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DATA ON NATIONAL HEALTH RESOURCES

Pharmacy Manpower

United States - 1966

Statistics on the geographic location, age, sex, education, place and type of principal activity, and source of remuneration of registered pharmacists in the United States. Based on data collected by the National Association of Boards of Pharmacy in cooperation with the National Center for Health Statistics through the State licensing boards of pharmacy in the 50 States and the District of Columbia during the period from October 1965 through March 1968.

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PREFACE

This report is one of a series on health manpower and facilities published by the National Center for Health Statistics. The series is intended to provide information useful to persons and organizations concerned with the provision of health services. Statistics in this report are based on a survey of pharmacists conducted by the National Association of Boards of Pharmacy, in cooperation with the Health Manpower Statistics Branch, Division of Health Resources Statistics.

Appreciation and thanks for their participation and assistance in conducting and processing this survey are extended to Mr. Fred T. Mahaffey, Executive Director of the National Association of Boards of Pharmacy, and to Mrs. Maryland Y. Pennell, former chief of the Health Manpower Statistics Branch, Division of Health Resources Statistics.

SYMBOLS

Data not available	---
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CONTENTS

IN THIS REPORT statistics are presented on the location and characteristics of registered pharmacists in the United States. The data were collected by the National Association of Boards of Pharmacy in cooperation with the National Center for Health Statistics, Public Health Service.

The questionnaires were mailed to pharmacists with the State board license renewal forms. Between October 1965 and March 1968, about 170,000 questionnaires were mailed by the State boards of pharmacy in the 50 States and the District of Columbia. The completed questionnaires provided data on 115,583 pharmacists of whom 103,287 were active in pharmacy. Of the active pharmacists:

The median age was 45 years — 46 years for males and 39 years for females.

Eight percent were females.

The median number of years of undergraduate education in pharmacy was 4.3 years.

Eighty-three percent worked in community pharmacies—69 percent in independent community pharmacies, and 14 percent in chain pharmacies. Eight percent worked in hospital pharmacies.

Eighty-nine percent listed dispensing of prescriptions and providing of health care items as their major activity.

Forty percent owned or were partners or stockholders in the establishments in which they worked; 53 percent were employees.

PHARMACY MANPOWER

George R. Reinhart, *Division of Health Resources Statistics*

INTRODUCTION

This report is based on a pharmacy manpower survey which was conducted by the National Association of Boards of Pharmacy (NABP) in cooperation with the National Center for Health Statistics (NCHS) between October 1965 and March 1968. It provides information on the characteristics of registered pharmacists in the United States.

The NABP acted as the coordinating agent by distributing the questionnaires to the 51 boards of pharmacy. The boards of pharmacy in the 50 States and the District of Columbia then distributed the questionnaires to all licensed pharmacists. In many States they were attached physically to the renewal notice; in most other cases they were sent with the license renewal forms. The completed questionnaires were returned with the license renewal forms and were then sent by the State boards to the NABP for processing.

The questionnaire gathered data on geographic location, States of licensure, age, sex, professional education, place and type of activity, and source of remuneration. This report presents the findings of the survey in summary tables in the text and in detailed tables 1 through 9. A copy of the questionnaire appears in appendix I. Terms relating to pharmacy and the demographic terms used in this report appear in appendix II.

Background and Purpose of the Survey

Statistics on pharmacists have been published annually by the NABP since 1942 and appear in the *Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy*. These statistics are based on data collected by the NABP from the State licensing boards. Inadequacies in the data reported by the boards have long been recognized by NABP. Methods of data collection, types of data collected, and terminology vary from State to State; these problems limit interstate comparisons and affect the accuracy of regional and national totals.

The pharmacy manpower survey was developed to overcome these limitations and, thus, provide uniform data from each State on the characteristics of pharmacists. The survey was also developed to determine the feasibility of using license renewal as a mechanism for conducting a survey of pharmacists.

Schedule of Data Collection

The date for collection of data varied from State to State because the questionnaire mailout was linked to license renewal and the renewal dates varied from State to State. Twelve States were surveyed in 1965, 33 States and the District of Columbia in 1966, and five States in 1967. The followup mailout to pharmacists who had not responded to the initial questionnaire was completed in March 1968. Table A shows the distribution of license renewal dates. Appendix III contains more detail on the schedule of data collection.

Survey Coverage

For this survey the total number of pharmacists was defined as all persons holding a license

Table A. State licensing boards of pharmacy, by month and frequency of license renewal: United States, 1966

Month of license renewal	Frequency of license renewal		
	Annual	Biennial	Triennial
Total-	42	8	1
January-----	16	4	-
February----	1	-	-
March-------	3	-	-
April-------	1	-	-
May---------	1	-	-
June--------	3	1	-
July--------	16	1	-
August------	-	-	-
September---	-	-	-
October-----	1	1	-
November----	-	1	-
December----	-	-	-
Variable[1]---	-	-	1

[1]Based on date of original license.

in pharmacy. In order to insure complete coverage of the estimated 132,000 licensed pharmacists, both active and inactive, in the United States, NCHS and NABP agreed that the best method for conducting the survey would be to include the questionnaire with the license renewal form used by each State board of pharmacy. Every pharmacist whose name appeared on a State list of registered pharmacists was sent a questionnaire. Since pharmacists may be licensed in several States, some pharmacists were sent several questionnaires.

Of the 170,044 questionnaires sent in the initial mailout, 142,182 were returned, yielding an initial questionnaire response rate of 84 percent. Followup questionnaires were sent to all nonrespondents in States in which the response rate was below 90 percent or in which there were more than 500 nonrespondents. Followup questionnaires were sent to nonrespondents in 27 licensing jurisdictions.

The total number of questionnaires returned in both the initial and followup mailouts was 155,758, yielding a total questionnaire response

Table B. Number and percent of pharmacists, by geographic region: United States

Geographic region	Pharmacists in manpower survey, 1966				NABP estimates of number of pharmacists, January 1, 1967			
	Total pharmacists		Active pharmacists		Total pharmacists		Active pharmacists	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All regions--	115,583	100.0	103,287	100.0	131,961	100.0	121,482	100.0
Northeast---	33,577	29.1	29,939	29.0	38,270	29.0	35,964	29.6
North Central----	33,675	29.1	30,032	29.1	35,895	27.2	32,282	26.6
South-------	30,662	26.5	27,609	26.7	35,563	26.9	33,221	27.3
West--------	17,669	15.3	15,707	15.2	22,233	16.8	20,015	16.5

Source: National Association of Boards of Pharmacy: 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago, 1967.

rate of 92 percent. The questionnaires were edited, coded, punched, and put on computer tape. As a result of the editing and coding procedures, 1,648 illegible or incomplete questionnaires were deleted from the analysis. The remaining 154,110 questionnaires were then unduplicated so that each pharmacist was counted only once. That is, in the cases where a respondent returned two or more questionnaires, only the questionnaire from the State in which he was employed or residing was used in the survey. After unduplication, the survey included 115,583 individual pharmacists, of whom 103,287 were active in pharmacy. Appendix III contains additional information on the survey coverage.

GEOGRAPHIC LOCATION AND RATIO OF ACTIVE PHARMACISTS TO POPULATION

Table B shows the regional distribution of pharmacists who responded to the pharmacy manpower survey, and the corresponding NABP estimates of the number of pharmacists for January 1, 1967. In the survey the percentage distribution of pharmacists by geographic region is consistent with the distribution of pharmacists according to the NABP estimates. However, because there was some nonresponse in the pharmacy manpower survey, the survey totals cannot be used for presenting figures on the ratio of active pharmacists to population. The resulting ratios would understate the actual ratios. Therefore, the NABP estimates of the number of pharmacists were used to determine the following ratios of active pharmacists to population.

According to NABP estimates the number of active pharmacists has increased during the last 10 years from 110,688 in 1957 to 121,482 at the time of the survey. At the same time, the ratio of pharmacists to population has decreased. In 1957 there were 66 active pharmacists per 100,000 population; by 1967 this ratio had dropped to 62 for the Nation (table C). The decrease in the ratio of active pharmacists to population is due to the more rapid growth of the population of the United States than to the number of pharmacists. While the number of pharmacists has increased 10 percent since 1957, the Nation's population has risen by 16 percent during the same period.

Table C. Number of active pharmacists, population, and number of active pharmacists per 100,000 population, by year: United States, January 1, 1957-72

Year	Number of active pharmacists[1]	Civilian resident population[2] in thousands	Pharmacists per 100,000 population
1972-------	128,560	205,698	62.5
1971-------	126,590	202,756	62.4
1970-------	124,460	199,448	62.4
1969-------	122,590	198,791	61.7
1968-------	120,463	196,799	61.2
1967-------	121,482	194,729	62.4
1966-------	120,162	192,956	62.3
1965-------	117,432	190,772	61.6
1964-------	120,445	188,145	64.0
1963-------	120,196	185,428	64.8
1962-------	117,377	182,482	64.3
1961-------	116,974	179,780	65.1
1960-------	116,954	176,850	66.1
1959[3]------	113,757	173,831	65.4
1958[3]------	111,938	170,862	65.5
1957[3]------	110,688	167,750	66.0

[1]Data for 1969-72 estimated by NCHS.

[2]Data for 1970-72 interpolated to January 1 from Census Bureau estimates for July 1.

[3]Excludes data for Hawaii and Alaska.

Sources: National Association of Boards of Pharmacy: NABP Proceedings Licensure Statistics and Census of Pharmacy. Chicago, 1967.

U.S. Bureau of the Census: Population Estimates. Current Population Reports. Series P-25, No. 381, December 1967, and No. 417, February 1969.

The NABP estimated that there were 120,463 active pharmacists in the United States as of January 1, 1968. Relating this estimate to population produces a ratio of 61 active pharmacists per 100,000 population for the Nation as a whole.

NCHS estimates of future pharmacy manpower show an expected increase of about 8,000 active pharmacists by 1972, if the relationship between total and active pharmacists remains at its 1968 level. This is an increase of 7 percent in the number of active pharmacists, raising the number of active pharmacists to an estimated 128,560. By Jan. 1, 1972, the population of the

Table D. Number of active pharmacists and number of active pharmacists per 100,000 population for selected years, by geographic region: United States, 1957-67

Geographic region	1957	1959	1961	1963	1965[1]	1967
	Number of active pharmacists					
All regions	110,688	113,757	116,974	120,196	117,432	121,482
Northeast	34,329	34,814	35,568	37,438	34,620	35,964
North Central	31,441	32,150	32,454	33,202	31,441	32,282
South	27,924	27,974	29,683	29,461	31,514	33,221
West[2]	16,994	18,819	19,269	20,095	19,857	20,015
	Number of active pharmacists per 100,000 population[3]					
All regions	66.2	65.7	65.0	64.7	61.4	62.0
Northeast	81.3	80.3	79.4	81.5	73.5	75.0
North Central	63.6	62.9	62.8	63.2	58.7	59.0
South	54.1	52.2	53.8	51.3	53.2	54.6
West[2]	71.0	74.5	68.2	66.9	63.1	61.5

[1]The decrease in number of active pharmacists since 1963 may be attributed mainly to the use of more efficient record keeping and changes in methods of counting licenses where renewal is not required.

[2]Excludes Hawaii and Alaska for 1957 and 1959.

[3]Civilian resident population, July 1.

Sources: National Association of Boards of Pharmacy: 1957, 1959, 1961, 1963, 1965, and 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago.

U.S. Bureau of the Census: Current Population Reports. Series P-25, No. 196, 1956; No. 210, 1958; No. 380, 1960-1966.

United States will reach an estimated 205,698,000, an increase of 6 percent from 1967. The statistics in table C show that the ratio of pharmacists per 100,000 population is expected to remain at nearly the 1967 level.

Table D shows the regional distribution of pharmacists from 1957 to 1967. In 1967 the Northeast had the highest ratio of pharmacists to population with 75 active pharmacists per 100,000 population. The South had the lowest ratio with 55 pharmacists per 100,000 population. Fifty-six percent of the active pharmacists were located in the Northeast and North Central States where slightly over half (53 percent) of the Nation's population resided.

There have been marked differences in the population growth among the four geographic regions. In addition, the methods of estimating numbers of pharmacists have varied. This variation in methods of estimation may partially invalidate year-by-year comparisons. However, some long-term trends may be observed. The West, the region with the greatest decrease in the ratio of pharmacists to population, had the greatest population growth during the 1956 to 1966 decade, 31 percent. The South was the only region in which the increase of pharmacists, 17 percent, was greater than the population increase, 15 percent, thus, it was also the only region in which the ratio of pharmacists to population increased. Both the Northeast and North Central States showed only modest increases in both number of pharmacists and population.

Table E shows that the States with the largest populations seemed to have the largest number of active pharmacists. However, these States did

Table E. Number of active pharmacists, population, and number of active pharmacists per 100,000 population, by State: United States, January 1, 1967

State of registration	Pharmacists	Population in thousands[1]	Active pharmacists per 100,000 population	State of registration	Pharmacists	Population in thousands[1]	Active pharmacists per 100,000 population
United States--	121,482	195,936	62.0	Montana--------	397	702	56.6
				Nebraska-------	1,007	1,439	70.0
				Nevada---------	316	431	73.3
				New Hampshire--	361	676	53.4
Alabama--------	1,613	3,511	45.9	New Jersey-----	4,198	6,899	60.8
Alaska---------	86	265	32.5				
Arizona--------	992	1,603	61.9				
Arkansas-------	946	1,956	48.4	New Mexico-----	566	1,002	56.5
California-----	10,720	18,802	57.0	New York-------	13,723	18,205	75.4
				North Carolina-	1,876	4,974	37.7
Colorado-------	1,616	1,955	82.7	North Dakota---	340	643	52.9
Connecticut----	2,498	2,878	86.8	Ohio-----------	6,474	10,364	62.5
Delaware-------	234	513	45.6				
District of Columbia------	862	806	106.9				
Florida--------	4,697	5,893	79.7	Oklahoma-------	1,972	2,477	79.6
				Oregon---------	1,509	1,973	76.5
Georgia--------	2,405	4,445	54.1	Pennsylvania---	8,216	11,601	70.8
Hawaii---------	200	727	27.5	Rhode Island---	717	898	79.8
Idaho----------	450	697	64.6	South Carolina-	1,250	2,589	48.3
Illinois-------	5,889	10,786	54.6				
Indiana--------	2,978	4,951	60.1				
				South Dakota---	480	679	70.7
Iowa-----------	1,621	2,760	58.7	Tennessee------	2,388	3,866	61.8
Kansas---------	1,326	2,275	58.3	Texas----------	5,783	10,747	53.8
Kentucky-------	1,560	3,181	49.0	Utah-----------	601	1,007	59.7
Louisiana------	2,000	3,617	55.3	Vermont--------	201	411	48.9
Maine----------	434	978	44.4				
Maryland-------	2,109	3,611	58.4				
Massachusetts--	5,616	5,403	103.9	Virginia-------	1,783	4,465	39.9
Michigan-------	5,175	8,468	61.1	Washington-----	2,285	3,040	75.2
Minnesota------	2,126	3,572	59.5	West Virginia--	706	1,809	39.0
Mississippi----	1,037	2,337	44.4	Wisconsin------	2,257	4,167	54.2
Missouri-------	2,609	4,564	57.2	Wyoming--------	277	319	86.8

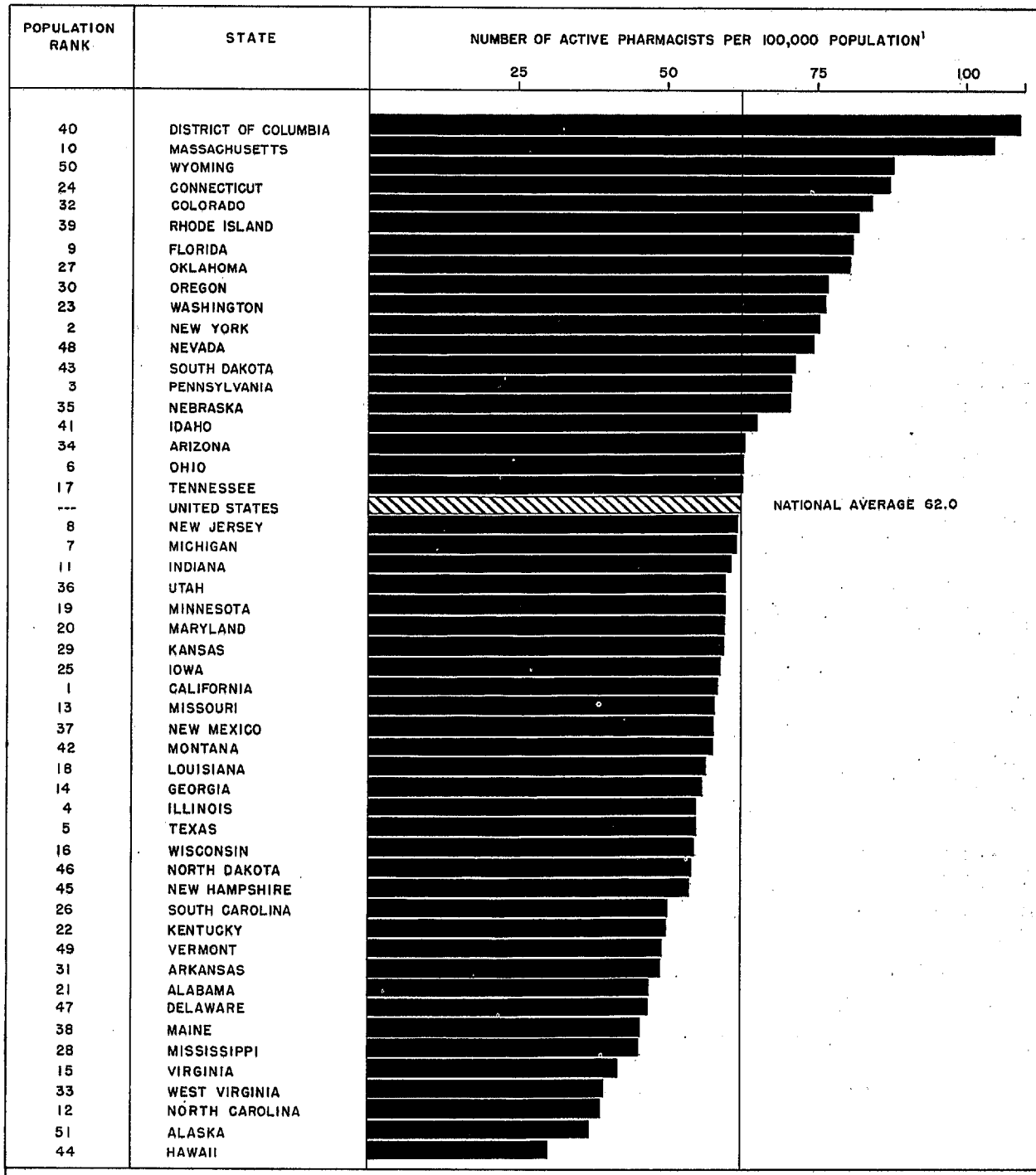
[1] Civilian resident population, July 1, 1966.

Sources: National Association of Boards of Pharmacy: 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago, 1967.

U.S. Bureau of the Census: Population estimates. Current Population Reports. Series P-25, No. 380, Nov. 1967.

not necessarily have the highest ratios of pharmacists to population (fig. 1).

In figure 2, three geographical patterns in the States' ratios of pharmacists to population can be seen. First, there are the high concentrations of pharmacists in the six Northeastern contiguous States—Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania, and second, the low concentrations of pharmacists per 100,000 population in the South,

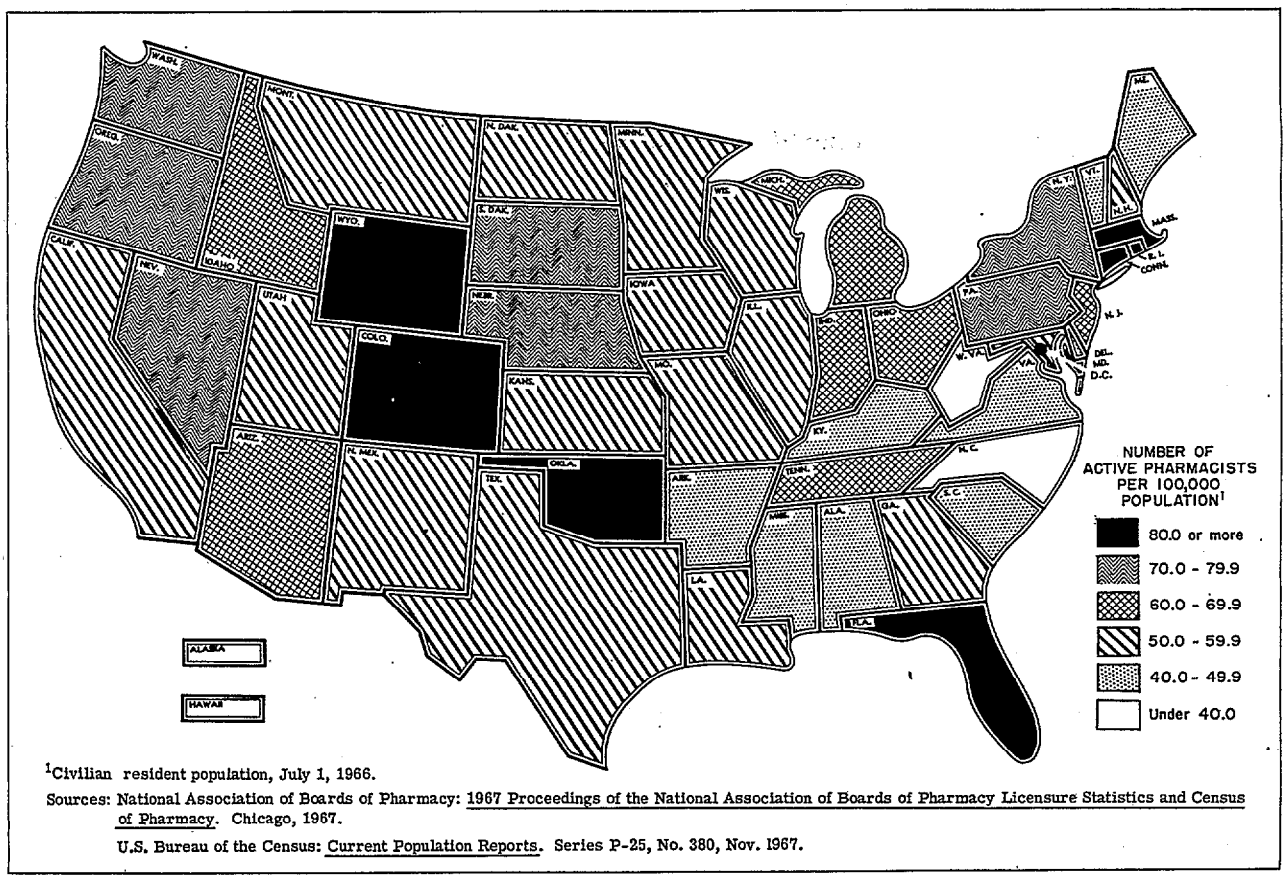


[1]Civilian resident population, July 1, 1966.

Sources: National Association of Boards of Pharmacy: 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago, 1967.

U.S. Bureau of the Census: Current Population Reports. Series P-25, No. 380, Nov. 1967.

Figure 1. Number of active pharmacists per 100,000 population, by State and population rank.



[1]Civilian resident population, July 1, 1966.

Sources: National Association of Boards of Pharmacy: 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago, 1967.

U.S. Bureau of the Census: Current Population Reports. Series P-25, No. 380, Nov. 1967.

Figure 2. Ratio of active pharmacists to population, by State.

especially in the States of Virginia, West Virginia, and North Carolina. Finally, figure 2 shows the relatively high numbers of pharmacists per 100,000 population in the Western States. Even though the number of pharmacists was low in some of these States, the populations were correspondingly low; thus, the ratio of pharmacists to population was high.

AGE AND SEX OF ACTIVE PHARMACISTS

The median age of active pharmacists in the survey was 45 years, however, the male pharmacists were older than the females. The median age for males was 46 years, while for females it was 39 years. Females accounted for 8 percent of the active pharmacists.

Table F shows the median age of pharmacists distributed by geographic region. The South had the lowest median age, 42 years, while the Northeast had the highest, 48 years. Also shown in table F is the percent of females distributed by geographic region; this shows that the West had the highest percentage of female pharmacists.

There has been a marked increase in the number of female pharmacists in the profession, especially in the last 10 to 15 years.[1] This increase is reflected in a comparison of the age distribution of active pharmacists. Figure 3 shows that there are relatively more female pharmacists in the younger age groups. Fifty-three

[1]National Association of Boards of Pharmacy: *Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy*. Chicago, 1957 and 1961.

Table F. Median age and sex of active pharmacists and percent female, by geographic region: United States, 1966

Geographic region	Both sexes	Male	Female	Female
	Median age in years			Percent
All regions-	45.1	45.7	38.7	7.8
Northeast-	48.2	48.8	40.3	6.9
North Central--	45.2	45.8	38.7	8.2
South-----	42.2	42.8	35.8	7.5
West------	45.1	45.6	40.7	9.7

percent of all female pharmacists were under the age of 40 compared with only 38 percent of the males. Conversely, only 12 percent of the female pharmacists were age 60 and over compared with 21 percent of the males.

PROFESSIONAL EDUCATION OF ACTIVE PHARMACISTS

Number of Years of Undergraduate Education in Pharmacy

Current licensing regulations in the United States require a minimum of 5 years of college education; of these, at least 3 must be in a college of pharmacy accredited by the American Council on Pharmaceutical Education.[2] The two most frequently used curriculum patterns for pharmacy education are 1 year of preprofessional education followed by 4 years of professional education, and 2 years of preprofessional education followed by 3 years of professional education.[3] In 1960 nearly 30 percent of the active pharmacists had

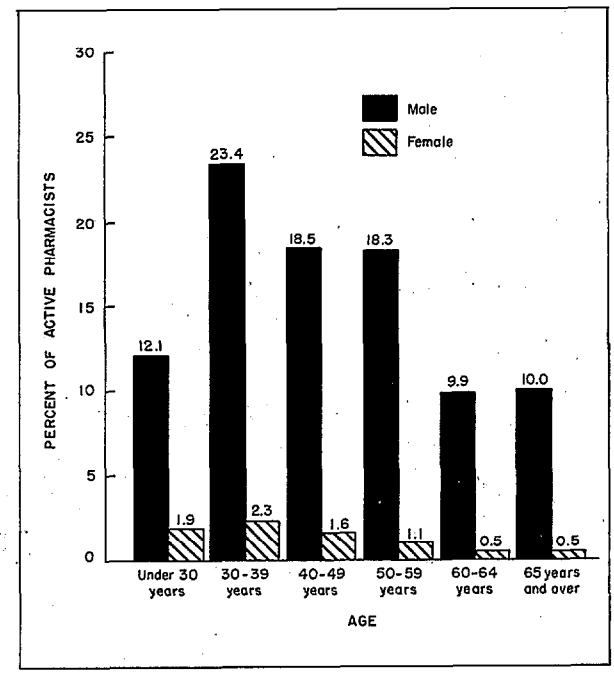


Figure 3. Percent distribution of active pharmacists, by age and sex.

2 years or less of professional education.[4] The pharmacy manpower survey showed that 6 years later, in 1966, the percent of active pharmacists with 2 years or less professional education had decreased to 17 percent. More than 74 percent of the active pharmacists reported having 3 or more years of professional undergraduate education in pharmacy.

In table G, the percent of pharmacists by number of years of undergraduate education in pharmacy is shown by geographic region. The Northeast had a high percent of pharmacists with 2 or 3 years of undergraduate education in pharmacy—34 percent compared with 22 percent for the Nation as a whole—and a correspondingly low percent of pharmacists with 5 or 6 years. In the West, 22 percent of the active pharmacists had 5 or 6 years of undergraduate education in pharmacy compared with 11 percent for the Nation and 4 percent for the Northeast. However, the median number of years of undergraduate education in pharmacy for each region was nearly identical, at about 4 years.

[2]The only exception is Hamden College of Pharmacy in Williamsett, Massachusetts.

[3]National Center for Health Statistics: *State Licensing of Health Occupations*. PHS Pub. No. 1758. Public Health Service. Washington. U.S. Government Printing Office, 1968.

[4]National Association of Boards of Pharmacy: *Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy*. Chicago, 1961.

Table G. Percent distribution of active pharmacists, by number of years of undergraduate education in pharmacy and median number of years of education according to geographic region: United States, 1966

Geographic region	Total	Years of undergraduate education in pharmacy								
		Less than 1	1	2	3	4	5	6	No report	Median number of years
	Percent distribution									
All regions-----	100.0	5.0	1.7	10.8	11.3	52.6	9.0	1.8	7.9	4.3
Northeast----------	100.0	3.1	0.6	15.5	18.2	51.7	3.6	0.3	7.0	4.2
North Central------	100.0	5.1	2.2	10.1	9.2	53.9	9.9	0.9	8.7	4.4
South---------------	100.0	5.2	2.2	7.7	7.1	56.6	10.8	0.7	9.8	4.4
West----------------	100.0	7.9	1.8	8.8	9.4	44.9	14.4	8.1	4.7	4.4

Table H. Percent distribution of active pharmacists, by type of first professional degree received according to geographic region: United States, 1966

Geographic region	Type of degree							
	Total	None	Bachelor of Science in Pharmacy	Graduate in Pharmacy	Bachelor of Pharmacy	Pharmaceutical Chemist	Doctor of Pharmacy	Other or no report[1]
	Percent distribution							
All regions-	100.0	16.7	56.6	14.9	4.6	2.8	1.1	3.2
Northeast----	100.0	12.5	50.4	30.0	3.2	1.0	0.2	2.7
North Central-----	100.0	18.8	58.2	8.2	5.5	5.2	0.2	3.8
South--------	100.0	18.8	62.5	8.6	5.0	1.5	0.2	3.4
West---------	100.0	17.2	54.9	10.1	5.0	4.0	6.3	2.6

[1]Includes the Doctor of Pharmacy which was granted prior to 1940.

Table J. Percent distribution of active pharmacists, by place of principal activity according to geographic region: United States, 1966

Geographic region	Total	Community pharmacy		Hospital pharmacy	Clinic non-hospital pharmacy	Industry	Other or no report
		Independent	Chain				
	Percent distribution						
All regions---	100.0	68.5	14.0	8.0	1.6	3.9	4.0
Northeast----------	100.0	73.1	8.3	7.5	0.3	6.0	4.8
North Central-------	100.0	66.1	15.3	8.7	2.3	3.7	3.9
South--------------	100.0	69.1	16.2	7.1	1.4	2.6	3.6
West---------------	100.0	63.3	18.3	9.2	3.1	2.4	3.7

First Professional Degree Earned

The Bachelor of Science in Pharmacy was most frequently reported by active pharmacists as the first professional degree earned in pharmacy, 57 percent (table H). The Graduate in Pharmacy degree was next, reported by 15 percent of the pharmacists. Nearly 17 percent of the pharmacists indicated that they did not have a degree in pharmacy.

Table H shows that a relatively high percentage of pharmacists in the West received the Doctor of Pharmacy as their first professional degree. This is a 6-year degree, and is the only first professional degree in pharmacy offered by the University of California and the University of Southern California. It is also offered as an optional program by the University of Michigan and the University of the Pacific. The pharmacy student bodies of the former two schools account for about 30 percent of the pharmacy students in all colleges of pharmacy in the Western States.[5] Also noteworthy is the high percentage of Graduate in Pharmacy degrees in the Northeast. The Graduate in Pharmacy degree was the first pharmacy degree to be offered. It was first awarded by the Philadelphia College of Pharmacy to three graduates in 1826. Although the degree is no longer conferred, it was the most frequently awarded degree to graduates of pharmacy institutions for more than a century.[6]

PLACE AND TYPE OF PRINCIPAL ACTIVITY OF ACTIVE PHARMACISTS

Place of Principal Activity

The pharmacy manpower survey shows that 83 percent of the active pharmacists were practicing in community pharmacies, 8 percent in hospital pharmacies, 2 percent in clinics not associated with hospitals, and 4 percent in industry.

When these figures were divided into regions (table J), the Northeast, with the largest number of pharmacists and the most urban population, had the smallest percent of pharmacists practicing in chain pharmacies. In addition, the Northeast had the smallest percent of pharmacists practicing in hospital or clinic settings. The vast majority of pharmacists in the Northeast, nearly three-fourths, practiced in independent community pharmacies. The West, with the smallest number of active pharmacists, had the highest

[5] Sprowls, J. B.: Report on enrollment in schools and colleges of pharmacy first semester, term, or quarter. *Am. J. Pharm. Ed.* 27(1), 1965; 29(1), 1966; 31(1), 1967.

[6] Office of Education: *Academic Degrees*. OE-54008A, Bulletin 1960, No. 28. Washington. U.S. Government Printing Office, 1961.

percent of pharmacists practicing in both chain pharmacies and hospital or clinic settings.

Since 1957 the percent of pharmacists in community pharmacies has decreased (table K). Correspondingly, there has been an increase in the percentage of pharmacists in the field of hospital pharmacy. The percent of pharmacists in industry has remained fairly constant during the last 10 years.

Type of Principal Activity

The survey shows that 89 percent of all active pharmacists considered dispensing prescriptions and providing other health care items as their type of principal activity. An additional 3 percent of the pharmacists reported sales as their type of principal activity, and less than 2 percent reported their major activity to be in the fields of teaching and/or research. The regional distribution (table L) shows that this pattern was relatively consistent throughout the four regions. The Northeast, however, had a slightly smaller percentage of pharmacists who indicated dispensing as their major activity (86 percent) and a slightly larger percentage who indicated sales, teaching, or research as their major activity (6 percent).

Table K. Percent distribution of active pharmacists in community and hospital pharmacies and industry, by selected years: United States, 1966

Year[1]	Total	Community pharmacies	Hospital pharmacies	Industry	Other or no report
	Percent distribution				
1966	100.0	82.5	8.0	3.9	5.6
1965	100.0	88.3	4.8	3.5	3.4
1963	100.0	86.5	4.4	3.9	5.2
1961	100.0	88.6	3.6	4.4	3.4
1959	100.0	89.9	3.9	4.4	1.8
1957	100.0	90.5	3.4	4.5	1.6

[1]Data for 1957-65 from the National Association of Boards of Pharmacy.

Table L. Percent distribution of active pharmacists, by type of principal activity according to geographic region: United States, 1966

Geographic region	Type of principal activity				
	Total	Dispensing	Sales	Teaching and/or research	Other activity or no report
	Percent distribution				
All regions	100.0	89.0	3.0	1.4	6.5
Northeast	100.0	86.0	4.0	2.0	8.0
North Central	100.0	89.0	2.8	1.3	6.9
South	100.0	90.7	2.6	1.0	5.6
West	100.0	92.1	2.4	0.9	4.6

Table M. Percent distribution of active pharmacists, by source of remuneration and place of activity according to geographic region: United States, 1966

Source of remuneration and place of activity	Geographic region				
	All regions	North-east	North Central	South	West
	Percent distribution				
Total	100.0	100.0	100.0	100.0	100.0
Owner, partner, or stockholder:					
Independent community pharmacy	37.6	39.8	35.8	39.2	33.8
Chain community pharmacy	1.2	0.6	1.2	1.6	1.7
Other pharmaceutical activity	1.4	1.1	1.5	1.3	1.9
Employee:					
Independent community pharmacy	27.9	30.2	27.1	26.3	27.7
Chain community pharmacy	11.9	7.0	13.0	13.7	16.1
Other pharmaceutical activity	10.0	11.3	10.9	7.4	10.6
State or local government	2.5	2.3	2.4	2.7	3.0
Federal government	0.9	0.8	0.8	1.2	0.9
Other source or no report	6.5	6.7	7.3	6.7	4.4

Source of Remuneration

An additional insight into the structure of the pharmacy profession is obtained from examining the sources of remuneration of active pharmacists. Approximately 40 percent of the active pharmacists were owners, partners, or stockholders in the establishments in which they practiced and 53 percent were employees.

Table M shows that the Northeast and South had the highest percent of owners, partners, or stockholders for independent community pharmacies. The Northeast, followed by the West and North Central, had the highest percent of employees in independent community pharmacies. The West and the South had the highest percent of owners and of employees in chain pharmacies. These same two regions had the highest percent of government-employed pharmacists—both approximately 4 percent.

Table N shows that approximately half of the pharmacists who practiced in community pharmacies indicated that they were owners, partners, or stockholders in the establishment in which they practiced. However, when community pharmacies were divided into independent and chain community pharmacies, different patterns were observed. Of the pharmacists who practiced in independent community pharmacies, 57 percent were owners or partners, while of those pharmacists who practiced in chain community pharmacies, only 9 percent were owners or partners. The four geographic regions had similar patterns for the percent of pharmacists who owned the establishments in which they practiced.

Table N. Number and percent of owners and employees in community pharmacies, by geographic region and type of community pharmacy: United States, 1966

Type of community pharmacy	Geographic region				
	All regions	Northeast	North Central	South	West
All community pharmacies	Number				
All pharmacists	81,137	23,236	23,157	22,302	12,442
	Percent				
Owners, partners, or stockholders	49.4	52.1	48.0	50.5	44.8
Employees	50.6	47.9	52.0	49.5	55.2
Independent community pharmacies	Number				
All pharmacists	67,603	20,955	18,906	18,092	9,650
	Percent				
Owners, partners, or stockholders	57.4	56.9	56.9	59.9	54.9
Employees	42.6	43.1	43.1	40.1	45.1
Chain community pharmacies	Number				
All pharmacists	13,534	2,281	4,251	4,210	2,792
	Percent				
Owners, partners, or stockholders	9.2	8.2	8.3	10.4	9.6
Employees	90.8	91.8	91.7	89.6	90.4

EVALUATION OF METHODOLOGY

The primary purpose of the pharmacy manpower survey was to collect uniform data on characteristics of pharmacists. This purpose was achieved through the use of a standardized questionnaire.

A second purpose of the survey was to determine the feasibility of using license renewal as a mechanism for surveying pharmacists. The use of this procedure contributed to the high questionnaire response rate obtained in the survey. The questionnaire was an integral part of the renewal form in about half of the States. In most of the remaining States the questionnaire card was enclosed with the license renewal form.

However, the license renewal survey procedure had some limitations. Since licenses are renewed on different dates and over different time periods, the data could not be collected to reflect an accurate count of pharmacists in the United States at any one point in time. To correct this problem the questionnaires should all be mailed at the same time. This would mean that either the questionnaire cannot accompany the license renewal form or the State licensing boards would have to establish a uniform date for license renewal. If no uniform renewal date

could be established, the questionnaire could still be mailed through the State licensing boards. While the response rate from an initial mailout of such a survey might be lower than the rate obtained from the initial mailout by the pharmacy manpower survey, rigorous followup procedure, including certified mail and telephone followups, should result in a satisfactory response rate.

Another limitation of the license renewal mechanism was the problem of duplicate licenses. Since a pharmacist may have a license in more than one State, the licensing lists sometimes contain the same pharmacist more than once.

In the present survey the licensing lists were not unduplicated before the first mailing of the questionnaires. Duplicates were identified only after the questionnaires were received in the NABP office. As a result, not all nonrespondents could be identified. Therefore, it was impossible to followup all nonrespondents or to measure the nonresponse rate accurately. In order to identify the nonrespondents, the lists of licenses maintained by the 51 State boards should be unduplicated before questionnaires are sent out. This procedure would allow the development of an unduplicated master list of pharmacists, which would enable a more complete followup of nonrespondents and an accurate measure of the nonresponse rate.

In conclusion, the results of the survey were sufficiently good to warrant the continued use of the State licensing boards for data collection in any future pharmacy manpower surveys, providing the problems of timing and duplication are overcome.

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DETAILED TABLES

Table 1. Number of pharmacists, by activity status and State of registration: United States, 1966

State of registration	Question-naires	Activity status					
		Active in pharmacy		Not active in pharmacy		Activity status not reported	
		Resides in State	Resides out of State	Resides in State	Resides out of State	Resides in State	Resides out of State
	Number of pharmacists						
United States	154,110	103,287	32,255	10,606	5,466	1,690	806
Alabama	1,820	1,208	498	60	46	7	1
Alaska	140	75	52	4	8	-	1
Arizona	2,164	1,144	780	118	86	16	20
Arkansas	1,414	877	330	127	69	5	6
California	8,610	7,033	744	701	96	32	4
Colorado	3,225	1,560	1,100	301	244	11	9
Connecticut	3,001	2,094	503	233	102	56	13
Delaware	443	232	165	22	23	-	1
District of Columbia	1,436	526	720	52	124	6	8
Florida	5,471	3,224	1,734	246	164	74	29
Georgia	3,117	2,048	747	171	88	49	14
Hawaii	228	161	44	15	5	3	-
Idaho	1,208	410	652	43	75	13	15
Illinois	9,462	6,382	1,786	720	439	92	43
Indiana	4,793	2,929	1,185	211	300	27	141
Iowa	2,477	1,324	769	156	171	31	26
Kansas	2,059	1,263	516	135	95	34	16
Kentucky	1,853	1,347	338	104	55	7	2
Louisiana	2,320	1,573	386	167	37	133	24
Maine	824	462	260	49	48	4	1
Maryland	2,609	1,806	522	189	86	4	2
Massachusetts	4,478	3,138	843	307	135	37	18
Michigan	5,278	4,488	348	328	52	57	5
Minnesota	3,069	2,052	556	313	128	13	7
Mississippi	1,295	966	247	44	12	21	5
Missouri	4,090	2,600	888	257	180	118	47
Montana	794	451	204	63	64	8	4
Nebraska	1,871	948	562	162	158	20	21
Nevada	1,925	342	1,458	12	103	1	9
New Hampshire	461	291	130	19	17	-	4
New Jersey	4,066	2,922	669	285	150	25	15
New Mexico	1,055	550	354	56	57	14	24
New York	17,331	13,200	2,045	1,507	390	158	31
North Carolina	2,225	1,776	260	135	50	3	1
North Dakota	959	359	498	45	51	-	6
Ohio	7,086	4,883	1,295	597	261	37	13
Oklahoma	2,747	1,616	733	192	125	56	25
Oregon	2,028	1,213	497	143	90	57	28
Pennsylvania	10,173	7,033	1,977	708	267	154	34
Rhode Island	1,000	656	208	61	41	25	9
South Carolina	1,231	962	167	66	12	24	-
South Dakota	915	444	349	44	59	10	9
Tennessee	2,598	1,805	521	179	75	15	3
Texas	7,147	5,364	968	538	128	123	26
Utah	996	557	369	31	32	4	3
Vermont	526	143	337	10	35	-	1
Virginia	2,192	1,645	320	127	72	21	7
Washington	3,036	1,944	644	263	153	22	10
West Virginia	1,048	634	259	56	46	30	23
Wisconsin	3,099	2,360	389	208	98	28	16
Wyoming	717	267	329	26	64	5	26

Table 2. Number of active pharmacists, by age and State of practice: United States, 1966

State of practice	Total active pharmacists	Under 30 years	30-39 years	40-49 years	50-59 years	60-64 years	65 years and over	No report
	Number of active pharmacists							
United States	103,287	14,273	26,014	20,394	19,642	10,473	10,602	1,889
Alabama	1,208	270	463	336	65	30	29	15
Alaska	75	9	20	13	13	10	8	2
Arizona	1,144	68	234	267	287	152	114	22
Arkansas	877	122	244	194	87	83	123	24
California	7,033	910	2,014	1,332	1,317	653	716	91
Colorado	1,560	98	341	387	416	157	139	22
Connecticut	2,094	318	501	382	485	171	195	42
Delaware	232	24	73	40	50	20	23	2
District of Columbia	526	70	123	107	128	56	37	5
Florida	3,224	369	996	729	501	250	263	116
Georgia	2,048	412	613	439	267	120	137	60
Hawaii	161	5	60	38	33	12	9	4
Idaho	410	32	123	132	55	28	30	10
Illinois	6,382	1,132	1,409	1,043	1,317	651	734	96
Indiana	2,929	526	729	668	481	248	265	12
Iowa	1,324	218	316	259	246	118	147	20
Kansas	1,263	151	261	243	230	163	178	37
Kentucky	1,347	179	386	317	200	103	130	32
Louisiana	1,573	262	398	280	224	166	166	77
Maine	462	42	90	82	100	46	90	12
Maryland	1,806	279	483	362	394	153	118	17
Massachusetts	3,138	478	781	648	745	240	209	37
Michigan	4,488	504	1,200	928	836	477	456	87
Minnesota	2,052	326	550	425	343	184	206	18
Mississippi	966	165	245	211	133	65	100	47
Missouri	2,600	270	500	405	610	347	363	105
Montana	451	50	115	120	85	31	45	5
Nebraska	948	93	214	179	157	133	142	30
Nevada	342	41	78	76	92	31	20	4
New Hampshire	291	32	67	38	63	43	42	6
New Jersey	2,922	322	821	515	646	292	302	24
New Mexico	550	47	109	121	143	56	46	28
New York	13,200	1,517	2,734	2,007	3,302	1,975	1,529	136
North Carolina	1,776	250	533	442	218	108	207	18
North Dakota	359	74	107	77	51	20	23	7
Ohio	4,883	784	1,339	988	857	470	398	47
Oklahoma	1,616	243	325	329	292	173	207	47
Oregon	1,213	139	327	264	209	123	136	15
Pennsylvania	7,033	919	1,616	1,352	1,394	844	800	108
Rhode Island	656	51	175	137	128	72	79	14
South Carolina	962	142	300	216	118	70	103	13
South Dakota	444	51	132	87	67	40	60	7
Tennessee	1,805	359	494	351	249	150	156	46
Texas	5,364	983	1,332	1,107	755	448	562	177
Utah	557	58	182	165	64	24	46	18
Vermont	143	21	32	25	33	15	13	4
Virginia	1,645	226	474	382	260	112	168	23
Washington	1,944	219	540	545	325	154	131	30
West Virginia	634	84	167	138	88	51	92	14
Wisconsin	2,360	295	581	417	421	309	290	47
Wyoming	267	34	67	49	62	26	20	9

Table 3. Number of active male pharmacists, by age and State of practice: United States, 1966

State of practice	Total male	Under 30 years	30-39 years	40-49 years	50-59 years	60-64 years	65 years and over	No report
	Number of active male pharmacists							
United States	95,184	12,305	23,706	18,762	18,564	9,999	10,129	1,719
Alabama	1,096	235	416	313	64	27	28	13
Alaska	67	7	17	12	13	9	7	2
Arizona	1,070	61	217	237	275	147	112	21
Arkansas	844	113	240	189	82	81	116	23
California	6,512	804	1,847	1,226	1,245	623	687	80
Colorado	1,398	78	292	343	386	146	133	20
Connecticut	1,900	274	442	333	462	163	187	39
Delaware	216	22	67	37	45	20	23	2
District of Columbia	467	50	108	97	120	54	36	2
Florida	3,016	315	913	691	487	244	257	109
Georgia	1,911	370	563	417	253	117	134	57
Hawaii	135	4	46	30	30	12	9	4
Idaho	370	26	116	116	50	26	28	8
Illinois	5,908	996	1,307	963	1,238	610	707	87
Indiana	2,668	429	662	608	461	241	255	12
Iowa	1,216	198	285	237	232	113	133	18
Kansas	1,179	134	238	227	216	159	171	34
Kentucky	1,271	154	365	301	193	101	127	30
Louisiana	1,392	235	352	254	194	153	144	60
Maine	432	40	80	75	95	43	88	11
Maryland	1,705	250	447	343	385	150	113	17
Massachusetts	2,912	424	721	601	706	224	202	34
Michigan	4,099	401	1,070	856	791	463	434	84
Minnesota	1,881	277	521	389	311	173	192	18
Mississippi	911	150	234	195	126	64	97	45
Missouri	2,455	245	471	385	579	332	344	99
Montana	401	43	106	102	76	29	41	4
Nebraska	881	83	202	167	146	126	130	27
Nevada	326	38	72	73	89	31	20	3
New Hampshire	265	25	64	32	58	43	37	6
New Jersey	2,751	284	768	476	626	285	290	22
New Mexico	509	39	97	112	136	53	45	27
New York	12,555	1,393	2,563	1,912	3,192	1,899	1,472	124
North Carolina	1,646	203	492	412	210	107	205	17
North Dakota	325	63	103	64	47	19	23	6
Ohio	4,417	651	1,202	887	799	451	387	40
Oklahoma	1,471	205	290	302	273	159	199	43
Oregon	1,063	111	288	231	181	115	125	12
Pennsylvania	6,351	765	1,436	1,226	1,299	779	754	92
Rhode Island	568	42	145	114	110	68	75	14
South Carolina	906	122	277	212	115	69	100	11
South Dakota	387	41	116	75	62	34	53	6
Tennessee	1,681	306	461	333	244	146	149	42
Texas	4,923	837	1,197	1,030	716	439	540	164
Utah	512	46	170	155	59	23	43	16
Vermont	134	19	31	22	33	14	12	3
Virginia	1,496	180	421	353	250	108	162	22
Washington	1,599	156	442	448	272	140	117	24
West Virginia	589	72	152	126	86	50	91	12
Wisconsin	2,168	262	517	382	391	295	276	45
Wyoming	229	27	57	41	55	22	19	8

Table 4. Number of active female pharmacists, by age and State of practice: United States, 1966

State of practice	Total female	Under 30 years	30-39 years	40-49 years	50-59 years	60-64 years	65 years and over	No report
	Number of active female pharmacists							
United States	8,103	1,968	2,308	1,632	1,078	474	473	170
Alabama	112	35	47	23	1	3	1	2
Alaska	8	2	3	1	-	1	1	-
Arizona	74	7	17	30	12	5	2	1
Arkansas	33	9	4	5	5	2	7	1
California	521	106	167	106	72	30	29	11
Colorado	162	20	49	44	30	11	6	2
Connecticut	194	44	59	49	23	8	8	3
Delaware	16	2	6	3	5	-	-	-
District of Columbia	59	20	15	10	8	2	1	3
Florida	208	54	83	38	14	6	6	7
Georgia	137	42	50	22	14	3	3	3
Hawaii	26	1	14	8	3	-	-	-
Idaho	40	6	7	16	5	2	2	2
Illinois	474	136	102	80	79	41	27	9
Indiana	261	97	67	60	20	7	10	-
Iowa	108	20	31	22	14	5	14	2
Kansas	84	17	23	16	14	4	7	3
Kentucky	76	25	21	16	7	2	3	2
Louisiana	181	27	46	26	30	13	22	17
Maine	30	2	10	7	5	3	2	1
Maryland	101	29	36	19	9	3	5	-
Massachusetts	226	54	60	47	39	16	7	3
Michigan	389	103	130	72	45	14	22	3
Minnesota	171	49	29	36	32	11	14	-
Mississippi	55	15	11	16	7	1	3	2
Missouri	145	25	29	20	31	15	19	6
Montana	50	7	9	18	9	2	4	1
Nebraska	67	10	12	12	11	7	12	3
Nevada	16	3	6	3	3	-	-	1
New Hampshire	26	7	3	6	5	-	5	-
New Jersey	171	38	53	39	20	7	12	2
New Mexico	41	8	12	9	7	3	1	1
New York	645	124	171	95	110	76	57	12
North Carolina	130	47	41	30	8	1	2	1
North Dakota	34	11	4	13	4	1	-	1
Ohio	466	133	137	101	58	19	11	7
Oklahoma	145	38	35	27	19	14	8	4
Oregon	150	28	39	33	28	8	11	3
Pennsylvania	682	154	180	126	95	65	46	16
Rhode Island	88	9	30	23	18	4	4	-
South Carolina	56	20	23	4	3	1	3	2
South Dakota	57	10	16	12	5	6	7	1
Tennessee	124	53	33	18	5	4	7	4
Texas	441	146	135	77	39	9	22	13
Utah	45	12	12	10	5	1	3	2
Vermont	9	2	1	3	-	1	1	1
Virginia	149	46	53	29	10	4	6	1
Washington	345	63	98	97	53	14	14	6
West Virginia	45	12	15	12	2	1	1	2
Wisconsin	192	33	64	35	30	14	14	2
Wyoming	38	7	10	8	7	4	1	1

Table 5. Number of active pharmacists, by years of undergraduate education in pharmacy and State of practice: United States, 1966

State of practice	Total active pharmacists	Years of undergraduate education in pharmacy							
		Less than 1	1	2	3	4	5	6	No report
	Number of active pharmacists								
United States----	103,287	5,128	1,725	11,165	11,667	54,335	9,306	1,814	8,147
Alabama----------	1,208	20	3	25	17	959	152	2	30
Alaska----------	75	1	4	9	11	28	11	1	10
Arizona----------	1,144	90	37	138	117	469	145	18	130
Arkansas----------	877	85	29	97	38	432	148	-	48
California----------	7,033	399	88	721	811	2,857	950	1,119	88
Colorado----------	1,560	481	61	155	92	569	139	17	46
Connecticut----------	2,094	154	38	212	256	1,115	153	15	151
Delaware----------	232	38	2	19	28	138	4	-	3
District of Columbia---	526	14	6	36	84	315	37	6	28
Florida----------	3,224	96	57	260	216	1,854	365	28	348
Georgia----------	2,048	111	58	114	96	1,135	263	13	258
Hawaii----------	161	16	2	7	14	107	10	3	2
Idaho----------	410	11	1	14	20	291	56	2	15
Illinois----------	6,382	298	134	721	857	3,051	587	68	666
Indiana----------	2,929	71	38	257	229	1,972	283	16	63
Iowa----------	1,324	25	14	138	124	703	132	18	170
Kansas----------	1,263	167	49	104	77	583	132	11	140
Kentucky----------	1,347	29	17	155	127	856	129	1	33
Louisiana----------	1,573	115	19	120	129	627	237	28	298
Maine----------	462	151	19	29	25	169	6	-	63
Maryland----------	1,806	34	7	133	283	1,144	128	6	71
Massachusetts----------	3,138	167	54	209	514	1,759	190	13	232
Michigan----------	4,488	225	130	570	266	2,543	312	34	408
Minnesota----------	2,052	118	16	86	169	1,286	327	7	43
Mississippi----------	966	49	16	66	71	465	121	10	168
Missouri----------	2,600	251	78	298	244	1,083	170	19	457
Montana----------	451	17	3	37	37	187	125	4	41
Nebraska----------	948	17	29	101	106	428	109	13	145
Nevada----------	342	41	19	57	29	99	36	31	30
New Hampshire----------	291	59	11	20	33	141	9	1	17
New Jersey----------	2,922	29	9	430	573	1,823	28	3	27
New Mexico----------	550	93	21	65	36	252	29	1	53
New York----------	13,200	209	24	2,888	2,799	5,996	365	24	895
North Carolina----------	1,776	75	36	170	144	1,225	81	7	38
North Dakota----------	359	7	1	19	31	276	22	-	3
Ohio----------	4,883	70	68	541	508	2,745	692	52	207
Oklahoma----------	1,616	159	65	120	99	641	169	24	339
Oregon----------	1,213	19	7	70	110	643	255	18	91
Pennsylvania----------	7,033	121	30	819	1,093	4,054	273	26	617
Rhode Island----------	656	15	-	11	145	357	32	5	91
South Carolina----------	962	31	11	67	73	577	65	6	132
South Dakota----------	444	12	2	30	23	276	35	1	65
Tennessee----------	1,805	131	43	157	137	1,012	215	9	101
Texas----------	5,364	338	177	399	196	2,735	789	48	682
Utah----------	557	17	12	18	23	316	99	11	61
Vermont----------	143	36	3	11	19	64	9	-	1
Virginia----------	1,645	76	32	120	180	1,082	56	6	93
Washington----------	1,944	24	18	77	153	1,103	387	41	141
West Virginia----------	634	21	20	63	53	422	31	1	23
Wisconsin----------	2,360	269	94	163	136	1,233	186	24	255
Wyoming----------	267	26	13	19	16	138	22	3	30

Table 6. Number of active pharmacists, by type of first professional pharmacy degree and State of practice: United States, 1966

State of practice	Total active pharmacists	Type of degree								
		None	Bachelor of Science in Pharmacy	Bachelor of Pharmacy	Doctor of Pharmacy	Doctor in Pharmacy (prior to 1940)	Graduate in Pharmacy	Pharmaceutical Chemist	Other pharmacy degree	No report
	Number of active pharmacists									
United States-	103,287	17,285	58,431	4,741	1,157	845	15,412	2,926	449	2,041
Alabama----------	1,208	59	1,010	99	1	1	18	7	1	12
Alaska-----------	75	19	40	3	-	-	4	5	-	4
Arizona----------	1,144	301	561	51	1	8	124	62	3	33
Arkansas---------	877	193	553	35	-	6	65	21	-	4
California-------	7,033	747	3,571	316	937	70	1,080	282	13	17
Colorado---------	1,560	698	596	108	5	25	79	26	6	17
Connecticut------	2,094	412	1,150	100	3	13	361	9	9	37
Delaware---------	232	48	139	2	1	6	34	2	-	-
District of Columbia--------	526	57	313	21	3	8	90	12	6	16
Florida----------	3,224	536	1,956	214	3	8	308	45	47	107
Georgia----------	2,048	455	1,330	132	1	20	74	7	3	26
Hawaii-----------	161	24	111	3	3	1	10	7	1	1
Idaho------------	410	36	327	12	2	1	18	9	-	5
Illinois---------	6,382	1,336	3,315	253	14	42	623	601	48	150
Indiana----------	2,929	181	2,199	63	6	15	247	187	3	28
Iowa-------------	1,324	267	708	103	5	14	141	34	4	48
Kansas-----------	1,263	401	647	56	3	7	75	23	4	47
Kentucky---------	1,347	90	923	69	1	24	189	45	2	4
Louisiana--------	1,573	457	819	80	3	7	124	15	15	53
Maine------------	462	248	170	3	-	3	29	2	-	7
Maryland---------	1,806	123	1,199	45	5	20	379	3	4	28
Massachusetts----	3,138	791	1,707	68	8	22	405	7	28	102
Michigan---------	4,488	993	2,529	299	12	73	283	99	19	181
Minnesota--------	2,052	190	1,565	58	3	14	102	109	2	9
Mississippi------	966	242	490	104	4	3	47	34	6	36
Missouri---------	2,600	890	1,157	94	3	41	302	21	15	77
Montana----------	451	78	280	36	2	2	20	16	4	13
Nebraska---------	948	230	449	80	2	8	84	40	8	47
Nevada-----------	342	116	125	13	34	5	38	5	-	6
New Hampshire----	291	111	146	-	1	-	32	-	-	1
New Jersey-------	2,922	81	1,819	38	-	21	914	36	8	5
New Mexico-------	550	204	275	7	-	10	34	9	-	11
New York---------	13,200	1,141	5,700	468	16	72	5,365	221	29	188
North Carolina---	1,776	174	1,239	53	4	7	244	21	7	27
North Dakota-----	359	14	291	6	1	4	34	7	-	2
Ohio-------------	4,883	356	3,015	514	11	46	430	419	30	62
Oklahoma---------	1,616	623	739	69	5	15	57	40	11	57
Oregon-----------	1,213	129	846	40	1	7	60	89	2	39
Pennsylvania-----	7,033	792	3,959	266	13	62	1,724	23	29	165
Rhode Island-----	656	108	372	7	4	5	146	1	-	13
South Carolina---	962	181	609	39	-	4	109	7	1	12
South Dakota-----	444	90	292	8	1	4	26	14	-	9
Tennessee--------	1,805	313	1,213	55	3	24	98	74	2	23
Texas------------	5,364	1,342	3,177	297	17	42	264	30	26	169
Utah-------------	557	90	411	17	-	3	14	2	3	17
Vermont----------	143	54	61	5	-	1	18	3	1	-
Virginia---------	1,645	222	1,099	44	2	12	217	20	13	16
Washington-------	1,944	185	1,326	163	5	8	92	108	20	37
West Virginia----	634	70	445	9	-	3	59	43	1	4
Wisconsin--------	2,360	706	1,310	107	8	24	115	22	14	54
Wyoming----------	267	81	148	9	-	4	7	2	1	15

Table 7. Number of active pharmacists, by place of principal activity and State of practice: United States, 1966

State of practice	Total active pharmacists	Place of principal employment							
		Community pharmacy		Hospital pharmacy	Clinic, non-hospital, pharmacy	College or university	Industry	Association or organization	Other or no report
		Independent	Chain						
	Number of active pharmacists								
United States-	103,287	70,771	14,413	8,285	1,653	1,069	3,982	233	2,881
Alabama----------	1,208	906	114	103	12	8	43	1	21
Alaska----------	75	51	12	4	7	-	1	-	-
Arizona----------	1,144	608	299	128	37	14	29	4	25
Arkansas----------	877	728	32	65	22	13	14	1	2
California--------	7,033	4,404	1,396	710	184	60	125	24	130
Colorado----------	1,560	995	244	140	65	14	52	4	46
Connecticut-------	2,094	1,613	174	138	4	23	61	3	78
Delaware----------	232	152	47	22	-	-	9	1	1
District of Columbia---------	526	198	177	53	14	9	14	21	40
Florida----------	3,224	2,124	627	231	34	25	81	12	90
Georgia----------	2,048	1,485	268	145	9	27	78	4	32
Hawaii----------	161	73	41	20	10	-	11	1	5
Idaho----------	410	322	36	21	9	3	15	-	4
Illinois----------	6,382	4,168	1,055	562	162	56	211	15	153
Indiana----------	2,929	1,739	585	192	66	41	205	1	100
Iowa----------	1,324	926	161	94	50	18	20	1	54
Kansas----------	1,263	913	153	80	36	10	32	3	36
Kentucky----------	1,347	967	205	83	21	12	37	3	19
Louisiana---------	1,573	1,076	226	110	22	27	45	6	61
Maine----------	462	393	28	25	2	3	7	-	4
Maryland----------	1,806	1,059	499	115	9	18	46	2	58
Massachusetts-----	3,138	2,325	209	245	11	45	165	1	137
Michigan----------	4,488	3,026	594	505	40	32	161	11	119
Minnesota---------	2,052	1,395	274	200	38	28	71	5	41
Mississippi-------	966	793	67	48	6	12	17	2	21
Missouri----------	2,600	1,711	387	228	48	27	129	3	67
Montana----------	451	323	53	36	10	8	5	1	15
Nebraska----------	948	761	33	60	18	13	30	3	30
Nevada----------	342	189	92	33	6	-	9	1	12
New Hampshire-----	291	253	4	21	3	1	6	-	3
New Jersey--------	2,922	2,371	195	173	4	23	125	1	30
New Mexico--------	550	432	48	28	10	6	17	2	7
New York----------	13,200	9,467	1,051	1,005	54	108	918	39	558
North Carolina----	1,776	1,389	217	103	12	10	25	2	18
North Dakota------	359	223	47	30	28	7	9	2	13
Ohio----------	4,883	3,032	1,018	416	43	36	180	6	152
Oklahoma----------	1,616	1,121	225	91	79	15	42	4	39
Oregon----------	1,213	823	184	86	43	17	25	5	30
Pennsylvania------	7,033	4,844	751	594	19	106	480	18	221
Rhode Island------	656	493	51	48	5	13	27	-	19
South Carolina----	962	780	74	50	9	10	14	-	25
South Dakota------	444	314	46	24	31	10	7	-	12
Tennessee---------	1,805	1,314	224	150	13	20	66	2	16
Texas----------	5,364	3,502	947	451	111	54	138	8	153
Utah----------	557	325	104	47	14	12	27	1	27
Vermont----------	143	121	7	8	-	1	2	-	4
Virginia----------	1,645	1,005	454	99	5	11	27	3	41
Washington--------	1,944	1,203	337	179	94	23	50	4	54
West Virginia-----	634	482	82	40	4	9	14	-	3
Wisconsin---------	2,360	1,652	228	233	120	27	56	2	42
Wyoming----------	267	202	31	13	-	4	4	-	13

Table 8. Number of active pharmacists, by type of principal activity and State of practice: United States, 1966

State of practice	Total active pharmacists	Type of principal activity								
		Dispensing prescriptions and providing health care items	Sales	Production	Administration	Teaching	Research	Teaching and research	Other pharmaceutical activity	No report
	Number of active pharmacists									
United States-	103,287	91,966	3,138	509	1,962	449	686	296	1,374	2,907
Alabama---------	1,208	1,113	46	1	18	7	1	1	7	14
Alaska----------	75	70	2	-	-	-	1	-	-	2
Arizona---------	1,144	1,012	30	3	14	5	-	7	12	61
Arkansas--------	877	814	13	3	10	12	3	1	5	16
California------	7,033	6,662	106	18	96	13	24	24	55	35
Colorado--------	1,560	1,422	57	1	31	5	1	5	17	21
Connecticut-----	2,094	1,852	60	3	42	12	16	2	33	74
Delaware--------	232	214	7	-	7	-	1	-	3	-
District of Columbia-------	526	429	16	1	39	2	2	2	14	21
Florida---------	3,224	2,893	90	5	55	10	7	7	39	118
Georgia---------	2,048	1,814	78	4	33	13	4	9	13	80
Hawaii----------	161	141	15	-	3	-	-	-	2	-
Idaho-----------	410	376	15	-	5	-	2	-	1	11
Illinois--------	6,382	5,708	152	26	140	12	59	15	92	178
Indiana---------	2,929	2,499	76	36	74	18	65	11	61	89
Iowa------------	1,324	1,189	35	4	16	4	4	9	16	47
Kansas----------	1,263	1,132	30	3	9	1	7	3	11	67
Kentucky--------	1,347	1,251	40	2	25	8	-	1	6	14
Louisiana-------	1,573	1,382	55	1	17	15	1	7	19	76
Maine-----------	462	434	9	-	5	1	-	-	5	8
Maryland--------	1,806	1,630	48	6	41	2	18	5	37	19
Massachusetts---	3,138	2,648	147	11	73	40	30	12	42	135
Michigan--------	4,488	3,979	135	20	102	15	23	4	55	155
Minnesota-------	2,052	1,840	59	8	60	6	6	8	17	48
Mississippi-----	966	878	24	-	9	6	3	3	6	37
Missouri--------	2,600	2,244	98	21	49	11	11	5	35	126
Montana---------	451	406	11	-	3	2	-	5	4	20
Nebraska--------	948	839	27	4	13	5	2	4	12	42
Nevada----------	342	298	8	1	9	-	-	-	4	22
New Hampshire---	291	273	5	-	3	-	1	-	2	7
New Jersey------	2,922	2,679	51	15	45	8	41	6	22	55
New Mexico------	550	494	18	-	11	2	1	3	2	19
New York--------	13,200	11,229	648	136	332	66	134	27	311	317
North Carolina--	1,776	1,700	25	1	20	6	2	3	11	8
North Dakota----	359	327	11	-	9	6	1	1	2	2
Ohio------------	4,883	4,407	159	25	105	13	29	7	69	69
Oklahoma--------	1,616	1,455	46	1	19	10	1	-	11	73
Oregon----------	1,213	1,100	24	3	19	7	2	4	15	39
Pennsylvania----	7,033	5,932	247	109	147	35	129	31	132	271
Rhode Island----	656	567	22	-	8	3	4	7	4	41
South Carolina--	962	884	17	-	11	6	-	3	10	31
South Dakota----	444	391	11	-	9	4	-	3	5	21
Tennessee-------	1,805	1,652	59	9	41	4	5	9	11	15
Texas-----------	5,364	4,846	136	14	67	28	16	15	66	176
Utah------------	557	480	29	1	8	1	1	7	7	23
Vermont---------	143	133	1	-	4	1	-	-	4	-
Virginia--------	1,645	1,507	18	6	30	4	9	3	17	51
Washington------	1,944	1,771	54	4	31	5	6	9	21	43
West Virginia---	634	583	11	-	12	3	-	2	2	21
Wisconsin-------	2,360	2,159	54	3	25	10	13	5	23	68
Wyoming---------	267	228	3	-	8	2	-	1	4	21

Table 9. Number of active pharmacists, by source of remuneration, place of activity, and State of practice: United States, 1966

State of practice	Total active pharmacists	Source of remuneration and place of activity										
		Owner, partner, or stockholder			Private employee			Government employee		Member of religious order	Other source	No report
		Community pharmacy		Other pharmaceutical employment	Community pharmacy		Other pharmaceutical employment	State or local	Federal			
		Independent	Chain		Independent	Chain						
	Number of active pharmacists											
United States--	103,287	38,820	1,244	1,461	28,783	12,290	10,363	2,625	955	180	1,642	4,924
Alabama--------	1,208	541	20	18	352	93	100	34	15	1	11	23
Alaska---------	75	24	2	4	26	9	6	-	-	2	-	2
Arizona--------	1,144	298	10	20	261	270	122	38	20	1	14	90
Arkansas-------	877	445	4	20	255	28	54	32	7	1	1	30
California-----	7,033	2,357	132	115	2,015	1,247	782	227	38	1	75	44
Colorado-------	1,560	491	23	40	489	218	182	43	27	-	25	22
Connecticut----	2,094	782	11	17	762	152	174	45	17	7	26	101
Delaware-------	232	81	4	2	70	43	24	4	1	1	1	1
District of Columbia------	526	94	6	7	90	158	77	14	29	1	16	34
Florida--------	3,224	1,076	54	31	866	523	208	110	30	-	66	260
Georgia--------	2,048	839	35	19	534	213	151	73	23	2	16	143
Hawaii---------	161	41	6	4	32	35	38	3	2	-	-	-
Idaho----------	410	192	5	8	114	29	26	6	4	1	4	21
Illinois-------	6,382	2,124	74	99	1,865	895	691	122	45	26	121	320
Indiana--------	2,929	910	48	39	768	497	352	87	18	-	67	143
Iowa-----------	1,324	543	7	15	329	142	132	30	13	1	18	94
Kansas---------	1,263	517	8	17	328	129	97	24	14	7	23	99
Kentucky-------	1,347	597	17	17	353	183	111	30	8	1	7	23
Louisiana------	1,573	609	21	18	369	183	125	45	18	2	47	136
Maine----------	462	214	1	3	165	26	27	2	5	-	3	16
Maryland-------	1,806	579	18	17	460	462	123	42	34	3	34	34
Massachusetts--	3,138	1,131	24	29	1,087	171	353	82	40	2	45	174
Michigan-------	4,488	1,570	51	81	1,296	487	478	154	23	3	86	259
Minnesota------	2,052	802	15	26	525	252	245	63	21	7	10	86
Mississippi----	966	475	17	9	257	46	46	26	8	2	15	65
Missouri-------	2,600	916	35	37	661	307	294	50	20	19	48	213
Montana--------	451	202	7	8	109	44	34	12	3	3	1	28
Nebraska-------	948	410	7	11	293	21	88	18	8	2	17	73
Nevada---------	342	88	7	6	89	74	23	11	3	-	6	35
New Hampshire--	291	135	2	2	106	2	23	1	4	-	2	14
New Jersey-----	2,922	1,370	20	29	941	165	246	43	5	3	19	81
New Mexico-----	550	244	8	6	158	38	37	12	6	1	2	38
New York-------	13,200	5,345	78	184	3,785	926	1,642	393	99	16	212	520
North Carolina-	1,776	838	42	16	542	173	101	39	6	-	8	11
North Dakota---	359	155	3	9	66	44	58	12	6	1	1	4
Ohio-----------	4,883	1,722	73	49	1,264	909	515	105	40	9	104	93
Oklahoma-------	1,616	631	30	42	427	173	126	27	18	4	25	113
Oregon---------	1,213	422	18	27	364	158	118	29	7	-	15	55
Pennsylvania---	7,033	2,652	49	74	1,901	607	878	101	74	13	208	476
Rhode Island---	656	232	-	5	226	40	46	20	8	-	16	63
South Carolina-	962	460	8	6	272	60	38	31	12	2	12	61
South Dakota---	444	200	5	17	89	33	43	7	6	2	6	36
Tennessee------	1,805	800	28	23	495	192	155	53	21	2	12	24
Texas----------	5,364	1,924	92	86	1,351	786	488	132	76	4	78	347
Utah-----------	557	176	13	14	126	85	58	16	12	1	13	43
Vermont--------	143	61	1	-	60	6	9	2	1	-	1	2
Virginia-------	1,645	579	36	14	367	381	88	31	20	-	39	90
Washington-----	1,944	657	32	50	495	294	226	61	18	4	24	83
West Virginia--	634	265	7	10	199	74	31	17	2	1	3	25
Wisconsin------	2,360	894	26	58	659	183	268	56	16	20	36	144
Wyoming--------	267	110	4	3	70	24	6	10	4	1	3	32

APPENDIX I. QUESTIONNAIRE

STATE OF _____
Board of Pharmacy

Dear Pharmacist: The U.S. Public Health Service is conducting an important study relative to the nation's health manpower. Since this study may help to prevent a shortage of pharmacists in the future, the _____ State Board of Pharmacy and other Boards are cooperating by distributing and collecting questionnaires used in this study. So that the survey will be complete and accurate, please complete each item on the card below and return it, together with your renewal fee, to the Board of Pharmacy in _____ Each individual pharmacist on our active roster--whether in practice or not--must complete a card.

_____
Executive Secretary

Survey of registrations as licentiates in pharmacy in the state of _____ Social Security number _____ (for this survey only)

Pharmacist's name _____ (first) (initial) (last)

Mailing address _____ (number and street) (city) (state) (zip)

PLEASE PRINT OR TYPE INFORMATION REQUESTED OR CIRCLE APPROPRIATE CODE NUMBERS

A Place of principal activity (circle one)
1 Community pharmacy—independent
2 Community pharmacy—unit of chain of 4 or more
3 Hospital (or health-related institution) pharmacy
4 Clinic (non-hospital) pharmacy
5 College or university
6 Industry
7 Association or organization
8 Other place (please specify)

9 Retired or engaged in other than pharmaceutical activity (if code 9, please skip items B, C and D. Answer all others.)

B Employed in state of _____

C Type of principal activity (circle one)
1 Dispensing prescriptions and providing health care items
2 Sales (manufacturer, wholesaler, etc.)
3 Production
4 Administration
5 Teaching
6 Research
7 Teaching and research
8 Other pharmaceutical activity (please specify)

D Source of remuneration (circle one)
1 Private, as owner, partner or stockholder
2 Private, as employee
3 Government, state or local
4 Government, federal
5 Other (please specify)

E Undergraduate education in pharmacy (circle one)
1 One year
2 Two years
3 Three years
4 Four years
5 Five years
6 Six years
7 Less than one year
8 None

F First professional degree in pharmacy (circle one)
1 None
2 B.S.
3 B.Pharm.
4 Pharm.D.
5 Phar.D. (prior to 1940)
6 Ph.G.
7 Ph.C.
8 Other (please specify)

G College or university from which you graduated
1 Name _____
2 State _____
3 Year undergraduate degree received _____

H Graduate degree
1 Yes 2 No
If yes, please specify degree(s) _____

I Year of birth _____

J Sex
1 Male 2 Female

K Are you currently licensed and in good standing in more than one state?
1 Yes 2 No
If yes, please list all such states _____

This information is requested as part of a cooperative study with PHS-NABP. It is not part of the application for renewal of license.

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Pharmacy

Active pharmacist.—An active pharmacist is an individual who is licensed to practice pharmacy and is actually engaged in dispensing, sales, production, administration, teaching, research, or other pharmaceutical activity.

Licensed pharmacist.—A licensed pharmacist is an individual who has met the legal requirements for the practice of pharmacy as defined by one of the 51 licensing jurisdictions and has received a license to practice. All States and the District of Columbia require that pharmacists be licensed to practice. While current requirements for licensure vary among the 51 jurisdictions, generally speaking, they are: 5 years of undergraduate education, of which at least 3 must be in an accredited college of pharmacy; at least 1 year of experience; and an examination consisting of written, oral, and practical parts.

Registered pharmacist.—The term registered pharmacist is used interchangeably with the term licensed pharmacist throughout this report. All States and the District of Columbia license pharmacists under the title of "registered pharmacist" (R.Ph.).

Dispensing.—The term dispensing refers to the sale of drugs and other health care items from a prescription. In dispensing, the pharmacist is legally responsible for determining the validity of the prescription, selecting the medication, determining the proper dosage, and providing directions for use.

Community pharmacy.—A community pharmacy dispenses pharmaceutical supplies to the general public through either a chain or independent pharmacy.

Chain pharmacy.—A chain pharmacy is a community pharmacy which is part of a chain of four or more pharmacies operated by the same firm.

Independent pharmacy.—An independent pharmacy is a community pharmacy which is not part of a chain of four or more pharmacies.

Hospital or clinic pharmacy.—A hospital or clinic pharmacy dispenses pharmaceutical supplies, but serves only the hospital or clinic.

Demographic Terms

Age.—Age refers to the respondent's age in 1966. In all cases it is calculated as the difference between 1966 and the respondent's year of birth.

Geographic region.—The regions of the United States are divided as follows:

Region	*States Included*
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania
North Central	Michigan, Ohio, Illinois, Indiana, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Hawaii, Alaska

United States.—The 50 States and the District of Columbia.

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APPENDIX III. DATA COLLECTION

Schedule of Data Collection

The collection of data by the pharmacy manpower survey was extended over a period of time because the license renewal dates from the State boards of pharmacy vary. Table I shows the usual mailing dates of license renewal forms and the mailing dates of the survey.

Of the eight States which renewed licenses biennially, two States, California and Vermont, renewed in odd years and were surveyed late in 1965. Five of them—Indiana, Maryland, Massachusetts, New York, and Pennsylvania—renewed in even years and were surveyed in 1966. The remaining State, Washington, renewed half its licenses in odd years and half in even years, and was therefore surveyed in both 1966 and

Table I. Mailing date, renewal period of license, and date surveyed, by State: United States, 1965-67

State	Usual mailing date of license renewal forms	Renewal period (years)	Mailing date for questionnaires	State	Usual mailing date of license renewal forms	Renewal period (years)	Mailing date for questionnaires
Alabama	December	1	12/65	Montana	June	1	5/66
Alaska	April	1	4/66	Nebraska	November	1	11/65
Arizona	May	1	5/66	Nevada	May	1	9/67
Arkansas	December	1	12/65	New Hampshire	December	1	12/65
California	September	[1]2	[2]10/65	New Jersey	November	1	11/65
Colorado	May	1	5/66	New Mexico	April	1	4/66
Connecticut	February	1	2/67	New York	October	[3]2	9/66
Delaware	October	1	10/65	North Carolina	November	1	11/65
District of Columbia	December	1	1/66	North Dakota	February	1	2/66
Florida	April	1	4/66	Ohio	1 month prior to date of issuance	3	[2]6/66
Georgia	December	1	12/66				
Hawaii	November	1	11/65				
Idaho	May	1	5/66	Oklahoma	May	1	5/66
Illinois	November	1	1/66	Oregon	April	1	4/66
Indiana	May	[3]2	5/66	Pennsylvania	July	[3]2	7/66
				Rhode Island	June	1	6/66
Iowa	April	1	4/66	South Carolina	June	1	6/66
Kansas	June	1	6/66	South Dakota	September	1	9/66
Kentucky	December	1	12/65	Tennessee	November	1	12/65-2/66
Louisiana	December	1	12/65	Texas	November	1	11/66
Maine	June	1	6/66	Utah	September	1	9/66
				Vermont	December	[1]2	12/65-8/67
Maryland	July	[3]2	7/66				
Massachusetts	October	[3]2	9/67	Virginia	November	1	11/65
Michigan	May	1	5/66	Washington	April	[4]2	(4)
Minnesota	February	1	2/66	West Virginia	May	1	5/66
Mississippi	March	1	3/66	Wisconsin	March	1	4/66
Missouri	June	1	6/66	Wyoming	November	1	11/66

[1]Renews in odd years.

[2]Special mailout for California and Ohio.

[3]Renews in even years.

[4]M-Z in April 1966, A-L in April 1967.

1967. Georgia was scheduled to be surveyed in December 1965; however, the board office was moving to a new location at that time and was unable to undertake the job of distributing the questionnaires. It was surveyed 1 year later in December 1966. Because Ohio renewed licenses triennially from the original date of issuance, a special mailout was conducted in June 1966. All pharmacists except those in California, Massachusetts, Nevada, Ohio, and nonresident pharmacists in Vermont were sent questionnaires with the license renewal forms.

In September 1967 the initial mailout for all States was completed. The followup mailout started in August 1967. Followup questionnaires were mailed to nonrespondents in 27 States (table II). The NABP office handled all aspects of the followup mailout, including determining nonrespondents and printing and mailing questionnaires and cover letters. The followup was completed in March 1968.

Survey Coverage

Table II shows the survey coverage of registered pharmacists by State. Using the NABP January 1, 1967 estimate of 131,961 registered pharmacists as an estimate of the number of active and inactive pharmacists, the survey's return of questionnaires from 115,583 registered pharmacists yielded a coverage rate of 88 percent.

In some States there were more pharmacists covered by the survey than were shown in the 1966 NABP estimate. These differences can be explained as follows: first, the NABP numbers are estimates made from data collected over a 1-year span and may not be precise counts, and second, in order to do the followups, the NABP obtained lists of registered pharmacists from the State boards in 1967. These lists included some of the 1966 and 1967 graduates not covered in the first mailout or in the NABP estimates.

Table II. Coverage of registered pharmacists by pharmacy manpower survey, by State: United States, 1965-67

State	Number of registered pharmacists January 1, 1967[1]	Number of registered pharmacists in the pharmacy manpower survey 1965-1967	State	Number of registered pharmacists January 1, 1967[1]	Number of registered pharmacists in the pharmacy manpower survey 1965-1967
United States--	131,961	115,583	Missouri	3,069	2,975
			Montana[2]	512	522
Alabama[2]	1,751	1,275	Nebraska	1,168	1,130
Alaska[2]	86	79	Nevada[2]	328	355
Arizona	1,164	1,278	New Hampshire	364	310
Arkansas[2]	1,149	1,009			
California[2]	11,790	7,766	New Jersey[2]	4,784	3,232
			New Mexico	598	620
Colorado	1,862	1,872	New York[2]	15,256	14,865
Connecticut[2]	2,575	2,429	North Carolina	2,019	1,914
Delaware	258	254	North Dakota	408	404
District of Columbia[2]	954	584			
Florida[2]	4,805	3,544	Ohio[2]	6,841	5,517
			Oklahoma[2]	2,001	1,864
Georgia[2]	2,651	2,267	Oregon	1,667	1,413
Hawaii	200	179	Pennsylvania[2]	8,216	7,895
Idaho	518	466	Rhode Island[2]	816	742
Illinois[2]	6,714	7,194			
Indiana	3,376	3,167	South Carolina	1,287	1,052
			South Dakota	480	498
Iowa	1,789	1,511	Tennessee[2]	2,388	1,999
Kansas	1,501	1,432	Texas[2]	6,495	6,025
Kentucky[2]	1,658	1,458	Utah[2]	601	592
Louisiana	2,030	1,837			
Maine	434	515	Vermont[2]	209	153
			Virginia	1,967	1,793
Maryland	2,368	1,999	Washington[2]	2,611	2,229
Massachusetts[2]	5,616	3,482	West Virginia	706	720
Michigan[2]	5,603	4,873	Wisconsin	2,567	2,596
Minnesota[2]	2,379	2,378	Wyoming	296	298
Mississippi[2]	1,076	1,031			

[1]Data for calendar year 1966 estimated by NABP.

[2]Followup mailout conducted in 1967.

Source: National Association of Boards of Pharmacy: 1967 Proceedings of the National Association of Boards of Pharmacy Licensure Statistics and Census of Pharmacy. Chicago, 1967.

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