dr. Olsen then presented the question of teaching accounting which is more than teaching bookkeeping. The really important thing is the interpretation of the values as revealed by the accounts. Dr. Koester, of Columbia University, says, 'Accounting is probably the most important single tool of business management. Accounting instruction provides, as a by-product, basic understanding of business organization and management and of business practices such as is obtained from but very few individual courses of study.' As outlined for the Syllabus it would require three hours for a year. Principles should be taught but the examples should be in the field of pharmacy, avoiding abstractions.

"Professor Monell reminded the group that when the Commonwealth report was being prepared much thought was given to the selection of a name and, for lack of a better one, "commercial pharmacy" was used. There was serious objection by most deans to using "business administration" because, if so named, college presidents would insist on turning the course over to their business schools where the teaching would be more of an abstract thing."

"Continuing, Dr. Olsen took up the third subject, "The Merchandising of Drug Products." In his experience, it had been much easier to interest students in this than in the other courses. This probably was due in part to the fact that they are brought into relationship to the whole process for the distribution of drug products. It is always difficult to interest students in subjects which they know the state board asks no questions about. As outlined the course would require two hours a week for a year . . . "

"The last subject in the outline, presented by Dr. Olsen, was 'Advertising and Selling Problems of Drug Stores,' which would take the last four hours of the twenty semester hours allotted for pharmaceutical economics."(37)

Meetings in the early 1930's covered diverse topics of the times concerned more with depression circumstances than teaching. The future of the negro pharmacist, the effect of the NRA (National Recovery Act) codes on retail trade, the effect of the depression on slowing the four-year course development required in all schools beginning in 1932. Trends in drug store profits were presented in 1935 from the newly organized Lilly Digest data for 1932-1934 by Dean O'Connell, whose actions have made Pittsburgh an important factor in the discipline of pharmacy administration throughout its history. Attendance was very disappointing that year in Portland, Oregon, and only five persons are recorded in the conference meeting. The total AACP meeting had only 90 persons (38 deans and 52 faculty members) from 38 schools, twelve of which had only the dean there.

The record must also show the diversity of interest in these early years in that the teachers of pharmaceutical economics were from many different non-related, basic science disciplines, plus a few practicing pharmacists such as Frederick Lascoff. The 1934 Chairman, Florian J. Amrhein, was a professor of chemistry at the Massachusetts College of Pharmacy, and is the only known person to have died in office in the Conference-Section existence. It is not difficult to understand the debate on courses and content within this select group, if one considers the heterogeneity of training, knowledge, and experience involved. However, unlike the modern faculty of the 1980's, almost all of those involved as pharmacy faculty were pharmacists--many with drug store practice and ownership experience, as was the case with Dean O'Connell.

Little was recorded in the middle or late 1930's to suggest

stagnation or growth as a subject or conference. Certainly the effect of the depression was evident on meeting attendance, college budgets and faculty, and numbers of students. In 1939, E. L. Newcomb, Executive Vice President of the National Wholesale Druggists Association reported that NWDA made an inquiry on the subject of commercial training as it applied at that time in the colleges of pharmacy to ascertain the views of administrative officers on the subject. There were 54 (of 59) replies. Some of the information is suggestive of the times and attitudes.

To the question "Do you outline a commercial course for pharmacists at the present time?", 48 replied yes, and 38 indicated it was mandatory. However, some also stated it was mandatory only for students in the retail track. A better reaction of the time was the reply that only 25 deans favored requiring all pharmacy students to take such a course as a degree requirement. All but two reacted negatively to having students take work in a school of business, because "business men do not understand and are not sympathetic toward the problems of the retail pharmacist." They thought that pharmacy men could best teach such a course. Newcomb reported that NWDA was organizing the efforts to create text material in a Drug Store Management for Pharmacists book to be available sometime in the future(38).

The first descriptive challenge to the subject area title came from a University of Pennsylvania professor, Karl Scholz, who also taught a course in economics to sophomores at the Philadelphia College of Pharmacy and Science in 1940. Noting that economics is the social science which deals with man's effort to make a living, he said economics does not explain how pharmacists or any other group of persons seek to make a living. He then pointed out that the professional economist denies the existence of pseudo-economic hybrids as pharmaceutical economics and medical economics, and that these erroneous terms relate to vocational matter which in a real economics course would only serve as examples of fundamental principles(39). This was followed by a discussion of the values that economics offers to the pharmacy curriculum by John V. Conner (Secretary) of Loyola University, who indicated some ten years experience teaching such a course of economics and allied subjects to pharmacy students. He also noted his experience as a drug store proprietor had made him acutely aware of the business end of pharmacy. However, he also noted that the Loyola students took a special section of economics in the Department of Economics for a total of 96 didactic hours as the primary business course. He believed it best be taught by a commerce faculty member under the jurisdiction of the pharmacy school(40).

The 1940 program was heavily weighted with discussions of economics. In addition, the passage of the 1938 Food, Drug and Cosmetic Act made pharmacists law conscious, and several articles are the results of presentations by Robert L. Swain on the modernization of pharmacy laws during 1940 and 1941. At the time law was generally the responsibility of pharmacy or pharmaceutics teachers.

No teachers conferences were held in 1942 so the officers were carried over. Papers were submitted for publication in the journal.

Again in 1943 insufficient attendance prevented elections of officers. The impact of World War II was swift and definite. Even though attendance was low and no new officers were elected, in 1944 Joseph H. Goodness made three recommendations for the Syllabus Committee, two of which were to change the heading "Subjects in Pharmaceutical Economics" to read "Subjects in Pharmaceutical Economics and Jurisprudence," and to limit the objectives of jurisprudence to the retail practice of pharmacy. Thus, law was to be removed from "Pharmaceutical Subjects" as an official redesignation(41).

Although no annual meeting was held in 1945 because of war travel restrictions, several significant events occurred which bear on pharmacy administration in its disciplinary development, if not at the moment. President (Dean) Glenn L. Jenkins (Purdue) recommended to a Washington meeting of the Executive Committee that a Conference of Teachers of Graduate Instruction be formed. The Resolutions Committee resolved to establish it for one year and schedule its first meeting subsequent to the establishment of the Committee on Teachers Conferences at the next regular meeting. The first officers of the new Conference were John E. Christian, Chairman (Purdue), Elmer E. Wirth, Vice Chairman (Illinois), and Lloyd M. Parks, Secretary (Wisconsin).

At the same time the Association also formed the Committee on Teachers Conferences to be one person elected from each of the five conferences (Pharmaceutical Economics, Pharmacy, Chemistry, Biological Sciences and Graduate Instruction) plus one person to be appointed by the President. These representatives were elected to two-year terms with duties: (1) to define the scope and functions of the several conferences; (2) to provide for uniformity of procedure in the conduct of several conferences; and (3) to transmit recommendations from the conferences to the Association. It had a \$50.00 budget for expenses. The first officers—elected from among the committee—were John E. Christian, Chairman, Robert B. Smith, Vice Chairman, and Jack E. Orr, Secretary. Along with these sections the Association also established a standing Committee on Graduate Instruction. There were 59 active member schools in the AACP, but membership was not compulsory(42).

A second major occurrence was the appointment by President Jenkins of the first Committee on Five Year Curriculum, chaired by Ivor Griffith (Philadelphia), in keeping with the recommendations then being proposed by the Pharmaceutical Survey. Mainly because the Survey findings were not complete, the first committee report was a four to one negative vote. It is noteworthy in passing that, in the final vote which later approved the five-year program, Jenkins and Griffith cast two of the eleven negative votes.

The impetus to graduate affairs was carried on in Jenkin's presidential address: "Planning for Graduate Education in Pharmacy," in which he extensively covered all facets of graduate needs and areas as well as manpower. He estimated a shortage of 1,000 persons trained to the Ph.D. level and that 2,000 properly distributed among the four major areas of pharmaceutical science could easily find placement. He later made

specific reference to pharmacy, pharmacology, pharmaceutical chemistry and pharmacognosy and divided these four areas into subgroups. Nowhere did he mention or suggest pharmaceutical economics as a potential area for graduate instruction in the 61 member colleges and five nonmember colleges at the 1946 meeting(43).

In his conference chairman's address in 1948, Dean Thomas D. Rowe (Rutgers) stated that he had a little firsthand knowledge of the other fields, but none at all in this one. However, certain leaders apparently had chosen him for this qualification of negligible knowledge to react to the area. Noting the "black eye" some of the earlier courses had given these subjects, he believed it would be some time before the injury is healed and present-day courses given full recognition. "There is a tendency for some schools to continue giving inferior courses, and it is unfortunate that 'Window Display' and 'Show Card Writing' are still offered for college credit." He noted that 36 schools gave nine hours or less in pharmaceutical economics courses as reported in the Pharmaceutical Survey, which suggested a first priority group of twelve hours. He concluded with a strong reference to using faculty from schools of business because the Survey noted the need for administrative preparation as absolutely essential with a background in pharmacy very useful(44). In his remarks, Rowe also referred to the Survey's Consultative Committee of Teachers of Pharmacy Administration. This was the first referenced use of the terms Pharmacy Administration and Pharmaceutical Administration in the Conference's reports and papers.

In an excellent 18-page Report of the Committee on Curriculum, George L. Webster (Illinois) reviewed the nature and extent of the curriculum. The Survey had proposed the six-year program, but much opposition was voiced that the four-year program was not yet efficient in all schools. Webster noted: "The committee takes as the definition of the practitioner of pharmacy, one who (1) is soundly trained in the science and technology of Pharmacy; (2) is basically educated in the fundamentals of economics and business practices; (3) is adequately indoctrinated with the spirit and precepts of professionalism to be accepted as a professional by others; (4) is aware of and disposed to accept the obligations of a citizen in his community and has the necessary perspective to become a leader; (5) has found the beginnings of a special aptitude which allows individuality of expression within the whole field of pharmacy"(45). At

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Editor's Note: Dean Rowe's reference to window display and show card writing was quite correct and a good example of this period of transition from commercial pharmacy to pharmacy administration. When Professor Evanson assumed responsibility for the pharmaceutical economics courses at Purdue University in 1948, in addition to the required management and jurisprudence courses was a very popular course on show card writing and window display, replete with large windows for product display and crepe paper techniques and draftman's bench tables for sign preparation in color and six pen styles. It took three years to "phase" these elements out of the course offerings to prevent reactions from practitioners who had taken these courses for college credit. However, some of these courses remained in some curriculums well into the 1960's.

that time the committee recommended that all schools go to a six-year program in 1955, or sooner if a school wishes. The committee recognized economics and business practices along with science, technology and general education. Pharmaceutical economics was represented on the committee by Stephen Wilson (Pittsburgh).

The Pharmaceutical Survey use of the term "Pharmacy Administration" reflected the attitude of the teachers to create an image of management and administrative goals rather than the simplistic merchandising concept of "Commercial Pharmacy" or the pseudo-theoretical reaction to "Pharmaceutical Economics." Although the name of the Conference had not changed, Dean Bliven discussed "The Problem of Pharmaceutical Administration" at the 1940 meeting and cited the basic core need of accounting, management, law and economics(46). Then in 1950 the meeting consisted of a panel discussion by four deans (McCloskey, Rowe, Bliven and O'Brien) and two able professors (Wilson and Olsen) on the subject: "Ways and Means of Implementing the Survey Recommendation pertaining to Pharmacy Administration in the Pharmacy Curriculum"(47).

The only recorded comments were those of Dean Francis J. O'Brien (Albany College), and he expressed the problems of the day very well when he noted: "Our chief difficulty is not in giving the required courses but in meeting the condition offered by another source that this field be departmentalized with a full-time professor in charge. We have not been able to find any one man who can effectively teach all the subjects listed in the field and we hold little hope of being able to do so in the foreseeable future. Although the recommended courses are undoubtedly all related to a single field, they are too widely diversified in content and interpretation to find any one man able to do a good teaching job in all of them . . . . we have been forced to split them (the courses) among a group of four men, none of whom has a sufficiently broad training in all the branches to act as a department head. We do urge pharmaceutical administrators to encourage graduate work in this field to provide the necessary manpower to carry out the proposed regulations"(48). Dean O'Brien refers to proposed Association requirements that each school establish a separate area of instruction in pharmacy administration to be headed by a faculty person of professorial rank. This eventually was passed effective in 1953, but many years passed before it was a total reality mainly because of the manpower shortage cited by O'Brien.

The major event which turned the tide of interest and settled the initial thrust of Pharmacy Administration as a title and discipline in learning was the 1950 Seminar in Pharmaceutical Administration at Ohio State University under the able direction of Dean B. V. Christensen. The program is described in the Journal (pp. 353-355, 1950), and is included as an appendix to this document to preserve the topics and names of discussion leaders. It was followed by seminars in 1962 at the University of Pittsburgh, 1970 at the University of Mississippi, and 1974 jointly with the area of Pharmacy at the Philadelphia College of Pharmacy and Science. Each of these meetings--as in other established discipline seminars--contributed to the development, cohesiveness and esprit de corps of an emerging faculty group and helped to clarify and expand course

content and curricular organization. All are included in the Appendix I. Copies of all proceedings should be found in each school of pharmacy library.

Another significant event in the Association structure occurred during the 1949-1951 period. The Committee on Teachers Conference organized a set of by-laws creating The Conference of Teachers with each area being designated as a Section of Teachers of \_\_\_\_\_ (49). The committee of elected section representatives elected its own officers who served as officers of the Conference of Teachers. A second set of by-laws for each section established the Section in the Conference(50). By this time the members of the section had wisely changed its name during the 1950 meeting to the Section of Teachers of Pharmacy Administration in keeping with the suggestion of the Pharmaceutical Survey(51). They also recommended to the American Council on Pharmaceutical Education (ACPE) that it use this term in its Proposed Accreditation Manual for all areas formerly referred to as Pharmaceutical Economics or Pharmaceutical Administration.

Perhaps Dean Chauncey I. Cooper summarily expressed the attitude of the moment quite well in his 1951 Chairman's Address. He recalled that President (and Dean) Charles W. Johnson (University of Washington) in 1924 had stated in Buffalo, New York, that business is a profession and more students enrolled in business than in pharmacy. He had concluded by saying that modern retail pharmacy demands both scientific and business training, so the colleges should recognize it and change to meet the conditions. Then he commented: "Thus, twenty-seven (27) years later we return to Buffalo with this (Dean Johnson's) resolution almost a complete reality. The term 'almost' is used because in reviewing many of our catalogues our statements and requirements are somewhat vague and indefinite; however, Pharmacy Administration, the youngest of our new additions, has made remarkable progress within the last four years in all our colleges." It is important to record Dean Cooper's special recognition to Professors Paul C. Olsen, Stephen Wilson, Joseph H. Goodness and B. Oliver Cole for their support, contributions and stimulation to younger teachers to make the conference grow and prosper (52).

The Annual Report of the ACPE in 1952(53) indicated there were 72 accredited schools of pharmacy. It also reported publication of the Accreditation Manual, 5th Edition, effective July 1, 1952, which contained the order to create five departments of instruction, including Pharmacy Administration. Each of the departments was to be headed by a person of professorial rank. Although not possible in all schools, the standard to be met had been established, and the transition from the merchandising of a drug store to the management of a pharmacy practice had taken place with official recognition and support.

## CHAPTER II DEFINITIONS, GOALS AND OBJECTIVES

There has long been the understanding that reference to any aspect of pharmacy administration-type instruction meant an absolute relationship to retail pharmacy in some shape or form or concept. Its early evolution began from the base of a "commercial pharmacy" attitude, because that is what the name of the pharmacy "game" was all about in the scheme of health care. Too many speakers and writers have expounded on the subject to include all of them in this document, so some selection will serve the purpose of providing a general idea of what pharmacy administration was and is meant to be.

Perhaps the most exclusive early coverage of this area of definitive terms in pharmacy education was presented by Blaugh and Webster in their discussion of the pharmaceutical curriculum in 1952(54). A few direct ideas and quotations from their work will serve to set the tone for later works. They begin their discussion with the statement:

"Pharmacy Administration, as used in this report, is the style of the acquisition, management, and operation of a retail pharmacy. Broadly conceived, it deals with facts and principles that are appropriately covered under economics, accounting, drug marketing, pharmacy management, and pharmaceutical law."

They continue later in describing this definition further by saying:

"It is not enough that students who prepare to be retail pharmacists should have good training in the science courses: the college or school has an obligation to provide them with the necessary training to practice their profession. A mere smattering of knowledge about the administrative aspect of pharmacy is not enough for the pharmacist. He needs to comprehend sound principles of economics and administration. Involved in this understanding are a knowledge of (1) economic institutions, (2) the flow of goods from producer to consumer, (3) the management of an enterprise or establishment, (4) the legal aspects of establishing and operating a pharmacy, and (5) the public relations of the pharmacist."

There was and has always been the great debate between the proponents of the discipline as a major part of instruction in colleges of pharmacy and proponents of pure professionalism as a way of life in pharmacy as it should be practiced. This dichotomy of attitude was also approached by the statement:

"Fear is sometimes expressed that the introduction of adequate instruction in administration in the pharmaceutical curriculum may prove inimical to professional ideals and standards. This danger may be present, but it can be eliminated if sufficient instruction time is allowed so that the ethical and social aspects of pharmacy administration may be

given as well as its operating principles. Greatly abbreviated administration courses are most likely to be dangerous. This instruction should always be given with the public interest in mind. Inefficient practices are socially wasteful; in the long-run society is the loser when they are employed. The courses should be given, therefore, from the larger point of view; the social interest, as well as the profits to be derived, must have attention, for therein lies the professional aspect of pharmacy administration."

One can understand and appreciate better their commentary on the possible "dangerous" quality of greatly abbreviated courses by observing one table of information offered to define the extent of instruction in the early years. The reader must also recall that the system was one of full-time apprenticeship in which education was being gradually pulled from the "real world" into the academic setting made up primarily of professionally-oriented pharmacists and of scientifically-oriented non-pharmacy teachers.

Table 1. Courses in Pharmacy Administration in the "Pharmaceutical Syllabus."

Title of Course	Clock Hours				
	1st Edition 1910	2nd Edition 1913	3rd Edition 1925a	4th Edition 1932b	5th Edition 1945
Commercial Pharmacy	50	75	125		
Pharmaceutical Jurisprudence	5	10	25	32	32
Economics				96	48c
Accounting				96d	48d
Merchandising, Advertising and Salesmanship				128	
Marketing of Drug Products					32
<u>Management of Retail Pharmacies</u>					32
<u>Total Required Courses</u>	55	85	150	128	144

a Three-year curriculum.

c Half course; full course, 96 hours.

b Four-year curriculum.

d Optional subject.

Source: Table 14, Courses in Pharmacy Administration in the Pharmaceutical Curriculum, The Pharmaceutical Curriculum, Lloyd E. Blaugh and George L. Webster. American Council on Education, Washington, D.C., 1952.

Defining a subject area is difficult in its simplest approach, and its inclusion in the curriculum often indicates how important such a

definition may be. The reader is cautioned, however, to note that in 1910 there was only a one-year - or at best - two-year program, so that even 55 hours was considered a reasonable part of the curriculum. This is especially true when one considers that the apprentice was supposed to get much of this information on-the-job from his preceptor. It is also noteworthy to recognize the general shift away from the "commercial pharmacy" definition to the merchandising and then the management definition to which was added to the marketing of drug products as a specific content area. To complete this evolutionary description, Blaugh and Webster indicated that at the time of their writing the colleges of pharmacy were offering pharmacy administration courses under five basic titles as a nucleus of instruction with frequency of schools as follows: Economics-38; Accounting-33; Drugstore Management-50; Advertising/Salesmanship-9; and Pharmaceutical Law-52. All were three-hours except law was two hours. Each of these areas was then defined in some detail as to objective and content to serve as a guide to the teacher and the administration for curriculum planning.

Again, the general definition at that time was expressed plainly for guidance of faculty understanding and was accepted in planning courses and course materials. Specifically, it was stated that:

"In recommending the instruction in pharmacy administration that is essential in the pharmaceutical curriculum, one must select from a wealth of materials in such subjects as economics, management and jurisprudence those that are particularly pertinent to the operations of a retail pharmacy. The subject matter must be extensive enough to provide an adequate foundation for understanding these operations to the point where the student is able to judge them critically and to carry them on intelligently as befits a profession."

The consensus of definition by most pharmacy administration teachers was based on this statement and denoted the general objectives of management-based college work. An excellent statement-example was given in 1956 by Seymour Jeffries and Isidore Greenberg (Brooklyn College of Pharmacy). It was their contention that "the aim of the undergraduate course of study as recommended by the AACP Committee on Curriculum in the mid-1950's was to provide the graduate with the kind and quality of training and terminal education needed to develop in him a greater understanding of the economic and administrative principles related to retail pharmacy, and a greater measure of competence in the practical applications of these principles to drugstore management and merchandising"(55). However, Jeffries presented ideas the following year which suggested that this concept should be expanded in order to prepare students for a pharmacy career(56).

Blaugh and Webster give credit to several persons for their consultative contribution to the explanations of pharmacy administration. These persons include the outstanding and well-known teachers of the time, such as: B. Olive Cole, Joseph H. Goodness, Harold H. Maynard, Herman C. Nolen, Paul C. Olsen and Stephen Wilson. In 1945, about the same time

that The Pharmaceutical Curriculum was being published, Joseph Goodness published a statement which seemed to be more fact than fiction in the scheme established by school administrators to take care of pharmacy administration instruction. It was Professor Goodness' position that:

"In very few schools will you find a department or a segregation of business courses, instead business courses are relegated to part-time activity of some science instructors, and frequently with the onus of 'dirty work' that beginners have to do until it be transferred to the next new man. In short, the business course falls to the level of the untrained instructor rather than acquiring the rightful dignity of a college grade course" (57).

In 1961, a series of papers on the National Purpose of Pharmacy by the leaders of five organizations (NABP, APhA, NARD, AACP, and ACPE) attempted to describe what pharmacy is supposed to be and do. Dr. Melvin W. Green, then Director of Educational Relations of the ACPE, offered a definition of pharmacy as agreed upon by a joint committee of the AACP and NABP in 1960 with additional comments as follows:

"There is a need for sound thought and depth analysis concerning pharmacy as a function independent of site. Since the function is a social necessity, it can be assumed that it always will take place at some site, and the question of the site becomes another problem which could be analyzed separately.

Recently pharmacy (the function) has been defined as that profession which is concerned with the art and science of preparing from natural and synthetic sources suitable and convenient material for distribution and use in the treatment and prevention of disease. It embraces a knowledge of the identification, selection, pharmacologic action, preservation, combination, analysis, and standardization of drugs and medicines. It also includes their proper and safe distribution and use whether dispensed on the prescription of a licensed physician, dentist, or veterinarian or, in those instances where it may legally be done, dispensed or sold directly to the consumer.

Every pharmacist practicing his profession is concerned to some degree with each of these elements in the definition, although a particular pharmacist by virtue of the location of his practice may need to emphasize some aspects and de-emphasize others. But educationally the basic elements of each of these phases must be present in every pharmacist.

In the past, there has been altogether too much focus of attention upon the fact that 90 percent of the college of pharmacy graduates are employed in the so-called retail practice and a concomitant desire to slant the professionalization of the occupation with that concept in mind. While the ninety-ten

ratio holds essentially constant, such an outlook tends to provide an adequate background for the other ten" (58).

The general objective of pharmacy administration programs varies in particular applications of philosophy and available courses and teachers among the 72 colleges of pharmacy. Perhaps the largest, single aggregation of statements of objectives and descriptions of curriculums to date was amassed in the NARD Journal in March, 1975 (pp. 32-50) and later published as a separate document titled: "Pharmacy Administration and the Pharmacy Class of 1975." Thirty-two schools offered statements and/or descriptions of programs and the name of a contact person at the school. A brief review of some of the statements of objectives will serve to document the contemporary direction and scope of pharmacy administration as it has developed to date and portends to expand into the future.

"The overall objective of the department is to produce a pharmacist who can actively participate in the management of drug distribution systems regardless of his practice setting." (University of Connecticut)

"The University of Florida College of Pharmacy has accepted the broadened responsibility for providing professional studies and training in the social and behavioral sciences as well as continuing many of the traditional studies in the commercial aspects of pharmacy practice. In order to accomplish these expanded objectives, it was necessary to establish the Department of Health Care Administration."

"The general objective of the discipline of pharmacy administration at Purdue University is to offer a program of undergraduate and graduate instruction and research in the management of professional services, programs and systems related to pharmacy practice, drug marketing and delivery of health care services."

"Pharmacy administration at the University of Minnesota stresses an examination of the system in which pharmacists, patients and other health care providers interact, behave, perform, generate revenues, provide services and are educated, and the system and its environment."

"Our overall goal is to prepare the graduate to understand the social and economic environment in which pharmacy is practiced and to give him the administrative tools to manage his professional practice." (University of Mississippi)

"The objectives of the pharmacy administration staff of the Philadelphia College of Pharmacy and Science is to provide the student (and practitioner through continuing education) with necessary information concerning the socioeconomic and legal aspects of pharmacy practice and drug distribution."

"Pharmacy administration, while still offering courses that relate to the community pharmacy, has embarked upon an innovative program of courses in administration that relate to the total health care system." (University of Texas)

"The pharmacy administration area has the broad objective of inculcating the pharmacy student with an understanding of psychosocial, economic, legal and managerial concepts which will enable him to effectively and efficiently perform as a pharmacist, and to adapt to changing roles and functions in the future." (West Virginia University)

In their text, *Pharmacy, Drugs and Medical Care*, Smith and Knapp in 1972 and again in the Second Edition in 1976 offer some definitive concept of pharmacy administration in their discussion of pharmaceutical education. After alluding to the early commercial orientation, they continue: "With the change in emphasis to clinical pharmacy, the growing concern with drug costs and the increasing variety of practice settings, pharmacy administration offerings in many schools have evolved into a more professionally relevant part of the curriculum. Content generally deals with problems of increasing the efficiency and economy of providing pharmaceutical products and services and with the structure and functions of the pharmaceutical industry. This area is usually responsible for instruction in pharmacy law and the development of accurate record keeping systems(59)." Later in the text, while citing certain specialized knowledge of techniques and intellectual base considered to be the specialized knowledge which is the preview of pharmacy, they refer to the "socioeconomic determinants of drug use (pharmacy administration)" as one of these special knowledge areas(60). However, there is no indication that this constitutes automatically an abbreviated definition of the total prepared and distributed, so that this brief phrase offers an implied abstractive definition of the discipline as they view it in its broadest aspects and uses in the health-care system.

In their Third Edition (1981) Smith and Knapp refer to pharmacy administration only in a comment about scientific programs that "a limited number of schools offer advanced work in pharmacy administration, history of pharmacy and the social and behavioral aspects of pharmacy(61)." A definition of the area of study is not evident. Instead, they refer to areas of instruction which deal with the application of the basic and pharmaceutical sciences to the practice of pharmacy. Two of these applied areas are cited as social and behavioral sciences and administrative sciences. Social and behavioral sciences are definitively alluded to as instruction which increases student understanding of those individuals who typically interact with pharmacists, such as patients, physicians, the elderly and terminally ill, as well as instruction in pharmacy ethics, patient education and interpersonal communication. Administrative science is depicted by the somewhat traditional content of financial, inventory, sales and merchandising management; drug marketing; health economics; and institutional pharmacy management. Courses in health care organization and financing, pharmacy law, and ethics of the profession are also suggested(62). Because this text has the potential of influencing the

PHARMACY ADMINISTRATION IS AN AREA OF KNOWLEDGE WHICH HAS THE CHARACTERISTICS OF A SOCIAL SCIENCE AND IS CONCERNED PRIMARILY WITH THE ADMINISTRATIVE, ECONOMIC, POLITICAL, BEHAVIORAL, DISTRIBUTIVE, LEGAL AND MANAGEMENT FUNCTIONS, PRINCIPLES, AND PRACTICES INVOLVED IN OR RELATED TO THE PRODUCTIVE, DISTRIBUTIVE, PROFESSIONAL AND ANCILLARY SERVICE AGENCIES AND PERSONNEL INVOLVED IN SATISFYING THE LEGITIMATE DRUG NEEDS AND PHARMACEUTICAL AND INFORMATIONAL SERVICES OF CONSUMERS AS PATIENTS, PRESCRIBERS, DISPENSERS, AND INSTITUTIONS IN THE HEALTH CARE INDUSTRY.

This definition recognizes a relationship with matters pertaining to people, health care, and pharmacy services - distributive and clinical - in professional, institutional, business, social and other consumer-oriented environments. It recognizes the need for a scientific attitude and practice in research and admits the potential development of usable principles and theories to explain phenomena related to pharmacy's involvement in social systems from production to consumption, including ancillary services. It speaks to the need for the pharmacist to fulfill the role of clinical practitioner and drug consultant as well as a controller and a distributor of drug products to meet the needs of many kinds of people and agencies that may require pharmacy services. It is not self-limiting to any particular environment but is self-inclusive of all health care systems wherein pharmacy services or knowledge may be desired or required.

Just as the definition and objectives have progressed from the very commercial to the management of systems primarily related to community pharmacies as business entities to the broader concept of managing the various aspects, systems and roles in the health care system, so has the course content and those who teach it changed. A consideration of these specific factors will develop the historical facts and changes in the discipline.

"Our job in this evolving discipline of ours is to interpret the principles of business administration in its broadest sense so as to guarantee the fulfillment of the professional and public health responsibilities of pharmacy. This is where we can make our greatest contribution. If we are going to overlook this essential part, we will serve no purpose, and will simply be doing what instructors from business administration could have done, long since. Years ago pharmaceutical education rejected that approach, and has been waiting patiently for us to develop and to merge the two disciplines where they overlap."

Stephen Wilson, Am. J. Pharm. Educ.; 24, 445 (1960).

thinking of future generations of pharmacy students, the elimination of the descriptive term - pharmacy administration - from its curricular descriptions may serve to separate its traditional and contemporary subject matter definition and objectives into two or more somewhat narrower areas of knowledge which may be made more or less general or may be more easily assumed by non-pharmacy departments which specialize in these areas of instruction in a university system.

In 1984, Manasse and Rucker attempted to relate pharmacy administration to education, research and practice. They refer briefly in passing to the short Smith-Knapp definition, and then as a basis for their discussion offer their definition as follows:

"Pharmacy administration is a sub-discipline of the pharmaceutical sciences which centers on the study of and education in the applied social, behavioral, administrative and legal sciences which bear upon the nature and impact of pharmacy practice regardless of the environment in which professional services are furnished."

"Contained in this definition are several important understandings:

1. Pharmacy administration is a legitimate component of the pharmaceutical sciences: it should be afforded the same importance as physical pharmacy, pharmacology, medicinal chemistry or clinical pharmacy.
2. Pharmacy administration is for the most part an applied science which derives its fundamental theoretical base from the "parent" sciences of sociology, psychology, economics, management and jurisprudence. It is thus not fundamentally different from other pharmaceutical sciences which find their roots in chemistry, physics, physiology, biology and engineering.
3. The nature of the applications of pharmacy administration's underlying theoretical base is defined by (a) the essence and nature of practice itself and (b) the varying and various forces which articulate with pharmacy practice.
4. While pharmacists function in a variety of practice and non-practice settings (i.e., communities, institutions, manufacturing facilities, etc.), the disciplinary focus of pharmacy administration is not bound by the unique elements of varied sites. Rather, the disciplinary outlets of pharmacy administration find application in all areas where pharmacy-trained graduates function.

"In a previous critique, it was proposed that the discipline of pharmacy administration centered on an understanding of WHOM the profession is practiced, HOW, TO WHAT END, and IN WHAT CONTEXT. Thus the discipline of pharmacy administration is of necessity an eclectic discipline which attracts a variety of scholars to its ranks(63)."

Application of the term "eclectic" to define the discipline seems to be a contemporary excuse for the justification of a mix and match faculty of disparate backgrounds or interests. It is well known that substitution is prevalent when supply is short and demand excessive to require using whatever may be available from various resources to do the best job or to satisfy some reasonable vestige of redefined goals to meet the presumed needs with the talent and dollars available. However, choosing what appears to be the best, as in the free selection and borrowing of ideas, styles, and systems, from diverse sources (eclectic) is a common practice in pharmacy as an applied science in all of its subdivisions. Chemists, biologists, pharmacologists, botanists, biochemists, oncologists, physical chemists, and nuclear physicists are but a few of the persons found among pharmacy faculties, and all of these may be found in a department of medicinal chemistry according to the AACP Roster of Teaching Personnel.

Therefore, to define pharmacy administration as an "eclectic discipline which attracts a variety of scholars to its ranks" is of little substantive value in the scheme and understanding of the disciplines in pharmacy education. Eclecticism refers to the selection and use of ideas and doctrines. If all faculty persons were of the same knowledge background and experience, they would no doubt have differentiated their teaching and research through eclectic strategies, ideas and logic. If pharmacy administration as a discipline becomes populated by a hodge-podge of sub-disciplinary specialists who know or care little about pharmacy as an area of knowledge, as an applied science, or as a professional practice, it will have eclectized itself into oblivion as a recognized academic discipline in pharmacy. However, if pharmacy administration as a discipline can be defined in terms of who, whom, what and how, it will define the needs and specialties to be satisfied by pharmacy scholars who have specialized knowledge and research abilities to serve education and the profession.

There is a general attitude threading through all of the statements that the "practice of pharmacy" may be oriented to the community pharmacy, but the education of a pharmacist cannot be relegated only to this special function or environment. It appears that something "out there in the real world" is changing, and that pharmacy education is helping to make such a change progressively through its clinical orientation, its interest in the Doctor of Pharmacy degree programs as an academic objective, and through the interest of practitioners, who are getting into innovative types of practice as clinical scientists, consultant pharmacists, specialists in durable medical care equipment, institutional administrators, and a plethora of activities and titles not even heard of in past years. In view of these expanded roles and newly-created interests, perhaps a modernized definition of pharmacy administration as a total entity would serve to describe a contemporary position and suggest potential development for the changes which are certain to be made in the discipline's instructional materials and research interest as time passes over the next decades.

## CHAPTER III COURSE CONTENT AND RESOURCE MATERIALS

### Curriculum Content

In 1910 Professor E. Fullerton Cook wrote that "twenty or more years ago, Professor Remington began the giving of several lectures each year in the College of Pharmacy, to students, on the subject of business . . ." Professor Cook referred to his own "nine years of teaching, financing, managing, purchasing and selling, as applied to the retail pharmacy" before developing his current outline of what "such a course should embrace." It included "all the bookkeeping incident to establishing a new pharmacy or buying an established one and management of the pharmacy as a business enterprise, followed by lectures on insurance, legal papers, letter-writing, ordering goods, banking, business law, notes, drafts, transportation, advertising, state pharmacy laws and National Pure Food and Drug Laws"(64).

Professor Cook was unique in that what subjects or lectures were covered in pharmacy administration in most other schools of pharmacy at the start of the century typically were provided by non-academic guest lectures or by pharmacy faculty members trained in other academic disciplines. For example, in 1910 Dr. Edward Kremers of the University of Wisconsin wrote: "Another attempt was made during the past year, viz. to inaugurate a one-fifths course in Drug Store Practice. Every Friday afternoon the classes met to take up some phase of drug store practice, beginning with the plan and equipment of a drug store and ending with a debate on the recent disturbances caused by the attack of the A.M.A. on the N.D.S."

"In these efforts we have been ably seconded by such men as Messrs. Williams, Sumner and Findorf of Madison, by Mr. Eberle of Watertown and Mr. E. G. Raeuber of Milwaukee to all of whom we desire publicly to give thanks for their generous cooperation. Although we had other promises, these did not materialize, but we hope to be more successful another year. In this connection, we are also indebted to Mr. Welser for a fine collection of shelf ware used in a lantern slide talk on drug containers."

"The great difficulty in pushing such a course as this appears to be to get practitioners in the different branches of pharmacy to address the students. In order to make this course in Drug Store Practice what it ought to be, we need the cooperation of many persons: men who have spent their lives behind the counter; men who have been on the road; men who are familiar with association activity and who have studied the economic, social and ethical conditions of our profession: all persons who are engaged in the practice of this now so complex calling named pharmacy. It is with an appeal for this cooperation that I close my report"(65).

This was the same year that the first edition of The Pharmaceutical Syllabus was published. A basic purpose of the syllabus was to increase uniformity among academic programs in pharmacy. Among the 1,000 hours of recommended minimum instruction were two 25-hour courses in commercial pharmacy. The first was to cover "trade or commerce

in pharmaceutical products including business practice." Its major subjects would be commencing business, stock, selling goods, advertising methods, and manufacturing. In the second 25 hours, the major subjects were to be bookkeeping, business correspondence, insurance, negotiable instruments, banking, partnership, corporations, bankruptcy laws, and professional and business ethics.

The Syllabus also recommended a 5-hour course in jurisprudence to cover its philosophy and scope, contracts, agency, partnership, property, insurance, and statutory regulations of the practice of pharmacy. Although texts and references were listed for the other curricular areas, none were cited for either commercial pharmacy or jurisprudence.

The lack of enthusiasm and support for commercial pharmacy in the pharmacy curriculum by pharmacy academicians of the time was voiced by the renowned Rufus A. Lyman. He reported: "There has been a popular demand for courses in our schools which familiarize our students with the commercial side of pharmacy. Some of us, in an attempt to please our friends, have introduced such courses under the names of business methods, accounting, etc. They consist of a few lectures or, at best, one or two hours a week for a semester. Such courses may be entertaining to the student, but they have little or no educational value. Such information can be acquired to much better advantage, under present conditions, by store experience"(66).

In addition to Professor Cook, another pioneer early in the century was Professor Henry P. Hynson who, in 1918, referred to "... a course I have been giving...during the last fourteen years." Based on that course, he gave a chapter outline of a proposed text on commercial pharmacy. The introductory description would include general business principles, facility in business practices, and familiarity with business forms. The section on the science of commerce would include: 1) the general and far-reaching usefulness of commercial pharmacy; 2) fundamentals: the adoption of standards, forming models for imitation; 3) the fixing of standards; 4) the person; 5) personal cleanliness; and 6) dress.

To the above Professor Hynson would add chapters on the mind and its training, the application of general education to business purposes, correct and pleasing speech, and character. "In the second part of the proposed treatise" he proposed to include "business writing, contracts, credits, credit men, commercial agencies, banks, banking, and bookkeeping"(67). No subsequent reference to Professor Hynson's proposed "treatise" was found.

The decade of 1910 also witnessed publication of the second edition The Pharmaceutical Syllabus in 1913. It recommended increasing the minimum course from 1,000 to 1,200 hours including an increase in pharmaceutical law from 5 to 10 hours. The law course was to be confined to the relations of law and pharmacy to each other with law relating to commercial transactions included under commercial pharmacy. Commercial pharmacy, increased from 50 to 75 hours, was to cover the major topics of bookkeeping, business correspondence, commercial and business law,

property, and business practice.

Resistance to the acceptance of commercial pharmacy at the close of the decade is evident in Dean Frederick Wulling's comment that, "It is proper for colleges of pharmacy to give (only) limited instruction..." such as "a few lectures by specialists on each of the subjects of pharmacy laws, contracts, agency, commercial paper, property, insurance, bailments, partnership, transportation and the like and an introduction to general psychology..."(68). However, Professor Charles O. Lee did not object to commercial pharmacy courses per se, but was critical that they were devoted to the study of business methods rather than to business principles. Further, he believed they should stress the needs of society, ethics, and civic leadership(69).

Early in the 1920s Professors Bradley and Pearson recommended "major subjects of the course" in commercial pharmacy to be accounting, selling and store management. "Other important subjects are advertising and law organization"(70). In 1922 the third edition of "The Pharmaceutical Syllabus" recommended a minimum three-year, 2,250-hour course in pharmacy with pharmaceutical law receiving 25 hours and commercial pharmacy 125 hours.

The publication, Paul J. Mandabach, Drug Store Merchandising: Ways and Other Ways, Chicago, 1923 (191 pp.) became available early in the decade, but no reference was found of its adoption or use in the schools of pharmacy.

Professor E. Fullerton Cook published an early article on an objective basis for teaching prescription pricing(71), and Professor W. Goggins Crockett wrote that the School of Pharmacy of the Medical College of Virginia had equipped a practice drug store for teaching purposes(72). Professor Goggins noted that in the first year, students were "taught wrapping, labeling, the use of price lists; they learn much of the stock and get actual experience in dressing showcases and taking inventory. Also, the instructor is afforded a good opportunity for discussing salesmanship, neatness, treatment of customers...." In the second year, 64 hours were devoted to a course in economics; 16 hours for management, advertising, buying, turnover, and related topics; and 32 hours to a course in bookkeeping.

The findings and recommendations of a study of the pharmaceutical curriculum, begun in 1923 with the endorsements of the American Association of Colleges of Pharmacy, the National Association of Retail Druggists, and the National Association of Boards of Pharmacy, were published in 1927(73). The report recommended that the pharmacy curriculum be divided into four branches; pharmacy, *materia medica*, chemistry, and commercial pharmacy. Branch I (Pharmacy) included jurisprudence, practical experience, professional morale, professional reading, and personality and character traits, but specific course content was proposed only for jurisprudence. That outline recommended as major topics: 1) general considerations; 2) state pharmacy laws, and listed 20 "of the more important and generally applicable provisions of state

pharmacy laws...;" 3) Federal or national laws including five "of the greatest importance to pharmacy;" 4) state laws similar to Federal laws; and 5) miscellaneous state laws.

Branch IV, commercial pharmacy, was divided into two areas, merchandise information and salesmanship. For the first area, the report recommended stress be placed on product knowledge of items sold in the pharmacy with examples given for soaps and hot water bottles. Its recommendations for salesmanship, based on interviews with well-known pharmacists and faculty members, recommended the following outline of major topics: 1) opening the sale, 2) finding out exactly what the customer wants, 3) knowledge of merchandise, 4) displaying goods, 5) closing the sale, 6) personal contacts, 7) speed, 8) meeting objectives, and 9) faults of personality.

While the well-publicized study undoubtedly influenced academicians, the extent to which its recommendations were incorporated into individual curriculums is unknown. As a decade drew to a close, Dean Charles Jordan of Purdue reflected on the change from a three- to a four-year curriculum and "the problem of preparing our graduates for social as well as professional and business pharmacy"(74). He recommended more credits for English, the study of psychology, sociology, history, modern languages, and "at least one year" of economics.

In the same period Professor Floyd LeBlanc noted that students at South Dakota State College "will take store management, window display and lettering and design(75). The course in store management was to include as major topics: 1) study of drug store sites, 2) in buying an old store or establishing a new store, 3) arrangement of fixtures, 4) selection of clerks, 5) ordering of supplies, 6) credit, 7) policy of store, 8) danger of overstock, 9) obtaining confidence (Doctor and public), 10) community spirit, 11) cost of doing business, and 12) invoice.

The decade closed with Dean Wulling still protesting that "Colleges of Pharmacy were organized to teach pharmacy and not trade"(76). Also Professor Lyman concluded: "So far as I have observed I am of the opinion that all of the two- or three-hour courses in so-called commercial pharmacy that are now being given in our colleges consist of a smattering of things which do not give a student any idea of the broad fundamental principles upon which business is founded"(77).

The decade of the 1930s opened with Professor Bruce Philip stating that "the course in pharmaceutical economics (at the University of California) covers one hour a week for four semesters(78). The first two semesters covered "business principles," the third, "fundamentals of salesmanship", and for the fourth semester, "outside speakers are brought in...most of (whom) come from commercial houses."

An early reference to resource materials was noted by Professor Roland Lakey of the College of the City of Detroit who stated: "The booklet published by the United States Department of Commerce, called "Retail Business," is used as an outline of principles. There is not

suitable text in the field..." He also reported that laboratory work at the school consisted of installing window displays in pharmacies throughout Detroit(79).

Apparently in response to criticism thereof, Dean Louis Zopf of the University of Iowa defended the teaching of window trimming and show card design because newly hired pharmacists were expected to perform these tasks(80). Also perhaps as a response to the economic conditions of the time, various instructors emphasized prescription pricing as part of their course work(81).

Three important resource materials became available in 1932. They were:

Paul C. Olsen, The Merchandising of Drug Products, A Appleton and Company, N.Y., 1932. (A 22 chapter volume which included various management topics.)

Wroe Alderson and W. H. Mesarole, Drug Store Arrangement, Washington, 1932 (126 pp.)

The Lilly Digest, Eli Lilly and Company, Indianapolis.

These were followed by the first substantial texts in pharmacy jurisprudence:

William R. Arthur, The Law of Drugs and Druggists, West Publishing Company, St. Paul, 1935.

C. Leonard O'Connel and William Pettit, A Manual on Pharmaceutical Law, Lea & Febiger, Philadelphia, 1938.

In 1932 the fourth edition of The Pharmaceutical Syllabus was published. In recognition of the four-year course, it recommended a minimum of 3,000 hours of instruction to include as required courses 32 hours of pharmaceutical jurisprudence and 96 hours of economics of "standard college grade." Major topics to be included in the jurisprudence course were: 1) general principles of American system; 2) the pharmacy acts; 3) the poison acts; 4) U.S. Postal Laws and regulations for mailing of poisons, explosives, etc.; 5) regulations of Interstate Commerce Commission for shipment of poisons, explosives, etc., by freight, express or baggage; 6) anti-narcotic or habit forming drugs acts; 7) Federal Food and Drugs act; 8) state food and drugs act; 9) the Federal Prohibition Act; 10) state prohibition and regulatory acts; and 11) common law obligations of pharmacists.

As optional courses, it recommended principles of accounting (96 hours) and a general course in merchandising, advertising, and salesmanship (128 hours). The accounting course was to be divided into sections on elements of accounting, and accounting and business management. The elements section contained as major topics: 1) basic concepts: property, proprietorship and profit; 2) the balance sheet; 3)

profit and loss elements; 4) recording business data: the account, debit and credit; 5) debit and credit applied: merchandise and other mixed accounts; 6) handling and proof and accounts; 7) periodic adjustments and summarization; 8) the journal record: purchase and sales journals; 9) the cash receipts and disbursements journals; 10) the general journal; 11) business papers or vouchers; 12) the division of the ledger; 13) handling controlling accounts; 14) the work sheet and summary statements; 15) adjusting and closing the books; 16) partnership organization and proprietary accounts; 17) partnership profit distribution: dissolution and distribution of assets; 18) corporations: organization and opening the books; 19) treasury stock, bonds, and sinking fund; 20) the manufacturing corporation; 21) the voucher system; and 22) surplus, dividends and closing the corporate books.

The accounting and business management portion of the accounting course would cover as major topics: 1) buying, manufacturing and control and stocks; 2) sales and consignments; 3) cash, negotiable instruments and investments; 4) credits, collections and discounts; 5) balance sheet valuation; 6) office organization for control; 7) accounting and executive control; and 8) analysis and interpretation of reports.

The optional course in merchandising, advertising, and salesmanship was to emphasize two areas. The first, the merchandising of drug products, was to cover merchandising problems of manufacturers and wholesale distributors, and the problems of retail distribution. The second portion on advertising and selling problems of drug stores was to include: 1) why people patronize drug stores; 2) market analysis; the value of a good location; 3) determining how much and what stock to carry: items, brands, price policies, turnover; 4) store plan and arrangement; 5) effective merchandise displays: necessity of their attracting and holding attention; 6) external advertising media available for drug stores; 10) effective appeals in drug store advertising; 11) the letters a drug store proprietor must write; 12) personal salesmanship in drug stores; and 13) management of the sales people.

Some topics which the Syllabus recommended for inclusion in the dispensing pharmacy course were compatible with the general scope of pharmacy administration and may also have been included therein. Examples are pricing prescriptions, liability of the pharmacist in case of error, insurance against error, attitude of the dispenser toward the prescriber, attitude of the dispenser toward the customer, and advertising and promoting professional pharmacy.

The 1930s drew to a close with Dean Howard Newton of Massachusetts College of Pharmacy recommending separate fourth-year elective courses in accounting, advertising, show card writing, window display, salesmanship, commercial pharmacy, druggists' sundries, and public speaking(82). The model drug store at Temple University was deemed valuable to teach displays, storage methods, and proper receipt of prescription orders in the pharmacy and over the telephone(83). Finally, the continued need for a text in pharmacy management was noted along with the willingness of the National Wholesale Druggist Association to "endeavor to secure such funds

as may be necessary" to underwrite texts in "Elementary Accounting for Pharmacists," and "Retail Store Management for Pharmacists"(84).

The Pharmaceutical Syllabus, Fifth edition (tentative) was published in 1942, and contained tentative outlines of courses to be required in the pharmacy curriculum. These included 3 credits of economics, 3 of Marketing and Drug Products, 2 of Pharmaceutical Law, and 3 of Management of Retail Pharmacies. A 3-credit Principles of Accounting course was to be an optional subject. Hospital Pharmacy defined as "the study of the practice of pharmacy in the hospital" also was listed as an optional subject in the fourth year.

Major topics for the Marketing of Drug Products course were: 1) measurement of consumer demand, 2) packaging and identification, 3) promotion methods and costs, 4) price problems and policies, 5) classes of merchandise marketed through the drug trade, 6) competition in retail marketing, 7) types of marketing agencies used in distribution of medicinal and related products, 8) classes of wholesale marketing agencies, 9) chain drug stores, and 10) types of pharmacies and drug stores.

The pharmaceutical law course outline included: I. General principles of the American system of law, a) classifications of law under state and Federal dual system of government, b) the American court system, and c) procedural law; II. Laws regulating the general practice of pharmacy, a) state code of pharmacy, b) common law obligations of the pharmacist to the conduct of the business, and c) patent and proprietary drugs, medicines, and poisons; III. Related Federal and state laws affecting the practice of pharmacy, a) poison acts, b) narcotic or habit-forming drug laws, c) Federal and state food, drug, and cosmetic laws, and d) Federal toxin and anti-toxin law and related state law; and IV. Miscellaneous laws governing the practice of pharmacy, a) sales of contraceptive drugs and devices, b) sales of abortives, c) sales of vitamin concentrates, d) regulations for the sale of rubbing alcohol, e) distribution of drug samples, and f) state and Federal fair trade laws and price control laws.

The suggested outline for the required Management of Retail Pharmacies course was: 1) methods of selecting a location; 2) valuing an established pharmacy; 3) amount of investment and merchandise stock necessary; 4) store layout and arrangement; 5) effective display methods; 6) applications of commercial art; 7) advertising media used in pharmacies; 8) obtaining best results from letters; 9) personal salesmanship; 10) selection and maintenance of prescription department stock; 11) opportunities for development of a laboratory; 12) supplies used by physicians, dentists, and other professionals in their office practice; 13) public health services; 14) library services; 15) methods used to interest physicians and other professionals in prescription service; 16) sale and rental of sickroom appliances, supplies, and aids; and 17) personnel problems.

The outline for the optional course in Principles of Accounting recommended standard accounting topics with cost control and other

headings specifically related to pharmacy practice.

The Pharmaceutical Syllabus, Tentative Fifth Edition (Revised) was published in 1945. No changes were suggested in the economics, marketing or accounting courses. It recommended dropping procedural law from the jurisprudence course, and adding as a major subject area, source of capitol, to the management course. It also recommended deleting obtaining best results from letters, selection and maintenance of prescription department stock, opportunities for development of a laboratory, and library services as management topics.

Early in the decade of the 1940s, Professor Joseph Goodness of Massachusetts College of Pharmacy encouraged pharmacy administration instructors to incorporate the case method and creation in their pharmacy business courses. He also noted a number of schools had model drug stores, used miniature drug store fixtures, floor plans, special bookkeeping problems, buying exercises and similar application of plans and principles(85). Professor Paul Olsen of PCP&S reported on his use of a modified case method to teach accounting(86), and Professor John McCloskey of Loyola University noted students at that school engaged in role playing and gave prepared sales presentations subject to class criticism(87). Meanwhile, Professor Ralph Bienfang extolled the value of the "practice drug store" at the University of Oklahoma, complete with a fountain and luncheonette(88).

Professor George Seferovich of Loyola University described the continued dearth of texts in the field and recommended the use of available statistical sources including The Census of Distribution, Retail Credit Surveys of the Department of Commerce, The St. Louis Drug Store Survey, The Case Studies of the NARD, The Lilly Digest, and the National Cash Register Studies(89).

Professor Goodness recommended limiting the objectives of pharmaceutical law to "the retail practice." He additionally recommended adding to the course in management the topics of tenancy and leases, financing problems, law of fixtures, drug store insurance, prescription pricing methods, and own-label products. To make room therefore in the course, he recommended dropping the subjects of production techniques, obtaining best results from letters, selection and maintenance of prescription department stock, opportunities for development of laboratory, and library services(90).

Professor Paul Olsen stressed increasing emphasis in the accounting course on the interpretation of accounting records, including use of not less than 10 accounting ratios. He also noted the use as resource material of the Eli Lilly and Company's "Accounting and Record System" which was available without charge from the company. Professor George Archambault noted that professional relations was incorporated into the management or marketing course at some schools, but that at the Massachusetts College of Pharmacy, it was a separate one-credit elective course(91).

In addition to revised editions of earlier texts, a number of substantive resource materials became available in the 1940s. They included:

Herman C. Nolen and Harold H. Maynard, Drug Store Management, McGraw-Hill, New York, 1941.

Josiah Brooks Heckert and W. E. Dickerson, Drug Store Accounting, McGraw-Hill, New York, 1943.

Louis Bader and Sidney Picker, Marketing Drugs and Cosmetics, Van Nostrand, New York, 1947.

Paul C. Olsen, Marketing Drug Products, Rutgers University Press, New Brunswick, 1948.

Arthur F. Peterson, Pharmaceutical Selling, "Detailing," and Sales Training, McGraw-Hill, New York, 1949.

In 1950 the first seminar in Pharmacy Administration was held at Ohio State University. In his opening remarks, Dr. E. L. Newcomb of the American Foundation for Pharmaceutical Education noted that "back in 1900 the Philadelphia College of Pharmacy required all students to take a course of business subjects which was offered. This included single- and double-entry bookkeeping, buying and selling, business contracts, notes, laws relating to business, etc..." and "each student being required to go through with all of the procedures incident to the purchase, operation for a period and then sale of a drug store."

In the Proceedings of the seminar, extensive course outlines are provided for Principles of Economics as Applied to the Practice of Pharmacy, Drug Marketing, Accounting, Pharmacy Management, and Pharmaceutical Law. The outlines were prepared by the consultative committee for the seminar: Professor B. Olive Cole (University of Maryland), Professor Joseph H. Goodness (Massachusetts College of Pharmacy), Professor Harold H. Maynard (Ohio State University), Herman C. Nolen (McKesson & Robbins), Professor Paul C. Olsen (Rutgers University & Philadelphia College of Pharmacy and Science), and Professor Stephen Wilson (University of Pittsburgh). The outlines reflect the fact that: "Pharmacy administration, as used in this report, is the study of the acquisition, management, and operation of a retail pharmacy."

When The Pharmaceutical Curriculum was published two years later, it used the same definition of pharmacy administration and recommended similar subject matter for courses in the discipline(92).

Professor Paul Olsen reported the availability of 18 financial and other statistical sources of data for use in teaching pharmacy administration subjects(93), and later noted there are over 100 pharmaceutical journals published in the United States, many of which contain information directly related to various courses in the discipline(94). At about the same time, Professors S. B. Jeffries and

Isidore Greenberg noted the integration of hospital pharmacy administration into pharmacy administration, thus dropping the limitation of the discipline to retail operations and the placing of increased emphasis upon principles vs. methods in pharmacy administration courses(95).

At the Pharmacy Administration Section of the 1954 Teachers' Seminar on Pharmaceutical Education, the Section report noted the continued "dearth of texts and published material" in pharmacy administration, and suggested incorporating The Lilly Digest into management courses. Curricular areas recommended for greater emphasis than in previous years were costs, inventory control, salesmanship and sales promotion, and record keeping.

Perhaps in response to frequent complaints about the shortage of resource materials for the discipline, in 1955 Professors Harold Nelson and Woodrow Byrum (Howard College) published a list of a total of 135 texts, references, pamphlets, periodicals, and visual aids relevant to various course areas in pharmacy administration(96). In the same year, the report of the Section of Teachers of Pharmacy Administration report of the AACP Conference of Teachers included the recommendation that "every college should include as a required pharmacy administration course at least one or more of the following suggested courses: "Techniques of Detailing the Physician," "The Development of an Inter-Professional Relations Program," "The Nature and Importance of Inter-Professional Relations in the Practice of Pharmacy," "The Fundamentals of Physician-Pharmacist Relationship in Community Medical Care."

In a report to the Section of Teachers of Pharmacy Administration following the 1956 AACP Conference of Teachers, Professor Robert V. Evanson (Purdue University) recommended broadening the scope of all courses in pharmacy administration to "the specific needs of pharmacy in all areas." The same report contained a detailed subject outline for a course in Drug Marketing provided by Professor Robert Abrams (PCP&S).

The following year Professor Seymour Jeffries (Brooklyn College of Pharmacy) observed that the changing economic and sociological concepts dealing with public health and medical care created a need for hospital as well as community pharmacists, and noted the need for including instruction in physician detailing and a stress on interprofessional relations in the pharmacy administration curriculum(97).

Similarly, Professors Joseph Kern and Joseph McEvilla (University of Pittsburgh) observed the increased importance of the social sciences to successful pharmacy practice as well as recommended elective credits in such topics as hospital and sickroom accessories, detailing, and drug wholesaling(98).

In 1958 subject matter outlines for pharmacy administration courses in the five-year curriculum were proposed. Professor Joseph McEvilla (University of Pittsburgh) proposed a standard subject matter outline for accounting(99). Professor Esther J. W. Hall (University of Texas)

proposed the outline for pharmacy management which was described as a "detailed consideration of organizations, policies, procedures, costs, and efficiency in the retail pharmacy"(100). The outline proposed for management by Professor Robert V. Evanson (Purdue University) was confined to "retail store management" as was his outline for a course in merchandising(101).

Professor John Lynch (Temple University) provided the outline for a course in marketing drug products(102). It also concentrated on marketing through community pharmacies. Professor Paul Pumpian (University of Maryland) provided an outline on pharmaceutical jurisprudence with sections applicable to both community and institutional practice(103).

Early in the 1960s Professor Robert V. Evanson reported on 33 published and seven original unpublished case studies applicable to the discipline(104). Another article cited the development in 1961 of a course in medical sociology at the University of Utah by the college of pharmacy and the departments of preventative medicine and sociology, with the primary emphasis of the course on its pharmacy aspects(105). And early in the decade Professors Michael Musulin and Joseph McEvilla noted that: "The sociology of pharmacy should...be an inherent part of any program established in pharmacy administration." Illustrative topics presented were medical care for the aged, social security programs, cost of research and production, profits, and salaries(106). The published proceedings of the AACP Teachers' Seminar in Pharmacy Administration held in 1962 contains detailed course syllabi for courses in accounting, marketing, and pharmacy law.

In 1963 an extensive bibliography of reference material in pharmacy administration was published(107). It contained a total of 134 references in economics, management, marketing, accounting and law. It was updated six years later with an additional 59 references(108).

The pharmaceutical industry aspects of marketing were strengthened at Temple University with the incorporation of 17 industry topics into its course on drug marketing(109). Professor Charles Braucher reported the availability of a course in human relations for pharmacy students at Southwestern State College. He stressed the importance of a basic knowledge of sociology and psychology to pharmacists analyzing relationships with the public and with their professional associates(110). In the same year, Professor Max Polinsky (College of the Pacific) noted pharmacy administration's responsibility to instill ethical and moral considerations through its courses(111).

In the mid-1960s the importance of imparting concepts in both economics and sociology in pharmacy administration courses was stressed so that future pharmacists would comprehend and adapt to socioeconomic problems focused around the role of the pharmacist in an evolving society, problems affecting a new role for pharmacy, and means to achieve an expanded role for pharmacy(112).

Another AACP Teachers' Seminar on Pharmacy Administration was held in

1970. From the published Proceedings thereof, it is evident that since the 1962 Seminar the scope of pharmacy administration had been broadened considerably to include its application to hospital practice, neighborhood health centers, health care systems and health care financing, social and behavioral science in pharmacy, health maintenance and education, and consulting.

Professor David Knapp reported the availability of two courses on social sciences in pharmacy at Ohio State University. The third-year course's major topics were pharmacy and pharmacists, drugs, patients, providers of service, and delivery of health care services. The fourth-year course titled, "Social Aspects of Pharmacy and Health Care," expanded upon essentially the same topics. Over thirty resource materials for the courses are presented(113). Professor Donald D. Vogt (University of Kentucky) provided critiques of some general plus 135 specific resource materials for a course in "Social Studies in Pharmacy"(114).

At the University of Rhode Island, Professors Norman A. Campbell and William N. Tindall proposed blending pharmacy administration courses to provide a "Professional Practice Management" course not limited to community practice(115). Major topics for the course were titled: 1) the health care delivery system, 2) new roles in professional practice, 3) administrative principles of a clinical practice, 4) use of subprofessionals, 5) management accounting in clinical practice, 6) principles of electronic data processing, 7) principles of biostatistics and introduction to medical literature, 8) professional judgement, 9) commitment to continuing education, 10) professional organization, 11) behavioral science, 12) legal implications of future practice, and 13) new concepts of ownership.

Professor Kenneth A. Speranza (University of Connecticut) developed a 10-credit course, "Drugs and Society," with subject matter drawn from socioeconomic aspects of pharmacy practice, drug marketing, pharmaceutical law, and public health(116). Major topics in the course outline were: 1) introduction, 2) the patient - the drug user, 3) environment in which the pharmacist practices, 4) the drug producers, 5) the drug distribution system, 6) the health care team, 7) health care settings, 8) community public health problems, 9) organization and management of health care services, and 10) health care costs.

The reorientation of pharmacy administration away from its almost exclusive devotion to community practice seems evident in AACP's standards committee report in 1978 which noted: "The emphasis in presenting course work in pharmacy management in terms of a particular type or place of pharmacy practice is not especially important"(117). The committee's report includes "minimum competencies" expected in the areas of management, management accounting, pharmaceutical marketing, pharmacy jurisprudence, and social and behavioral sciences. While course content is not specified per se, it may be inferred directly from the expected minimum competencies.

As the decade closed, Professors Johnson and Wertheimer (University

of Minnesota) proposed all subject matter in the behavioral and social sciences in pharmacy be called "behavioral pharmacy." They recommended a course in this area cover 15 topics at the micro level and an additional 11 at the macro level(118).

A substantial number of applicable texts and references have been published since the last compilation thereof appeared in 1969. Among the more substantive and the year of their initial publication (for multiple editions) are:

Texts and References

Bernard G. Keller, Jr. and Mickey C. Smith, Pharmaceutical Marketing: An Anthology and Bibliography, Williams and Wilkins Company, Baltimore, 1969.

C. L. Ferguson, Efficient Drug Store Management, Fairchild Publications, New York, 1969.

The Task Force on Prescription Drugs, Final Report, Department of Health Education and Welfare, US GPO, Washington, 1969.

Esther J. W. Hall and C. A. Walker, Manual for Pharmacy Administration: Drug Distribution and Pharmacy Management, Hemphill Publishing Company, Austin, 1969.

The Lilly Pharmacy Management Series, 1969-1970.

Thomas E. Coleman, Profitable Drugstore Management, Prentice-Hall, Englewood Cliffs, N.J., 1970.

Arnold S. Goldstein, "Case Studies in Community Pharmacy Management," Lea & Febiger, Philadelphia, 1970.

NACDS - Lilly Digest, 1970, ff.

Anthony J. Amadio, Case Studies in Pharmacy Management, Duquesne University, Pittsburgh, Vol. I, 1970.

Vincent E. Bouchard and John S. Ruggiero, Staffing Patterns in Hospital Pharmacy, Duquesne University, Pittsburgh, 1970.

William E. Hassan, Jr., Law for the Pharmacy Student, Lea & Febiger, Philadelphia, 1971.

J. Leo McMahon, John Baldwin, and William E. Sawyer, Pharmacy Management, Johnson & Johnson, New Brunswick, N.J., 1971.

Mickey C. Smith and David A. Knapp, Pharmacy, Drugs, and Medical Care, Williams & Wilkins, Baltimore, 1972.

Thomas E. Coleman, The Successful Drugstore: How to Build a Million-Dollar Business, Prentice-Hall, Englewood Cliffs, N.J., 1973.

Albert I. Wertheimer and Mickey C. Smith, Pharmacy Practice - Social and Behavioral Aspects, University Park Press, Baltimore, 1974.

Fred Gable, Psychosocial Pharmacy, Lea & Febiger, Philadelphia, 1974.

Patrick Tharp and Pedro J. Lecca, Pharmacy Management for Students and Practitioners, C. V. Mosby, St. Louis, 1974.

Harry A. Smith, Principles and Methods of Pharmacy Management, Lea & Febiger, Philadelphia, 1975.

Carl T. DeMarco, Pharmacy and the Law, Aspen Systems, Corp., Germantown, MD, 1975.

Bernard E. Conley, Social and Economic Aspects of Drug Utilization Research, Drug Intelligence Publications, Hamilton, IL, 1976.

Lilly Hospital Pharmacy Survey, 1977, ff.

Richard A. Jackson and Randall L. Lambert, Catalog of Films for Use in Pharmacy Education, AACP, Bethesda, 1977.

D. C. Huffman, Jr., Michael R. Ryan, and Bruce White, Maintaining Profits in a Highly Competitive Market, American College of Apothecaries, 1977.

Pedro J. Lecca and C. Patrick Tharp, Pharmacy in Health Care and Institutional Systems, C. V. Mosby, St. Louis, 1978.

Effective Pharmacy Management, Marion Laboratories, 1979.

Mickey C. Smith and Thomas R. Brown, Handbook of Institutional Pharmacy Practice, Williams & Wilkins, Baltimore, 1979.

Francis A. Marino, Edward J. Zabolski, and Colman M. Herman, Principles of Pharmaceutical Accounting, Lea & Febiger, Philadelphia, 1980.

Helen Wetherbee and Bruce David White, Cases and Materials on Pharmacy Law, West Publishing Co., St. Paul, 1980.

Although it might be desirable to list all potential books related to pharmacy administration subject matter as a matter of record, the 1969 compilation is available in pharmacy libraries or senior faculty filing cabinets. Also available are copies of research thesis reports compiled by various committees of the Section of Teachers. Not available is a composite record of publications about pharmacy administration subject matter or by pharmacy administration personnel. Appendix III contains a General Bibliography of Publications which catalogs 380 references of journal articles from 1912 to 1984. Many of these articles are sources of additional information on the growth and development of pharmacy administration as a discipline in greater detail than permitted in this document.

## CHAPTER IV THE DEVELOPMENT OF GRADUATE PROGRAMS

### The First Programs

The end of World War II in 1945 and the return of many education-oriented service personnel supported by the educational "GI Bill of Rights" created a general increase in college students and a need for teachers. As noted in the manpower chapter, pharmaceutical economics was the least staffed area in all pharmacy colleges. Many of the courses in pharmacy or pharmaceutics included elements of pricing, buying and store operation in the pre-war years. The literature records evidence of this. Schools that emphasized pharmaceutical economics as a separate area of instruction had teachers who were accountants, economists, attorneys and local pharmacists. An excellent example of these early teachers was B. Olive Cole of the University of Maryland. She attended the Baltimore Business College, received a Doctor of Pharmacy from Maryland in 1913 and worked as a pharmacist. In 1920 she joined the Maryland faculty and in 1923 received the first law degree awarded to a woman at Maryland. After an illustrious career of firsts for women, she died on June 5, 1971(119). Although she could not develop a graduate program, she indeed was a pioneer in the discipline. In some schools deans listed themselves in this area, and in a few schools they actually taught some of the courses using their previous "drug store experience" to establish credibility among their colleagues and practicing pharmacists.

The primary need at the time was to develop undergraduate courses necessary for minimum requirements and course content acceptable for minimum standards. The first Seminar in Pharmacy Administration at Ohio State University, June 19-30, 1950, was devoted to courses and course outlines. The attendance also indicated the challenge of a lack of specialized faculty to teach these courses. There were 66 conferees: six were non-academic participants; thirteen were deans; fifteen were Ohio State faculty in pharmacy or business; eighteen were assorted school representatives; and only fourteen were known teachers of pharmacy administration. Of the twelve speakers only Joseph Goodness (Massachusetts), Stephen Wilson (Pittsburgh) and Seymour Jeffries (Brooklyn) were pharmacy administration teachers, and none of them had started a graduate program at the time. Jeffries was not a pharmacist.

The 1953 edict by the AACP to require professorial personnel in all schools of pharmacy created a real problem, since there were only four fledgling graduate programs in place, many schools lacking qualifications for professorial rank, and no ready pool of faculty candidate resources to meet this edict. However, as Evanson noted at the Miami Beach convention in 1955: "Such action gave this area special stature in that it raised the core of courses to an equal level with the other four departments in pharmacy." He continued: "Having established the department of pharmacy administration, educators have a responsibility to formulate some method of initiating and perpetuating the supply of qualified personnel for future placement and replacement needs. The task must naturally fall to those who have the training and experience to determine and provide the necessary program required to produce specialists. The specialists in

turn, through research, will provide new subject matter in the area. Thus a need exists for a formal graduate program of pharmacy administration at both the M.S. and Ph.D. levels"(120).

This general concern for the training of teachers created the impetus for special efforts to develop graduate programs centered around one or a few individuals in an interdisciplinary structure controlled by pharmacy leadership. A description of the genesis of these early programs will indicate simplistically the sequence of events without emphasis on details or problems.

**Purdue University.** In 1947, Mr. Henry W. Heine resigned his associate professorship in pharmaceutical economics. A former community pharmacy owner and consultant to the War Production Board on Drug Affairs, Heine assumed the secretaryship of the Indiana Pharmaceutical Association. In addition to instructional duties, Heine also planned and executed the extension service program. After a year of make-do substitute graduate student teaching in the core management course, and because of the lack of employable professional resources Dean Glenn L. Jenkins convinced Robert V. Evanson, a master's candidate in industrial pharmacy and interested in economics, management and marketing, to take the responsibility for this area as a full-time faculty member on July 1, 1948. The responsibilities included the management course, a merchandising course on advertising, display and salesmanship, and a window display-show card writing course complete with manufacturers' mock cartons, props, crepe paper, three large model show windows and draftman's tables and stools for sign writing and lettering. The latter course lasted three years before a planned phase-out could be accomplished. The responsibility for extension service-continuing education duties also continued until 1950 when a director of extension services was again employed as a full-time position.

Mr. Heine had established a guest speaker program with several Walgreen and Hook drug company executives, and these men continued to contribute during the next four years but as a diminishing factor as travel and time costs became prohibitive. The value of such information to students—and especially to young teachers—and the company's interest in and contribution to pharmacy education in the Midwest area colleges led directly to the development of the Walgreen Faculty Seminar program in 1953 and subsequent years at the Chicago Headquarters of the Walgreen Company.

Completing the M.S. degree in 1949, Evanson decided to continue in teaching, and so an interdisciplinary committee was established by Dr. E. C. Young, Dean of the Graduate School, to include Dean Jenkins as the major professor, Dr. H. George DeKay for the Industrial Pharmacy work at the M.S. level, Dr. James A. Estey, Head of the Economics Department, and Dr. Earl L. Butz, Head of Agricultural Economics. His plan of study required a full major in economics at Purdue and a full minor in business (marketing and management) from the School of Business at Indiana University under the direction of Dr. Thomas Bossert, Professor of Management. The plan of study was approved by the Graduate Council for the Ph.D. with a specialty in Pharmacy Administration. Because of full-

time teaching and continuing education duties, Evanson required four years post-master's degree to complete the requirements for the Ph.D. in August, 1953. This was the first recorded doctoral degree specifically designed with a specialty in pharmacy administration. Also significant historically is the fact that the pharmacy faculty consisted of only nine full-time members.

The Graduate Council gave blanket approval for a Master of Science degree program in pharmacy administration in 1952 and doctoral program upon special approval of individual plans of study. The first master's plan of study was approved for Gerald C. Henney on March 19, 1953. Henney was drafted into the military service and returned in 1955 along with Harry A. Smith. Both men were awarded the M.S. degree in 1956. They continued to the Ph.D. degree with a double major in pharmacy and pharmacy administration and a dissertation project in pharmacy science under the direction of Dr. Glen J. Sperandio: Henney in 1958 and Smith in 1959. Henney went to the St. Louis College of Pharmacy and passed away in 1967 after a brief but fruitful career. Smith went to the University of Kentucky.

During this period the Krannert Graduate School of Industrial Administration was developing into a quasi-business school (The Indiana Legislature at the time prevented Purdue from having a "School of Business" which would duplicate services available at Indiana University.) Because both the pharmacy administration and industrial administration programs were new and building, the Graduate Council continued to subject individual plans of study to a special case status because of the lack of a faculty mass well into the 1960's. Students had full use of campus courses on an interdisciplinary basis, and committees contained members from departments of psychology, sociology, communications, philosophy, and industrial administration in addition to pharmacy and industrial pharmacy.

Michael Danian (Ph.D. Wisconsin) joined the faculty in 1964 and left in 1965. In 1965 Dean Jenkins reorganized the school and created the Department of Pharmacy Administration with responsibility for that area and continuing education. In 1967, Robert J. DeSalvo (Ph.D. Pittsburgh) began instructional duties, and Bill D. Jobe (M.S. Texas) began doctoral study and directed the continuing education program. The department was merged with Clinical Pharmacy in 1972.

**University of Wisconsin.** Dean Arthur H. Uhl, a former college roommate of Dean Jenkins and competitor in the growth and development of graduate programs, was also convinced of the necessity to develop the undergraduate and graduate areas of pharmacy administration. He, too, was aware of the lack of personnel resources to take the leadership in developing the area. He became convinced that William S. Apple was the person who could achieve those objectives at Wisconsin because of his interest and desire to combine pharmacy and business into his career goals. Beginning at Wayne State, Apple transferred to Wisconsin in 1947 and received the B.S. in Pharmacy in 1949. Dean Uhl and Professor J. Howard Westing then served as joint major professors for the M.B.A. degree awarded in 1951.

That same year Apple was appointed coordinator of Extension Services in Pharmacy and started teaching a two-credit undergraduate course, Drug Store Practice. He started work on a doctorate degree, and Prof. Westing received a joint appointment to the School of Pharmacy to act as his co-advisor along with Dean Uhl. Apple was awarded the Ph.D. degree in 1954 as the second recorded Ph.D. with a specialty in the area. In a personal communication for this documentary prior to his unexpected death on December 17, 1983, Dr. Apple expressed succinctly the spirit of the times in these developing programs:

"As I look back, I can't help wondering how the pharmacy administration program at Wisconsin managed to survive its infancy. In those days everybody on the School of Pharmacy faculty wore two or three hats and literally worked around the clock seven days a week. There was little dollar support for the development of the program and even part of my meager salary was funded by the Extension Division.

"Without wishing in any way to detract from or minimize the contribution of Arthur Uhl in the initial development of the graduate program in our speciality, I must say it came about - as many things do - through the supportive efforts of many people. If I had to point to one individual as the "unsung hero" it would be Dr. J. Howard Westing who was the major professor for Apple, Hammel, Weikel and several others who obtained their Ph.D. degrees during the early years of the program. Howard was a scholar that made it credible."

During this time Fred Becker began work as Apple's first student to earn the M.B.A., which he received in 1955. In 1954 Robert W. Hammel, W. Allen Daniels, Thomas D. McGregor, and David H. Sanders joined the program and received M.B.A. degrees in 1956. Only Hammel and Daniels continued to the doctorate. In 1958 Dr. Apple was appointed to become Secretary of the American Pharmaceutical Association, and Daniels left the program to become Secretary of the Wisconsin Pharmaceutical Association. Although Dr. Westing assumed responsibility for the students' programs, he took an extended leave of absence from the University, and Dr. Hammel completed the Ph.D. in January, 1959, under the direction of Dr. Isidore Fine of the School of Commerce. Having been appointed to the faculty in 1958, Hammel also maintained the existing courses while completing the Ph.D. The first undergraduate course he developed was a then two-credit elective in pharmacy jurisprudence and ethics. Subsequently, that course was increased to a three-credit required course, and three-credit undergraduate courses in pharmacy management, pharmacy accounting and record keeping, and drug marketing were developed, along with two graduate courses and a research seminar in pharmacy administration.

In 1960, the Divisional Committee and UW Graduate School authorized the School of Pharmacy to grant the master's degree in pharmacy administration. Candidates entering the program after that date earned a Master of Science degree in pharmacy administration rather than the M.B.A. degree previously awarded at the master's level.

Pittsburgh. The initial stage for the graduate program at the University of Pittsburgh resulted from an expansion of the undergraduate course offerings in Pharmacy Administration. Immediately following the first Seminar on Pharmacy Administration, Professor Stephen Wilson obtained approval for an expansion of the existing undergraduate courses and the addition of courses not previously taught. Prior to this event Pitt had offered the following course sequence: Economics 3 credits; Marketing 2 credits (Pharmaceutical Economics); Jurisprudence 2 credits; Management 4 credits (two 2-credit courses) (Pharmaceutical Economics). The approved expansion called for the addition of an accounting course, an additional term of basic economics, and an increase in other courses from two to three credits. At this same time Professor Wilson developed the graduate program which was to be offered by the School of Pharmacy with the cooperation of the Economics and Marketing departments of the College of Business.

All graduate programs were then administered by the Graduate School under the direction of then Dean H. E. Longenecker, who later became the President of Tulane University. When the proposed program was submitted to the Graduate Council of the University, emphasis was placed on the need for teachers in the area of pharmacy administration. A series of cognate courses in the areas of economics, marketing, history, political science, sociology and psychology were listed along with a four-course sequence in pharmacy administration. This action was taken in order to receive support from each of the departments involved. The program was approved by the Graduate Council with the stipulation that a representative from either the Economics Department or the Marketing Department be included on the examining committee of all Master candidates. As a direct result of this action, which took place during the Spring and Summer of 1950, George Hook and Joseph McEvilla entered the graduate program as George A. Kelly Sr. Fellows, a title they held until the completion of their Master's degrees and subsequent appointment as instructors. These appointments occurred in the Fall of 1952 even though they received their degrees in February, 1952.

At the same time that Hook and McEvilla were working on the masters degree, Dr. Wilson was expanding the original list of cognate courses and developing new courses in the pharmacy administration sequence. He was successful in obtaining approval for the inclusion of representative members of the Departments of Economics and Marketing as adjunct faculty in the Department of Pharmacy Administration. This action overcame a preliminary objection expressed by the Graduate Council when originally considering extension of the program to the doctoral level. A second objection of the Graduate Council was that they "did not deem it appropriate to approve a doctoral program for which there were no candidates." The proposed doctoral program was then withdrawn until such time as Hook and McEvilla would be eligible to become potential candidates. When they completed the M.S. degree, Dr. Wilson again submitted the doctoral program to the Graduate Council. The program was subsequently approved in the Spring of 1952 with the stipulation that a representative of the Department of Economics and the Department of Marketing be included on all doctoral committees.

When Dr. Wilson resigned in August, 1953, and became dean at Wayne State, the doctoral program was technically closed because of a lack of a director. Hook and McEvilla were permitted to continue graduate work with the understanding that they would, if successful, be granted the doctorate with a major in pharmacy administration. However, they would be required to meet not only the requirements of the approved program in pharmacy administration, but also the requirements of the doctoral program in either economics or marketing. Until this time they had followed the same academic program. Faced with the above event, each one had to reevaluate his positions and make a major decision as to what course he would follow. Hook elected to satisfy the requirement of the marketing department and came under the co-direction of Dr. Boer. McEvilla elected to satisfy the requirement of the economics department and thus came under the co-direction of Dr. Issacs. Dean Reif served as the coadvisor from the School of Pharmacy. From this point on their academic programs had minor differences.

After completing the doctoral program in June, 1955, Dr. McEvilla was promoted to Assistant Professor and continued to lead the Pittsburgh program until he resigned to become dean at Temple in 1974. Dr. Hook accepted a commission in the Public Health Service, Bureau of Indian Affairs and was appointed pharmacy officer for the northwestern section of the United States. He was subsequently killed in a plane crash in April, 1956, in Seattle on the way to the American Pharmaceutical Association convention.

At the beginning of the Fall term, 1955, the graduate program was again made available to the master's degree level. For the next few years a limited number of candidates were enrolled. Robert Heiser started in September, 1956, and Michael Musulin a year later. Albert Wojcik, who had originally started the program with McEvilla and Hook, re-entered the program in 1956 and finished with Heiser and Musulin. Wojcik went to West Virginia University, and is now retired. Musulin became a chain pharmacy executive and is now teaching at the University of the Commonwealth of Virginia.

When McEvilla assumed control of the program, a knowledge of computer systems was required and courses in the Graduate School of Public Health and the Graduate School of Business were accepted. Faculty members from these two schools were also able to serve on M.S. and Ph.D. committees in lieu of or in addition to representatives from economics and marketing. When the graduate programs of the University were changed and the Graduate School eliminated, the pharmacy administration program was placed under the supervision of the Graduate Council of the Health Professions.

**Ohio State University.** At Ohio State University Joseph H. Kern began teaching and working on the Ph.D. requirements in 1949. His doctoral course work was management and marketing oriented. (OSU was noted at the time for its interest in drug marketing through Professor Herman C. Nolen's work with and for the NWDA. He subsequently became the chief executive officer of McKesson-Robbins Wholesale Company.) Kern was limited in research leadership by Dean B. V. Christensen and was forced to

carry out a doctoral project in pharmacy science under Dr. Earl Guth. He was the first to complete a pharmacy science degree with course work in pharmacy administration in 1954. Having started Arthur Lytle in 1954 toward his M.S. degree, Dr. Kern resigned in 1955 and went to the University of Florida. He subsequently went to Northeast Louisiana University where he spent the major part of his career and is now retired.

During this early period another student, Frank N. Ferguson received his B.S. degree from Ohio State in 1950. In 1951 he joined the faculty of Texas Southern College of Pharmacy but continued his studies and was awarded the M.S. in Pharmacy and Pharmacy Administration from Ohio State in 1956. Although Dr. Ferguson did not develop a graduate program at T.S.U., he earned the Juris Doctorate in 1972, was active in pharmacy administration development, but died suddenly April 17, 1980, at the early age of 56 years(121).

Lytle insisted on completing an administrative dissertation project and was awarded the first Ph.D. in pharmacy administration at Ohio State in 1958 with the full support of Dean Lloyd Parks. He then assumed the direction of undergraduate and graduate programs until his untimely death on June 21, 1963. Dean Parks then prevailed upon David A. Knapp to complete his Ph.D. research in absentia from Purdue University by using Ohio pharmacists in his occupational role measurement study. Knapp completed the degree in 1965 and was joined by Dr. Christopher A. Rodowskas, who had likewise completed the Ph.D. in absentia while at the University of Connecticut. They proceeded to develop teaching programs, and with Deanne Knapp (Ph.D. Psychology from Purdue) established a graduate research program and a department of pharmacy administration. Knapp subsequently left for post-doctoral training at the University of Michigan's Graduate School of Public Health, and Dr. Rodowskas was appointed Executive Director of the American Association of Colleges of Pharmacy. Dr. T. Donald Rucker then left government service and assumed leadership of the program.

Having hosted in 1950 the first AACP Seminar in Pharmacy Administration, the Ohio State College of Pharmacy has had a significant impact on the growth and development of graduate studies and teaching personnel since that time.

**Arnold and Marie Schwartz College of Pharmacy.** Through the instigation and inspiration of Dr. Herman C. Nolen, former professor of marketing and wholesaling at Ohio State and then President of McKesson and Robbins, the direction of economist Dr. Paul C. Olsen, and the financial and leadership support of Dean Arthur A. Zupko, another significant program was started at the Brooklyn College of Pharmacy, Long Island University, in September, 1957(122). The first year 22 graduate students enrolled: 18 part-time and 4 full-time.

Faculty support came from Seymour B. Jeffries, Isidore Greenberg and Dr. Olsen with part-time assistance from adjunct professors Sklar, Faner, Horvitz, Keusch and Huriash. The master of science degree included 25 credit-hours of specialized pharmacy administration courses organized into

a sixteen-hour major of general principles of economics, marketing, management, accounting and statistics. Two minors were requested: one related to promotion and sales management, and one related to retail, production and institutional management needs(123).

The nature of environmental requirements for career development of employed professionals and the need for input by practitioner-professional adjunct faculty required the programs to have twilight evening sessions. Enrollment in these programs initially exceeded 100 students each semester through 1972 as reported in total in AACP enrollment reports. Actual enrollments from 1973 to 1978 ranged from 13 to 22 per year. The initial attractiveness of the programs were their ability to serve pharmacists and other types of industrial professionals in advancing their status and improving their competence in their areas of specialty as well as basic education. The majority of students were not seeking a degree as a primary objective. Many did complete the masters degree, and some went to other schools for the Ph.D. and are among several college faculties. Others are in industry, advertising, and marketing, and one became a stock broker. This program was the largest masters program in enrollment through 1978. However, several natural events have occurred in the movement to another environment, change in administration, and the retirement of those originally involved in developing the program. Enrollment from 1979 to 1982 ranged from three to eight students.

**Wayne State University.** Dean Stephen Wilson continued his interest after assuming the deanship in 1953 and gained approval for a master's program in 1957 with two students enrolled in 1958. Among his M.S. students Robert C. Johnson, who later was elected President of the APhA and is the Executive Vice President of the California Pharmacy Association, was the first. The second was Merwin Greenlick, now Senior Analyst for Kaiser Permanente. Because of Wilson's general interest and support, and his leadership in both his school and the AACP, his sudden death on December 17, 1963, was a great loss from pharmacy administration. However, the program has continued at Wayne State with primary emphasis at the master's degree level.

**Other Programs.** During this early period several programs were started in and out of pharmacy schools, some functional and others on paper but without students. Two students at North Carolina included business courses in their doctoral studies, but technically received degrees in the area of pharmacy. Dr. Albert W. Jowdy remained on the North Carolina faculty in 1954 teaching pharmacy administration with little success in developing graduate work. In 1966 Jowdy joined Frank W. Dobbs (M.B.A) at the University of Georgia and proceeded to develop a graduate program. Dr. Charles L. Braucher had received a M.S. in Sociology at the University of Nebraska, a Ph.D. in Pharmacy Administration at Purdue and had taken a position at Southwestern State College. Jowdy brought Braucher to Georgia in 1967 and Jeffrey A. Kotzan fresh from Purdue in 1968 to establish a functional program in the School of Pharmacy.

Francis C. Hamerness left North Carolina in 1954 and joined the

faculty at the University of Colorado. The first published records indicate a M.S. and Ph.D. program in 1957 and students enrolled consistently since 1958. Hugh A. Cotton (M.B.A.) was also a part of this program for several years until becoming Assistant Dean at the University of Kansas in 1968. Two of Dr. Hamerness' early students were Drs. Hugh F. Kabat and Monte Gutke. Kabat helped to establish a program at the University of Minnesota and Gutke became a pharmacy chain executive and a President of Skagg Drugs.

**University of Mississippi.** Another significant program had its inception in early 1960's. Dean Charles W. Hartman, who had little formal training in the discipline's subject content, had recognized the need for developing the undergraduate program and a graduate program to add to the training of competent teachers. He brought in Raymond Bennett, who was completing his doctorate at Wisconsin, and they served as the nucleus of a program that began in 1962 with four graduate students. Like all innovative effort, some flexibility was permitted to satisfy student objectives in the social science areas, but heavy reliance had to be placed upon other university departments, particularly economics and marketing. Early research efforts were aimed at delineating and strengthening the pharmaceutical industry and the practice of pharmacy in Mississippi, and these efforts continue as a guiding philosophy.

As in many of the early efforts, coincidences and seemingly minor events of the moment shaped the development of future major events. At the St. Louis College of Pharmacy. Dr. Henney offered a master's degree program for a short time in the early 1960's so that four students could support themselves and their families by practicing pharmacy locally while pursuing graduate work. There were no funds available in the school budget to offer support for assistantships, and graduate education was not one of the College's primary objectives. One former is now a dentist. Another, James Smith, went to work in industry. Patrick Tharp stayed in teaching for awhile and co-authored a textbook "Pharmacy Management for Students and Practitioners" with Pedro J. Lecca. Tharp also is now in industry. The fourth student was Mickey C. Smith. (Dr. Henney never fully realized the service he performed and/or the ultimate impact his singular action of the moment would have on the development of pharmacy administration as an academic discipline.)

After receiving the masters degree in 1962, Smith considered Purdue and Mississippi as possible choices for the Ph.D. A personal communication from him notes that: "Frankly, I had just about given up on the Ph.D. when I saw a flyer on the bulletin board about Ole Miss. I wrote Dean Hartman and (subsequently) Pat Tharp and I met him at midnight in the St. Louis train depot as he came through with the senior class on their industrial trip. He was most persuasive."

During the beginning years Bennett completed the Ph.D. under Dr. Hammel at Wisconsin in 1964. Dr. Harry A. Smith (Kentucky) joined the faculty, and in 1965 other faculty members were Josephine Johnson, L.L.B., David S. Newton, M.B.A., and Cecil E. Melville, M.S. The first doctoral degree was awarded in 1964 to C. Eugene Watkins who went to Northeast

Louisiana State College with Joseph H. Kern, formerly of Florida. Mickey Smith received the Ph.D. later in 1964 and joined Pharmacia, a Swedish firm just getting established in the U.S. market. He also arranged with Dr. R. George Kedersha to teach marketing one semester at the Rutgers University College of Pharmacy. A major change occurred in 1966 when Dr. Bennett joined the faculty of the University of Montana (where he personally taught all the pharmacy administration courses until his sudden death in 1979). Dean Hartman then prevailed upon Dr. Mickey Smith to return to Ole Miss for the 1966-67 school year. Pharmacy administration was formally departmentized in 1968.

Perhaps a significant reason for the early development was the attention and effort given to problems and challenges related to the economic development of the State of Mississippi and the research funds this strategy generated(124). During this same period a recognition of changes in the health care system and a developing interest in broader aspects of health care research led to considerable self-examination. It had become apparent that, while pharmacy and drugs were and should be a central focus for research and teaching in the department, it was neither desirable nor possible to isolate these elements from other aspects of the health care system to which they were inextricably related. In order to reflect an already existing macro-orientation, the name of the department was officially changed in 1972 to Health Care Administration. This name described well the department's interest in all aspects of the system of delivering health care. It also created an opportunity for service to non-pharmacy students interested in health care system management and economics and gained much success in attracting them.

As previously noted, the original and early sustaining drive for this program involved the dedication of Dean Hartman. He was constantly in search of state funds and working with pharmacy groups, and was on his way to a meeting when he was killed in an auto-train crash on April 17, 1970, five days after he was elected Vice President of the AACP.

Thus it was that graduate programs leading to the Ph.D. degree with a major or primary area in pharmacy administration started in the early days of graduate development. Although Table 2 indicates programs available on paper and advertising through AACP reports, some had no students and some were not in the school of pharmacy or even under its supervision. The University of Michigan shows programs from 1957, but only ten students were reported up to 1966 at the M.S. level taking work probably in the School of Business. Columbia University had a program similar to that of Brooklyn from 1967 to 1973 with from six to 23 students per year, but none of its thirteen faculty members was qualified to give the Ph.D. and most were part-time instructors serving both Columbia's and Brooklyn's programs.

The growth of programs has been steady from nine M.S. and five Ph.D. offerings by pharmacy schools in 1958 to 31 M.S. and seventeen Ph.D. offerings in 1981, all controlled by pharmacy personnel. However, some discrepancy of reporting may have occurred in 1981 because A&M Schwartz, North Dakota, Pittsburgh, Oregon State, Drake, New Mexico, Toledo, and

Pacific did not show programs offered after several previous years of being listed. Arnold & Marie Schwartz reported eight masters students enrolled in 1981; however, North Dakota's last student was in 1970, Pittsburgh's in 1974 and Oregon State's in 1978. The other named schools have never enrolled a graduate student in pharmacy administration.

#### Growth and Development by the Numbers

In 1945 Dr. Andrew DuMez reported on the need for graduate work in pharmaceutical subjects. He specifically noted: "In the five year period preceding our entry into the war, the average annual enrollment in the 65 colleges of pharmacy was roughly 8,500 students. On December 1, 1944, 59 of the accredited colleges of pharmacy reported a total enrollment of 3,304. Of this number 85 were graduate students (71 men and 14 women)"(125). Although this number seems unusually low, it is a wartime figure. Prewar figures were also relatively low, and none of the graduate students were in a commercial pharmacy or pharmaceutical economics program. Perhaps part of the lack of graduate emphasis in general can be related to the professional leadership and goals of the schools at that time. DuMez reported also that of sixty deans only 23 had a Ph.D. Three were M.D.'s and one each had the J.S.D., D.V.M., and D.Sc. Of the remaining 31, eighteen had a masters degree; one had an M.B.A.; two had the B.S.; five were Ph.C.'s; and two had a Ph.G. degree(126).

Enrollment data from the AACP show a total of 413 graduate students in 1950-51 and 612 in 1954-55. during this period three schools - Purdue, Wisconsin, and Pittsburgh - were setting the stage for the development of graduate work in pharmaceutical economics or pharmacy administration. Other schools - such as Ohio State, Colorado, and North Carolina were working with students whose goals were economic oriented but who were enrolled in pharmacy or pharmaceutics programs as a matter of academic convenience. In 1955 four schools offered masters and three offered doctoral programs in pharmaceutical economics. In 1957 these numbers increased to seventeen M.S. and eight Ph.D. However, as noted in Table 2, eight were listed as inhouse (pharmacy) controlled: Arizona, Colorado, Purdue, Kansas, Brooklyn, Ohio State, Pittsburgh, Utah and Wisconsin. Six were listed as nonpharmacy controlled: Georgia, Iowa, Michigan, Minnesota, North Dakota, and Texas. Although listed briefly as offering a program, Kansas never reported having a graduate student in this subject area. Buffalo apparently had one student on campus one year, and Michigan listed ten students through 1966 in nonpharmacy programs. Texas did not have a student until 1963.

In 1958 enrollment data in undergraduate and graduate programs were reorganized in form and substance to provide consistent data in a continuing form for comparison as well as for general information. Table 3 records total numbers in graduate programs with a breakdown into M.S. and Ph.D. totals for all programs under the pharmacy administration general title. The totals for M.S. enrollments for 1963 through 1973 are somewhat inflated because the large numbers of enrollees were in four master's programs at Brooklyn, but all were reported under the single title to the AACP. From 59 of 801 (7.4%) in 1958, the numbers reached 108

Table 3. Graduate Enrollment Data for Pharmacy Administration and All Graduate Students in Colleges of Pharmacy, 1958-1982.

Fall of Year	Total Number Registered Pharmacy Administration All Grads				Fall of Year	Total Number Registered Pharmacy Administration All Grads			
	MS	PhD	Total	Grads		MS	PhD	Total	Grads
1958	44	9	59	801	1970	217	25	246	2082
1959	45	8	56	872	1971	180	24	204	2040
1960	59	13	76	928	1972	170	23	193	2025
1961	49	9	83	1038	1973	164	38	202	2287
1962	92	16	108	1088	1974	41	39	80	1539
1963	103	11	114	1395	1975	32	39	71	1744
1964	105	10	120	1463	1976	60	51	112	1778
1965	146	12	159	1767	1977	69	42	111	1816
1966	134	26	164	1927	1978	61	45	106	1850
1967	149	28	177	2069	1980	87	49	136	1193
1968	141	32	175	2035	1981	73	47	120	1257
1969	180	32	213	2087	1982	59	61	120	1323

Source: American Journal of Pharmaceutical Education annual reports on graduate enrollment. No report for 1979.

Note: The difference between MS + PhD and Total PHAD is the number of Special non-degree students.

of 1,188 (9.1%) by 1962, dropped to a low of 71 of 1,744 (4.1%) in 1975 and continually increased to 120 of 1,257 (9.5%) in 1981. Perhaps the primary goal of graduate education can be better envisioned by noting the steady growth of Ph.D. student enrollment from nine in 1961 to 61 in 1982. It was the intent of those who promoted graduate development to supply competent teachers and researchers at the Ph.D. level for the pressing demand of the colleges and industrial marketing. Unfortunately, the numbers were insufficient to meet both needs, and the demand for teachers caused academic salaries to exceed industry's offers, since the general pharmaceutical industry was geared to the M.S. and M.B.A. level for its marketing personnel. However, not too many pharmacy graduate were interested in the M.S. degree for a marketing career, and only, a few Ph.D.'s have taken industry positions.

Table 4 shows the frequency of enrollment by degree and school from 1949 through 1957. The data were not recorded officially, but they catalog the years primarily of Evanson, Apple, McEvilla, Hook, Wojcik, and Kern, and then Henney, Harry Smith, Hammel, Daniels, and Lytle. In 1958 the AACP published official enrollment data by schools and disciplines. Table 3 offers a chronology of active participation as each school actually entered the graduate development effort by enrolling students for the first time and continuing regularly or sporadically as a resource for

Table 2. Schools of Pharmacy Which Offered Graduate Programs in Pharmacy Administration in Chronological Order for Selected Years from 1957-1958 Through 1981-1982.

Schools of Pharmacy	1957	1958	1961	1963	1965	1968	1971	1973	1975	1978	1980	1981
Arizona	M	M	M	M	M	M	M	M	M	M D	M D	
Colorado	M D	M D	M D	M D	M D	M D	M D	M D	M D	M	M	
Georgia	M*	M*		M*	M	M	M D*	M D*	M D*	M D*	M	M D
Purdue	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D
Iowa	M*	M*D*	M*D*	M*	M*D*	M*D*	M D	M D	M D	M D	M D	M D
Michigan	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	M*D*	
Minnesota	M*D*	M*D*	M*D*	M*D*	M*D*		M D	M D	M D	M D	M D	M D
Brooklyn	M	M	M	M	M	M	M	M	M	M	M	
N.Dakota A.C.	M*			M	M	M	M	M	M	M	M	M
Ohio State	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D
Pittsburgh	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D
Texas	M*D*	M*D*	M D*	M D*	M	M	M D	M D	M D	M D	M D	M D
Utah	M	M*	M D*	M	M	M	M D	M	M	M	M	M
Wisconsin	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D	M D
N.Carolina		M*D*			M			M	M	M D	M D	M
Rhode Island	M*	M*	M	M	M	M D	M	M	M	M	M	M
Houston	M*			M			M	M				M
Massachusetts		M	M	M	M	M	M D	M D	M D	M D	M D	M
Wayne State		M	M	M		M D	M D	M D	M D	M D	M D	M
Oregon State		M D*	M	M	M D	M	M	M	M	M D		
S.California			M*			M*			M*D*	M*D*	M D	M D
Butler		M	M*									
Mississippi		D	M D	M D	M D	M D	M D	M D	M D	M D	M D	
Columbia		M	M D	M	M	M D	M D					
Connecticut			M	M	M	M	M				M M*	
N.E.Louisiana				M	M D	M D	M D	M D	M D	M D	M D	
Montana				M	M*	M	M				M	
Cincinnati					M	M	M	M	M	M	M	
Drake					M	M	M	M	M	M	M	
W.Virginia					M	M	M	M	M	M	M D	
New Mexico					M*	M	M	M	M	M	M	
Oklahoma						MM*D*					M D	
Florida							M D	M D	M D	M D	M D	
St.Johns							M	M	M	M	M	
Toledo							M	M	M	M	M	
Pacific							M	M	M	M	M	
Duquesne							M	M*	M*	M*		
Washington							M*D*	M*D*	M*D*	M*D*		
Missouri K.C.									M D	M D	M D	
Auburn										M		
S.Carolina										M D		
Tennessee										M*		
Virginia										M D		

\*Indicated programs offered by a department or school other than pharmacy.

personnel. Some schools apparently attempted to accommodate occasional students or decided not to continue programs for lack of personnel or resources. Notable examples of this discontinued participation were not included in Table 5: George Washington, Butler, SUNY at Buffalo, St. Louis (previously explained), Drake and Montana. Examples of sporadic or intermittent participation include such listed schools as Arizona (1962-

Table 4. The Development of Programs and Enrollment Data for Graduate Instruction in Pharmacy Administration, 1949 Through 1957.

College or University	1949		1950		1951		1952		1953		1954		1955		1956		1957	
	MS	D																
Purdue	1		1		1		1		1		2		2		2		2	
Wisconsin	1		1		1		1		1		1		5		4		2	
Pittsburgh	3		3				2		2		2		2		1	1	2	1
Ohio State	1		1		1		1		1		1		1		1		1	

1980), North Carolina (1959-1975), Southern California (1963-1980), and Utah (1973-1983).

Wisconsin is the only school reporting one or more students every year from 1949 through 1983. Purdue had one open year in 1975 and Ohio State in 1959. A&M Schwartz has not missed a year since 1958, and Colorado and Wayne State have missed only three years since 1958. Mississippi has not had an open year since it started in 1962: neither has Iowa since 1969 nor Georgia and Minnesota since 1971.

Discrepancies in the data are irreconcilable because of the differences in reporting definitions and numbers submitted. Another example is Table 6 - a summary of cumulative enrollments over five years from 1967-1968 through 1971-1972 school years. The data show M.S. and Ph.D. students enrolled in the top nine schools, but Temple never offered a program nor had students enrolled. The 24-student number is presumably an administrative error in reporting enrollment data not included annually as such in Table 6 data resources. A student enrolled for two years would be counted each year, and one Ph.D. graduate could be counted three or four times in the school's total. If all the students in Brooklyn's programs were not degree-oriented or actually pharmacy administration enrollees, the numbers would still be sufficient to maintain its first position. Likewise, all data shown do not indicate degree-orientation nor do they suggest degree-granting productivity.

Table 7 summarizes cumulative enrollments over 35 years. The beginning enrollment year is shown to allow for productivity comparisons. Mississippi has had the highest cumulative enrollment of M.S. and Ph.D. students (294) since 1962, followed by Minnesota (193) since 1971, Wisconsin (169) since 1949, Purdue (165) since 1949, Pittsburgh (154)

Table 5. Graduate Enrollment data for Pharmacy Administration by Chronological Order of First Publication of Graduate Student Registrations 1958 to 1982.

School of Pharmacy	1958 MS PhD	1959 MS PhD	1960 MS PhD	1961 MS PhD	1962 MS PhD	1963 MS PhD
Purdue	2 1	2	1 2	5 2	5 3	5 3
Pittsburgh	2 2	2 2	2 3	4	4	3 3
Wisconsin	8 4	6 3	7 4	8 3	2 5	2 1
Ohio State	1		1	1	4	1
A&M Schwartz	24	28	40	22	64	74
Colorado	1 1	1	1 1	2	2	2 1
Wayne State	2	2	2	3	5	5 1
Iowa	1					
Michigan	1			1	2	
Utah	1		2	1		
North Carolina		1	1			
North Dakota		1				
Rhode Island		1	1	1	1	3
Massachusetts				1	1	
Oregon				2		
Arizona					1	
Mississippi					4	3 3
Columbia					1	2
S. California						1
Texas						1

Source: Amer. Journ. Pharm. Educ. Graduate Enrollment Reports.  
 No report was published for 1979. The large numbers of enrollees for A&M Schwartz (Brooklyn College) from 1962 to 1972 included all graduate and special students enrolled for graduate courses on a part-time basis. Pharmacy Administration also includes Hospital Pharmacy Administration, History of Pharmacy, and Social Studies in Pharmacy.

"The most important thing for us to emphasize, however, is that as we move toward achieving depth, we must do this in an overlapping area of two disciplines: pharmacy, in its over-all inclusive sense, and business administration in its broadest sense. The most basic concepts of both must be maintained, and careful evaluations must be made whenever they appear to be in conflict.....This is simply another way of saying that good professional practice comes first and in the long run is synonymous with good business practice. Pharmacy will never be successful if it disregards its professional and public health responsibilities for short-term profits."

Stephen Wilson, Am. J. Pharm. Educ., 24, 445 (1960).

Table 5. (Continued)

School Pharmacy	1964 MS PhD	1965 MS PhD	1966 MS PhD	1967 MS PhD	1968 MS PhD	1969 MS PhD	1970 MS PhD
Purdue	5 4	8 3	1 13	5 12	1 10	2 4	2 3
Pittsburgh	2 2	3 3	2 3	2 3	10 4	8 6	9 3
Wisconsin	3 5	2 1	5	7 1	3 1	3 4	1 3
Ohio State	2	1	2	1 2	1 5	2 4	2 9
A&M Schwartz	77	106	94	102	93	92	149
Colorado	1 1	1	1		1	1 1	1
Wayne State	10	12	12	8	3	4	
Iowa			1			1	2
Michigan	2	2	2				
Utah		3	2		3	2	2
North Carolina							
North Dakota					1	1	1
Rhode Island	2	1	4	3	2	2	1
Massachusetts				3	3	1	
Oregon	1		3	3 1	1		1
Arizona	1		2				
Mississippi	3	2 3	1 5	4 6	7 10	2 10	3 6
Columbia				6	10		17
S. California							
Texas	1	2	3	1		1	1
Connecticut			4	4			
Georgia					2	2	3
West Virginia					2 2	3	4
N.E.Louisiana						1	3
Cincinnati							3

"Research must be separated from scholarship, according to Cowley, since research is the effort to discover new facts or recover lost or forgotten facts, while scholarship is the organization, criticism, and interpretation of facts and concepts. The identification and recombination of the three processes - research, scholarship and communication - lead directly to the recognition that for excellence in teaching each of them depends upon the others: that without research, scholarship degenerates into fatuous verbalism; that without scholarship, research decays into a mere collection of elaborate trivia; that without both research and scholarship, teaching becomes bromidic prattling."

Melvin W. Green, Am. J. Pharm. Educ., 17, 54 (1953).

Table 5. (Continued)

School of Pharmacy	1971 MS PhD	1972 MS PhD	1973 MS PhD	1974 MS PhD	1975 MS PhD	1976 MS PhD
Purdue	2	1 1	2	1 1		4 2
Pittsburgh	8 9	6 7	2 10	3		
Wisconsin	2	2	1 1	2 1	1 8	7
Ohio State	1 7	6	1 6	3 6	1	6
A&M Schwartz	107	118	22	19	16	13
Colorado			3	1	2	2
Wayne State	1	1	1	4		1 1
Iowa	3 2	2 3	2 2	1 2	2 3	3 4
Michigan						
Utah	2	1				
North Carolina					1	
North Dakota						
Rhode Island	1	2	3	5	3	3
Massachusetts		2	2			
Oregon State					1	
Arizona					1	1
Mississippi	7 3	8 4	8 8	9 13	7 8	19 7
Columbia	23	17	10			
S. California						
Texas					2 2	2
Connecticut	2					2
Georgia	3	2	1 1	2	2 1	2 1
West Virginia	4				3	2
N.E.Louisiana	1					1
Cincinnati	2	1	1			
St. Johns	1		13	1		
Florida	1	2	2		3	2 2
Minnesota	3	2	4 6	4 10	3 13	5 14
Missouri K.C.						1 3
Washington						1

"It is helpful to recognize that theory grows somewhat like a sandpile: the higher its pinnacle, the broader must be its base; the broader its base, the higher it must rise before a sharp vertex or focus is attained. A given base of facts or experience supports its own structure of generalization and abstraction. While extended study may reinforce theory already derived, broadening the base of inquiry has two other principle effects upon the structure of thought: it raises the level of generalization based upon it; or it provides separate theories which require unification in a more general theory."

Robert Bartels, Pharm. Mktg. & Media, 3, no. 6, 10 (June, 1968).

Table 5. (Continued)

School of Pharmacy	1977 MS PhD	1978 MS PhD	1980 MS PhD	1981 MS PhD	1982 MS PhD	1983 MS PhD
Purdue	4	3 3	4 4	4 3	2 1	1 5
Pittsburgh						
Wisconsin	5	7	6	5	4	4
Ohio State	7	4 7	3 1	8	8	3 4
A&M Schwartz	25	20	5	8	3	6
Colorado	1	1	1 1	3 1	2 2	2 2
Wayne State	3	1	4 1	4	3	
Iowa	5 4	2 1	3	2	1 3	2 3
Michigan						
Utah			2			
North Carolina	1	4	1 3	1 3	1 1	2 1
North Dakota						
Rhode Island	2	2	2			
Massachusetts	5 3	2	5			
Oregon State	1	2				1
Arizona	1		4 1	2 2	1 4	5 3
Mississippi	12 4	10 10	10 7	11 5	17 8	17 11
Columbia						
S. California			2	1	1	1
Texas	1	2	1	1	2 3	3 5
Connecticut	2	2 1	2	4	1	1
Georgia	2	1	4 1	4 1	3	1 1
West Virginia	2	2	2	1	2	1
N.E. Louisiana	1	1		1	3	2 2
Cincinnati						
St. Johns			5	2	1	6
Florida	1 4	2	3	4	4	2 6
Minnesota	5 11	3 13	3 16	7 21	7 22	(3) 20
Missouri K.C.	2 2			2	1 1	2 1
Washington		6	2		1	
Illinois	2		8	6	3 2	4
South Carolina	3	4	6	8	2	3 1
Auburn	2	1	2	2	1	
Tennessee					1	4
Maryland						1 2
Oklahoma						2 1

( ) indicates program in a department other than the School of Pharmacy.

"Thus through act and word, through counsel and deed, the pharmacist in the corner drugstore has the opportunity and I believe the obligation to serve as an educational leader to the community which he serves."

Walter D. Cocking, Am. J. Pharm. Educ., 4, 27 (1940).

Table 6. A Summary of the Five-Year (1967-1971) Cumulative Graduate Enrollment in Pharmacy Administration at the Largest Enrollment Colleges of Pharmacy

Rank	College	No. MS	Rank	College	No. PhD
1	Brooklyn	543	1	Mississippi	35
2	Columbia	71 56b	2	Purdue	31
3	Pittsburgh	29 37b	3	Ohio State	26 27b
4	Temple	24a	4	Pittsburgh	25
5	Mississippi	23	5	Wisconsin	11
6	Wayne State	16			
7	Wisconsin	14			
8	Purdue	10			
8	Georgia	10			

Source: Table V. Summary of Five-Year (1967-1971) Cumulative Graduate Enrollments at Largest Enrollment Colleges in Various Pharmaceutical Disciplines, Amer. Journ. Pharm. Educ., 37, 92 (1973).

Notes: a) Temple did not offer a graduate program in pharmacy administration. This number is presumably an administrative error in reporting enrollment data. b) Totals taken from annual reports as given in Table 3.

"If then the individual pharmacists of America are to assume their full responsibility to serve as educators and counselors of the individuals whom they contact, it becomes the obligation of the teachers of pharmacy to so influence their students that they will go into the profession with a full comprehension of their duty to teach."

Robert C. Wilson, Am. J. Pharm. Educ., 4, 2 (1940).

Table 7. A Summary of Cumulative Graduate Enrollment in Pharmacy Administration at the Largest Enrollment Colleges of Pharmacy 1949-1983 and Beginning Year of Program.

Rank	College	No. M.S.	Year	Rank	College	No. Ph.D.	Year
1	Brooklyn	1327	1958	1	Minnesota	146	1973
2	Mississippi	160	1962	2	Mississippi	134	1963
3	Wayne State	93	1958	3	Wisconsin	99	1952
4	Purdue	72	1952	4	Purdue	93	1949
5	Wisconsin	70	1950	5	Pittsburgh	84	1952
6	Columbia	56	1962	6	Ohio State	75	1951
7	Ohio State	54	1949	7	Iowa	31	1971
8	Minnesota	47	1971	8	Florida	25	1976
9	Rhode Island	45	1959	9	Colorado	20	1958
10	Georgia	33	1968				
10	Iowa	33	1958				
11	Texas	24	1963				
12	Connecticut	23	1968				
13	Colorado	21	1958				

Source: Table 5 accumulated data.

"Change is a tremendous force in our society. Every marketer must be concerned with changes which will affect markets now and in the future. The danger lies that in our haste to anticipate the future we may be tilting the windmills of non-existing markets while turning our backs on fruitful markets with rich potentials today."

Grey Matter, 43, no. 6, 4 (June, 1972).

Table 8. A Summary of Cumulative Graduate Enrollment in Pharmacy Administration at the Twenty Largest Enrollment Colleges of Pharmacy 1973-1983.

Rank	College	No. M.S.	Rank	College	No. Ph.D.
1	A&M Schwartz	137	1	Minnesota	146
2	Mississippi	120	2	Mississippi	81
3	Minnesota	41	3	Wisconsin	48
4	Ohio State	30	4	Ohio State	38
5	Purdue	25	5	Iowa	27
6	S. Carolina	24	6	Florida	25
7	Illinois	23	7	Purdue	19
8	Georgia	21	8	Colorado	16
8	Wayne State	21	9	Pittsburgh	13
9	Rhode Island	20	10	Arizona	11
10	Iowa	18	11	Texas	10
11	W. Virginia	15	12	N. Carolina	8
12	Connecticut	14			
12	Arizona	14			
12	Texas	14			
13	N. Carolina	11			
14	Florida	10			

Source: Table 5 accumulated data.

"Pharmacy faculties should seriously consider the concept of clinical social scientists in pharmacy because the individuals, if properly trained, would be able to perform a variety of research, education and service functions."

Bonnie L. Svarstad, Am. J. Pharm. Educ., 43, 254 (1979).

since 1950, and Ohio State (129) since 1949. In order to equate the more contemporary effect of graduate development, Table 8 indicates the cumulative enrollments of the top twenty programs from 1973 through 1983 as amended by corrected data from A&M Schwartz College beginning in 1973 for pharmacy administration enrollees only. In terms of total enrollment for both degree programs or singular degree programs, the top seven schools were Minnesota (201), Mississippi (187), A&M Schwartz (137), Ohio State (68), Iowa (45), Purdue (44), and Florida (35). Although the data in most instances reflect pharmacists enrolled in pharmacy administration programs, no doubt some programs, such as Mississippi, may include some non-pharmacists in their health care directed programs.

By the end of the 1973-1974 school year there were nineteen schools that had enrolled students for advanced degree work and thirty-three schools with programs offered on paper. In the AACP the Section of Teachers of Graduate Instruction was discontinued on the premise that general needs had been met in most schools and those remaining were primarily discipline-oriented. Therefore, in New Orleans in November, 1974, a panel of four professors presented a symposium on "Manpower Development Through Pharmacy Administration Graduate Programs." Although the presentation was not adopted by the Section of Teachers of Pharmacy Administration as a position paper, the discussion presented a basic guide and rationale for the organization of graduate programs capable of developing human resources to meet the needs of academic and nonacademic roles which require education to an advanced degree level. The content of that symposium is published; however, inclusion of its brief Conclusions and Recommendations statement serves the purpose of this historical review.

"The development of graduate programs should concentrate on the strengths in a given school and university system and become oriented primarily to management science and/or social science objectives at the doctoral level to prepare students for academic positions. Instruction in both of these areas should be coordinated with or integrated into pharmacy administration and clinical pharmacy instruction at undergraduate professional and graduate degree levels to provide advanced programs which uniquely prepare students for particular positions in pharmacy, health care, or government service.

"To provide expert instruction, cooperative research, and better funding potential, efforts should be made to create interdisciplinary programs with the departments or professors available to support the objectives and curriculum needs of graduate education."

"Attention to course offerings and counseling at the undergraduate level is suggested to create interest and motivate students to consider graduate work in pharmacy administration to maintain and expand the human resources for replacement and growth."

"All graduate students should have instruction in and knowledge of quantitative methods, data processing techniques, economic and sociological principles applied to health care, pharmacy practice and marketing systems."

"There is continuing need for the development of manpower through graduate programs in pharmacy administration. Although the number of full-time teachers has increased, including those of professional rank capable of graduate instruction, the actual number of active programs and students involved have not increased in recent years. At the present time needs still exceed resources."

"To function effectively in today's and future health care environments and organizations, graduates must have an understanding of practices and techniques for optimizing the performance of human, physical and financial resources to develop, implement and control its clinical services. To accomplish this goal pharmacy administration and clinical pharmacy are natural partners in education and professional practice."

"Every school cannot offer graduate programs in pharmacy administration. However, all faculty members should be concerned about the objectives, content, quality and availability of programs. If manpower is to be developed to fulfill needs, a clear understanding of school needs and objectives is prerequisite to an evaluation of available programs and the creation of new programs. All faculty members can have a personal input into the development process through their AACP teacher's section"(127).

Graduate education is but one phase of faculty development, the creation of basically trained personnel to fill the teaching/research positions. Without raw material finished products cannot be made. The process of faculty development in pharmacy administration, however, occurred in the early years concurrently with graduate education as well as postgraduation. the next chapter carries this process forward in greater and specific detail.

"The present day challenges with which drug stores are faced seem to leave them in a position which is both solid and decidedly hopeful for the future. There will be a continued growth in the number of drug stores in which prescription filling is just about the only activity. There also will be, I think, more of the so-called super drug stores with their large floor areas and self-selection and customers' check-out features." Paul C. Olsen, Teachers Seminar on Pharmacy Administration (1956) p. 78.

## CHAPTER V FACULTY GROWTH AND DEVELOPMENT

### People and Numbers

The Pharmaceutical Survey stated that in the academic year 1947-48 there were 474 full-time and 278 part-time faculty teaching in the 73 accredited colleges of pharmacy(128). This is an average of 10.3 faculty members in each school. In the 1951 report of the Director of Educational Relations of the American Council on Pharmaceutical Education, Dr. Richard A. Deno covered goals, programs, physical facilities, instruction and personnel problems of the nation's colleges/schools of pharmacy. Of the 72 colleges reported on, 51 (70%) had professionals teaching pharmacy, 49 (68%) had professionals in pharmaceutical chemistry, 34 (49%) identified professionals in pharmacology, and 25 (35%) had professionals in pharmacognosy. He also stated:

"In pharmacy administration there are only seven of 72 accredited colleges that have the full time services of professionals in this area. Three or four others have the part-time services of professionals, and around 20 colleges make use of ancillary professionals from schools of commerce or business administration. One half of the colleges do not have even reasonably adequate solutions worked out to the problem of instruction in this area."

The Annual Report of the American Council on Pharmaceutical Education for 1954 indicated that school faculties had increased to 834. All were full-time except for pharmacy administration where the majority were part-time. However, some pharmacy administration faculty were full-time in business schools. In this 1954 report, 149 faculty members were designated as teaching pharmacy administration. The majority (62) had either the M.S. or M.A. degree. The next highest number (38) held the L.L.B. degree. Only 16 were stated as having the Ph.D. or D.Sc. degree. A review of personnel in all areas is shown in Table 9.

In 1953, the first Ph.D. degree with a major in pharmacy administration was awarded by Purdue University. The second Ph.D. with a major in pharmacy administration was awarded in 1954 by the University of Wisconsin. The third and fourth such degrees were awarded in 1955 by the University of Pittsburgh. This is noted again only to emphasize that all the Ph.D. degree holders teaching pharmacy administration prior to the 1954 report of the American Council of Pharmaceutical Education were in majors other than pharmacy administration and that many were not pharmacists. Those teaching pharmacy administration courses prior to the 1950's are to be congratulated. They were able to maintain, in a limited number of schools, a place in the curriculum for course work in pharmacy administration. Although many names may be omitted for lack of proper records and recall, the naming of a few of the early teachers will preserve their heritage among the people who labored in the vineyard before pharmacy administration was formally recognized by requiring each school to have someone on its faculty with professorial rank to teach its courses at the undergraduate level. Paul C. Olsen, Stephen Wilson, Joseph

Table 9. The Frequency of Earned Academic Degrees Among 834 Pharmacy Faculty Members in 1954.

FIELD	BA BS	MA MS	D.Sc. Ph.D.	Ph.G Pharm.D.	Other	TOTAL
Ph.Chem.	8	33	116	2	—	159
Poog.	10	28	55	4	—	97
Pcol	7	32	83	1	11a	134
Pharm.	78	105	102	9	1a	295
Ph.Admin.	<u>23</u>	<u>62</u>	<u>16</u>	<u>10</u>	<u>38b</u>	<u>149</u>
Total	126	260	372	26		834

a. M.D.; b. L.L.B.

Source: Annual Report of the American Council of Pharmaceutical Education, Inc., Amer. J. Pharm. Educ. 18, 656 (1954)

Goodness, John A. Lynch, Joseph F. McCloskey, Esther Jane Wood Hall, Horace Fuller, B. Olive Cole, Blanche Sommers, Chauncey I. Cooper, George F. Archambault, and Ralph Clark, will forever be remembered. These were the individuals of the era of pharmaceutical economics who helped pave the way and were role models for many who in the 1950's were beginning careers in the neophyte discipline called pharmacy administration, seeking to meet the need created by the AACP's edict noted above.

Faculty development depends upon the defining of goals and objectives of curriculum and course content which offers some reasonably recognizable job description for which to train future personnel. As has been noted in other chapters, the designation "pharmacy administration" originated in the "General Report of the Pharmaceutical Survey, 1946-1949", conducted by the American Council on Education, published in 1950. This area of study was officially recognized and assigned the title of pharmacy administration in 1953 by the American Association of Colleges of Pharmacy and the American Council on Pharmaceutica Education. Various schools and/or individuals are responsible for the generation of the other titles given this area of study, such as Health Care Administration (Mississippi (1972) and Pharmacy Socio-economics (Iowa, 1974). Perhaps that has been one of the problems in developing manpower for pharmacy administration. The discipline has gone through a series of directions priorities. In the beginning it was concerned with providing students basic information on the operation and management of retail pharmacies. This included instruction in management, marketing, law and accounting. These subject areas are now referred to as the "traditional" or "conventional" areas of study in pharmacy administration. This was the structure of the discipline as originally organized in the 1950's.

In the middle 1960's there was a movement to substitute socially oriented patient care courses for the more practical ones related to pharmacy operation. This change took place at the same time clinical pharmacy was in its early stage of development. This change in direction modified some graduate programs and resulted in the emergence of several new ones. It was at this time that courses in health care administration, socio-economic aspects of health care, and social and administrative science took credit hours away from the previously taught conventional courses.

The Section of Teachers of Pharmacy Administration has generated manpower reports over the years. An analysis of data reported on a biennial basis in Table 10 shows that 1983 had the highest number of

Table 10. Number of Pharmacy Administration Personnel by Academic Degrees Earned.

Earned Degree Title	<u>No. of Personnel</u>										
	1983	1981	1979	1977	1975	1973	1971	1969	1967	1965	1963
Ph.D.	133	129	114	101	96	84	79	62	52	47	38
M.S.	19	20	17	17	25	28	33	36	33	26	31
B.S.	14	12	15	19	27	26	21	16	11	8	15
L.L.B.		1	3	5	8	8	16	17	19	18	23
J.D.	25	20	20	20	21	23	14	7			
M.B.A.	12	11	11	13	14	15	9	18	16	13	8
L.L.M.	1	1	1	1	1	1	3	3	4	7	3
Pharm.D.	9	8	1	4	4	3		4	3	3	3
B.B.A.	1		2		1		1		2	1	1
D.B.A.	1	1	1	2	1	1	1	1	1	1	1
Ed.D.	1	3	2	3	2						
M.P.H.	1	2	2		2						
Misc. (a)	<u>8</u>	<u>10</u>	<u>6</u>	<u>9</u>	<u>6</u>	<u>10</u>	<u>12</u>	<u>17</u>	<u>10</u>	<u>8</u>	<u>16</u>
	225	218	195	193	208	200	188	178	151	132	138

a) Includes: Ph.C., Ph.G., M.P.A., M.H.C.A., A.A., M.S.W., M.S.A., M.D., C.P.A., D.Sc., M.Litt., L.L.D., Ed.M., M.C.P., D.P.H., and B.S.L.S.

persons with Ph.D. degrees teaching one or more courses in pharmacy administration. There were 133 teachers with Ph.D. degrees representing a 250 percent increase over the 1963 total of 38 teachers. Individuals with the M.S. degree peaked at 36 in 1969 and declined to 17 in 1979, but they have increased again to 19 in 1983. This may be caused by the recent demand for personnel exceeding the supply of Ph.D.'s promoting the use of M.S. persons as part-time teachers. The number of J.D. degrees has increased from seven to 25; however, there are four J.D.'s not shown because the teachers were recorded at the Ph.D. designation to indicate their academic orientation to science rather than to law. The transition to legal education is evident in the 23 L.L.B.'s in 1963 which were phased out to zero in 1983 while the J.D. entered the scene in 1969 to replace personnel and exceed that number in 1983. The data indicate that the number of lawyer-teachers peaked at 31 in 1973 and decreased to 25 during the next ten years. They also show historically that courses in jurisprudence have been taught in 24 schools by attorneys and in 47 schools (66 percent) by non-law-trained personnel. The majority of the faculty who listed J.D. as the only degree (with or without the B.S.) was also indicated as part-time teachers.

Of interest is the fluctuation of the M.B.A. from eight in 1963 to eighteen in 1969 with a gradual decline to twelve in 1983. Only the B.S. degree has had a cyclical trend from the fifteen in 1963 up to 27 in 1975 and back to fourteen in 1983. Perhaps these represent the use of community practitioners or part-time beginning graduate students as instructors or adjunct faculty. Of greater importance as a suggestor of trends in personnel, interest and content is the increase of Pharm.D.'s from three in 1963 to nine in 1983, a 200 percent rise over the twenty years. Even more dramatic is the 800 percent rise from one to nine in the four years from 1979 to 1983. These nine represent personnel who list only the Pharm.D. degree. Individuals with Pharm.D. degrees would have no more training in pharmacy administration than would those with B.S. degrees. Therefore, with B.S., B.B.A. and Pharm.D. degrees, 24 (10.6 percent) of all known pharmacy administration teachers in 1983 had only an undergraduate education. Perhaps two or three of these represent older persons retired from practice and teaching management courses. Analysis of the Roster also shows several personnel with Pharm.D. degrees prior to advanced graduate degrees (not a usual procedure with the B.S. or M.S.); however, in every instance only the highest degree was recorded for each person.

The Roster of Teaching Personnel also offers some insight to the number and extent of development of school programs and personnel. Not only are the teachers exhibiting higher-level training backgrounds, but the number of personnel for each school is increasing. Table 11 indicates that the number of schools with no personnel declined from eight to two over the twenty years. The number with only one teacher has declined from 32 to fourteen. The most dramatic change has occurred in the five-teacher category with a 500 percent increase from two to twelve schools. In 1983 four schools listed no one for pharmacy administration (category 9): Nebraska, Creighton, Kansas and Pittsburgh. However, Kansas shows an M.B.A. in pharmacy practice, and Pittsburgh shows a J.D. in pharmacy practice.

Table 11. Number of Pharmacy Administration Personnel per College of Pharmacy for Selected Years.

No. of Teachers	No. of Schools										
	1983	1981	1979	1977	1975	1973	1971	1969	1967	1965	1963
0	2	3	0	0	4	2	1	1	4	6	8
1	14	13	19	22	17	20	27	26	26	31	32
2	12	17	14	21	21	19	17	23	23	18	15
3	17	13	21	11	11	16	15	11	13	13	8
4	8	11	4	6	6	7	4	8	4	3	7
5	12	6	4	4	6	2	4	1		1	2
6	2	4	5	2	2	2			2		
7	2	1	3	2			2				2
8		1		2	2	2		1		1	
9	2	1		1	1	1	2				
10		1			1						
12									1		
13								1			
14								1			
15						1			1		
19							1				

Source: These data were taken from selected manpower reports as abstracted from the annual issues of the Roster of Teaching Personnel in Colleges of Pharmacy published by the American Association of Colleges of Pharmacy.

"The value of an education at specialized advanced levels is to be able to do the more difficult tasks of life more routinely. The value of continuing education is to maintain this ability at a level commensurate with contemporary advancements and change for the benefit of all concerned." Anon.

The largest number of faculty members teaching in a single school in 1981 was ten. Other higher numbers from twelve to nineteen are indicated for 1967 through 1975, but these numbers are questionable. It is not realistic to presume that any school of pharmacy in 1973 had the luxury of human and financial resources to maintain nineteen such personnel, unless many were "adjunct," "guest," or "ghost" lecturers. The development of numbers as a positive value is evidenced by 43 schools with three or more faculty members. Thus, sixty percent are well on the road to developing the critical mass of faculty considered by some critics and graduate school deans as necessary for the development of acceptable graduate programs. However, it is highly unlikely that even a majority of these schools will have significant doctoral programs by the year 2000.

Another factor of historical analysis indicative of growth and development is faculty status by rank/title. In the early 1950's there were about six full professors in pharmaceutical economics, and they were the older teachers such as Olsen, Goodness and Wilson. The record shows nineteen by 1963 increasing by 147 percent to 47 in 1981. Most of the early Ph.D.'s in pharmacy administration were full professors by 1967. Associate professors increased 82 percent and assistant professors 187 percent. Instructors decreased 54 percent and lecturers 91% for a total increase of sixty percent over the eighteen-year span as shown in Table 12.

The number of part-time teachers, at 53 in 1963, rose to 73 in 1969 when 41 percent of the faculty members were part-time employees in pharmacy administration. These included attorneys, business faculty with joint appointments, and pharmacy practitioners. At a peak of 74 in 1975, this group decreased to a low of eighteen in 1981 and increased again to 29 in 1983 for thirteen percent of the 225 teachers.

The evolution of pharmacy administration personnel into part-time and full-time administrative positions is also cataloged in Table 12. Originally some lower-ranked teachers were made assistant deans to justify their salary for twelve months when their teaching jobs were for only nine months. In most cases these positions have become solidified so that the original two part-time jobs in 1967 have expanded to three full-time and fifteen part-time jobs in 1981. Fourteen persons were listed as deans in 1983, but four deans erroneously indicated pharmacy administration as their specialty and must be excluded. Currently twelve deans include: H. John Baldwin (Wyoming), Dale W. Doerr (Butler), Raymond A. Gosselin (Massachusetts), Marcellus Grace (Xavier), Bernard G. Keller, Jr. (Southwestern Oklahoma), Henri R. Manasse (Illinois), Joseph D. McEvilla (Temple), Maven J. Myers (Philadelphia), G. Joseph Norwood (N. Dakota), Richard A. Ohvall (Oregon), Kenneth R. Shrader (Northeast Louisiana), and Larry M. Simonsmeier (Washington State).

Future manpower needs must be addressed. In the Enrollment Report on Graduate Degree Programs in Pharmacy, Fall 1982, published by the Director of Research of the American Association of Colleges of Pharmacy, data indicate that there were 61 full-time Ph.D. students and 59 full-time M.S. students enrolled in pharmacy

Table 12. Number of Pharmacy Administration Personnel by Academic Classification or Rank.

Academic Rank	No. of Personnel									
	1981	1979	1977	1975	1973	1971	1969	1967	1965	1963
Dean	8	5	5	7	8	3	2	3	5	6
Asso.Dean	1(11)a	2(9)	2(6)	1(2)	1		(1)			
Asst.Dea	2(4)	2(2)	1(5)	1(8)	7	1	(5)	(2)		
Professor	47	46	40	44	33	32	27	24	23	19
Asso.Prof.	62	40	45	30	35	36	41	37	29	34
Asst.Prof.	66	56	50	50	43	45	36	28	32	23
Instructor	12	13	17	27	24	19	21	18	18	26
Lecturer	2	7	18	18	22	30	34	28	23	1
Misc.(b)	18	24	15	29	17	22	17	13	2	
Part-Time	(18)	(36)	(39)	(74)	(72)	(70)	(73)	(60)	(52)	(53)
Total	218	195	193	208	200	188	178	151	132	138

- a) Numbers in parentheses are counted in the academic ranks.
- b) Includes: President, Adjunct Professors, Clinical Professors, Adjunct Instructor, Visiting Professor, Professor Affiliate, Pharmacist Assistant, and Spec. II.

Source: Selected issues of the Roster of Teaching Personnel in Colleges of Pharmacy published by the American Association of Colleges of Pharmacy.

administration graduate programs. There were an additional 100 part-time graduate students in these programs. Because the American Association of Colleges of Pharmacy has discontinued publishing annually a list of schools which are supposedly seeking staff members in any or all areas of instruction, it is not possible to state the demand/supply ratio. From the number of graduate students pursuing advanced degrees in pharmacy administration it would appear that the future supply should satisfy the demand for faculty positions in the 72 accredited colleges of pharmacy. However, this balance has not occurred to date. With increased interest in the Pharm.D. professional degree, many practice-oriented students of graduate calibre may prefer to practice at this higher degree standard than to pursue advanced degrees in research or teaching. In many schools the short-run economic value of advanced degrees for academic positions at the assistant professor level is little or no more than that of the B.S.

degree at community practice levels. The supply is affected also by the misleading numbers of graduate students. Some plan to return to their foreign countries to teach, and some have an interest in health care services in non-pharmacy environments but enroll in pharmacy-based programs.

The application of pharmacy administration in its broadest concept becomes more necessary as knowledge expands and systems of education, industry, practice and government expend old and develop new avenues of service. However, the question may not be: What shall we do or teach? The question may become: How quickly can sufficient personnel be produced to do an adequate job in the areas of instruction necessary to the student's understanding of the social, economic and administrative areas of pharmacy in terms of satisfying an expanding demand?

During the thirty-three year period (1950-1983) covered by this analysis pharmacy administration has gone through a variety of changes. It has experienced an increase in numbers of full-time faculty, and a decrease in the number of part-time faculty. The rate of growth and the relative growth have decreased. The courses taught have changed from the "conventional courses" to courses more related to the sociological aspects of providing pharmaceutical care. Organization has shifted from the creation of new departments of pharmacy administration to the merging of such departments into the area of pharmacy practice. This has created another problem of identity in the description and analysis of existing personnel resources.

The Roster of Teaching Personnel carries stated descriptive subdivisions which are assignable to the primary areas or disciplines. In too many instances school administrators ignore these subdivisions, or identify faculty by departmental attachment, or assign designations to pharmacy administration (moreso than to other areas) to imply a faculty mass by creative imagination. It has become necessary to know in what area(s) did staff members receive their degrees? Are they part-time personnel on the staff of the pharmacy college or are they associated with schools of business or departments of sociology or psychology in the college of arts and sciences. Are they pharmacists, physicians, lawyers, industry employees, government employees or other full-time employees outside the school of pharmacy. What is desired is more information on the background and actual status of the faculty member designated as a part of a school of pharmacy teaching in any of the areas of pharmaceutical education. In this day of computerization, this should be possible with just a little effort. The initial cost should be minimal and the updating almost negligible. It is difficult to study the historical or contemporary development of faculty by people or numbers when the right people and/or numbers are incorrect and the incorrection is hidden or masked by misdesignation. The areas of definition are clearly stated in the Roster and should be adhered to as scientifically as any other form of data to be used for reporting or research for future studies.

## Academic Ranks and Economic Growth

It was previously noted that in 1947-48 there were 474 full-time and 278 part-time faculty in the 73 schools of pharmacy. It was also reported that median salaries for these teachers were: Professor - \$5,000-5,499; Associate Professor - \$4,500-4,999; Assistant Professor - \$4,000-4,999; and Instructor - \$2,500-2,999(128). Although these ranges appear to be meager in terms of 1980 standards, they also were not reasonable or comparable in the immediate post-World-War II years in terms of the relative values for other positions in pharmacy.

In 1949 Lloyd E. Blauch summarized the professors relative economic value by stating that: "The prevailing salary scales for teachers of professional subjects in the majority of cases are entirely too low to attract and to afford a satisfactory career for men of superior ability and to meet competition from industry..... Pharmaceutical education is stalemated by the inadequate compensation of those who teach(129)." This sentiment was echoed in 1960 by Melvin R. Gibson when he stated: "Unless something is done about the salaries of professors of pharmacy, the whole profession is going to feel the impact of sliding down hill with nothing to stop it because its academic underpinnings are gone or are too weakened by substitution(130)." In the 1953-1955 period an assistant professor of pharmacy administration received around \$6,000-\$6,500 for a calendar year. At the same time a newly promoted full professor was at the \$12,000 level after no less than the traditional minimum ten to twelve years of service. However, we must consider the post-depression, post-war containment in academic salaries which are always slow to recover from economic setbacks.

The obvious problem in the growth and development of human resources is the motivation of people (pharmacy graduates) to sacrifice time, effort, and dollars to continue the academic socialization process to higher levels of professional service. In many cases the differences among several opportunities will depend on actual compensation and non-compensating values which provide an addition to real income or utility in some non-assessable form. A study of education and industry values in terms of salary and fringe benefits in 1961 received salary data from twenty major pharmaceutical manufacturers and 45 schools of pharmacy. The college offers for initial employment of a Ph.D. at the assistant professor level was in the effective range of \$6,000-10,000 with the lowest offer at \$4,800. The median salaries for the assistant professor level were: minimum - \$6,500, usual - \$7,000, and maximum - \$7,800. For all items reported, \$7,000 was the mode and median.

Initial employment at the associate professor level is not usual; however, data for this activity indicated for all items listed a median of \$8,000, but the mode was \$7,500. For the industry, new job offers across nine classifications of activity ranged at the minimum \$7,500 to \$9,325, for usual offers from \$8,500 to \$9,325, and at the maximum from \$8,500 to \$20,000. The averages were \$8,355, \$8,717 and \$9,959 respectively. The results indicated that, although the new Ph.D. may receive relative equal - but not always the same - benefits in both situations, he was more apt

to receive a more attractive offer from industry than from college teaching for full-year employment. It was suggested that a calendar-year stipend of less than \$8,000 was sub-standard compared with the industry minimum, and an offer below \$8,700 was below the industry average for these twenty companies likely to compete for some of educations best talent(131).

Data from the 1984 salary survey by the AACP shows the average reported salary for 69 deans was \$62,849; for 89 associate/assistant deans was \$47,148; for 330 professors was \$49,429; for 388 associate professors was \$38,275; for 473 assistant professors was \$31,104; and for 59 instructors was \$26,549(132). Compared with 1947, instructors increased over tenfold, professors about tenfold, associates eight times and assistants slightly over seven times. It seems that the assistant professor level is the least favored, but it is the most important as an attracter of prime college resources.

The recruitment of human resources was noted as being related to economic values to promote a supply and satisfy the demand for new teachers. In 1947 the median range for assistant professors was \$4,000 to \$4,499. In 1961 the going rate averaged around \$7,000. In the early 1970's the AACP began an annual salary survey program to provide schools with knowledge of faculty salaries as a self-educating resource which could have some positive effect on correcting inequities with research data for support. Of importance to the supply problem is the evidence indicated for demand prices for new assistant professors as a gauge for the real potential for growth and development as a career opportunity. Table 13 indicates these values for selected years.

Table 13. Average Salaries of Assistant Professors of Pharmacy Administration During Their First Teaching Year 1976-1984.

Year	Average Salary	No. of Tchrs.	Year	Average Salary	No. of Tchrs.
1976	\$18,874	12	1980	\$24,114	13
1977	20,025	15	1982	26,401	12
1978	20,919	13	1984	34,469	8
1979	21,544	11			

Source: Annual Survey of Faculty Salaries, Am. Asso. Coll. of Pharmacy, 1976-1984.

Some interesting observations may indicate the unpredictable nature of academic economics. The average first-year salary of \$20,919 in 1978 is followed by averages for 2-5 years of \$22,565 (sixteen teachers) and for 6+ years of \$29,847 (five teachers). In 1980 the average salary during the first year was \$24,114, only \$1,015 less than that for all assistant professors. Although the 2-5 year average was higher at

\$25,819, the 6+ year average was only \$26,320. This same inadequate adjustment is noted in 1984. With a first-year average of \$34,469 for a low of eight new teachers, 26 teachers averaged only \$31,706 for 2-5 years of service. The extreme pressure on demand is also evident in comparison with other disciplines. In 1984 the first-year average was almost \$4,000 higher than the average for 104 new assistant professors in all disciplines including pharmacy administration.

A view of potential economic values attached to apparent success indicated by promotion to full professor is offered in Table 14. Of the six disciplines common to all schools, professors of pharmacy administration ranked fifth in 1984, fourth in 1980, and sixth in 1976. Over the eight-year period full professor salaries increased as follows: pharmacognosy +78.1 percent; pharmacology +69.7 percent; pharmaceutics +66.3 percent; medicinal chemistry +64.9 percent; pharmacy administration +63.7 percent; and clinical pharmacy +47.4 percent. The economic facts of life are apparent in these data. A recognized demand and short supply create higher salary responses as seen with fifteen pharmacognosy professors in the highest average salary category and not enough (if any) new assistant professors available to create a valid average value.

In 1974 a review of faculty salaries by Rodowskas and Dickson offered comparisons for all professorial ranks from 1963 to 1972 in an attempt to analyze relative positions among disciplines and growth by index analysis over the ten-year period. They reported that "faculty members in pharmacy and pharmaceutical chemistry were found to have consistently high salaries over the years whereas pharmacognosy salaries were typically lower than other disciplines. Pharmacology and pharmacy administration were found to change very little with respect to the other disciplines during the study period(133)." Like any other activity or occupation, the value of people is changeable over time as conditions of supply, demand, and money interact to satisfy immediate and short-run needs.

Rodowskas and Solander reported another study on faculty salaries in 1976 which sought to relate salaries to certain variables of time, rank and place. "The resulting statistics revealed that there was a rather minimum correlation between faculty salaries and years in rank. In only nine of 24 different groups of disciplines did the resulting relationships between years in rank and salaries significantly differ from zero (random)." An analysis of location differences "showed that salaries for all levels of faculty at colleges of pharmacy associated with university health centers tended to be higher than faculty salaries paid at colleges of pharmacy not associated with university health centers; in 14 of the 19 cases tested the results were significantly different(134)."

To chronicle the economic trends for the recent years, Table 15 displays salary averages, ranges and number of teachers involved for the even academic years and 12-month, calendar-year teachers in all schools reporting in the salary surveys. Dollar-wise, the average salary for professors increased from \$25,405 to \$46,801 or \$21,396 (+84.2 percent); associate professors' average from \$20,264 to \$37,762 or \$17,498 (+86.3 percent); and assistant professors' average from \$17,691 to \$32,138 or

Table 14: Average Calendar-Year Salaries for Full Professors in All Disciplines for Selected Years.

Pharmacy Discipline	1984a Averages	No. of Tchrs.	1980 Averages	No. of Tchrs.	1976 Averages	No. of Tchrs.
Pharmacognosy	\$52,050	15	\$39,103	22	\$29,226	29
Phcy/Phctics.	51,353	81	38,384	89	30,265	90
Med. Chem.	50,556	89	40,146	92	30,645	95
Pcol./Tox.	49,957	63	38,404	58	29,438	53
Phcy. Admin.	46,801	23	38,400	23	28,584	23
Clin. Phcy.	44,694	34	34,068	20	30,317	5
Hosp. Phcy.	NA		45,032	3	31,174	4
Nuclear Phcy.	<u>38,807</u>	<u>5</u>	—	—	—	—
All Disciplines	\$49,429	330b	\$38,782	317	\$30,022	297

- a) 1984 Averages are ranked by high-to-low values.
  - b) All Discipline values are not averages or totals of the separate disciplines.
- Source: Annual Survey of Faculty Salaries, Am. Asso. Coll. Pharm. for the years indicated.

"Excluded from the definition of a profession by Flexner in 1915 because of a clear lack of primary social responsibilities with autonomy, and again barred from a scholarly definition of the profession because of commercialism, educators were apparently convinced that the future of the profession rested largely in the professionalizing influences which could be wrought by continued advancement in education, regardless of a misalliance between such and contemporary analyses of the pharmacist's functional role. The double dilemma of no apparent primary responsibility and the specter of a 'commercialized jungle' was all the stimulus that educators needed."

Robert G. Mrtek, Am. J. Pharm. Educ., 40, 339 (1976).

Table 15. Average Salaries and Ranges for Teachers of Pharmacy Administration for Selected Years 1974-1984.

Academic Rank	1974-1975		Calendar Years 1976-1977		1978-1979	
Professor	\$25,405a \$19,900 - 34,500c	(27)b	\$28,584 \$23,500 - 37,159	(23)	\$33,248 \$25,000 - 41,917	(20)
Assoc. Prof.	\$20,264 \$15,250 - 24,720	(28)	\$24,543 \$19,300 - 36,700	(28)	\$27,021 \$23,600 - 37,000	(28)
Asst. Prof.	\$13,500 - 20,800		\$15,000 - 35,300		\$18,000 - 41,057	
	1980-1981		1982-1983		1984-1985	
Professor	\$38,400 \$30,000 - 46,710	(23)	\$42,674 \$38,600 - 47,104d	(24)	\$46,801 \$39,216 - 60,000	(23)
Assoc. Prof.	\$30,295 \$22,830 - 40,000	(39)	\$34,831 \$32,320 - 34,441	(33)	\$37,762 \$35,537 - 39,948	(40)
Asst. Prof.	\$25,129 \$19,000 - 30,300	(34)	\$29,044 \$26,885 - 28,500	(36)	\$32,138 \$29,990 - 34,900	(37)

a) Average salary reported for rank indicated.

b) Number of persons reported in rank.

c) Range of salaries for persons reported, 1974-1980.

d) Range of lower and upper percentiles reported, 1982-1984.

Source: Annual Survey of Faculty Salaries, Amer. Assoc. of Colleges of Pharmacy, 1974-1984.

"Let me summarize by saying that the research shows no irrefutable evidence that there is any relationship between good research and good teaching. They are two distinct and separate enterprises engaged in by university faculties. There is, however, a distinction being made by administrators in the degree of rewards being made to teachers and researchers which is explainable but highly questionable in practice in institutions whose primary function is unequivocally stated as teaching. Attempts to equate the necessity of research to effective teaching is based on ephemeral emotionalism."

Melvin R. Gibson, Am. J. Pharm. Educ., 41, 408 (1977).

\$14,447 (+81.7 percent). It appears that increases over the eleven-year period were within reasonable and equitable increases dictated by economic indices and budget decisions. The bases make the dollar differentials predictable, but the belief that associate professors often progress as well as full professors over time is evident, especially when the associates are terminal in grade but high in service value or grantsmanship.

One of the most significant facts in Table 15 is the disparity of salaries in the 1970's with a difference among individuals and schools of \$14,000 to \$16,000 for professors, \$9,000 to \$17,000 for associate professors, and \$7,000 to 23,000 for assistant professors. In 1984, the professor range was still quite discriminatory at \$21,000, but the other ranges were reduced to \$5,000. Although a narrow spread in ranges is not necessary for equal opportunity or competition for personnel, the narrower the range the more decisions of choice can be made on environmental qualities and program values when positions are offered to seek new or experienced applicants for new or replacement positions.

History - supported by research data - shows that teachers salaries are minimally related to time in rank. Aside from the differences in location cited, the economic limits of the year and the demand/supply relationship create the base level which is then incremented upward by changing economic indices and personal performance. In pharmacy administration, the general lack of research support dollars for salary purposes is evident by combining the data presented. Table 15 catalogs the average salary for 23 full professors at \$46,801 in 1984, an average of \$37,762 for forty associate professors, and an average of \$32,138 for 37 assistant professors. Table 13 indicates that in 1984 eight new assistant professors had an average salary of \$34,469, which was at the top of the range for assistant professors and over \$2,000 higher than the average. Without these eight persons, the average would be reduced to \$31,504, which is hardly realistic in terms of the market price of \$30,000 to \$35,000 for licensed pharmacists with the B.S. or Pharm.D. degree and minimal experience after graduation. The time/rank theory is supported by these data in that these assistant professors have started at a level only \$3,000 below the average for forty associate professors and only \$12,000 below the average for the 23 full professors, some who have spent ten to twenty years in rank.

The history of economic performance indicates that pharmacy administration as a discipline has reached one notch above clinical pharmacy in the 1980's and that the chemical and biological sciences still dominate the budgets in pharmacy schools. Perhaps the magic of research dollars will change this relationship in the future as professors with "eclectic" tendencies seek resources from "electic" sponsors. An alternative would conform to the historic development of other disciplines and programs: rather than solve problems that need to be solved as basic issues, pharmacy administration personnel might concentrate on research which seeks to find and solve problems that money will buy.

The AACP Seminar Contribution

Seminars are harbingers of what is to come as well as evidences of what has transpired and needs to be recognized as contemporary. They grow from collective demand for some value not obtainable by any other means. The separateness of pharmacy schools and the smallness of their faculties contributed to the need for some means of teachers of disciplines being able to talk to each other socially and professionally for more than a few convention hours each year, if one could attend at all. What is not quite obvious to or appreciated by teachers of the 1980's is that as late as the 1965-1966 school year 33 (45 percent) of the 73 schools of pharmacy had faculties of twelve or less teachers. Over the past twenty years all schools have mushroomed in size and facilities and the quality of the personnel has increased to make extensive seminar meetings of less value in terms of time and expense. The following schools and their comparable faculties over the past twenty years tells the story quite well. In 31 schools in 1965 there was one teacher of pharmacy administration and six schools had none. (See also Table 11.)

The annual seminar of teachers sponsored by the AACP was supported by the AFPE and was an outgrowth of the Pharmaceutical Survey, 1946-1949. Dr. Charles W. Bliven described the process and genesis of these meetings during the seminar of the Section of Teachers of Pharmacy in Chicago in 1961. He noted that Dr. Edward C. Elliott, President Emeritus of Purdue University and Director of the Survey reviewed the qualifications and the

Table 16. Schools of Pharmacy With Faculties of Twelve or Fewer Members in 1965 With Current Number of Member in 1984.

Name of School	Faculty		Faculty	
	1965	1984	1965	1984
Idaho State	12	19	Drake Univ.	9 17
Univ. Pacific	12	45	Univ. Missouri	9 33
Univ. Colorado	12	32	Univ. Cincinnati	9 54
Howard Univ.	12	39	Southwestern St.	9 29
Univ. Kentucky	12	53	Univ. Oklahoma	9 25
Creighton Univ.	12	26	Univ. Toledo	8 28
Columbia Univ.	12	0	Univ. S. Carolina	8 25
Albany College	12	46	S. Dakota State	8 14
Univ. N. Carolina	12	64	Texas Southern	8 22
Mercer Univ.	11	35	Washington St.	8 27
Ferris College	11	47	Univ. Wyoming	8 11
Univ. Nebraska	11	41	Xavier Univ.	7 22
M.C.S. Carolina	11	38	Univ. Montana	6 21
Univ. Arizona	10	61	Univ. Utah	6 49
Univ. Kansas	10	29	Florida A.&M.	5 36
N.E. Louisiana	10	31	Univ. N. Mexico	5 17
Auburn Univ.	9	33		

Source: Roster of Teaching Personnel in Colleges of Pharmacy, AACP 1965-1966 and 1984-1985.

conditions of service of the members of the faculties of the schools and wrote in his report as follows(135):

"It is self-evident that the effectiveness of the education and training for the profession of pharmacy is determined chiefly by those who teach. The evidence is clear. An undue proportion of the existing teaching staffs is lacking in the thorough scientific preparation that is essential if the training for the profession of pharmacy is to be maintained on a level comparable to other professions. Approximately 45 per cent of those of professional rank has only the master's degree or less. Furthermore, there are no available trained reserves from which to meet the immediate teaching needs due to the greatly enlarged enrollment of students."

(Writing in 1949, Dr. Elliott was referring to the influx of military service persons returning to or entering the universities.)

Dr. Bliven continued: "Thus, the need for action was clearly established. The subsequent recommendation for the seminars for teachers beginning in 1949 stated:

"The primary purpose of these seminars is that of providing needed opportunity for the members of the teaching staffs, and for graduate students to come into fruitful contact and to keep pace with progressive content and methods of pharmaceutical teaching."

Dr. Christopher A. Rodowskas, former Executive Director of the AACP spoke to this issue to the Section of Teachers of Pharmacy Administration in July, 1981, when he offered an analysis of "What Happened to Management in the Curriculum?" He noted first the reduction of time span with the 1950 seminar requiring ten days, the 1962 meeting five and one-half days, and only three days each for the 1970 and 1974 events. Perhaps this was related to the need for instruction as teachers needed less detailed direction as they gained experience, or to the press of activities and reduced available time and budget-supported travel funds.

He reported "the 1950 offering was clearly remedial in nature and a 'how to' teach in an expanded and largely unknown discipline. The seminar was an exercise of the informed few teaching many. Professor Goodness lectured for ten hours and the proceedings contained approximately eighty pages of his instructional materials. Twelve years later it appeared that the planners were comfortable with subject matter, and the focus shifted to methods of delivering instruction, graduate education, and research." The 1962 sessions also included industry people who might be interested in hiring graduates with advanced degrees.

Under the title of "New Dimensions" the 1970 seminar "was designed to shift emphasis from the parochial interests of drug store management and pharmaceutical marketing to the wide horizons of health systems, health care financing and similar topics, and to raise research questions and

identify potential sources of research support. In part, these aspirations were reflected in the fact that only one of the five speakers on health care systems and none of the four on health care financing came from academic pharmacy." Also evident was the decline in program on specific undergraduate courses in favor of major components of health economics, graduate education and research. "A social science presentation was introduced and concern for competency became evident with sixteen percent of the program devoted to the relationship of pharmacy administration to (pharmacy) practice."

The 1974 seminar was a joint program for pharmacy (pharmaceutics) and pharmacy administration and was not truly comparable to the first three. There were 198 pharmacy registrants and 37 identified with pharmacy administration. The program trend continued toward broader social issues and the relevance of the several disciplines in practice. In some ways the meeting was a major outward manifestation of the insidious change of the times to merge pharmacy administration with the professional and scientific roles of clinical pharmacy/pharmacy practice to provide a professionalization of merchandise, men and money for pharmacy administration and a resource for graduate education and research in practice problems which tended to encompass more social and behavioral problems.

Rodowskas summarized his comments by noting that "Seminar programs are only an indirect measure of curricular content, but, in light of the findings of Smith and Vogt, it appears that the peers designing these programs were in tune with what was happening on campus" (136).

The AACP discontinued the multiple-day seminar programs for several years so that this form of organized faculty development was lost to many new teachers. An effort was made to rejuvenate this type of program with half-day sectional meetings or whole-day general meetings on a cyclical basis. The first such program occurred in 1983 in pharmacy administration and is reported in the section on the NPC contribution.

The seminars were significant programs for those who were involved with them in the early days cited by Elliot and Bliven. The papers for each seminar were published in bound volumes entitled Proceedings of the American Association of Colleges of Pharmacy Teachers' Seminar. The 1970 and 1974 issues were added as volume five of each year's journal. Recent seminar papers are incorporated into the journal pages on an informal basis but are noted as seminar materials. In the event that all libraries do not have copies of the first publications, a general listing of the programs, papers, and speakers are included in Appendix I to complete this record.

#### The AFPE Contribution

One of the problems in all schools in the development of pharmacy administration faculty was the general lack of academic development to cite as precendences from "other" schools. Courses were different, and individual course content was localized to reflect the knowledge of the

teacher - who quite often was a local retail pharmacist, or was the most recently hired full-time faculty person with a need for a full teaching load. Usually only one person taught all the undergraduate courses ranging from nine to twelve hours each semester, unless a local attorney took the law course. Another unfortunate obstacle was the possible lack of status on the pharmacy faculty because of the general, non-scientific, retailing, commercial image given to such courses by the other "scientific" faculty members. The lack of suitable financial support also became a roadblock, because non-Ph.D. faculty could command salaries for academic years only at the teaching assistant, lecturer, or instructor level. This was not an inducement for aspiring teachers and led to a higher-than-usual part-time staff. When all else failed to materialize, many deans assumed the responsibility. A few are cited previously as early leaders in the discipline.

With the 1953 edict by the AACP, a serious effort was started to develop professional educators equipped to be recognized by degrees and content as specialists in at least one of pharmacy administration's areas of instruction. The beginning of formal efforts in pharmacy schools has been described in the chapter on graduate development. Some students, however, were interested in business school programs where no ability to develop a pharmacy program was reasonably foreseeable. Persons interested in graduate work and needing financial support had to compete with all other graduate students with difficulty because of the apparent non-scientific nature of the discipline.

One answer to the funding problem was the graduate fellowship program supported by the American Foundation for Pharmaceutical Education (AFPE). Here again the competition across-the-board with all other disciplines created numbers problems. Teachers could not be trained if they could not compete effectively for grant-in-aid funds. In some cases the deans hired the person as a super teaching assistant, a lecturer, or even a full-time instructor to support and develop the teacher. A few were able to garner the AFPE Fellowship grant as graduate students.

A partial solution to the problem was offered through the AFPE at its meeting in the Hotel Biltmore in New York City on September 25-26, 1951. The minutes of the Finance Committee on the 25th note the following statements:

"The Finance Committee recommends that the Secretary be authorized to accept the \$3,000 contribution from the Walgreen Company, and their pledge of \$3,000 per year for the next two years, for two or more extra Fellowships in the field of Pharmacy Administration. (It is understood that these Fellows will be selected in the usual manner by the Board of Grants. In order to stimulate interest in study in this field, the Secretary is expected to give appropriate publicity to the availability of these Fellowships but the Secretary will not identify the donor thereof.)"

It was necessary to establish approval by the Finance Committee first

to make the concept a viable proposal. For the meeting of the Executive Committee on the 26th, the minutes record the nature of the program as follows:

"At luncheon, Mr. Walgreen (C. R. Walgreen, Jr.) outlined a proposal for a special program to establish Teaching Fellowships, specifically to provide well trained teachers in Pharmacy Administration.

"Such awards would be made by the Board of Grants in the usual way from applicants (holding a B.S. Degree in Pharmacy) appointed to the teaching staff of a college of pharmacy, on a part-time basis, who would devote part-time to acquiring a graduate degree in Business Administration from a Graduate School of Business Administration. Such grants would have a maximum duration of three years. Within certain limits the foundation grant might match the part-time salary paid by the college of pharmacy to such graduate students, to provide an adequate personal income and to encourage competent men, with an interest in this field, to prepare themselves as teachers of Pharmacy Administration. Mr. Walgreen emphasized the urgency of this problem and the serious shortage of qualified teachers of pharmacy administration. His plan was proposed as the quickest method of filling this vacuum."

The Committee manifested real interest in the idea and directed the Secretary to study the operating details and problems and to present a report at the next meeting of the Executive Committee."

Then four months later at a Joint meeting of the Executive Committee and the Finance Committee on January 22, 1952, at the Hotel Astor in New York City, the following action was taken as described in these minutes:

"Secretary Briggs reported that, in accordance with the instructions of the September 26, 1951, meeting of the Executive Committee, he had discussed the tentative program of Foundation sponsored Teaching Fellowships in Business Administration with the Deans of representative Colleges of Pharmacy and Deans of Graduate Schools of Business Administration. The reactions from these conferences were considered quite favorable for proceeding with the plan. The Secretary also reported on the results to date from the information-questionnaire letter of December 26, 1951, to Deans of all colleges of pharmacy, with reference to this proposed program. Again, the general response was favorable. A significant number of colleges of pharmacy having indicated their enthusiastic interest; their intention to embrace the plan, if offered; and their ability to match the contribution of the Foundation for such Teaching Fellowships, it was felt the plan should be made available, at least on a limited scale, in September, 1952."

"Moved (Swain-Dunning) and passed that the Secretary be authorized to complete the detailed arrangements for implementing the plan; distribute invitations to all colleges of pharmacy; and obligate the Foundation to not more than \$20,000 for such Teaching Fellowships for the period September 1, 1952 - August 31, 1953. It was understood that the selection of Teaching Fellows would be under the jurisdiction of the Board of Grants in the same manner as are the regular full time Fellowships. It is further understood that these funds would be incorporated in the 1952-53 budget for action by the Board of Directors. This action was taken by the Executive Committee in order that colleges might be notified of the availability of the program in time to adjust their 1952-53 budgets, which could not be accomplished if notification was delayed until after the Annual Meeting in April."

The total per year was set at \$20,000 with a maximum matching grant of \$3,000. Since it was to match the school's stipend, not all Fellows received the full \$3,000 grant (or \$6,000 income). At Purdue the matching grant of \$2,400 provided a \$4,800 income as a full-time instructor in 1952-53 as preparation for promotion to assistant professor at \$6,000 in 1953.

The AFPE granted five Teaching Fellowships for the 1952-1953 academic year. Altogether eighteen teachers received support for one to three-years duration for a total of 39 academic-years support during a brief but productive twelve-year period. Of the eighteen Fellows who took part in the program, as listed in Table 16, to provide qualified teachers for colleges, only nine remained in teaching as a career. Of these, one is deceased, three are retired, and five - Evanson(Purdue), Doerr(Butler), Kabat(N. Mexico), Amadio(Duguesne) and Watkins (N.E. Louisiana) are still active. Gardner recently returned to teaching at Texas. The others sought careers in community practice, industry, and government.

The AFPE phased out the Teaching Fellowship program in 1964 because there were no applicants. Active graduate programs had been established and training through normal graduate student channels was sufficient to the needs of the year. However, in his comments with the information used to prepare this material, Dr. Albert P. Fisher, Jr., President of AFPE, noted that at one time one of every four full-time pharmacy administration teachers was an AFPE Fellow. Since Charles Rabe, former President of St. Louis College of Pharmacy, received his Fellow status (1949-50) 99 Fellows have been sponsored by the AFPE and four more are current holders of fellowship grants for the 1985 year: Andreas Pleil and Michael Rupp(Ohio State), Elizabeth Chrischiles(Iowa) and Gregory Tucher(Mississippi).

Table 17. A Roster of Teaching Fellows of the American Foundation for Pharmaceutical Education.

<u>Teaching Fellow</u>	<u>School of Matriculation</u>	<u>Years of Fellowship</u>
Robert V. Evanson	Purdue University	52-53
Frank W. Dobbs	University of Georgia	52-53, 53-54
Floyd A. Grolle	University of Michigan	52-53, 53-54
Richard J. Hampton	State Coll. of Washington	52-53, 53-54
Mont H. Gutke	University of Colorado	52-53, 53-54, 54-55
Esther Jane Wood Hall	University of Texas	54-55, 55-56
Isidore Greenberg	New York University	54-55, 55, 56
Donald B. Clark	State Univ. N.Y. Buffalo	54-55, 55-56, 56-57
Jack L. Cross	Washington University	55-56
Gust G. Koustenis	George Washington Univ.	55-56, 56-57, 57-58
Arthur C. Lytle	Ohio State University	56-57, 57-58
Richard O'Neill	N. Dakota Agr. College	56-57, 57-58
Juanita P. Horton	University of Alabama	57-58, 58-59, 59-60
Dale W. Doerr	Purdue University	58-59, 59-60
Vincent R. Gardner	University of California	58-59, 59-60, 60-61
Hugh F. Kabat	University of Colorado	59-60, 60-61
Anthony J. Amadio	Duquesne University	61-62, 61-63, 63-64
C. Eugene Watkins	University of Mississippi	63-64

+ School indicated is the school at which the graduate training was acquired. In most cases the student Teaching Fellow received the training and provided active teaching services in the same academic system. However, Isidore Greenberg was on the faculty at Brooklyn College of Pharmacy, Dr. Dale Doerr was on the faculty at Butler University, and Jack Cross was teaching at the St. Louis College of Pharmacy.

Source: Special communique from Dr. Albert P. Fisher, Jr., President of the American Foundation for Pharmaceutical Education, prepared for this documentary.

#### The Walgreen Seminars in Pharmacy Administration

During the same time period in which he was a key factor in establishing and supporting the AFPE Teaching Fellowships in Pharmacy Administration, Charles R. Walgreen, Jr. led the Walgreen Company in developing seminars in retail management for the active faculty members in schools of pharmacy to upgrade their expertise in community pharmacy operations and merchandising. Although the intent was to have teachers of pharmacy administration attend the seminars to carry back the information into their management classes, schools sometimes sent other representative faculty or the dean took part to get the materials. Almost all of those in attendance over the years were involved in some way with administrative instruction at the undergraduate level.

According to documentation there were twelve seminars from 1953 to 1976. All of the meetings were held at the company headquarters at

Peterson Avenue in Chicago, except for the last one in 1976. Altogether 112 persons attended the seminars making up 157 attendees: two attended four times; seven attended three seminars; 25 went back twice; and 78 were there only one time. Some of the sessions were refresher courses with a great number of attendees asked to come back for updating as times changed and new state of the art processes were implemented. A total of 64 schools provided the personnel whose expenses were paid entirely by the Walgreen Company. One person was a board of pharmacy member and another did not have a school recorded in the documents available. This would assume 65 schools involved, or 88 percent of the 75 schools then in operation, including Puerto Rico.

The first Walgreen Seminar in Pharmacy Administration was held during the summer of 1953. The program lasted six weeks and covered all aspects of chain store operations. Some of the topics discussed were: advertising, purchasing, marketing, Agency Division, manufacturing, and chain store management. Subsequent programs were reduced to three and then to two weeks, and a few "refresher courses" were three days in length. Pharmacy educators who attended the first 1953 program included:

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Frank Duckworth	Asst. Prof.	University of Connecticut
Joseph D. McEvilla	Instructor	University of Pittsburgh
Ralph W. Clark	Dean	University of Oklahoma
C. Boyd Granberg	Asst. Prof.	Drake University
Esther J.W. Hall	Instructor	University of Texas
Melvin B. Hoevel	Instructor	University of Cincinnati
William S. Apple	Instructor	University of Wisconsin
Ralph E. Terry	Asso. Prof.	University of Illinois
R. George Kedersha	Asst. Prof.	Rutgers University
Elmer L. Hammond	Dean	University of Mississippi
Jack N. Bone	Asst. Prof.	University of Wyoming
Donald Robinson	Instructor	University of Kentucky
Francis C. Hamerness	Instructor	University of N. Carolina

The second session was held June 21 through July 14, 1954, with eleven participants of whom three were deans and four were repeaters from the first seminar. They were:

<u>Faculty Participants</u>	<u>College of Pharmacy</u>
Jack N. Bone	University of Wyoming
Francis C. Hamerness	University of North Carolina
Elmer L. Hammond	University of Mississippi
Raymond E. Hopponen	University of Kansas
R. George Kedersha	Rutgers University, New Jersey
Wendle L. Kerr	State University of Iowa
Floyd J. LeBlanc	South Dakota State College
John F. McCloskey	Loyola University
Paul A. Pumpian	University of Maryland
Lillian Werner	University of Minnesota
Franklin S. Williams	University of Arkansas

The third seminar covered an intensive three-week period of extensive discussion sessions with Walgreen executives, plus field trips through several operating units. From June 24 through July 12, 1957, over thirty subjects were covered including traffic building merchandising, effective use of advertising, inventory control, personnel training and selection, building public relations, efficient store record keeping, and legal problems. In several instances professors had a reunion with some of their former students who were pharmacists and managers of stores used for the field trips.

An interesting side event occurred of interest to the group and with some impact on the economics of success. Because the period included the Fourth of July holiday and almost all of the teachers were too far from home to travel, Mr. R. G. Schmitt, Sr. invited all of the group to his nine-room apartment on North Lake Shore Drive for which he paid \$750 per month rent when regular apartments were about \$50 per month. Mr. Schmitt was Mr. Walgreen, Sr.'s first partner and managed the first pharmacy when Walgreen established and managed his second pharmacy.

The eleven seminarians included two deans, two assistant deans, and an AFPE Teaching Fellow as follows:

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Joseph S. Begando	Asst. Dean	University of Illinois
Rex V. Call	Professor	University of Arizona
Jack L. Cross	Asst. Prof.	St. Louis College of Pharmacy
Dale W. Doerr	Asst. Prof.	Butler University
Robert V. Evanson	Asst. Prof.	Purdue University
Samuel J. Greco	Asst. Dean	Creighton University
Mont H. Gutke	Instructor	University of Colorado
Hurd M. Jones	Dean	Texas Southern University
Paul M. Kalemkarian	Lecturer	University of S. California
Robert W. Morrison	Dean	University of S. Carolina
Richard E. O'Neill	Tchg. Fell.	N. Dakota Agricultural College

The fourth Walgreen seminar in drug store management was held June 16 through 27, 1958. At this point, a total of 43 pharmacy colleges had benefited from the educational seminars. The 1958 role call was:

<u>Faculty Participants</u>	<u>College of Pharmacy</u>
Clark A. Andreson	Ferris Institute
Louis C. Benton	Ohio Northern University
Charles L. Braucher	University of Georgia
Herman C. Forslund	Oregon State College
Vincent Gardner	University of California
Gerald C. Henney	St. Louis College
Joseph H. Kern	University of Florida
Abraham Kreiser	Long Island University
Charles V. Netz	University of Minnesota
Eugene L. Parrott	University of Nebraska

Edward M. Smith	University of North Carolina
Samuel E. Stubbs	University of Tennessee
Richard L. Workman, Jr.	University of Utah

The fifth seminar was held in 1959 and had fourteen teachers on hand for a two-week period to represent fourteen schools from New York to California and from Michigan to Texas. All of the attendees were active teachers; however, a record of their specific academic titles was not available.

#### Faculty Participants

Harry A. Smith  
 Robert W. Hammel  
 Juanita P. Horton  
 Raymond J. Dauphinais  
 Rinaldo V. DeNuzzo  
 Curtis G. T. Ewing  
 Martha J. Jones  
 Arthur C. Lytle  
 James. W. Richards  
 John Roskos, Jr.  
 Martin M. Rosner  
 Norman VanWalterop  
 Alfred J. White  
 Albert F. Wojcik

#### College of Pharmacy

University of Kentucky  
 University of Wisconsin  
 Howard College  
 University of Connecticut  
 Union University  
 Philadelphia  
 University of Houston  
 Ohio State University  
 University of Michigan  
 Mercer University  
 University of Illinois  
 College of the Pacific  
 Fordham University  
 West Virginia University

In 1960 a refresher course was held for the pharmacy educators who had attended the first two Walgreen Seminars which were held in 1953 and 1954. A brief three-day meeting from June 20 through June 22 kept the fourteen teachers busy getting an update on what they had learned previously. Paul Pumpian was invited to take part, even though he was a state board secretary at the time, because he had been a former teacher at Maryland in 1954 and was a good candidate to return to teaching law and management. Two were deans and history has shown that three were to become deans but not at the schools they then represented. The roll call included the following names:

#### Faculty Participants

Jack N. Bone  
 Ralph W. Clark  
 C. Boyd Granberg  
 Esther Jane Wood Hall  
 Francis C. Hamerness  
 Elmer L. Hammond  
 Melvin B. Hoevel  
 Raymond E. Hopponen  
 R. George Kedersha  
 Wendell L. Kerr  
 Joseph D. McEvilla  
 Paul A. Pumpian

#### College of Pharmacy

University of Wyoming  
 University of Oklahoma  
 Drake University  
 University of Texas  
 University of Colorado  
 University of Mississippi  
 University of Cincinnati  
 University of Kansas  
 Rutgers University  
 State University of Iowa  
 University of Pittsburgh  
 Secretary, Wisconsin State  
 Board of Pharmacy

Ralph E. Terry  
Lillian Werner

University of Illinois  
University of Minnesota

A seventh seminar was held in Chicago from June 19 to 30, 1961, with a new set of teachers from fourteen schools, including Puerto Rico. The breadth of ideas is evident in the mix of the group with two deans, a professor, and associate professor, a director of continuing education, and nine assistant professors of whom two were not pharmacy administration personnel.

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
David W. O'Day	Dean	University of Wyoming
Louis Torres-Diaz	Dean	University of Puerto Rico
Louis A. Wilson	Professor	Loyola University
Orace E. Johnson	Asso. Prof.	University of Illinois
Dean E. Leavitt	Asst. Prof.	University of Maryland
James D. McMahon	Asst. Prof.	University of Utah
Fred B. Gable	Asst. Prof.	Temple University
Kenneth M. James	Assc. Prof.	Idaho St. University
Anthony J. Amadio	Asst. Prof.	Duquesne University
Leon R. Masters	Asst. Prof.	Med. Coll. S. Carolina
Dvelyn Draper	Asst. Prof.	Auburn University
Victor Duke	Asst. Prof.	University of N. Mexico
Merwin Greenlick	Instructor	Wayne State University
Charles Haupt	Dir. of C.E.	University of Florida

Although not a refresher course for past attendees, the next seminar was of three days duration from June 16 through June 18, 1965. The reduced time was used to increase the number of participants to fourteen - the same as the preceding seminar. The topics covered were reduced in number to concentrate on major problems of the day in store operations. The participants included a department head, two assistants to the dean, and one interim dean, but no dean. All carried a professorial rank.

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Rinaldo V. DeNuzzo	Asst. Prof.	Union University
John Roskos, Jr.	Asso. Prof.	Mercer University
Orace E. Johnson	Asso. Prof.	University of Illinois
Lewis A. Wilson	Inter. Dean	Loyola University
Anthony J. Amadio	Asst. Prof.	Duquesne University
Kenneth M. James	Asso. Prof.	Dalhousie University
Fred B. Gable	Asst. Prof.	Temple University
Martha J. Jones	Asst. Prof.	University of Houston
Raymond J. Dauphinais	Professor	Wayne State University
Alfred J. White	Asso. Prof.	Fordham University
James D. McMahon	Asst. Prof.	University of Utah
Martin M. Rosner	Asst. Prof.	University of Illinois
Dean E. Leavitt	Asst. Prof.	University of Maryland
Charles L. Braucher	Professor	Southwestern State College

The next full-scale seminar was held June 12 through June 23, 1967. There were educators from thirteen pharmacy colleges to study the latest developments in modern drug store operations. During the two weeks of intensive, indepth sessions, the educators studied practically every phase of Walgreen operations ranging from store site selection and personnel training to advertising, merchandising, accounting, and electronic data processing techniques. Handout materials were made available so that the information could be readily adapted to classroom needs for handouts or discussion purposes. Again a healthy mixture of faculty persons provided the basis for a free and open discussion group to challenge the executives who served as seminar speakers. Those who participated were:

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Steven Strauss	Asst. Prof.	Long Island University
Melvin A. Chambers	Asst. Dean	University of N. Carolina
V. Jean Brown	Asso. Prof.	University of Oklahoma
Max Polinsky	Asso. Prof.	University of the Pacific
Norman A. Campbell	Asst. Prof.	Massachusetts
Emile J. LaBranche, Jr.	Asso. Prof.	Xavier University
L. Kirk Benedict	Asso. Prof.	University of Nebraska
Emon L. Cataline	Dean	University of New Mexico
Walter L. Dickison	Dean	Southwestern State College
Howard E. Mossberg	Dean	University of Kansas
Maven J. Myers	Asst. Prof.	Philadelphia
Hugh A. Cotton	Instructor	University of Colorado
Bill D. Jobe	Exten. Dir.	University of Texas

Again, the 1968 seminar held at the Walgreen offices in Chicago was a refresher session held June 19 through 21, 1968. The program was designed to review the recent years retail drug field developments for educators who attended the previous Walgreen seminars. There was a group of 12 pharmacy college educators who took part in the intensive study of Walgreen operations designed to further help and prepare students for successful pharmacy management careers.

Evidence of growth, development and promotion is provided by titles of most of the attendees in this 1968 seminar, including:

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Jack M. Bone	Dean	University of Wyoming
Raymond E. Hopponen	Dean	S. Dakota State University
Robert W. Morrison	Dean	University of S. Carolina
Harry A. Smith	Asso. Prof.	University of Mississippi
Esther J.W. Hall	Asso. Prof.	University of Texas
Wendell L. Kerr	Asso. Prof.	State University of Iowa
Albert F. Wojcik	Asso. Prof.	West Virginia University
Francis C. Hamerness	Professor	University of Colorado
Joseph D. McEvilla	Professor	University of Pittsburgh
Robert V. Evanson	Professor	Purdue University
Rex V. Call	Professor	University of Arizona
C. Boyd Granberg	Professor	Drake University

Twelve faculty members gathered in 1969 for a one-week meeting covering much the same or similar materials as other recent seminars. The group was somewhat different than most of the others - there was no dean involved, only a hospital pharmacist assistant dean. One lecturer and one instructor had a M.B.A. background in business. No less than six of the professors were new teachers within the past two years. None of the attendees had been involved in a previous Walgreen Seminar, and all were classroom teachers. The twelve teachers included:

<u>Faculty Participants</u>	<u>Title</u>	<u>College of Pharmacy</u>
Henry W. Winship	Asso. Prof.	University of Arizona
Leroy D. Werley	Asst. Dean	University of N. Carolina
James N. Tyson	Asst. Prof.	Howard University
Gilbert H. Siegel	Lecturer	University of Toledo
Kenneth R. Shrader	Asst. Prof.	Auburn University
Darwin Sarnoff	Asst. Prof.	University of the Pacific
Tea Sam Roe	Instructor	Samford University
Peter A. Previte	Asst. Prof.	Ohio Northern University
Gloria G. Baldridge	Asst. Prof.	University of Arkansas
Richard A. Angorn	Asst. Prof.	University of Florida
Wayne Seaton	Instructor	St. Louis
Robert Lang	Asst. Prof.	Not recorded

Dr. Henry W. Winship was one of the new teachers having received the Ph.D. in 1967 under Dr. Joseph D. McEvilla at Pittsburgh and joined the faculty at Arizona. "Hank", as he was affectionately called by all who knew him, contracted amyotrophic lateral sclerosis soon after he attended the Walgreen meeting, but continued to direct his graduate students and attain the rank of Professor. By 1975, when failing health forced his retirement, ten of his students had completed the requirements for an advanced degree. As a Professor of Hospital Pharmacy and Pharmacy Administration, his dedication to education, excellence and his students was unmatched in health and in the adversity of slow death which ended his short career on June 8, 1977.

The final seminar at Walgreen headquarters was held June 6 through 9, 1976. Some of the information discussed involved pharmacy intercom systems with tours of pharmacies that had such equipment in use. Long-range planning included a forum among the participants on planning, human resources, professional services, store planning, and the Walgreen Agency Division. Teachers on hand for this historic event in the 24-year span of the twelve seminars included three deans and thirteen professors.

<u>Faculty Participant</u>	<u>Title</u>	<u>College of Pharmacy</u>
Richard A. Angorn	Asso. Prof.	University of Florida
Arthur A. Nelson	Asso. Prof.	University of S. Carolina
Richard Morrow	Asst. Prof.	Drake University
Philip N. Haakenson	Dean	N. Dakota State University
Emile J. LaBranch, Jr.	Professor	Xavier University
Patrick R. Wells	Dean	Texas Southern University

Bill D. Jobe	Asso. Prof.	University of Texas
G. Phillip Lehrman	Asso. Prof.	University of New Mexico
John V. Bothel	Admin. Asst.	Purdue University
Darego W. Maclayton	Asst. Prof.	Florida A&M University
C. David Helm	Dean	University of Colorado
Edward C. Christensen	Professor	Oklahoma State University
Richard J. Hammel	Asst. Prof.	University of Arizona
Jesse E. Stewart	Asst. Prof.	University of Illinois
William D. Hardigan	Asso. Prof.	Ferris State College
Michael S. Danian	Asso. Prof.	University of Cincinnati

The seminars as recorded here to recognize the teachers who participated were a timely sequence of well-organized, constructive, freely open, give-and-take meetings offered by the Walgreen Company to assist in the development of teaching talent among the colleges of pharmacy. The teachers expenses were paid portal-to-portal in order to remove the "budget" from the dean's decision to send a faculty member. Specific schools were invited to send a person so that the mix of participants would generate differences in attitudes and responses.

It would be remiss here not to recognize some of many Walgreen executives who made it all happen for their "students of the real world." Charles R. Walgreen, Jr. has been an outstanding benefactor of the effort to develop good teachers of pharmacy administration. Charles R. Walgreen III has continued with participation in the seminars and support of many projects in the AFPE and elsewhere in the colleges. Much of the seminar planning and execution was done by Thomas Crawford, Thomas Baima, Ross Spalding and Gerald Inglehart in Personnel Training. Executives who presented lectures or led field trips include: Casey LaFramenta, Harold Pratt, R. G. Schmitt and Robert Schmitt (his son), Cecil Campbell, Sol Raab, Jerry Freel, A. A. Borg, L. A. Wysocki, E. V. Johnson, S. J. Bowyer, M. R. Kephart, A. L. Starshak and A. F. Koehler. There is no doubt that pharmacy administration is stronger as a discipline in the 1980's because of the attempt here to give it a more solid foundation from the experiences of these executives.

#### The NPC Pharmacy Education-Industry Forum

The National Pharmaceutical Council (NPC) was established in November, 1953, to promote certain programs of interest to the welfare of the 21-member pharmaceutical companies. One of these major interests was education and ways by which the manufacturers could support pharmacy education in a meaningful way. Pharmacy administration was just getting under way as a recognized discipline, and much emphasis on management and marketing was of interest to industry in its desire to be promoted to neophyte pharmacists in schools of pharmacy as a helpful, positive force in their future careers as pharmacists. The image as ethical manufacturers, the need to have their products recognized as trademarked brands not to be substituted, and their interest in creating a positive response to their efforts to maintain the physicians' demand for such products was sufficient motivation to recognize pharmacy administration professors as viable candidates for an educational program on

understanding the drug industry. However, this was equally the objective of the teachers and was promoted by the Section of Teachers of Pharmacy Administration. Therefore, one of the ways to accomplish these mutual objectives would be to sponsor a joint project to create interested, enlightened, cooperative faculty whose academic objectives included drug marketing and distribution.

For these and other reasons the NPC sponsored the first Pharmacy Education-Industry Forum at Princeton, New Jersey, from August 23 to 27, 1959, which became dubbed the "Princeton Conference." The primary goal was to explain to the faculty conferees "The Workings and Philosophies of the Pharmaceutical Industry," which was the title of the 159-page booklet containing all of the addresses and comments of the speakers, who were some of the industry's major executives.

Twelve presentations were made during the five-day meeting along with workshop discussions to allow a general give-and-take between both groups. The only topic considered off-limits to the industry-educator planning committee was drug prices in any of its contexts. The topics and their presenters include:

History and Evolution of Pharmaceutical Industry - Herbert S. Wilkinson, V.P./Dir. of Sales, Abbott Laboratories, Chicago, Ill.  
Structure of a Pharmaceutical Firm - George W. Orr, Jr. President, Ames Company, Inc., Elkhart, Ind.  
Professional Team and Inter-relations - Nelson M. Gampfer, Chairman of the Board, Wm. S. Merrell Company, Cincinnati, Ohio  
Marketing Concepts - Richard L. Hull, Director of Marketing Research, Smith Kline & French Laboratories, Philadelphia, Pa.  
The New Product Challenge - George B. Stone, General Manager, J. B. Roerig Div. of Chas. Pfizer & Co., New York, N.Y.  
Clinical Evaluation of a New Drug - Lawrence B. Hobson, M.D. Dir. Medical Div., E. R. Squibb & Sons, Div. Olin Mathieson Chemical Corporation, New York, N.Y.  
Ethical Pharmaceutical Promotion - Tobias Wagner Dir. of Advertising, Smith Kline & French Laboratories.  
Distribution and Its Purposes - Harry W. McNEY, Dir. of Marketing, Lederle Laboratories, Pearl River, N.Y.  
Industry's Legal Positions: Trademarks and Patents - Raymond D. McMurray, Gen. Counsel/Asst. Secretary, Hoffman-LaRoche, Nutley, N.J.  
Governmental Agencies Relating to the Pharmaceutical Industry - Robert H. Hosick, Head, General Law Department, The Upjohn Co., Kalamazoo, Mich.  
Influence of Various Health Plans - E. J. Carroll - Director Economic Research, Merck Sharp & Dohme, Philadelphia, Pa.  
An Insight into the Future of the Pharmaceutical Industry - John J. Toohy, General Manager, E. R. Squibb and Sons.

In addition, remarks and dinner addresses were presented by the Hon. Robert B. Meyner, Governor of New Jersey; Theodore G. Klumpp, M.D., President of Winthrop Laboratories; George P. Lerrick, Commissioner of

Foods and Drugs; Louis M. Orr, M.D., President of the American Medical Association; Henry L. Giordano, Deputy commissioner of the Federal Bureau of Narcotics; Lloyd C. Miller, Director of Revision of the United States Pharmacopoeia; and Clarence H. Faust, President of the Fund for the Advancement of Education - The Ford Foundation.

The industry was represented by 34 executives, including one chairman, three presidents, eight vice presidents, two general managers, and other major department heads or general counsels. Also present were four guests: Dr. William S. Apple, Secretary of the American Pharmaceutical Association; Dr. W. Paul Briggs, Executive Director of the American Foundation for Pharmaceutical Education; Dr. Melvin W. Green, Director of Educational Relations of the American Council on Pharmaceutical Education; and Dr. Justin L. Powers, Director of Revision of the National Formulary.

College of pharmacy representatives included 88 faculty members of which thirteen were deans. Originally the invitation had gone out only for pharmacy administration faculty, but because not all schools had personnel available to attend this conference, the NPC opened the invitation to all faculty so that each school might have at least one person albeit the dean in attendance to carry the information back to the persons who taught the pharmacy administration courses - especially marketing and management. Of the 88 faculty from 76 colleges of pharmacy, 34 were pharmacy administration teachers, fifteen were deans and 39 were assorted teachers from other disciplines. Of the 88 only 28 are still active in pharmacy education, and of the 34 pharmacy administration only fourteen are still active teachers. The 88 are recorded here without titles for a historical recall.

<u>Faculty Participant</u>	<u>Coll. of Pharmacy</u>	<u>Faculty Participant</u>	<u>Coll. of Pharmacy</u>
Charles L. Braucher	Georgia	Harry A. Smith	Kentucky
Anthony T. Buatti	St. John's	William B. Swafford	Tennessee
Louis W. Busse	Wisconsin	Harry S. Swartz	Ferris Institute
Robert W. Hammel	Wisconsin	Robert S. Scarbough	Texas Southern
Francis C. Hamerness	Colorado	LaVerne D. Small	Nebraska
Richard J. Hampton	Florida	Edward M. Smith	North Carolina
William D. Hardigan	Wyoming	Joseph H. Kern	Northeast La.
C. Boyd Granberg	Drake	Raymond Dauphinais	Connecticut
Isidore Greenberg	Brooklyn	Robert C. Johnson	Wayne State
Willard J. Hadley	Minnesota	Rodolfo S. Escabi	Puerto Rico
Esther Jane W. Hall	Texas	Woodrow W. Byrum	Howard College
Robert V. Evanson	Purdue	Elmon L. Cataline	New Mexico
Martha J. Jones	Houston	Walter L. Dickison	Southwestern St.
Joseph Judis	Toledo	Alvin F. Dodds	M.C. S. Carolina
R. George Kedersha	Rutgers	Matthew T. Waters	Florida A.&M.
Donald B. Clark	Buffalo	Norval E. Webb	S. Dakota State
Ralph W. Clark	Oklahoma	George L. Webster	Illinois
Jack R. Cole	Arizona	Alfred J. White	Fordham
Raymond E. Hopponen	Kansas	John T. Fay	Massachusetts

Faculty Participant	Coll. of Pharmacy	Faculty Participant	Coll. of Pharmacy
Edward J. Ireland	Loyola	Nicholas W. Fenny	Connecticut
Perry A. Foote	Florida	Stephen Wilson	Wayne State
Dale W. Doerr	Butler	Albert F. Wojcik	West Virginia
Burdette G. Dewell	Albany	Gust G. Koustenis	G. Washington
Wendle L. Kerr	Iowa	Herman C. Forslund	Oregon State
Emile J. LaBranche	Xavier	Laurence C. Gale	Idaho State
Dean E. Levitt	Maryland	Vincent R. Gardner	California
E. E. Leuallen	Columbia	Elmer L. Hammond	Mississippi
Samuel S. Liberman	Columbia	Charles W. Bliven	G. Washington
John A. Lynch	Temple	Edward S. Brady	S. California
Arthur C. Lytle	Ohio State	Robert A. Heiser	Pittsburgh
Alfred N. Martin	Purdue	Gerald C. Henney	St. Louis
Joseph D. McEvilla	Pittsburgh	Joe M. Rash	Alabama Polytech.
James D. McMahon	Utah	Herbert Raubenheimer	New England
J. Leo McMahon	Kansas City	Harold G. Hewitt	Connecticut
Glenden D. Redman	Creighton	Melvin B. Hoevel	Cincinnati
L. Wait Rising	Washington	James M. Plaxco	South Carolina
John Roskos, Jr.	southern	Haakon Bang	Washington St.
Martin M. Rosner	Illinois	Robert E. Abrams	Philadelphia
Tom D. Rowe	Michigan	John Andrako	Med. Coll. of Va.
John S. Ruggiero	Duquesne	Donald Y. Barker	Coll. of Pacific
Louis C. Zopf	Iowa	D. Rachel Bell	Howard Univ.
Ewart E. Swinyard	Utah	Lewis C. Benton	Ohio Northern
John L. Wailes	Montana	Richard E. O'Neill	N. Dakota State
Ray O. Bachman	Arkansas	George E. Osborne	Rhode Island

In addition to the objectives previously cited another objective of this Forum was to accomplish a two-way communication system between education and industry. Richard L. Hull was working closely with the educators through the Section of Pharmaceutical Economics in the APhA. As a Director of Marketing he was a prime target for educators who were attempting to tap into the industry marketing area for placement for their M.S. and Ph.D. graduates. Because of its proximity to the east-coast drug manufacturers, Brooklyn College probably had the greatest success in the market target for personnel with some of the adjunct instructors from industry and a large number of industry personnel taking part-time graduate work to upgrade their skills in marketing management. Hopefully, the educators could inform industry executives of the availability of resources across the country for marketing-oriented pharmacy students who could upgrade marketing efforts with their professional background in pharmacy.

Hull worked with the assistant to the President of Smith Kline & French, Carl K. Raiser, who also happened to be President of NPC and the spearhead of the magnanimous project of planning, programming and financing the forum. Industry's objectives were achieved, but education evidently failed to establish the open channel of communication it sought. There were, however, some factors that helped promote negative results.

Schools could not supply enough graduates to fill available positions and also prime the wells of teaching. The salaries to new M.B.A.'s were too low to attract M.S. and Ph.D. graduates in pharmacy administration away from teaching positions. And, despite their original zeal and good intentions, educators concentrated on education, research and producing new teachers and allowed their line of communication with industry to degenerate.

Dr. Herman C. Nolen is cited as stating in 1966 that manpower development is the biggest problem facing most pharmaceutical companies, and that the area of marketing had probably the most acute need(135). Even with the possibility of sources for research funds. it was obvious that educators were not seeking out marketing departments nor were marketing executives looking to pharmacy schools for projects or personnel. An effort to examine this problem led DeSalvo and Kapadia (fresh from Warner Lambert) to recognize that pharmacy administration had a need for recognition within the industry and "that an active program geared to creating awareness within the pharmaceutical industry of the existence, availability, and the potential of such individuals could bridge effectively the communications gap between industry and education"(136). They concluded that with an active interest in this area by industry, an increased enrollment could be envisioned to help solve the manpower needs and to enhance the communication gap.

Evidently again this clarion call to action was ignored or at least set aside as industry did not seek its manpower from pharmacy administration and as the supply of graduate students continued to trickle into the academic system and stay there. In 1981 Dr. H. John Baldwin (W. Va.) as Chairman of the Section of Teachers and Dr. William N. Tindall (Creighton) Chairman of the Committee on Industry Relations started a new thrust to get pharmacy administration teachers and the industry to cooperate actively in programs and projects.

On July 13, 1983, an AACP Teachers Seminar in Pharmacy Administration carried through with the spirit of Princeton on its 25th anniversary. The NPC/AACP Symposium on "Pharmacy Administration and Industry: Opportunities, Common Interests and Goals" brought together 100 conferees: 52 teachers of pharmacy administration, two deans, eleven other faculty persons and 35 industry executives and managers, none of whom were at the Princeton meeting. Speakers and program content are presented in Appendix I with other AACP Section of Teachers Seminar information and details.

The NPC followed this activity with participation in a panel-symposium in the 1984 Section meeting. The door has been opened a second time for some productive research arrangements and financing by industry and the development of manpower by education to satisfy at least some of industry's needs. The future will record the result of this latest effort, and there probably will not be another 25th anniversary of the Princeton Conference if the Washington Seminar fails to establish inner motivations and inter-communications.

## THE NABP-NPC INSTITUTE ON PHARMACY LAW

Another significant activity in faculty development and improvement of instruction was the National Association of Boards of Pharmacy(NABP) Institute for Teachers of Pharmacy Law, June 20-23, 1971. Held at the Sheraton Oakbrook Motor Hotel in Oakbrook, Illinois, the Insitute was sponsored and directed by the National Association of Boards of Pharmacy and supported financially by the National Pharmaceutical Council(NPC). The purpose of the Institute was to expand pharmacy law teachers' understanding of the subject matter considered necessary in the jurisprudence (pharmacy law) courses.

Although the teaching of jurisprudence has been a pharmacy administration activity since the area became a recognized discipline, few of the early teachers were schooled in law. Almost all of those with a formal legal background were local attorneys who were interested in providing a part-time teaching service for their area school and pharmacists. Very few teachers had formal training and degrees in pharmacy and law. According to the AACP Roster in 1965, there were 25 teachers with law degrees: eight had L.L.B. degrees; seven had L.L.M.'s; 22 were part-time teachers with other interests; and three had pharmacy degrees and taught other courses full-time. In 1969 27 teachers had law degrees (17 L.L.B., 3 L.L.M. and 7 J.D.). The 1970 numbers were slightly higher (14 L.L.B., 4 L.L.M. and 12 J.D.) for a total of thirty. In 1971 there were 33 such teachers (16 L.L.B., 3 L.L.M. and 14 J.D.). These numbers were reduced in 1983 to 21 teachers: fourteen with the J.D., one L.L.B., and six with the J.D. and a pharmacy degree.

The faculty of the Institute included six attorneys. Sidney H. Willig organized the program and selected the faculty. A pharmacist and attorney (L.L.B. and J.D.), Dr. Willig served as legal consultant to the Bureau of Law Enforcement, NABP, and as Director of their Schools for Inspectors. He also served Temple University as professor of law at the School of Law and part-time at the schools of Pharmacy and Dentistry. Dr. Maven J. Meyers at the time was an associate professor at Philadelphia College of Pharmacy and Science(PCPS). A graduate pharmacist, Dr. Meyers had the J. D. and a Ph.D. in Pharmacy Administration (Wisconsin). Four other faculty persons included Karl W. Marquardt, Director of the Wisconsin Board of Pharmacy; William J. Skinner, Assistant to the Executive Director of the AACP; Emmitt G. Warner, Chief of Federal/State Relations, Bureau of Narcotics and Dangerous Drugs(BNDD); and William Yodra, Attorney in the Office of the Chief Counsel(BNDD). Marquardt and Skinner also were pharmacists. Only Warner was not an attorney.

The curriculum included in-depth presentations on food and drug laws, narcotics and dangerous drugs (now referred to as controlled substances), and the primary problems under tort. Discussions of state pharmacy acts, registration and reciprocity problems included contributions from Fred Mahaffey, Executive Director of the NABP. Dr. Willig also described in some detail the legal and professional aspects of inspections of pharmacy and pharmaceutical manufacturers facilities by state board and federal agency inspectors.

In addition to the faculty, there were 53 professors representing 47 schools. Three were deans and five were assistant deans. Seventeen other persons attended including representatives from NARD, NACDS, ASHP, six boards of pharmacy, one state association, four other attorneys, and Claude Timberlake and Vernon Trygstad from the NPC. The list of faculty members and the schools represented included:

Bernard G. Keller, Jr.	Southwestern University
Major Lowe	Texas Southern University
Salvatore J. Greco	Creighton University
Hugh A. Cotton	University of Kansas
Dale W. Doerr	Butler University
Edward J. Rowe	Butler University
Robert Cooper	SUNY Buffalo
John W. Berger	Southern California
C. Eugene White	Virginia University
Robert J. DeSalvo	Purdue University
Bill D. Jobe	Purdue University
Robert V. Evanson	Purdue University
David R. Work	University of North Carolina
James W. Richards	University of Michigan
Roberto Torres Gonzalez	University of Puerto Rico
Philip Lehrman	University of Oklahoma
J. Leo McMahon	University of Missouri K.C.
James R. Nielsen	University of California
Max Polinsky	University of Pacific
C. Boyd Granberg	Drake University
Rupert Salisbury	Ohio State University
Harry S. Swartz	Ferris State College
Francis C. Hamerness	University of Colorado
Steven Strauss	Brooklyn College of Pharmacy
R. George Kedersha	Rutgers University
W. Frank Dobbs	University of Georgia
Charles L. Braucher	University of Georgia
Esther J. W. Hall	University of Texas
Norman A. Campbell	University of Rhode Island
Rinaldo V. DeNuzzo	Albany C.P.
Philip N. Haakenson	North Dakota State
Robert W. Hammel	University of Wisconsin
Hugh F. Kabat	University of Minnesota
Harry A. Smith	University of Kentucky
R. David Cobb	University of Kentucky
Raphael O. Bachman	West Virginia University
Albert F. Wojcik	West Virginia University
Raymond Dauphinais	Wayne State University
Harold L. Baker	University of New Mexico
Louis C. Zopf	University of Iowa
William D. Hardigan	University of Arizona
Ira C. Robinson	Florida A&M University
Robert S. Scarbrough	Florida A&M University
Kenneth F. Nelson	University of Wyoming
Walter J. Morrison	University of Arkansas

Michael S. Danian	University of Cincinnati
Joseph H. Kern	Northeast Louisiana University
Robert V. Petersen	University of Utah
C. Patrick Tharpe	St. Louis College of Pharmacy
Peter A. Previte	Ohio Northern University
Richard A. Angorn	University of Florida
Emile J. LaBranche	Xavier University
Julian M. Fincher	University of Arkansas
David R. Kennedy	University of Toronto

No other pharmacy meeting has covered the fundamentals of teaching the content of laws related to pharmacy for the direct and singular benefit of pharmacy professors. However, including the two faculty professors (Willig and Meyers), 55 professors represented only 49 schools of the 74 then in existence. Because of faculty turnover, changes in assignments and promotions, and changes in state and federal laws, such an institute would be a worthwhile project at least every ten years.

Since that meeting pharmacy lawyers and pharmacy law educators have organized the American Society for Pharmacy Law which attempts to fill this gap with annual meetings at APhA conventions and a regular newsletter. Perhaps some organized effort of this group, the NABP, the NPC, and the AACP's Section of Teachers of Pharmacy Administration could structure periodic meetings as joint seminars or symposia on legal principles and practices in the profession, industry, and health care systems as they impact on pharmacy.

"Idealism works if it's worked at. But you can't crash ideals through a wall of objections. That simply bashes in the ideal, not the wall. It takes patient persevering working at. You have to open doors, exchange ideas, sometimes talk a wall down." Charles R. Walgreen, Jr.

"Education is the responsibility of academia. Each educational institution should be free to find the best way to accomplish its objectives, recognizing of course that the profession has the expectations of certain levels of performance. It is not the role of the profession to tell educators how to accomplish the necessary objective. It is their role, however, to assess the quality of the products of such a process and the job educators are doing. In short, the Profession must decide what it can do in the way of professional services and then take a greater interest in promoting the long-term growth of those who enter its various elements. It must allow academia to concentrate more on the fundamental aspects of education, be they entry-level or advanced educational programs." George Zografi, Am. J. Pharm. Educ., 48, 209 (1984).

## CHAPTER VI THE ROLE OF THE SECTION OF TEACHERS OF PHARMACY ADMINISTRATION

As noted in the beginning of this document, the Section of Teachers of Pharmacy Administration had its beginning in the 1928-1929 development of the Conference of Teachers as a separate functional unit in the AACP. Although the nomenclature for the group of academicians under this broad title has changed over the years, the actions, enthusiasm and dedication as a group and as individuals have been a significant factor in the development, acceptance and growth of the discipline. Although the efforts of many individuals are documented throughout this history of the discipline, and it is somewhat realistic to state that "The Section" exists and does as its members are and do; nevertheless, the Section of Teachers of Pharmacy Administration has also contributed to the discipline and to the Association in its own unique way as a facilitating instrument and a developer of leadership among its members.

Among several major contributions were the very successful Teachers Seminars in Pharmacy Administration. The success of these seminars along with the annual programming manifests the quality of pharmacy administration personnel within the academic units. The topics covered and the participation by almost all schools in the developing stages beginning in 1950 greatly facilitated the development of both course content and curriculum changes. The leadership displayed brought acceptance of the discipline to many educators who expressed reservations concerning the role of Pharmacy Administration in the pharmacy curriculum, and in itself helped to bring leadership capabilities to the Association as a whole. The enthusiasm of the seminars was such that several interim regional seminars were undertaken to bring interested groups of faculty members together to discuss graduate and undergraduate curricula, issues and concerns of the discipline, and graduate research programs. Some of the specific details of the seminars are discussed in other chapters.

Another source of major contributions to the discipline has been the committee work of section members. Through standing and special committees there have been many syllabi of courses and areas of instruction organized and provided for guidance to the teachers. A good example of collective effort is the formation in 1963 of the Committee on Academic Resources whose major function has been to accumulate and publish a list of theses and dissertations relative to the interdisciplinary fields of pharmacy administration. The usefulness of this committee (as well as others over the years with special activities) may cease as the age of technology replaces the physical work of the past. Although the recognition of each separate committee and all of the members is difficult in this brief historical account, the discipline is indebted to the numerous members who have contributed copious quantities of time and effort and talent to make the work of the Section continuous, meaningful, and supportive of both academic and individual needs.

Another contribution of note began in 1974, when the AACP passed a resolution urging that the pharmacy curriculum be described in terms of competency-based outcomes. At the same meeting the Section members created a task force to "develop a position paper concerning our

discipline's role in pharmaceutical education. The purpose of this paper was to provide guidelines to the A.C.P.E., pharmacy schools and pharmacy administration departments for the development and evaluation of undergraduate, graduate and continuing education programs in pharmacy administration. One finished project was distributed at the 1977 meeting and was entitled: Report of the Committee for Establishing Standards for Undergraduate Education in Pharmacy Administration.

Also in 1977, the American Association of Colleges of Pharmacy and the American Pharmaceutical Association and the Educational Testing Service conducted a "National Study on the Practice of Pharmacy". The Section of Teachers of Pharmacy Administration appointed a special committee on competencies to relate the Pharmacy Administration competencies with the APhA, AACP, ETS study of pharmacists' responsibilities as well as conform to the AACP's "Official Association Terms and Definitions." A final report of the special committee was prepared January 1, 1980.

Although a separate special committee for establishing standards for graduate programs in Pharmacy Administration was formed, the vast disparity of graduate programs presented a situation which the committee could not organize into generic standards. After two years of efforts, the committee was dissolved. However, interest in graduate affairs has evidenced by the continued issuance of twelve units of reference documenting a Bibliography of Theses Relevant to Pharmacy Administration from the first unit in 1964 to the last in 1984. This documentation of research has been valuable to suggest potential projects and to demonstrate the kind of work being done in related areas with some impact on pharmacy administration.

Dr. Richard A. Jackson (Mercer) proposed a project to conduct a Survey of Educational Resources in Pharmacy Administration Undergraduate Courses while chairman of the Section. The result was a massive project report encompassing 396 pages compiled and edited by Dr. Dewey D. Garner (Mississippi) in 1979. The report contained information on 202 undergraduate courses from 40 colleges of pharmacy, including Ethics and Jurisprudence, Management, Marketing, and Social and Behavioral Sciences. Details of structure, format and course outline were given for each course listed. This report should serve as a major resource document for all new faculty members and as an evaluator for established courses.

In 1980, the Health Organization and Government Affairs Committee was charged with the development of an Annotated Bibliography of Pharmacy Practice Contributions in Primary Health Care. The 64-page document included 240 abstracts and was completed in 1981 and distributed to the schools of pharmacy. The success and quality of this contribution was recognized by additional funding for a three-year updating of the document by this section committee for the AACP Board of Directors as an Association project.

As the discipline of pharmacy administration diversified into areas of specialization, the Section served as fertile ground and home base for

the growth of these new components. The social and behavioral sciences as they pertain to pharmacy and health care became a major element of the discipline. Growth over the years was accompanied by suggestions to alter the name of the Section. Areas and departments within various colleges and schools of pharmacy had undergone transformations in nomenclatures resulting in titles such as Health Care Administration, Social Sciences in Pharmacy, and Behavioral and Social Sciences in Pharmacy. Despite these new titles at the institutional levels, the movement to rename the Section has been unsuccessful and the traditional title of Pharmacy Administration continues to serve as the "tradename" of the discipline. One such attempt in 1977 created a pool of suggested titles for the Section. A second major attempt was made in the early 1980's.

From the report of the committee in 1977, two-thirds of the members indicated a desire to change the name of the Section even though the weighted scores from a membership survey found pharmacy administration to be the first choice. The top six names were listed with weighted points as: Pharmacy Administration (137), Health Care Administration (68), Administration and Social Science in Pharmacy (65), Behavioral and Administrative Science in Pharmacy (62), Social and Administrative Science in Pharmacy (62), and Pharmacy and Health Care Administration (51). A follow-up committee in 1978 took the top five names from the 1977 report and canvassed the membership again to seek some definitive reply. Unfortunately, the results were inconclusive among 138 replies: Pharmacy and Health Care Administration (37), Pharmacy Administration (35), Social and Administrative Sciences in Pharmacy (29), Behavioral and Administrative Sciences in Pharmacy (26), and Health Care Administration (11). In the event that another attempt might be made at some time in the future, the list of names suggested will reduce the amount of effort to recreate such an extensive descriptive list by those who have not had the benefit of past experience.

Pharmacy Administration  
Pharmacy Care Administration  
Pharmacy and Health Care  
Pharmacy Care Organization  
Pharmacy Care Systems  
Pharmacy Socio-Economics  
Social Pharmacy  
Health Care Administration  
Pharmacy Economics  
Pharmacy Practice  
Health Care Practices  
Health Care Services  
Pharmaceutical Science  
Pharmacy Care  
Socio-Economics of Pharmacy  
Social and Behavioral Pharmacy  
Pharmacy Care Studies  
Drug Utilization Studies  
Drug Utilization Research  
Pharmacy Care Research

Administrative Studies in Pharmacy  
Social and Administrative Pharmacy  
Social and Administrative Sciences  
Pharmacy in the Social Sciences  
Clinical Pharmacy Administration  
Administrative and Social Sciences  
Pharmaceutical Economics and Health  
Care Delivery  
Pharmaceutical Economics and Business  
Administration  
Pharmaceutics, Socioeconomics and  
Continuing Education  
Administrative and Social Aspects  
of Pharmacy  
Psycho-Pharmaceutical and Social Sys-  
tems of Health Care Administration  
Behavioral and Administrative Sciences  
in Pharmacy  
Administrative and Social Sciences  
in Pharmacy

Drugs and Society	Social and Administrative Sciences in Pharmacy
Drug Ecology	Social and Administrative Services in Pharmacy
Drug Use Studies	Pharmaceutical and Health Care Admin- istration
Clinical Administration	Pharmacy and Pharmacy Administration
Health Care Management	
Pharmaceutical Systems	
Allied Health Care Management	

Perhaps the significance of the Section in the manifestation of the history of the discipline can only be a reflection of the individuals who as faculty members at the schools and colleges of pharmacy have devoted their time and talents to making pharmacy administration a major component of the pharmacy curriculum. It is therefore most fitting and of historical significance to note that the first two recipients of the American Association of Colleges of Pharmacy Distinguished Educator Award, begun in 1981, were members of the Section of Teachers of Pharmacy Administration: Mickey C. Smith (1981) and Robert V. Evanson (1982).

Of equal significance to the work and contributions to the Section is the quality of leadership of its officers and committee membership over the years. A list of officers records the names, dates, and schools (at the time of participation). It is of interest to note that Lawrence Ferring served as chairman five years during the war years. Chauncy I. Cooper (1949-1951) served two terms during the general re-organization of the Association. Albert F. Wojcik (1973-1975) served two successive terms during the last re-organization of the AACP's structure. Robert V. Evanson served two separate elective terms (1963-1964 and 1982-1983).

The normal procedure until 1948 was to have the Secretary succeed the Chairman, although there was an elective process for both offices. The Section adopted the office of Vice Chairman in 1948, at which time the process of succession was adopted from Vice Chairman to Chairman. In 1973, Vice Chairman was changed to Chairman-Elect, and Kenneth A. Speranza has been the only person to serve two terms because of the re-organization. Joseph H. Goodness served six consecutive one-year terms as Secretary during the war years: the term of office was increased to three years in 1951.

Records show that the members did not confine their participation to the Section alone. Like other faculty members, they assumed their responsibility for the Association's work. In the structure of the council of the Conference of Teachers, several section members served as Chairman of the Council: Byril E. Benton (Drake University) 1959-1960; Francis C. Hamerness (University of Colorado) 1963-1964; Robert V. Evanson (Purdue University) 1965-1966; Bill D. Jobe (Purdue University) 1968-1969; and William B. Swafford (University of Tennessee) 1971-1972.

With the re-organization of the Association, this service continued in the chairmanship of the Council of Sections with Charles L. Braucher (University of Georgia) 1973-1974; Jean Paul Gagnon (University of North Carolina) 1978-1979; William H. Campbell (University of Washington) 1979-1980; and Bill D. Jobe (University of Texas) 1981-1982. Chairmen of the

Council of Faculties have included Albert W. Jowdy (University of Georgia) 1978-1979; Joseph L. Fink, III (Philadelphia College of Pharmacy) 1981-1982; Kenneth A. Speranza (University of Connecticut) 1982-1983; Rinaldo V. DeNuzzo (Albany College) 1984-1985; and Robert V. Evanson (Purdue University) 1985-1986.

Christopher A. Rodowskas left the University of Connecticut to become the Executive Director of the AACP from 1974 to 1981. At the same time Charles L. Braucher (Council of Sections) and Robert V. Evanson (Council of Faculties) were elected to serve on the first Board of Directors of the Association for the terms of 1973-1974 and 1973-1975 respectively. Others to serve on the Board of Directors include: Norman A. Campbell (Council of Faculties) 1976-1978; Jean Paul Gagnon (Council of Sections) 1980-1982 and 1982-1984; William H. Campbell (Council of Faculties) 1982-1984; Kenneth A. Speranza (Council of Faculties) 1983-1984; Rinaldo V. DeNuzzo (Council of Faculties) 1983-1987; Robert V. Evanson (Council of Faculties) 1985-1986; and Richard A. Ohvall (Council of Deans) 1985-1987. In addition, Jean Paul Gagnon was elected President-Elect/President/Immediate Past President of the AACP for the term of 1984-1987.

Citing the names of members who have contributed to the work of the Conference, Councils and Association in recent years since the formalizing of pharmacy administration as a discipline does not lessen the contributions of the many teachers of "commercial pharmacy" who were in similar capacities in the earlier days of the Section and Association. To list the names of all those teachers whose personal and collective contributions and efforts have solved the problems and created the programs to sustain the Section and its role in the Association would require recording some 400 names and the potential for omitting many persons. However, it is both fitting and necessary to record those persons who have carried on certain leadership roles through the years in some official capacity.

There is no doubt of the importance of the Section in the scheme of association affairs to speak for the rights and privileges of its members in the hierarchy of academic scholars, faculty affairs, curriculum planning and the myriad of convention-oriented trivia common to all special groups. The record shows the interest and participation of members since the early years, and progress since the 1950's.

The record cannot portray the comradeship of fledgeling professors and graduate students in convention hotels discussing courses, teaching, research, personal school problems and situations, outside resources, and graduate programs well into the early, post-midnight hours. For almost all of them were loners with no one to talk to among their school faculty colleagues, many of whom considered them to be non-scientific types to be tolerated to satisfy retail pharmacy but not really scholars in their own right. Some evidence of this localized attitude has been expressed as recent as 1983 and 1984 in the literature and section meetings.

The Section has grown and prospered. Its members have demonstrated scholarship in spite of their critics, and leadership in pharmacy's

affairs in the AACP, APhA, NARD, ASHP and ACA, as well as the Academy of Pharmaceutical Science and the Academy of Pharmacy Practice. The Section will continue to provide the forum for expression, coordination of instruction, promotion of research, and training vehicle for leadership. It is the responsibility of every teacher to belong to it, to support its activities and programs, and to take an active role in its work and leadership as opportunity and time permit.

**OFFICERS AND REPRESENTATIVES OF THE CONFERENCE OF TEACHERS OF PHARMACEUTICAL ECONOMICS (1928-1952) AND THE SECTION OF TEACHERS OF PHARMACY ADMINISTRATION.**

CHAIRMAN

**CONFERENCE OF TEACHERS OF PHARMACEUTICAL ECONOMICS**

1928-1929	John G. Beard	University of North Carolina
1929-1930	Charles A. Stocking	University of Michigan
1930-1931	C. Leonard O'Connell	University of Pittsburgh
1931-1932	Howard C. Newton	Creighton University
1932-1933	W. Bruce Philip	University of California
1933-1934	Florian J. Amrhein	Massachusetts College of Pharmacy
1934-1935	Paul C. Olsen	Philadelphia College of Pharmacy
1935-1936	John F. McCloskey	Loyola University
1936-1937	W. Henry Rivard	University of Rhode Island
1937-1938	Ralph W. Clark	University of Wisconsin
1938-1939	Frederick D. Lascoff	Columbia University
1939-1940	B. Olive Cole	University of Maryland
1940-1941	John V. Connor	Loyola University
1941-1946	Lawrence F. Ferring	Xavier University
1946-1947	Stephen Wilson	University of Pittsburgh
1947-1948	Thomas D. Rowe	Rutgers University
1948-1949	Charles W. Bliven	George Washington University
1949-1951	Chauncey I. Cooper	Howard University
1951-1952	Lawrence D. Lockie	University of Buffalo

**SECTION OF TEACHERS OF PHARMACY ADMINISTRATION**

1952-1953	Haakon Bang	State College of Washington
1953-1954	Charles C. Rabe	Massachusetts College of Pharmacy
1954-1955	John A. Lynch	Temple University
1955-1956	Ralph J. Mill	Wayne University
1956-1957	Paul A. Pumpian	University of Maryland
1957-1958	Joseph H. Kern	University of Florida
1958-1959	Esther Jane Hall	University of Texas
1959-1960	R. George Kedersha	Rutgers University
1960-1961	Wendle L. Kerr	University of Iowa
1961-1962	Francis C. Hamerness	University of Colorado
1962-1963	Melvin Hoevel	University of Cincinnati
1963-1964	Robert V. Evanson	Purdue University
1964-1965	Joseph D. McEvilla	University of Pittsburgh
1965-1966	Gerald C. Henney	St. Louis College of Pharmacy

1966-1968	Dale W. Doerr	Butler University
1968-1969	Norman A. Campbell	University of Rhode Island
1969-1970	Richard A. Ohvall	University of Wisconsin
1970-1971	Harry A. Smith	University of Kentucky
1971-1972	Mavin J. Myers	Philadelphia College of Pharmacy
1972-1973	Walter J. Morrison	University of Arkansas
1973-1975	Albert F. Wojcik	West Virginia University
1975-1976	Kenneth A. Speranza	University of Connecticut
1976-1977	Jean Paul Gagnon	University of North Carolina
1977-1978	William H. Campbell	Oregon State University
1978-1979	Richard A. Jackson	Mercer University
1979-1980	Joseph L. Fink III	Philadelphia College of Pharmacy
1980-1981	Dewey D. Garner	University of Mississippi
1981-1982	H. John Baldwin	West Virginia University
1982-1983	Robert V. Evanson	Purdue University
1983-1984	Kenneth W. Kirk	University of Texas
1984-1985	David A. Knapp	University of Maryland
1985-1986	W. Michael Dickson	University of South Carolina
1986-1987	Robert S. Beardsley	University of Maryland

#### VICE CHAIRMAN

#### CONFERENCE OF TEACHERS OF PHARMACEUTICAL ECONOMICS

1948-1949	Chauncey I. Cooper	Howard University
1949-1950	Arthur P. Wyss	Western Reserve University
1950-1951	Lawrence D. Lockie	University of Buffalo
1951-1952	Charles W. Bliven	George Washington University

#### SECTION OF TEACHERS OF PHARMACY ADMINISTRATION

1952-1953	Charles C. Rabe	Massachusetts College of Pharmacy
1953-1954	John A. Lynch	Temple University
1954-1955	Ralph J. Mill	Wayne State University
1955-1956	Paul A. Pumpian	University of Maryland
1956-1957	Joseph H. Kern	University of Florida
1957-1958	Esther Jane Hall	University of Texas
1958-1959	Floyd A. Grolle	University of Michigan
1959-1960	Wendle L. Kerr	University of Iowa
1960-1961	Francis C. Hamerness	University of Colorado
1961-1962	Melvin Hoevel	University of Cincinnati
1962-1963	Robert V. Evanson	Purdue University
1963-1964	Joseph D. McEvilla	University of Pittsburgh
1964-1965	Gerald C. Henney	St. Louis College of Pharmacy
1965-1966	Dale W. Doerr	Butler University
1966-1967	Richard J. Hampton	University of Florida
1967-1968	Norman A. Campbell	University of Rhode Island
1968-1969	Michael Musulin	University of Pittsburgh
1969-1970	Harry A. Smith	University of Mississippi
1970-1971	Mavin J. Myers	Philadelphia College of Pharmacy
1971-1972	Walter J. Morrison	University of Arkansas
1972-1973	Albert F. Wojcik	West Virginia University

CHAIRMAN-ELECT

SECTION OF TEACHERS OF PHARMACY ADMINISTRATION

1973-1975	Kenneth A. Speranza	University of Connecticut
1975-1976	Jean Paul Gagnon	University of North Carolina
1976-1977	William H. Campbell	Oregon State University
1977-1978	Richard Jackson	Mercer University
1978-1979	Joseph L. Fink III	Philadelphia College of Pharmacy
1979-1980	Dewey D. Garner	University of Mississippi
1980-1981	H. John Baldwin	West Virginia University
1981-1982	Robert V. Evanson	Purdue University
1982-1983	Kenneth W. Kirk	University of Texas
1983-1984	David A. Knapp	University of Maryland
1984-1985	W. Michael Dickson	University of South Carolina
1985-1986	Robert S. Beardsley	University of Maryland

SECRETARY

CONFERENCE OF TEACHERS OF PHARMACEUTICAL ECONOMICS

1928-1929	Charles A. Stocking	University of Michigan
1929-1930	C. Leonard O'Connell	University of Pittsburgh
1930-1931	Howard C. Newton	Creighton University
1931-1932	W. Bruce Philip	University of California
1932-1933	Florian J. Amrhein	Massachusetts College of Pharmacy
1933-1934	Paul C. Olsen	Philadelphia College of Pharmacy
1934-1935	John F. McCloskey	Xavier University
1935-1936	W. Henry Rivard	University of Rhode Island
1936-1937	Ralph W. Clark	University of Wisconsin
1937-1938	Frederick D. Lascoff	Columbia University
1938-1939	B. Olive Cole	University of Maryland
1939-1940	John V. Conner	Loyola University
1940-1941	Lawrence F. Ferring	Xavier University
1941-1947	Joseph H. Goodness	Massachusetts College of Pharmacy
1947-1948	Edward J. Ireland	Loyola University
1948-1949	Arthur P. Wyss	Western Reserve University
1949-1950	Lawrence D. Lockie	University of Buffalo
1950-1951	Charles W. Bliven	George Washington University
1951-1952	Joseph H. Kern	Ohio State University

SECTION OF TEACHERS OF PHARMACY ADMINISTRATION

1952-1954	Joseph H. Kern	Ohio State University
1954-1957	Esther Jane Wood Hall	University of Texas
1957-1959	R. George Kedersha	Rutgers University
1959-1960	Francis C. Hamerness	University of Colorado
1960-1963	Joseph D. McEvilla	University of Pittsburgh
1963-1966	Richard J. Hampton	University of Florida
1966-1969	Richard A. Ohvall	University of Wisconsin
1969-1972	Robert J. DeSalvo	Purdue University
1972-1975	Dean E. Leavitt	University of Maryland

1975-1978	W. Michael Dickson	University of Wisconsin
1978-1981	David Forbes	University of North Dakota
1981-1982	Robert N. Zelnio	University of Iowa
1982-1983	Robert J. DeSalvo	University of Cincinnati
1983-1986	Marcellus Grace	Xavier University

REPRESENTATIVE ON THE COMMITTEE OF CONFERENCE OF TEACHERS

CONFERENCE OF TEACHERS OF PHARMACEUTICAL ECONOMICS

1947-1948	Joseph H. Goodness	Massachusetts College of Pharmacy
1948-1950	Stephen Wilson	University of Pittsburgh
1950-1952	Paul C. Olsen	Philadelphia College of Pharmacy

SECTION OF TEACHERS OF PHARMACY ADMINISTRATION

1952-1954	Paul C. Olsen	Philadelphia College of Pharmacy
1954-1956	Haakon Bang	State College of Washington
1956-1958	Ralph J. Mill	Wayne State University
1958-1960	Stephen Wilson	Wayne State University
1960-1962	R. George Kedersha	Rutgers University
1962-1964	Francis C. Hammerness	University of Colorado
1964-1966	Robert V. Evanson	Purdue University
1966-1968	Gerald C. Henney	St. Louis College of Pharmacy
1968-1970	Dale W. Doerr	Butler University
1970-1972	Richard A. Ohvall	Ferris State College
1972-1973	Robert J. DeSalvo	Purdue University

REPRESENTATIVE TO THE COUNCIL OF SECTIONS ADMINISTRATIVE BOARD

1973-1975	Robert J. DeSalvo	University of Cincinnati
1975-1977	Dean E. Leavitt	University of Maryland
1977-1979	Dewey D. Garner	University of Mississippi
1979-1981	Delton C. Huffman	University of Tennessee
1981-1983	Mickey C. Smith	University of Mississippi
1983-1985	David S. Forbes	North Dakota State University

DELEGATES TO THE A.A.C.P. HOUSE OF DELEGATES

1973-1975	Walter N. Morrison	University of Arkansas
1975-1977	G. Joseph Norwood	University of Iowa
1975-1977	Robert J. DeSalvo	University of Cincinnati
1977-1980	Kenneth W. Kirk	Purdue University
1977-1980	W. Michael Dickson	University of Wisconsin
1980-1981	William L. Hightower	University of Texas
1980-1982	Charles L. Braucher	University of Georgia
1981-1983	Robert S. Beardsley	University of Maryland

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Special Notes:

1. The 1941-1946 period represents the war years during which the AACP did not meet or there were insufficient members present to elect new officers.

2. In 1952 the several Conferences joined as the Conference of Teachers, and its units became the Section of Teachers of each specialty group. Likewise, the elected Committee of Representatives became known as the Council and its internally elected officers became the officers of the Conference of Teachers.
3. An examination of the dates indicates times when the Section changed the terms of officers, created new titles, and became a part of new systems. 1973 is of particular note when the A.A.C.P. was totally re-organized into a council of Deans, Council of Faculties, and Council of Sections, and the Association set up a House of Delegates in which each Section has representation. This was further modified in 1983 when the Sections ceased to have delegates to the House of Delegates and the Council of Sections was disbanded in favor of a Coordinating Committee consisting of the chairs of all academic Sections with a patterned rotation for Committee Chairperson to serve as a liaison between the sections and Board of Directors without Council status but with representation on the Board of Directors.

The Economic and Administrative Science Section of the Academy of Pharmaceutical Sciences

The Section of Teachers has provided through its members the leadership for the formation of other organizations. In most cases the lack of ability to satisfy a need within the Section has stimulated efforts to seek outside resources. In 1965 the effort to form the Academy of Pharmaceutical Sciences (AFS) was started. It was formed to be the instrument for concentrating representation of all pharmaceutical scientists and to develop and sponsor programs for better public understanding of pharmaceutical science. Members were to cross all lines of education, industry and research much the same as the membership in the parent American Pharmaceutical Association (APhA). The first annual meeting was held in April, 1966.

Pharmacy Administration was recognized in the formation of the Academy's Section on Economics and Administrative Science (E&AS). The organizing officers were appointed by an Academy-organizing executive committee and served in place for two years until an effective election system was implemented. They were selected because of their roles in the Section of Teachers as well as the APhA's Section on Economics and Law, which was disbanded when the Academy of Pharmacy Practice became functional.

The first program in 1966 consisted of a one-paper session with three speakers, none of whom were pharmacy administration persons. In 1967 two sessions contained twelve papers all by one or more pharmacy administration professors. By 1971, three full sessions were held for 28 papers.

The APS soon became an integral adjunct of the Sections of Teachers in all disciplines to satisfy the members' research interests. Although the AACP in recent years has given the Volwiler Award for excellence in

research, as an Association it has offered little or no direct outlet for reporting the research activities of its members. In past years a Section of Teachers of Graduate Instruction attempted to provide a cohesive unit for academic scientists and their research interests. However, the complete diversity of subject matter, limited meeting time, and interference with other regular sections, plus inconsistent and sporadic leadership, caused the Section to be disbanded for lack of interest after the APS was formed.

The issue surfaced again in 1980 as discussions about the future of AACP's Council of Sections became an important aspect of the proposal to re-organize the House of Delegates. William H. Campbell, Chairman of the Council of Sections, wrote in his Journal column in 1981 that "The Council of Sections should be considered as the research and development arm of AACP. Programming and management of section activities forms a complementary activity and should be continued with central office support(139)." Although Campbell did not clarify research as academic research, scientific research, or research on association affairs, the matter was addressed at the 1981 AACP meeting. The 1981 Argus Commission Report strongly supported the Academy of Pharmaceutical Sciences as the medium for research development within schools of pharmacy and suggested some re-alignment of disciplines without a Council of Sections(140). The Council of Sections was abandoned subsequently in favor of a Coordinating Committee, and the issue of an academic research outlet has been set aside with no apparent policy statement by the Association.

An important function of the Academy has been its outlet for scientific papers and publications, although there have been major limitations on journal resources for publication. A second function has been the recognition of members as Fellows of the Academy upon nomination by their peers for outstanding research and leadership efforts spanning more than ten years. As of the most recent records supplied by the APhA, there are sixteen Academy Fellows from the ranks of pharmacy administration section members. The following list is given in the order of election by the Academy.

Fellows of the Academy of Pharmaceutical Sciences with Year Award Received

Robert V. Evanson	1971
Charles L. Broucher	1974
Robert W. Hammel	1974
Hugh E. Kabat	1974
Mickey C. Smith	1974
William L. Blockstein	1975
Michael D. Jacoff	1975
Joseph D. McEvilla	1976
Paul C. Olsen	1976
Christopher A. Rodowskas	1977
Albert I. Wertheimer	1980
Harry A. Smith	1982
G. Joseph Norwood	1982

Jean Paul Gagnon	1983
David A. Knapp	1984

The name of the Academy Section was changed to the Section on Economic, Social and Administrative Science (ESAS) to reflect the interest and development of the social and behavioral sciences in the academic programs. Another direct advantage in the Academy is the melding of academic and industry scientists for their mutual benefit. In this case industry's marketing personnel became active and in some instances (Richard L. Hull, Richard E. Faust, William H. Helfand, Floyd A. Grolle, Sheldon Siegel, and Paul Holberg) involved in Section leadership roles. Many other industry personnel have contributed to programmed symposia and research paper presentations. The Academy ESAS Section has indeed become an extension of the AACP Teachers Section and almost all of its leadership has come from Section members as noted in the following list of officers.

**OFFICERS OF THE SECTION ON ECONOMIC, SOCIAL AND ADMINISTRATIVE SCIENCES OF THE ACADEMY OF PHARMACEUTICAL SCIENCES**

<u>Year</u>	<u>Chairman</u>	<u>Chairman-elect</u>	<u>Vice Chairman</u>
1965	Joseph D. McEvilla	Robert V. Evanson	Richard L. Hull*
1966	Joseph D. McEvilla	Robert V. Evanson	Richard L. Hull*
1967	Robert V. Evanson	Richard J. Hampton	Robert W. Hammel
1968	Richard J. Hampton	Robert W. Hammel	Floyd A. Grolle*
1969	Robert W. Hammel	Floyd A. Grolle*	Michael D. Jacoff
1970	Floyd A. Grolle*	William H. Helfand*	Albert W. Jowdy
1971	Albert W. Jowdy	M. Keith Weikel*	Marvin J. Myers
1972	M. Keith Weikel*	Maven J. Myers	Gloria R. Sabatini*
1973	Maven J. Myers	Richard A. Ohvall	Harry A. Smith
1974	Richard A. Ohvall	Richard E. Johnson	Mickey C. Smith
1975	Richard E. Johnson	Richard E. Faust*	Jean P. Gagnon
1976	G. Joseph Norwood	Richard E. Faust*	Jean P. Gagnon
1977	Richard E. Faust*	Jean Paul Gagnon	Dewey G. Garner
1978	Jean Paul Gagnon	Dewey D. Garner	David S. Forbes
1979	Dewey D. Garner	David S. Forbes	Kenneth W. Look*
1980	David S. Forbes	Kenneth W. Look*	Kenneth W. Kirk
1981	Kenneth W. Look*	W. Michael Dickson	Jeffrey A. Kotzan
1982	W. Michael Dickson	Patrick L. McKercher	Robert H. Hunter
1983	Patrick L. McKercher	Robert H. Hunter	Paul Holberg*
1984	Robert H. Hunter	Paul Holberg*	Christopher Rodowskas
1985	Paul Holberg*	Christopher Rodowskas	William McGhan

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Note: The year indicates the beginning of the year served. For example, 1965 indicates installation of 1965 and in charge of the 1966 meeting, or the 1965-1966 year. The asterisk denotes persons not involved with pharmacy administration education.

In addition, the office of Secretary was a multiple-term activity ably executed by the following persons: Robert E. Abrams (1965-1969), Michael D. Jacoff (1969-1973), Sheldon Siegel (1973-1975), Charles L. Braucher (1975-1978), William L. Hightower (1979-1981), Paul Holberg

(1982-1984), William F. McGahan (1984-1985), Lee Strandberg (1985-). Only Sheldon Siegel and Paul Holberg were none teaching persons.

Two major problems have historical value - the essence of timing and funding. Teaching personnel often find it difficult to attend Academy meetings that conflict with the end of the Spring semester. This same problem exists with the Fall meeting and has caused the ESAS Section not to meet at that time. Teaching personnel also are limited by school budgets to the number of meetings attendable with restricted funds. Because the scope of activity is broader at APhA meetings, there is the desire to attend the ESAS meetings. However, because of the direct involvement in academic and teacher-interest concerns, there is the stronger desire to attend the AACP meetings and those of the Section of Teachers. For these reasons and conditions, it is necessary that both sections be on a continuing basis of support and cooperative activity to complete the total function of education and research.

#### American Society for Pharmacy Law

The subject matter of law, pharmacy law, jurisprudence, or jurisprudence and ethics was taught in the early years first by pharmacy teachers and then by pharmacy administration teachers. At the same time a few schools used the adjunct expertise of local attorneys such as Sidney Willig, William Pettit (whose text was widely used for many editions) and Samuel Skolnick. Table 10 catalogs the use of 23 persons with an L.L.B. degree as late as 1963 and three with L.L.M.'s. The L.L.B. teachers were gone by 1983 and one L.L.M. was still teaching. However, this merely indicates a shift in degree status as the legal profession adopted the Juris Doctorate (J.D.) as the proper degree substitute for the Bachelor of Laws. In 1969 there were 7 J.D.'s recorded, and these were increased to 25 in 1983. Thus, the history and evolution in law plays a role in the growth and development of pharmacy administration.

Because these teachers needed an outlet for expression, the APhA offered the Section on Economics and Law until the Academy of Pharmacy Practice was formed. At the same time greater participation in the Section of Teachers of Pharmacy Administration became a limiting factor as these attorneys competed for program time now lost in the APhA but also not expanded in the AACP to compensate. In addition to the teachers, there was an increasing number of pharmacists getting law degrees for private practice and/or corporate counsel positions.

On August 6, 1974, seventeen lawyers met at the Conrad Hilton Hotel in Chicago. Joseph L. Fink III presided and Michael Danian served as Secretary pro tem. Norman Campbell (Rhode Island), Michael Danian (Cincinnati), Joseph Fink (Philadelphia), Alvin Geser (Rutgers), Peter Previte (Ohio Northern), Paul Pumpian (St. Johns), and Eugene White (Virginia) were listed as teachers. Bernard Brody (Chicago), Carl DeMarco (Washington, D.C.), Earl Friese (Chicago), Joseph Gendron (Pawtucket), Robert Kamm (Racine), Marc Kurzman (Minneapolis), Karl Marquardt (Madison), Samuel Skolnick (Chicago), Robert Steeves (Washington, D.C.), and Bruce Stein (Kalamazoo) were attorney participants.

The consensus of those present was that an organization should be formed and be independent of both the APhA and American Bar Association (ABA), but which could provide input to both as necessary. Full membership was established for those persons who were graduates of pharmacy and law schools. Associate membership was set up for pharmacists only, attorneys only, and teachers of pharmacy law. The 1975 Constitution stated the purpose as "the advancement of knowledge and the exchange of ideas in the areas of common interest between the fields of pharmacy and law." The ASPL has prospered and grown in numbers. It immediately started publication of a newsletter called **Rx Ipsa Loquitur** in September, 1974, to provide its members with legal news, society information, and case references.

Although the Section of Teachers did not directly spawn the formation of the ASPL, its indirect role through its active law-oriented members must be recognized. The ASPL had a direct impact on the Section by providing a program outlet for papers and symposia not being satisfied by the Section, but also by relinquishing time in the Section for an increase in presentations related to managerial and behavioral sciences.

"My understanding of Pharmacy Administration suggests that less than 100 faculty satisfy the research time criterion, less than 20 of these individuals satisfy the focus criterion, and probably less than 10 in this latter group satisfy the literature monitoring criterion. In short, the discipline is dominated by generalists and it is this single characteristic that constitutes the weakest element of pharmacy administration as an academic discipline. Fortunately, the proportion of bona fide specialists could be increased dramatically if some 60 faculty would simply concentrate their energy in a given specialty area. This shift, however, must be supported by a synergistic relationship between teaching assignments and research focus. Such an outcome will be difficult to achieve, however, as long as faculty have course responsibilities that divert sharply from the substance of their research programs or macro-oriented faculty are required to serve as instructors in micro-oriented courses (and vice versa)."

T. Donald Rucker, Am. J. Pharm. Educ., 48, 387 (1984).

## CHAPTER VII THE FUTURE OF THE DISCIPLINE

"Tomorrow" never comes because it always arrives as "today." The future is likewise an evolution of tomorrow's todays, and in education the evolution can be a slow process. When education must evolve to educate and train for a profession or occupation whose practitioners span forty or more years of educational and practice development and embody many individual levels and eras of academic and self-directed learning, the process of evolution may become even slower. The drag of many yesterdays that are forced into todays but do not recognize the differences in technology or environment or people also slows down the projected and expected developments of the future's tomorrows.

There can be and has been much criticism of practitioners who do not desire to move as quickly to the clinical role as some educators would like them to progress into the "future." There also is much criticism of educators by practitioners for the general inadequacies of education and training in the general discipline of pharmacy administration with emphasis on management. Educators insist that they must stick to principles because all problems go back to the principles for their solutions. Practitioners insist that their problems must be solved with today's facts: yesterday's principles and tomorrow's dreams are time-wasters and distortions of reality. Educators may insist that practitioners-to-be must be taught how to practice in the future, while they seem to forget or ignore the fact that graduates always have to begin to practice in the present.

It comes as no surprise, then, that pharmacy administration educators have some degree of difficulty expressing the "future" in precise, consistent terms of subject matter and goals. Whereas the basic sciences change primarily as changes occur in their own scientific discipline or in general scientific technology and knowledge, pharmacy administration and pharmacy practice change as their internal knowledge bases change, as the general scientific knowledge and technology change, and as the applications of knowledge and skill change in professional practice, which is not controlled by educators.

Because a potentially consolidated viewpoint with some predictive value would serve this treatise on historical development, an invitation for contributed wisdom was sent to thirty professors of pharmacy administration with the intent to weave all replies into a master statement for the future growth and development of the discipline. The twenty replies covered the range of subject matter. The comments are subdivided into seven specific categories: marketing, entrepreneurship, management, behavioral science, graduate education, research and development, and general focus of change. These are then summarized with some conclusive statements.

### MARKETING

A once-important subject area, marketing, has fallen by the wayside as the academic emphasis shifted from the product to the clinical

attitude, and curriculums were amended to accommodate change. Marketing is product-oriented and relates to the manufacturer, wholesaler, and retailer activities of physical distribution. In some curriculums it represented the only management-oriented training offered by emphasizing the purchasing, inventory control, and pricing activities related to retailing and consumers. It is not by accident that two respondents referred to marketing in terms of past activity.

"Retrospectively, the discipline has been broadened from its once strictly economic/administrative/marketing orientation to include social, behavioral and computer sciences. Long term predictions are difficult. However, the economic/administrative/marketing function should continue to be an important aspect of our activities. Concomitantly, the social, behavioral and computer sciences are now and will continue to challenge this dominance."

"Retrospectively, we may have thrown some of the baby out with the bath water in allowing marketing to decline in the curriculum just when other health services are discovering it. I believe this will correct itself, however, if the emphasis on competition continues. Prospectively, I think pharmacy administration must continue to evolve and adapt to change in the delivery system. Whether it will be a moving force in effecting any of these changes is as yet unclear to me. Two changes in emphasis seem necessary under present conditions. 1) Pharmacy administration has too long failed to get deeply involved with the chains. 2) Too few pharmacy-administration-types are good at finance/accounting."

"To remain viable, our marketing courses must be much broader than discussing primarily distribution channel problems."

"I fully concur that Pharmacy Administration has apparently moved, during the last few years, from marketing and management to health care and Social and Behavioral sciences subject matter. However, I also believe that the pendulum is swinging back towards the traditional disciplines in our field. One of the major problems has been the negative attitude for the product orientation in pharmacy, and traditionally the marketing and management orientation has been associated with this type of orientation. Unfortunately, while the fields of marketing, management and other administrative sciences have changed in the last 15 years to incorporate the variety of intangible products, our field has not kept pace with these changes; and hence, has yielded to the behavioral science orientation as the major theme for the field."

#### ENTREPRENEURSHIP

In any attempt to understand the future needs for administrative

skills, pharmacy ownership would seem to be first area of need and analysis. In recent years, reports from various sources have attempted to predict the presumed or apparently impending demise of independent pharmacies. This would mean those units in one, two or three-store complexes owned by a proprietor or partnership or closely-held corporation. The Annual Report of the Chain Drug Industry(141) provides data to show drug store sales by independents in 1976 at \$11.3 billion for 55.1 percent and chains at \$9.2 billion for 44.9 percent of total sales. For 1983 these data were \$16.9 billion for 42.5 percent independent and \$22.8 billion for 57.5 percent chain. At the same time the 36,721 independent stores decreased to 33,531, and the 13,705 chain stores increased to 15,969 owned by 522 companies(142). If the chain store data are correct, and the assumption of 3,234 stores in 2 or 3-store companies holds, this would leave approximately 33,487 independent, proprietor-owned, single units in 1983. Another prediction was suggested in the June issue, 1984, of Drug Topics: "Currently there are 32,000 independent pharmacies in the country, down from 50,000 in 1965. According to A. C. Nielsen Co. projections, the number will further contract to 20,000 by 1992, for a 40% drop, notes DeNicola. 'It's my opinion that those remaining 20,000 will be fully computerized, well merchandized and all in a co-op of some kind'"(143).

The 1983 census of pharmacists and pharmacies by the National Association of Boards of Pharmacy(144) indicates that 73 percent of the nation's 164,349 pharmacists were employed in 61,266 pharmacies. If approximately 7,500 of these were hospital pharmacies, there were 53,766 community pharmacies which employed 121,000 pharmacists, or slightly over two pharmacists in each unit. This would suggest a net of 37,797 non-chain pharmacies of which approximately 34,563 were single-unit operations, which hardly indicates a demise of the independent structure of pharmacy practice in the near future. In fact, an analysis of these changes in numbers with diminishing outlets and sales volume indicates a safe prediction that independent pharmacies will be viable systems for the next 100 years.

Halperin has suggested that today's 232 million people in the United States will beget 309 million by the year 2050; that those eleven percent over age 65 will increase to 21.7 percent; that the one percent over age 85 will become 5.2 percent; and that the gross national product (GNP) portion for drugs will expand to somewhere between \$31 and \$56 billion by the year 2000(145). This prediction seems to suggest the increases to be expected in multiple-unit chains, mass merchandisers, supermarket departments, hospitals and other types of institutional practice environments as population increases in numbers, sex differences and age demographics. Neither does it ignore the fact that pharmacists are and will become primarily employees rather than owners, and more employees than managers. However, it cannot take into account the potential changes in the structure of the health care system. As more pharmacies become dependent at greater than fifty percent of their volumes on the professional services of their prescription departments, the greater will be their economic dependency on controls by third-party payers, government programs which permit non-freedom of choice of providers, and the

potential professional impact of larger-scale operations in metropolitan areas as population creates more metropolitan areas and creative opportunities for competition.

The issue for education becomes one of responsibility for encouraging graduates to move in certain directions of practice which seek to preserve a system for the sake of maintaining the system, or which seek to change the professional practice to systems which maintain efficient and effective service to society. Two brief statements reflect on the entrepreneurship concept and the resulting effects of and attitudes toward management practice.

"Today I observe that the student and faculty are increasingly more concerned about survival and success in an ever more competitive market place. There is greater interest in pharmacy ownership and a fresh new spurt in making the Millis concept of a "knowledge system" into a means to make a livelihood. Pharmacists and students show new interest in free enterprise and being their own boss. There is renewed interest in pharmacy management but tempered with the innovations of the past twenty years such as more concern for organizational and interpersonal behavior. Moreover, there are countless new ways to make money from the concept of pharmacy as a knowledge system rather than a product system. Pharmacy consultants, hospice pharmacists, pharmacists in group medical practices, pharmacists developing computer software, radiopharmacists, drug information pharmacists and many other specialists have found a way to provide service and earn income from their technical knowledge."

"Since most pharmacy administration faculty are pharmacists, younger faculty tend to reflect the interests of younger pharmacists. Thus, as fewer students show an interest in owning their own pharmacies, less attention will be given in class to management topics pertinent to business ownership. On the other hand, as pharmacists continue their concentration in hospital and chain pharmacy settings, management course content will reflect the needs of pharmacists practicing in those settings. Hospital pharmacy organizations will increase their attempts to improve the quality of management taught to students and they will do so in a much more constructive manner than pharmacy organizations have done in the past. To the extent that this occurs, pharmacy management courses will become more personnel oriented and less emphasis will be given to financial topics."

It is realistic to predict that management training in pharmacy education will become directed to the operational needs of non-owner employee-managers responsible for supervision and department or store profitability but not for capital management of investment, real estate or other non-operating details. However, a manager has to administer and improve what already exists or is known about the affairs of his/her pharmacy. To be a manager of any business or service unit requires one to

think and to act as an entrepreneur and to direct or redirect available resources from inefficient to efficient uses and results. The extent to which pharmacy education can inculcate the spirit and excitement of entrepreneurship into its graduates may be the measure of its ability to generate an attitude of personal initiative and motivation to innovation and creativity of pharmacy services in the health care delivery system.

#### MANAGEMENT AND BEHAVIORAL SCIENCE

Management is the activity of getting things done through people other than the manager, or using people to accomplish organizational objectives. Administration is the activity of using or manipulating things - money, merchandise, equipment, paperwork, computers - to accomplish objectives. The extent to which administration becomes efficient depends in great measure on the application of science and technology to improve routine tasks and to provide usable information and statistical data for decision-making. The extent to which management becomes efficient depends largely on the art of directing, supervising, or influencing people.

Although management and administration are often used interchangeably, their distinctive natures are more clearly defined when considered from their scientific approaches. Management (administrative) science applies scientific methodology to solve large-scale management problems. Its primary focus is on decision-making; its substance is the data created and used by the system; its approach is the mathematical modeling of systems; and its tools are calculators and computers. Behavioral science applies scientific methodology to solve the human problems of management. Its primary focus is on the understanding and creation of performance by people; its substance is the nature of environment and conditions which affect them; its approach is the modeling of competent or incompetent, desirable or undesirable activities; and its tools are facts and subjective perceptions of the human condition.

Historically, commercial pharmacy, pharmaceutical economics and early pharmacy administration evolved from a management science base of operating a corner drug store. For this reason alone, pharmacy management was cast in an image of the economic and administrative activities of pharmacy operations which have since been referred to as "traditional pharmacy administration." Little real emphasis was placed on people factors, or human relations, simply because this was not a popular area of concern until the 1940's, and the smallness of the "mama-papa drug store" did not create major human relations problems. It was not until the 1950's that the behavioral science approach to management became a popular issue with its analysis of human behavior in organizations of all sizes and structures.

A consideration of the elements of human relations has been included in pharmacy administration instruction on managing people since the 1950's. These elements attracted greater interest in the 1960's as emphasis on consumer psychology, or consumer behavior patterns, were popular research thrusts. Recent years have brought the behavioral

science-human relations aspects into increased use, stature and specialized personnel to create what will become more than what is involved in conventional management instruction.

The future concepts and evolution of management in its several images, ideologies, and approaches is subject to much debate. Some concerns and personal attitudes are noted in these predictive statements.

"Based upon increased involvement of pharmacy practitioners and increased emphasis in the fiscal considerations of government sponsored health care programs (including DRG's), and less federal spending for innovative educational programs, I believe that we will see an increased emphasis in the administrative science component with the behavioral and social science components being maintained at approximately the current level."

"We sincerely hope that pharmacy administration will always retain an image which is associated with the disciplines of accounting, management, marketing, and law. These disciplines are the basis upon which all the people-oriented, non-product-oriented offerings have been, are, and will continue to be built. However, we see pharmacy administration moving into new areas, including social and behavioral sciences."

"The action of professors at the AACP level to slow the Pharm.D. stampede a few years ago also tended to diminish the thrust of behavioral science as the panacea for pharmacy administration growth and development. Recent clamor by national associations to get back to the basic emphasis of management may also have some direct effect on the direction of future growth."

"I believe a solid marriage of the substantive values of management, economics and behavioral science as the subject matter of pharmacy administration is and will be necessary for the real growth and development as a discipline recognized by the ACPE, AACP, and schools of pharmacy faculties."

"I do not believe the statement that pharmacy administration has shifted from marketing to health care and social/behavioral sciences is totally correct. I see the social/behavioral sciences in health care delivery areas as more of an expansion of our interests. Our program still emphasizes, particularly at the graduate level, marketing, management, and finance. At the undergraduate level, we have less marketing principles, but are still heavily oriented toward accounting, management, and finance. The marketing we teach is more related to practice problems than the manufacturing industry. I strongly believe it should be this way. We also teach topics in social/behavioral sciences and health care delivery. But, we try to deal with business problems in all practice environments:

hospital, retail, and long-term care. We purposely draw on examples in all types of practices and our cases and exercises reinforce and need for management/marketing/financial skills in each of these environments."

"First, I believe pharmaceutical education is missing the mark if it expects pharmacy administration to carry the entire communication skills, patient-oriented load. To the greatest extent possible, these should be incorporated into all portions of the pharmacy curriculum. Our greatest need is additional instruction in management. In the past, and to some extent today, when a curriculum has one or even two required management courses, they deal solely with "problems of retail pharmacy operations." To maximize their value to students and to merit greater recognition and demand, such courses should cover basic management principles with frequent examples of their application to pharmacy regardless of one's practice site. More specialized management courses should be offered as electives."

"Pharmacy Administration, although described as management and marketing oriented originally, has also been seen as changing direction towards social and behavioral sciences, patient-orientation, and the "clinical" concept, but there is a common thread to these apparently divergent conceptual thrusts. Pharmacy Administration has always been an applied field. The original theoretical background was economics. Management and marketing draw their roots from economics (marketing is applied economics), from psychology and sociology (marketing is concerned with psychological theories of consumer buying behavior; management with theories of personnel and organizational behavior and so forth). In brief, behavioral sciences will continue to provide the basic background in the field."

"Pharmacy Administration has demonstrated a strong and steady growth curve over the past 25 years. The area has reacted with reasonable swiftness to changes in the practice of pharmacy to meet the needs of its future and current practitioners and the public. In the last 10 years, the social and behavioral sciences (SBS) have taken their place next to the more traditional management/marketing/jurisprudence sciences. I believe that the SBS offerings in Schools of Pharmacy will continue to be expanded in the next 10-15 years, albeit at a slower pace than recently. I suspect that much of this additional growth will not involve "new courses" as such but rather SBS concepts will become more fully integrated into clinical coursework taken by students. There will be a substantial number of SBS applications during clinical clerkship rotations as the numerous, recently developed, Pharm.D. programs mature."

"Responding specifically to our interest in teaching and research I believe most curriculum enrichment addressing the effectiveness of pharmacists as practitioners will be enhanced or developed by this discipline. The immediate future will witness a return to the more traditional interest in administration and management, applicable to institutional as well as retail pharmacy practice. We should avoid limiting our attention to the microeconomics of independent retail pharmacy."

"During the past 10 to 15 years Pharmacy Administration went through an evolutionary growth stage in which the human component was recognized to be as important as the product component in pharmacy care. Now that this more comprehensive orientation to pharmacy service has been established, future emphasis in the discipline will be on management. This emphasis will occur because the acquisition of management skills enables the pharmacist to effectively coordinate all of the factors impinging upon practice and to provide pharmacy services in the most efficient and effective manner possible. Particular areas in which this emphasis will be directed will be the management of patients, finances, information, human resources, drug delivery systems and pharmacy practice settings."

"Pharmacy Administration will continue to broaden its base as persons with varying interests and expertise come into our discipline. However, the essential core will remain administrative skills, while shifting slightly toward skills needed for managers. Of primary importance will be behavioral aspects of dealing with personnel and managing professional practice environments."

"The problem, thus, has been the misunderstanding of what administrative sciences really consist of rather than what administrative sciences can really do. I honestly believe that many of the problems faced by the profession of pharmacy in particular and the pharmaceutical industry in general in the next decade will be in the arena of pharmaceutical administration. The problem, as I see it, is that we have very few people well trained and well qualified to handle the major administrative problems that will be facing us in the future."

"Although an emphasis may shift over time and at various institutions, I believe the discipline will continue to recognize the need for pharmacy management (distribution - product) and patient management (consultation - people). The competitive environment is expected to force a reevaluation of distribution systems with a greater emphasis on voluntary and cooperative chains. All segments of the channel will place a greater emphasis on management and the need for related expertise, including specialists."

## GRADUATE EDUCATION

The major thrust of graduate study has been related to managerial economics to produce teachers who could teach what practicing pharmacists needed to know to manage pharmacies. The development of behavioral science specialties has been important, but at first it was a related or minor area, and its resource was the social science faculty. The first recorded social science effort in pharmacy was completed by Charles L. Braucher. With a degree in pharmacy from the Philadelphia College of Pharmacy and Science in 1947 and a Master of Arts in Sociology from the University of Nebraska in 1949, Braucher entered Purdue University in 1960 where he completed the Ph.D. with a study of "Academic and Other Factors Related to Success in Retail Pharmacy Management" in 1963. Those who have followed have taken the leadership to add pharmacy viewpoints tempered by behavioral science knowledge to create instruction within school of pharmacy programs to begin a more specialized approach to solve pharmacy problems.

In some instances certain schools are developing programs which emphasize specialized expertise rather than maintain a general program which seeks to have a "jack-of-all-trades but master-of-none" (or master-of-all) approach. This conflict of objectives at the graduate level was cited pointedly in comments by some professors. Also expressed was the prediction that programs for off-campus study for the master's degree would become increasingly important and necessary for the advancement of pharmacy practice and improvement in the management of pharmacy systems.

Perhaps the strength of graduate development in the future will relate to the diversity rather than homogeneity of programs among the schools which offer graduate education. Unless the quantity of undergraduate courses can be increased to provide greater understanding of the discipline and greater motivation of students to pursue graduate studies in it, there is little likelihood that significant increases in numbers will occur to provide the human resources for expansion of programs, increases in faculty numbers, and the development of more programs or additional specialty areas. With the basic approaches related to management science and behavioral science as the nucleus of study, it is possible to branch out into several areas, as suggested by the following commentaries.

"At the undergraduate level we will have to become involved in the real world of practice in order to show how principles and theories can be used to solve practical problems in pharmacy and in the health care system. At the graduate level we will have to improve on the quality of research to develop and apply new principles and theories as the economic, behavioral, social and managerial aspects of pharmacy practice and health care systems change. And because doing this across-the-board is too great a task for any single school to do well, it will be necessary for individual schools to specialize in research and graduate teaching interests to take advantage of faculty

strengths and to develop a critical mass of students and faculty."

"My personal and probably unrepresentative view of pharmacy administration is one which categorizes the discipline into two subgroups. The "classical" pharmacy administration is marketing management-oriented and openly directed toward profit maximization in retail pharmacy or industry activities. I hold no negativism toward this view; it simply is one which does not excite me. The ability to perform a financial analysis, construct a cash-flow statement, perform a burden-rate analysis or explain Vroom's expectancy theory are important skills which should remain in the "core" of pharmacy administration graduate programs. I believe, though, that these skills will increasingly be seen as valuable not for marketing management applications, but for evaluation of public policy. The same skills mentioned above are essential for evaluating drug product selection legislation, Maximum Allowable Cost (MAC) regulations, drug utilization review programs, automated information systems, and other mechanisms of quality and cost control in drugs. Additional skills in epidemiology, health services research, quantitative methods, medical sociology, and related disciplines will be necessary in this public policy arena of pharmacy administration. It is my hope that these two "species" of pharmacy administration can coexist and be mutually supportive. I am concerned that our discipline, which is already too small to provide a critical mass, will divide into two even smaller groups. Such a division would be destructive to both traditional and nontraditional pharmacy administration."

"Over the next 20 years there will be a steady, but not overwhelming, demand for the development of Ph.D.'s in the broad area of Pharmacy Administration. There will be substantially more demand for specialized M.S. programs. Many of these specialized programs will be cooperative ventures with schools of management, law, public policy, or departments of medical sociology or computer science. Since few pharmacy schools have the resources to offer the broad range of Pharmacy Administration programs demanded, the development of these cooperative programs will be absolutely necessary if a school is to present a quality graduate program. Specialized training will be provided for such jobs as: administrators of pharmacy consultant practice groups, managers of large pharmacy data base systems, interprofessional liaison directors, and managers of pharmaceutical service delivery--in large hospital outpatient departments and home health care practices. The demand for management training for chain and hospital positions will continue its steady growth while independent retail managers will also seek Pharmacy Administration related skills that allow them to maintain their position in the ever increasingly competitive marketplace. Within 20 years, training for individuals in these practice areas will be provided externally

to the campus setting utilizing various applications of our developing computer and telecommunications technologies."

"Who will our clientele be? While our primary efforts will continue to be devoted toward undergraduate students, a growing segment of our market could well be pharmacists responding to the development of external degree programs across the country. There likely will be a returning interest in graduate programs in hospital pharmacy administration as pharmacists with the Pharm.D. degree find their academic background no longer is unique and that they must attain a higher level degree to distinguish themselves from the masses. However, it will be important for these M.S. programs to be broader in scope than traditional programs have been or else pharmacists will opt for master's degrees in areas like hospital administration or public health."

"Pharmacy Administration in the years ahead will direct more course offerings to the graduate pharmacist market, but not necessarily in the form of M.S. or Ph.D. credit hours. Perhaps these courses will be directed toward professional degree programs such as the Pharm.D. degree. A portion of this market will require courses which allow them to successfully function in a corporate or chain environment."

#### RESEARCH AND DEVELOPMENT

It is apparent that as the discipline becomes more capable of addressing people problems as they affect all phases of pharmacy involvement in society and within itself, research would tend to increase in scientific value, areas of coverage, and quantity. It would seem that the thrust of the research would solve real problems to advance the practice of pharmacy as a social service profession whose social goal is to control the acquisition and distribution of drugs and drug knowledge in the health care system. Although the content of research will expand, there seems to be no intent to eliminate the traditional, historical objectives related to managerial economics, pharmacy operations and marketing. There also is a possibility that certain schools will become identified as specialty centers for specific research interests.

Joseph D. McEvilla noted some of these changes during the Teachers' Seminar in 1974: "Until the concept of 'clinical pharmacy' emerged, pharmacy administration was the only area of pharmaceutical education which even considered the prescription drug patient (customer) as a human being with all the fears, hopes, and concerns associated with being ill or loving someone who is ill. In the last few years pharmacy administration has indeed expanded its horizons. We are now looking to greater involvement in health care delivery, research in the development of HMO's, and examining all facets of pharmaceutical service which will provide improved care"(146).

Other comments from respondents indicate the diversity of opinion within some areas of general agreement on future research activity.

"Through the involvement with the world of practice to support undergraduate teaching needs, pharmacy administration will expand or evolve into a major effort of clinical research related to people as patients and customers at the graduate level and may become the research resource for patient-oriented practice problems for general and clinical pharmacy practice in addition to the managerial-economics, administrative management role it serves now and will continue to serve as a major activity."

"Research efforts will continue to be aimed at classical questions of economic behavior and efficiency within multiple channels of distribution for pharmaceuticals and pharmaceutical service, with particular emphasis on managing and financing these functions. More attention will be given to the study of cost benefit and cost effectiveness of pharmaceutical service within a myriad of delivery models."

"I think that research in the Pharmacy Administration area over the next few years will tend toward large scale, multicenter and multidisciplinary projects. Cost-benefit and cost-effectiveness analysis research will be of particular importance. Many of these kinds of projects will involve working with large computer data bases and will employ computerized data collection techniques."

"The research function of Pharmacy Administration will be dramatically influenced by advancing data collecting and analysis technologies. The focus of Pharmacy Administration will need to be responsive to available funding which will, indirectly, direct the focus of these efforts. The "basics" of the discipline are scholarly pursuit and scientific methodology. The focus of these "basics" is less important than the level of excellence, intellectual intensity and scientific integrity of our work."

"Much of the early work in pharmacy administration was, appropriately, descriptive. As the field matures, it will tend to turn away from the purely descriptive and the self-serving seeking of justifications for pharmacy role concern, to theory development and theory testing. To provide but one over-used example: compliance studies. Although thousands exist (and in a number of disciplines), little underlying attention has been given to the central question of people's motivations to use drugs, and how the patient or consumer uses drugs. Rather, the pharmacy literature in particular seems to have been concerned with the question of whether pharmacist intervention can improve compliance and the question of the degree to which non-compliance exists. As backgrounds in social and behavioral

science improve, the central question should shift to development of, and testing of, a model of consumer drug use. This can then be applied to marketing strategies and/or pharmacist role concerns. This scenario, of course, implies a scientific background which can be put to use to basic questions which have relevance to applied (i.e. practical) problems. In short, the field will develop its own body of knowledge, rather than merely the applications of knowledge."

"Pharmacy Administration faculty will have to justify their involvement in patient behavior topics through research as clinical faculty will gradually include this area in their teaching, particularly as Pharm.D. degree programs continue to grow and clinical faculty search for subject matter to justify teaching loads. In fact, if there is one "warning flag" in the future, it is that Pharm.D. program administrators may decide they can get along without involvement from Pharmacy Administration and that could set our discipline back to where we were ten to 20 years ago. Those Pharmacy Administration faculty who have voiced attitudes that pharmacy education could do with less emphasis on clinical may have "burned a bridge" because as Pharm.D. programs grow, people administering them will continue to gain influence and authority. However, if Pharmacy Administration concentrates on conducting sound research that seeks to demonstrate a valuable role for clinical pharmacists in our health care system, we will solidify our position as a contributing element of pharmacy education."

#### GENERAL FOCUS OF CHANGE

The various areas of study, research interests, and individual and collective attitudes provide a general focus on the direction pharmacy administration may take in the near or distant future. Some of these focal determinants are well expressed by excerpts from respondents' comments.

"There is little doubt that especially over the last decade we have seen a movement away from teaching product-oriented marketing and management skills by introducing and nurturing the concepts of patient-oriented knowledge and information. But as the pendulum seems to swing in all disciplines of higher education, we can expect not a reversal but perhaps a renewed interest in product-oriented educational and research activities by those in Pharmacy Administration."

"It appears that we are phasing through a cycle where no longer are we emphasizing (as much) the provision of a product but instead we are emphasizing the provision of knowledge to the patient about his/her drug therapy and any related information. We have seemingly redefined some of our educational, research, and even public service goals to fill several identifiable gaps in the health care delivery system. Pharmacy Administration

didn't need Dr. John Millis to tell us that pharmacy exists as primarily a knowledge system - we had been trying to convince our colleagues of that for years. It was perhaps recognition of this that led some educators and researchers to increase the emphasis on the behavioral sciences and on disciplines such as macro-economics and more specialized fields such as communications."

"It appears that although the pendulum may not have begun its swing back towards the more traditional Pharmacy Administration skills and knowledge, it seems to have lost its forward momentum - at least for awhile. This should allow new leaders and thinkers in Pharmacy Administration to chart a future course for the discipline which will integrate marketing, management and micro-economic knowledge with the behavioral sciences to produce a more efficient and perhaps economical drug delivery system. This delivery system will place an equal amount of emphasis on the product (pharmacy's historical reason for existence) and on the patient in assuring that the appropriate therapy is instituted efficiently and economically and that the patient remains compliant with the prescribed therapy."

"Pharmacy administration will continue to focus on the traditional aspects of drug distribution in society, while evolving a broader focus to include diverse practice models, new technology, and the efficient delivery of pharmaceutical service under a variety of financing arrangements.....More emphasis will be placed on fully integrating the pharmacist into the health care system and developing administrative specialties within the undergraduate curriculum."

"The future of pharmacy administration during the next 25 years lies in examining and predicting trends in the health care delivery system and most importantly, in interpreting changes and patterns. It is likely that we will gain importance as we are able to assist our colleagues in dealing with the behavioral aspects of compliance, the use of placebos, the ramifications involved in dealing with terminal illness and therapeutic intervention strategies which might be able to assist in encouraging patients to seek appropriate providers of care, to improve their nutrition or otherwise, overall health care. Pharmacists, guided by researchers and educators in pharmacy administration should be able to lead the way for pharmacy into the fertile area of wellness, prevention, and health education. The more quantitatively-oriented practitioner should be able to provide assistance with cost-benefit and cost-effectiveness studies for the increasingly important accountability which will be required as the federal government pays for more and more services and requires proof that it is receiving fair value for its expenditures. It is likely that the recommendations of the Millis Commission can be aided by pharmacy administration

whereby research methodology into health care organization in the pharmaceutical sector and clinical research can be tied to clinical practice of pharmacy. Perhaps the linking of the loop for these so-called, knowledge systems can be pioneered and led by persons within the area of pharmacy administration."

"To assist the profession's growth in the 'total pharmacy care concept', pharmacy administration will direct its efforts to health promotion and illness prevention education and seek ways to expand pharmacy services beyond traditional pharmacy practice settings. Particular emphasis will be directed toward the home, the school and the workplace. New topics that will be introduced in our teaching, and research will be life style analysis, health level assessment, risk factor reduction, health behavior and drug-taking modification, counseling, interprofessional role negotiation and the evaluation of the cost effectiveness of health promotion and illness prevention efforts. These efforts will complement the current trend in this country in which healthful living and self-care activities are becoming increasingly popular and are being recognized as activities which hold promise for the future control of health care costs and the improvement in the health status of our citizenry."

"As for the future, I see the business disciplines, social/behavioral sciences, and health care systems all having an important place in the professional programs. Students need to understand the health care delivery system in which they will be working and methods to influence change. They also need to understand the social aspects of dealing with individuals, particularly sick individuals, and how to communicate more effectively. In the business skills area, I see the movement more toward pharmacists as employees rather than entrepreneurs. This greatly impacts the need for more personnel management topics. I believe the behavioral aspects of management will become of primary importance, but the basic accounting, budgeting, financial management, etc. will still retain an important role. The focus will be more on the manager's perspective rather than the owner's. Moreover, the perspective must include all practice environments. For example, I see the day that we will minimize the topic of financial accounting and spend most of our time dealing with managerial accounting topics."

"The last ten years have seen pharmacy administration broaden its knowledge base into areas such as aspects of patient behavior during illness, pharmacy as a component of a health delivery system, and reimbursement in third-party prescription drug programs. These changes in focus occurred as a result of changes in the health care marketplace and if pharmacy administration faculty practice good marketing in the coming years, we will continually alter our emphasis to reflect the

needs and wants of our clientele."

"The early 'orientations' of the discipline are similar to specialty interests of the other pharmaceutical sciences. Our discipline, relatively young and including a small number of scientists, has become consumed by specialty interest which has projected the impression that its scientists are without sustained focus, responding to contemporary intellectual fads and, at times, superficial. The next 10, 15 or 20 years will witness the maturation of our discipline. This maturation will reflect the insights and leadership of the pioneer pharmacy administration scholars of the 1950s and 1960s. That which we now characterize as shifting orientations will be welcomed as additional opportunities of intellectual application. However, our matured discipline will not witness the en masse attention toward new orientations. Sustained, intellectual attention to specialty areas by a subset of our scientists will intensify our theoretical understanding and enhance the stature of the discipline."

"A final thought is that we must move closer to the profession of pharmacy and its body of knowledge and practice skills. Regardless of what view of pharmacy administration we hold, the first requisite is that we have an in-depth understanding of pharmacy and health care. I believe we should interact much more closely with our clinical colleagues, participate in externship programs, and even maintain a practice component in our lives. Perhaps we will need to plug-in at student health service pharmacies or outpatient hospital clinics, but in some way we need to make the connection with professional practice as pharmacists. Then our access to patient care information, research problems, practice settings, and other health professionals will become a valuable resource which, at the present time, is largely untapped."

"It is likely that pharmacy administration will have a bright future and will become even more centrally involved in the sociopolitical and socioeconomic arenas within the profession. It is likely that future leaders within the profession may well come from this area since this is one of the few, if not the only discipline, within the pharmaceutical sciences where persons are trained to deal with environmental, political, historical, and other factors facing the future of the profession."

"Probably, the time is here to come to grips with the fact of the need of training excellent people in a variety of areas within the discipline of pharmaceutical administration. Maybe some universities will specialize and develop centers of excellence in social behavioral sciences or in general health care administration. However, our Division has specialized in the area of the application of administrative sciences to

pharmacy. Our focus has been, and will be in the near future, on decision-making and problem-solving in our field at the micro as well as the macro level."

#### SUMMARY OF FUTURE STATEMENTS

In 1974, Dr. McEvilla closed his reactory remarks with this prophetic statement: "Pharmacy administration has a multifaceted future. We must not completely divorce ourselves from the economic facts of life. Pharmacy, if it is to remain an independent, viable member of the health professions, must continue to stand alone economically and not become a profession of only employees. Pharmacists properly trained and properly educated can make a significant contribution to improving the manner in which health care is presently being delivered to the worried well, the walking sick, and the sick of this country. We are going through a period of changing times; a time when the catholicism of medicine - the infallibility of the physician is being seriously questioned. Certainly, pharmacists with their background in the basic health sciences and their continued development in a meaningful clinical role will be ready to provide answers to many questions regarding health insurance, third party programs, and pharmacy's role in a variety of future health care delivery systems(147)."

From all of these comments and other numerous published papers and statements, it is possible to develop a general statement about the future of pharmacy administration that represents what is, and what will be, based on historical values, and what probably will be, based on the challenge of change as perceived by educators and practitioners.

**MARKETING.** Marketing will maintain a minor role in the curriculum as a separate course devoted to distributive processes. It probably will become integrated into the broader prerequisite course content of general coverage of the health care industry. The greater the extent to which a curriculum satisfies total clinical goals, the lesser importance marketing wil have as required course content to achieve these goals.

The principles, concepts, and strategies of marketing will increase in importance to all organizations and practitioners in pharmacy, including pharmacy education (see 1983 Argus Commission Report), as health care providers and resources become more competitive in the market place of health care services and delivery systems.

The predicted minority role of marketing in pharmacy education and the suggested increase in need and importance to pharmacy education and pharmacy in general presents a specific problem which must be addressed by all agents in pharmacy. A profession which cannot market its skills and knowledge, its products and services, and its people in the health care system will lack the ability to survive among competitive health care providers.

APhA's Samuel Kalman recently admonished that "Large investor-owned 'megglomerates' such as Hospital Corporation of American and Humana now own, manage, or operate hundreds of hospitals and nursing homes. They are also moving into new markets, such as neighborhood emergency care and satellite centers....These new, giant corporations have learned the power of marketing in health care...pharmacists are already being bypassed in some of the newer forms of health care delivery. Therefore the shape of pharmacy practice, in both the near and distant future, will in a real way be determined by how skillfully pharmacists size up the situations that threaten their turf and then do something about them....Pharmacists must determine through marketing techniques the exact nature of the business they are in. And there is no better time than now for 'over-educated' pharmacists to put their 'underutilized' capabilities to work in this endeavor"(148).

**ENTREPRENEURSHIP.** Because the practice of pharmacy will continue to grow as an employee-oriented occupation, there will be a great need to emphasize the role of entrepreneurship to encourage and maintain proprietorship as a viable personal goal for pharmacy practitioners and for the control of non-institutional practice environments by pharmacists.

The continuing need for pharmacy services in locations not adaptable to large-volume, chain-type pharmacies will require the educational resources to train pharmacy graduates to assume the ownership and management of independent prescription-oriented pharmacies.

The general increase in chain-type pharmacies, and their need for pharmacists who are qualified and interested in prescription department and store management, will support the need for continued emphasis on entrepreneurship attitudes, skills and competence in managerial economics and leadership abilities.

**MANAGEMENT.** As long as pharmacy is practiced with drug products to be sold and services to be rendered for money payment, it will be necessary for pharmacy graduates to learn the facts and principles of the economics and administration of various practice environments.

Almost all graduates begin their careers as employees; therefore, required management courses will of necessity concentrate their human relations instruction on problems of subordinates being managed as well as managers being supervisors.

It will be necessary to develop a set of elective courses to satisfy the special needs of management instruction for differentiated roles common to pharmacy's practice environments.

**BEHAVIORAL SCIENCES.** Because the problems of dealing with people as employees, managers, colleagues, customers, patients, individuals, groups, and other professionals will increase in importance to graduates in all practice activities, social and behavioral science courses will increase in number and importance as instruction in pharmacy administration subject matter.

There will be a greater degree of integration of behavioral science and clinical pharmacy activities, research and instruction as the management of patient and consumer health affairs becomes the responsibility of pharmacy practitioners.

Behavioral science faculty will develop the area of health care services as a necessary base of the understanding of pharmacy's role in the health care system.

**GRADUATE EDUCATION.** Graduate recruitment will be affected directly by factors which affect all graduate recruitment in pharmacy. In addition, it will be affected by the amount of exposure to undergraduate education in pharmacy-administration-type courses, and especially the quantity and quality of required instruction.

The core of graduate development will continue to be the traditional elements of the economic, administrative and behavioral sciences as they relate to the need to develop teachers for service at the undergraduate level.

Individual schools will develop specialty programs, in addition to the traditional elements, to attract a critical mass of students and faculty to support program content, quality and credibility.

Off-campus, external-degree programs will become a major effort in graduate development as an extension of pharmacists' desire to improve their role in practice, administrative, and supervisory activities. These programs will grow to become larger in numbers than the on-campus programs in pharmacy administration.

**RESEARCH AND DEVELOPMENT.** Research efforts will continue to address problems related to the economic and human behavior of pharmacy systems, with special emphasis on factors which affect the management of these systems.

It will be necessary for research efforts to establish the scientific validity of the discipline by considering theory development and testing in the development of a body of knowledge peculiar to pharmacy administration as a discipline rather than applications of knowledge from other disciplines.

There will be a great need to integrate the research interests of clinical pharmacy practice into the behavioral science area as these areas seek to define patient behavior and the management of drug therapy in institutional and ambulatory health care situations.

**GENERAL FOCUS OF CHANGE.** There is general agreement that pharmacy administration will continue to develop and apply the administrative and behavioral science and legal principles as its primary and complementary areas of teaching and research.

There will be a gradual but definite return to an interest in

marketing as it affects the overall distribution, access, use and abuse of the health care system in general, pharmaceutical products and services in particular, and education's service role to industry and the profession.

Pharmacy education will recognize its responsibility to train pharmacists for specialty areas by developing curriculum tracks to satisfy the needs of differentiated practice roles. Pharmacy administration will have a significant influence on the development of curriculums for community and institutional pharmacy practice.

Pharmacy administration will extend and expand its historical interest and involvement with consumer behavior to include aspects of the human conditions, concerns, and behavior during periods of patient illness, convalescence and wellness. To accomplish this goal, it will become more involved with the profession and practice skills and the development of clinical services in the health care marketplace.

"Idealism is a characteristic of youth, the scientific training for the practice of pharmacy is in the hands of the teaching institutions, but the conditions under which the drug store operates is the responsibility of the retail druggist."

Rufus A. Lyman, Am. J. Pharm. Educ., 3, 125 (1939).

"A student of pharmacy today is planning to become a professional man in every sense of the word. If he fails to become a professional man, it is a reflection of the fact that the faculty which taught him failed to impress on him sufficiently the ultimate goal of his education."

Morris Fishbein, Am. J. Pharm. Educ., 5, 465 (1941).

"Graduates of the new four-year curriculum emerged with great expectations in search of the professional opportunities and health service environments conjured up for them in schools and colleges. What they found instead, was a dizzying wonderland of hostile competition and marginal professional opportunity - a world in which they were insultingly referred to as 'clerks'."

L. Wait Rising, Am. J. Pharm. Educ., 8, 93 (1944).

## EPILOGUE

Although Pharmacy Administration may be defined several ways and in many different terms, the discipline is in reality a composite of people with individual convictions, ideals and the talents to bring a definition to that reality. The future, therefore, can be made manifest in the past. The discipline, its concepts, philosophy and acceptance has been very cyclical in its life span, riding the waves of popularity as well as struggling for its existence to acquire a niche in the bedrock of the pharmacy curriculum. Pharmacy Administration has specialized to become acclimated to or in some cases to survive the changing pharmacy profession. The future looks bright for the discipline in relation to the job to be done. The issues of health care costs in the 1980's, and well into the 21st century, will provide pharmacy administration personnel with a myriad of marketing, management and economic challenges. In the 1990's and beyond as the "Graying of America" progresses from a rhetorical forecast to a reality, the discipline will again be challenged to provide marketing, management and economic solutions to drug issues.

It is apparent that Pharmacy Administration will have many issues to resolve, but perhaps the most important one will be of self-perpetuation. The discipline seems to have paralleled the growth of specialization in medical and other fields, relegating the generalist to a position of less esteem and subsequently creating a void - at least in the perceptions of some observers. This void in the 1980's is being filled in part by non-traditional, non-academic resources. The future of the discipline will be a reflection of the present body of individuals who have assumed the responsibility for perpetuating the future in the academic development of its teaching and research personnel.

When the addendum to this historical account is written, the authors, with access to technology and resources which are yet to be imagined and conceived will through instant historical retrieval recognize that the questions of the future are the same as the present and the past. It is always the hope and aspiration of the historian that future composites of individuals representing the discipline will use this historical review to continue in the footsteps of the pioneers and those who followed, using their own convictions, ideals and talents to maintain Pharmacy Administration as a continuing, self-renewed discipline which looks always to the potential of the future without sacrificing or ignoring the challenges, problems or realities of the day which will determine that future.

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"New dimensions for management education suggest that we must recognize pharmacy as a total system of integrated subsystems organized to achieve a common goal and populated primarily by knowledge workers who respond to social and behavioral patterns as people. We must seek both pharmacy and non-pharmacy-educated personnel for the development of managerial minds which can use management science tools, matter-over-mind information systems, and human judgement to fulfill a commitment to the life and growth of pharmacy and its agencies and institutions."

Robert V. Evanson, Am. J. Pharm. Educ., 34, 819 (1970).

"The social sciences in pharmacy program has been created to meet a need for persons capable of dealing in a sophisticated way with the social aspects of pharmacy. It can be argued, as it can for all applied pharmaceutical disciplines, that it would be better to take basic sociologists, basic psychologists, basic political scientists, and interest them in the problems of the field. There is little question that persons like this could bring more sheer knowledge of the basic fields to bear on a specific problem, but it is doubtful whether a continued interest in problems vital to us as pharmacists could be created. Therefore, it seems necessary to develop a hybrid: a person who knows pharmacy, who knows the substance of one or more social science fields, who knows methodology, and who is able to identify problems, marshal forces, and talents from other fields, and help to make significant progress toward resolving some of the issues which are being thrust upon us by social change."

David A. Knapp, Am. J. Pharm. Educ., 34, 806 (1970).

## APPENDIX II ROSTER OF AFPE GRADUATE FELLOWS

The American Foundation for Pharmaceutical Education (AFPE) has had a significant role in the encouragement and support of graduate education in all of pharmacy's academic disciplines. When graduate education in pharmacy administration was begun, it was included in the grant program for student support with regular AFPE Fellowship grants. Under the leadership of Dr. W. Paul Briggs, a former Dean at George Washington University in Washington, D.C., a special Teaching Fellowship in Pharmacy Administration program was made available to graduate students who were actively engaged in instruction of undergraduate students in business-type schools in pharmacy schools or in schools of business which offered courses to pharmacy students, or in business schools or pharmacy schools which offered graduate education in business or pharmacy administration but the student was teaching in another institution in the general locality. This program and the persons involved in it are described in the chapter on Faculty growth and Development. The dates involved and the school where the person taught are given. This was an on-the-job training program - an academic internship - to help fill the well of need for teachers at a crucial period in the discipline's development.

Many other students received and continue to receive AFPE Fellowships under the regular grant-in-aid program. Some of these fellowships bear the name of special donors, such as the Walgreen Fellowship in Pharmacy Administration. After Dr. Brigg's retirement, Dr. Albert P. Fisher became AFPE's President and director of the grant program which continues to maintain an important role in the support of graduate students in pharmacy administration.

The following list of AFPE Fellows indicates the degree recorded after the fellowship award period, the degree date, and the school attended. The asterisk indicates the person had a Teaching Fellowship rather than a regular grant. Data for subsequent year were compiled and supplied by Dr. Fisher in support of this historical document.

### ROSTER OF GRADUATE FELLOWS OF THE AMERICAN FOUNDATION FOR PHARMACEUTICAL EDUCATION

<u>Graduate Fellow</u>	<u>Subsequent Degree Awarded</u>	<u>University of Matriculation</u>
Charles C. Rabe	M.S.	1950 Massachusetts
Robert Verne Evanson*	Ph.D.	1953 Purdue
William Shoulden Apple	Ph.D.	1954 Wisconsin
Anthony Thomas Buatti	M.B.A.	1954 New York University
Willis Franklin Dobbs*	M.B.A.	1954 Georgia
Mont H. Gutke*	M.S.	1954 Colorado
Joseph Herschel Kern	Ph.D.	1954 Ohio State
Ramona Elizabeth Parkinson	Ph.D.	1954 Ohio State
Floyd Alfred Grolle*	M.B.A.	1954 Michigan
Richard J. Hampton*	M.A.	1954 State Coll. Washington
Fred Carl Hecker	M.B.A.	1955 Wisconsin

<u>Graduate Fellow</u>	<u>Subsequent Degree Awarded</u>	<u>University of Matriculation</u>
Harold Nelson	M.B.A.	1955
Floyd A. Grolle	Ph.D.	1955
Jack Lee Cross*	M.B.A.	1956
Kaye Don Bowers	M.B.A.	1957
Esther Jane Wood Hall*	Ph.D.	1957
Donald B. Clark*	M.B.A.	1958
Isidore Greenberg*		
Margaret Brody Card	M.B.A.	1958
Gust George Koustenis*	M.B.A.	1958
Arthur C. Lytle(deceased)*	Ph.D.	1958
Edward Carl Miller	M.B.A.	1958
Harry Alcide Smith	Ph.D.	1958
Robert Warner Hammel	Ph.D.	1959
Daniel Norris Tousman	M.B.A.	1959
Richard Edward O'Neill*	M.S.	1960
Juanita Postlethwaite Horton	Ph.D.	1960
Michael David Jacoff	Ph.D.	1961
Hugh Francis Kabat*	Ph.D.	1961
James Edward Moore	M.S.	1961
Vincent Raymond Gardner*		
Richard Arthur Ohvall	Ph.D.	1962
Edward Martin Smith	M.S.	1962
Charles Landis Braucher	Ph.D.	1963
Dale William Doerr*	Ph.D.	1963
Charles Roy Harrison	M.S.	1963
William Thomas Sharp	M.S.	1963
Richard Andrew Wills	M.S.	1963
Albert F. Wojcik	Ph.D.	1963
Raymond Jack Bennett(deceased)	Ph.D.	1964
Michael S. Danian	Ph.D.	1964
Thomas Frederick Harwood	M.B.A.	1964
Richard Harvey Margolin	M.S.	1964
Cary Eugene Watkins*	Ph.D.	1964
Paul Owen Williams	Ph.D.	1964
Anthony Joseph Amadio*	M.B.A.	1965
David Allan Knapp	Ph.D.	1965
John B. Rushton	M.S.	1965
Bernard Gerard Keller	Ph.D.	1966
Maven John Myers	Ph.D.	1966
Max Polinsky	Ph.D.	1966
Malcolm Keith Weikle	Ph.D.	1966
Joseph L. Casinelli	M.S.	1967
Christopher Anthony Rodowskas	Ph.D.	1967
Jeffrey Anthony Kotzan	Ph.D.	1968
Dean Ellis Leavitt	Ph.D.	1968
Kenneth William Look	M.S.	1968
Robert Lawrence Mikeal	Ph.D.	1968
Edmund Lee Searcy	M.S.	1968
Kenneth Angelo Speranza	Ph.D.	1968

<u>Graduate Fellow</u>	<u>Subsequent Degree Awarded</u>	<u>University of Matriculation</u>
James Robert Miller	M.S.	1969 Wisconsin
Stephen John Sweeney	M.S.	1969 Minnesota
Dewey Duane Garner	Ph.D.	1970 Mississippi
Colman Morton Herman	M.S.	1970 Massachusetts
Walter James Morrison	Ph.D.	1970 Purdue
George Joseph Norwood	Ph.D.	1970 Mississippi
Bruce Ray Siecker	M.S.	1970 Purdue
Delton Clem Huffman	Ph.D.	1971 Mississippi
David Simpson Newton	Ph.D.	1971 Mississippi
Clayton Richard Rowland	Ph.D.	1971 Mississippi
Charles Patrick Tharp	Ph.D.	1971 Mississippi
Norman Ambrose Campbell	Ph.D.	1972 Wisconsin
Richard Alan Jackson	Ph.D.	1972 Mississippi
Kenneth Wilson Kirk	Ph.D.	1972 Wisconsin
William Charles McCormick	Ph.D.	1972 Wisconsin
Francis Joseph Collura	M.S.	1974 Cincinnati
David Stewart Forbes	Ph.D.	1973 Wisconsin
Arthur Alexander Nelson	Ph.D.	1973 Iowa
Robert Wesley Pollock	M.S.	1974 Rhode Island
Thomas Roberts Sharpe	Ph.D.	1973 Mississippi
Jesse Ernest Stewart	Ph.D.	1973 Minnesota
Carl Ernest Trinca	M.S.	1974 Arizona
Kenneth Boyett Roberts	Ph.D.	1975 Mississippi
Lon Norman Larson	M.S.	1976 Mississippi
Robert Sheldon Beardsley	Ph.D.	1977 Minnesota
Larry Dale Grieshaber	Ph.D.	1977 Purdue
Paul Lucien Ranelli	M.S.	1977 Wayne State/Wisconsin
Paul Arthur Holberg	Ph.D.	1978 Wisconsin
Jesse Lyle Bootman	Ph.D.	1978 Minnesota
William Frederick McGhan	Ph.D.	1978 Minnesota
Michael Ira Smith	Ph.D.	1978 Minnesota
Charles Edward Daniels	Ph.D.	1981 Minnesota
Zack Thomas Grapes	Ph.D.	1981 Mississippi
Donald Charles Stark	Ph.D.	1981 Minnesota
Linda M. Strand	Ph.D.	1981 Minnesota
Alan Paul Wolfgang	Ph.D.	1983 Texas
Jane T. Oesterhouse	M.S.	1983 N. Carolina
Stephen W. Schondelmeyer	Ph.D.	1984 Ohio State
Jean M. Bouchard	Ph.D.	1985 Texas
Jon T. Stone	Ph.D.	1985 Purdue

### APPENDIX III GENERAL BIBLIOGRAPHY OF PUBLICATIONS

This list of publications offers as complete a documentation of the scholarly efforts of faculty members dedicated to a concern for pharmacy administration instruction as denoted by its several historical and contemporary designations. Early efforts prior to 1925 were published primarily in the Journal of American Pharmaceutical Association beginning with Volume 1, 1912. Faculty members were prominent in the A.Ph.A. Section on Education and Conference of Teachers unit which included College of Pharmacy personnel meeting outside the framework of the American Council of Pharmaceutical Faculties (A.C.P.F.).

Many papers cited in the Proceedings of the A.C.P.F. prior to 1936 were published in an abstract of discussion format. However, some of these were repeated in or read by title in the A.Ph.A. sections for publication purposes. Where these or other related works were noted, they have been included as a matter of record.

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Alfred North Whitehead

"I believe colleges and universities could turn out a person better equipped to assume greater responsibilities faster if they left to business a greater part of the specialized training.. I think what business needs from our colleges and universities are men and women with a sound foundation on which detailed instruction on the job can be built - that greater emphasis be given to the theory of mathematics or physics or chemistry or economics rather than to its application - that students be taught 'what' and 'why' rather than 'how.' The industry with which the graduate becomes associated will have the job anyway of providing the specialized knowledge.... Industry functions through people, and an understanding of people and their motivations is essential to acquire success in business."

Wilfred D. Gillen (President of Bell Telephone of Pa.)  
Newsweek (March 18, 1957).

