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Number, Distribution and Age of Physicians in Southern Illinois

Ray E. Wakeley

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This is Area Services bulletin no. 4 in the series "Human and Community Resources of Southern Illinois," published in the early 1960s. This report was published in 1964 by Southern Illinois University's Division of Area Services and authored by Dr. Ray E. Wakeley, Dr. C. E. Lively, and Bert J. Kellerman. The series was published as a means to assist the economic, social, and cultural development of southern Illinois. This report is an analysis of community health services and information on the number and distribution of physicians in the southernmost 31 counties in Illinois. It provides good insight into the state and availability of medical care in Southern Illinois in the mid 1960s.

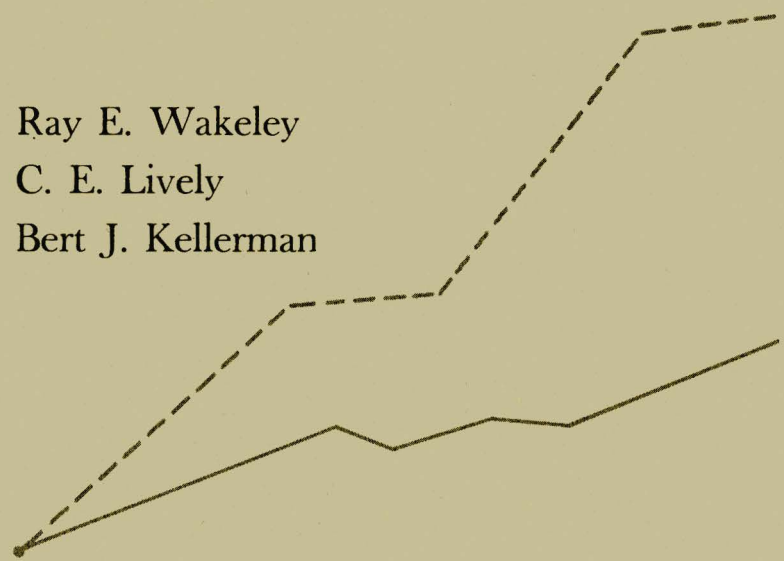
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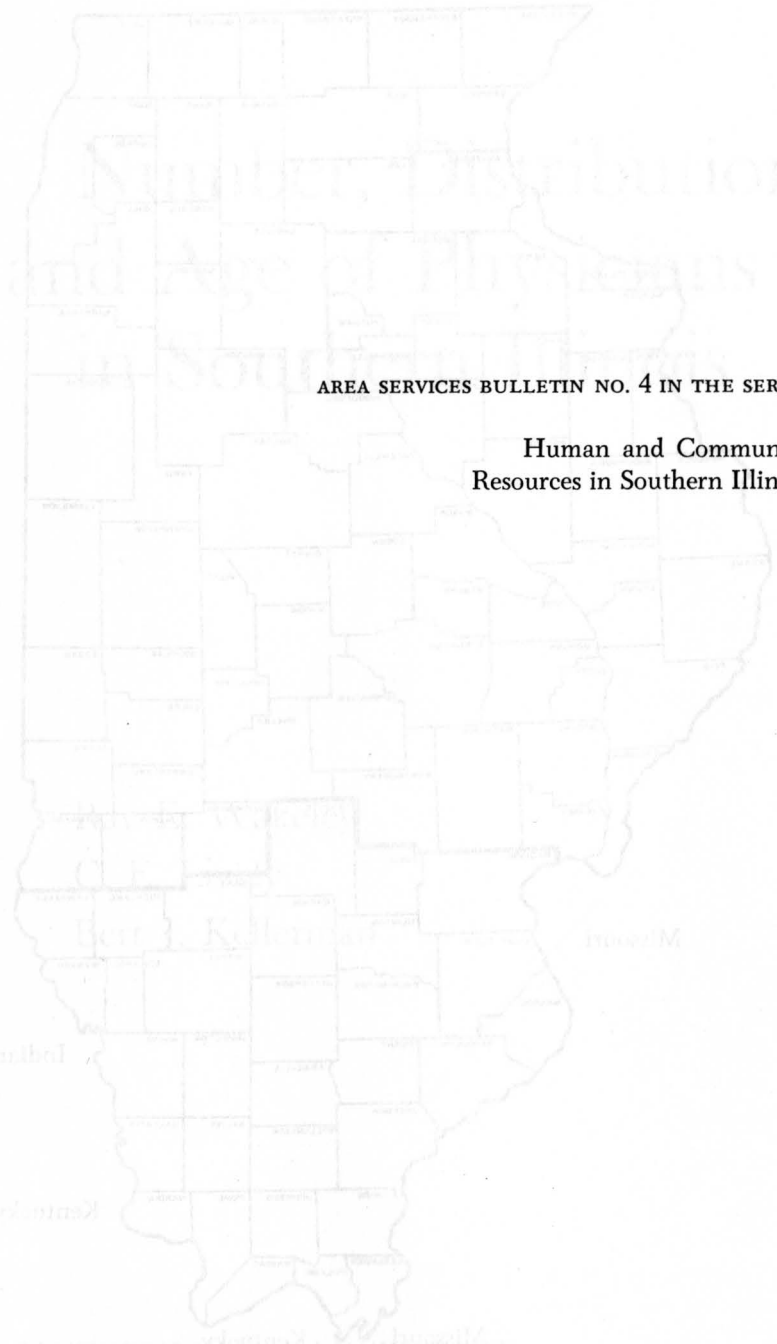


The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations.

In the second section, the author provides a detailed breakdown of the company's revenue streams. This includes sales from various product lines and services. The analysis shows that while one product line is currently the primary source of income, diversification into new markets is essential for long-term growth.

The third section focuses on the company's operational costs. It identifies areas where expenses are particularly high and suggests strategies to optimize these costs without compromising the quality of products or services. For example, renegotiating contracts with suppliers and improving inventory management are key recommendations.

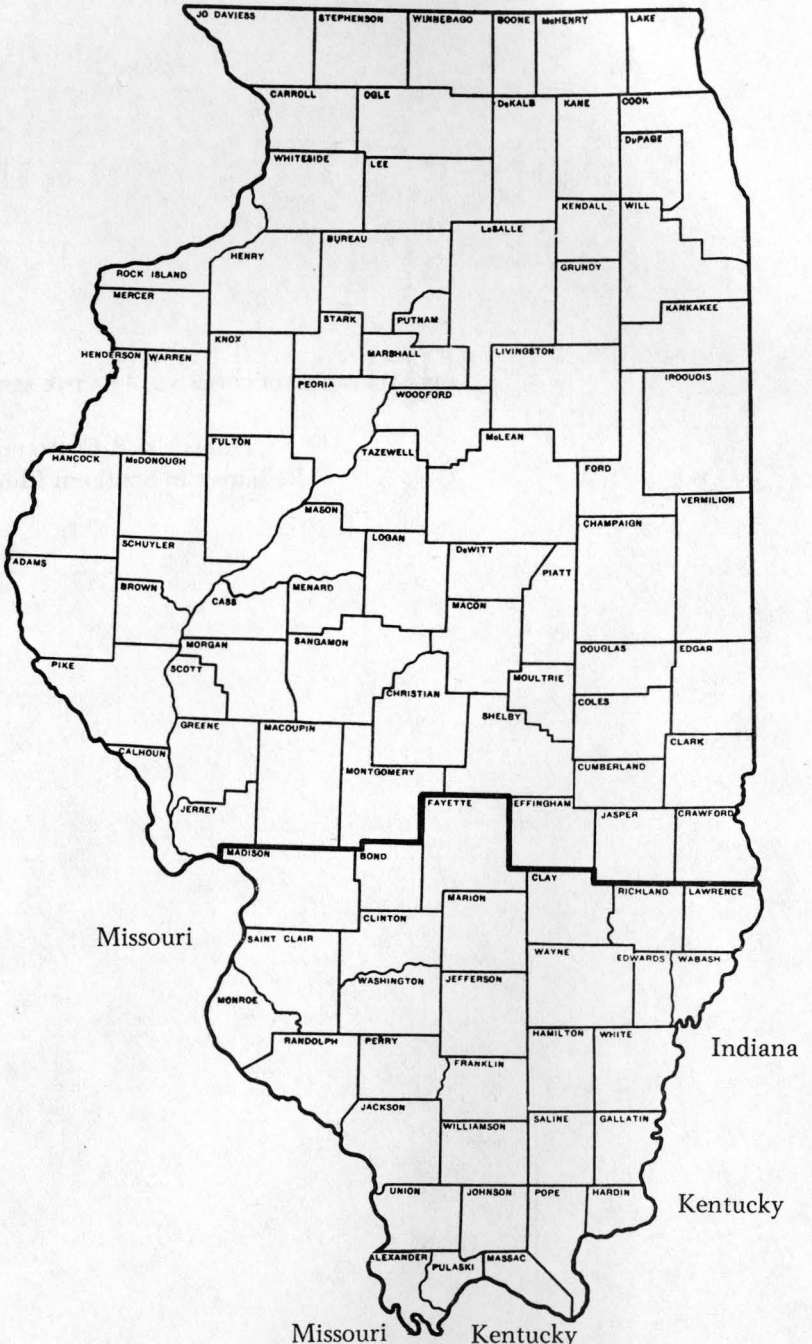
Finally, the document concludes with a summary of the overall financial health and a set of recommendations for the upcoming fiscal year. The author stresses the need for continuous monitoring and adjustment of the business plan to respond to changing market conditions.



AREA SERVICES BULLETIN NO. 4 IN THE SERIES

**Human and Community
Resources in Southern Illinois**

SOUTHERN ILLINOIS UNIVERSITY
SPRINGFIELD, ILLINOIS



Missouri

Indiana

Kentucky

Missouri Kentucky

Southern Illinois, the Area Studied

Number, Distribution and Age of Physicians in Southern Illinois

Ray E. Wakeley

C. E. Lively

Bert J. Kellerman

SOUTHERN ILLINOIS UNIVERSITY

Previous Bulletins in This Series

1. *Population Changes and Prospects in Southern Illinois*
2. *Growth and Decline of Towns and Cities in Southern Illinois*
3. *Types of Rural and Urban Community Centers in Southern Illinois*

Southern Illinois University
Division of Area Services
Carbondale, Illinois
September, 1964

W. J. Tudor, Director

Preface

This bulletin is the fourth in a series prepared by the Division of Area Services of Southern Illinois University. The series is designated to provide basic information for use in the economic, social, and cultural development of Southern Illinois. The analysis of community health services includes information on the number and distribution of physicians who reside in and serve the people in the southern thirty-one counties of the State. Physicians work to maintain the health of the people. The number of physicians in relation to the population they serve is a measure of community health services.

This is the first unit of a study of health resources in Southern Illinois which was planned and initiated by Dr. C. E. Lively, who was Visiting Professor in the Division of Area Services, 1962-63. Bert J. Kellerman, Research Assistant in the Division, completed the analysis of the data under a grant provided by the Office of Research and Projects of the Graduate School. Dr. Ray E. Wakeley, Visiting Professor, wrote the final report.

Index

The index is the first in a series of volumes in the series of Southern Illinois University Press. It is designed to provide quick reference to the titles in the series. The index is arranged in alphabetical order of the author's name. The index is divided into two parts: the first part lists the titles in the series, and the second part lists the titles in the series in chronological order. The index is arranged in alphabetical order of the author's name. The index is divided into two parts: the first part lists the titles in the series, and the second part lists the titles in the series in chronological order.

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Introduction

Southern Illinois is an underdeveloped area which is growing more slowly than the rest of the State. Changes in mining and agriculture have decreased employment in those industries. New developments in industry and recreation have taken up the slack but have not been sufficient to push the area rapidly ahead. Consequently Southern Illinois is a surplus population area from which many of its people have moved to other places where opportunities appeared to be more favorable. But the total population of the thirty-one counties in Southern Illinois is increasing and has increased slowly but steadily from 1900 to the present time.

Health and medical care is an important field of service often neglected in underdeveloped areas. While good health is a matter of universal concern, it is a matter for special concern in underdeveloped areas, especially in rural areas. In areas where incomes are relatively small and the population is scattered, physicians are generally fewer and public health suffers for lack of adequate care.

Basically we depend on local physicians to cure disease and help maintain good health. The ratio of the number of people living in an area to the number of physicians locally available to serve them is a commonly used measure of the adequacy of physician service. This measure will be used in this analysis of physician service in Southern Illinois. Four additional factors will be used: (1) the distribution of physicians and specialists among the counties, (2) the distribution of physicians and specialists among places of different size, (3) the availability of medical specialists, and (4) the age of physicians. First, this report will compare the number of persons per physician in different areas of the State. Then the situation in the southern thirty-one counties will be analyzed in greater detail. All registered physicians will be included in this State-wide part of the analysis whether or not they were in active practice.

Persons Per Physician in Various Areas of the State

The Directory of the American Medical Association for 1960-61 listed 12,677 licensed physicians in the State of Illinois. This number included all physicians who were licensed to practice medicine even though some were engaged in scientific, educational, or public health activities, and others were not in active practice or had retired. Most of the physicians, 11,946 or 94.2 per cent of the total were located in the central and northern part of the State. Only 5.8 per cent of the physicians were located in the southern thirty-one counties which had 10.5 per cent of the total population of the State in 1960 (Table 1). The number of persons per licensed physician varied greatly for individual counties in both sections of the State. In the northern seventy-one counties, the number of persons per physician ranged from a low of 609 in Cook County to a high of 4,118 in Henderson County. In the southern thirty-one counties, the number of persons per physician ranged from a low of 776 in Richland County to a high of 2,622 in Pulaski County (Fig. 1). These averages were based on all licensed physicians, some of whom were not in active practice.

Cook County with slightly over one-half of the State's total population had approximately two-thirds of the total physicians in the State (Table 1). Thus Cook County had by far the lowest number of persons per physician among all the counties in Illinois. The large population in Cook County together with its large number of physicians reduced the number of persons per physician for the State as a whole to a respectable but inadequate 795. When Cook County was eliminated from the State totals, the average number of persons per physician in the rest of the State increased to a very inadequate 1,163. The northern counties outside of Cook County had an average of 1,105, and the southern thirty-one counties had an average of 1,443 persons per licensed physician. This analysis showed clearly that the number of physicians outside of Cook County was inadequate to meet reasonable standards and that the number of physicians was most inadequate in the southern thirty-one counties of the State. This analysis did not indicate that there were too many licensed physicians in Chicago—Cook County. The number of persons per physician in Cook County was larger than for the State of

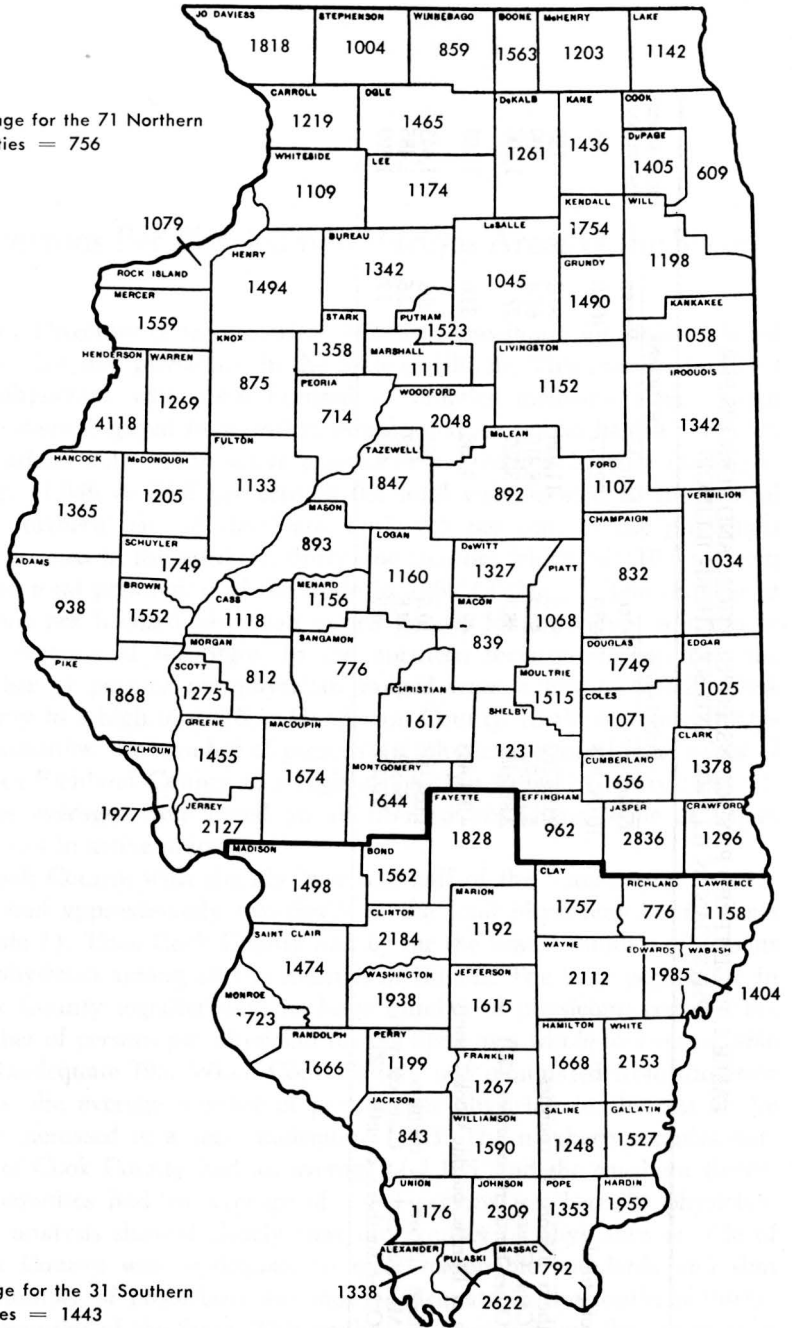
TABLE 1. REGISTERED PHYSICIANS, POPULATION, AND PERSONS PER PHYSICIAN IN ILLINOIS AND SOUTHERN ILLINOIS

AREA	POPULATION		PHYSICIANS		PERSONS PER PHYSICIAN
	Number	Percent	Number	Percent	
Illinois, total	10,081,158	100.0	12,677	100.0	795
Northern Illinois, 71 counties	9,026,162	89.5	11,946	94.2	756
Cook County	5,129,725	50.9	8,419	66.4	609
Other northern counties (70)	3,896,487	38.7	3,527	27.8	1,105
State of Illinois, outside Cook County	4,951,433	49.1	4,258	33.6	1,163
Southern Illinois, 31 counties	1,054,996	10.5	731	5.8	1,443
Madison and St. Clair counties	487,198	4.8	328	2.6	1,485
Other southern counties (29)	567,798	5.6	403	3.2	1,409

Illinois Department of Health and Senior Services

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Average for the 71 Northern Counties = 756



Average for the 31 Southern Counties = 1443

Figure 1. Number of Persons Per Registered Physician By County, State of Illinois

New York, although somewhat smaller than the modest standard of adequacy applied in this analysis.¹

When the standard for adequate service was applied, only Cook and Peoria counties met the standard of adequacy for physician service. All other counties in the State had more persons per physician than the 742 recommended (Fig. 1). All major areas of the State had fewer than 1,500 persons per licensed physician which was defined by the War Manpower Commission as the crisis point in physician service. However, Southern Illinois had a ratio of 1,443 persons per licensed physician which was close to the danger point. The danger point was reached when the recommendation was applied as written. The recommendation was for not more than 1,500 persons per *effective* physician.²

The preceding Statewide analysis included all licensed physicians whether or not they were in active practice. The following analysis of physician service in Southern Illinois did not include physicians who were not in active practice or were retired. This more detailed analysis of the thirty-one counties resulted in a more realistic appraisal of physician service than was obtained by using the total number of licensed physicians.

¹ Charles P. Loomis and J. Allan Beegle, *Rural Social Systems* (New York: Prentiss Hall, Inc., 1950), pp. 723-24. 1. "The Committee on the Costs of Medical Care concluded that 1 physician was needed for each 742 people." They felt that adequate medical care could be provided by physicians on that basis. 2. "The Procurement and Assignment Service of the War Manpower Commission set the maximum population-doctor ratio at 1,500 persons per effective physician, a ratio which could not be increased without jeopardizing public health."

² Not all licensed physicians were fully effective medical practitioners. Some were retired or not in active practice. Others were administrators, teachers, or researchers rather than active practitioners. Many licensed practitioners were over 70 years of age and therefore were not considered to be in full-time active practice.

Physicians in Southern Illinois

The average number of persons per physician in active practice in the thirty-one counties of Southern Illinois was 1,507. This increase from the 1,443 persons per licensed physician, stated previously, resulted from the exclusion from the total of 731 of the 31 who were inactive or retired.³ Two counties, Richland and Jackson, had fewer than 1,000 persons per physician in active practice. At the other extreme were six counties, Wayne, White, Clinton, Washington, Pulaski, and Johnson which had more than 2,000 persons per physician in active practice (Fig. 2). Twenty-one counties each had more persons per physician in active practice than the 1,500 which was set as the upper limit. Included in the twenty-one crisis counties were both metropolitan counties, 14 of 23 counties with small urban centers, and 5 of the 6 all-rural counties. No county in Southern Illinois had enough physicians in active practice to meet the standard of 742 persons per physician. Neither geographical location, nor urban population, nor migration had a determining influence on the ratio of population to physicians in Southern Illinois. The lack of physicians was general throughout the area.

The presence of sixteen osteopathic doctors in Southern Illinois did not change the situation materially, except in Marion County where five were listed, making a total of thirty-five medical and osteopathic physicians. This addition to the number of physicians reduced the number of persons per physician from 1,312 to 1,124 for Marion County. The only other county which reported more than one osteopathic physician was Madison with four, enough to reduce the number of persons per physician from 1,508 to 1,469.

SPECIALISTS AND THEIR DISTRIBUTION

Among the 700 physicians in active practice in Southern Illinois, 321 were specialists and 379 were nonspecialists or generalists. Physicians with either part-time or full-time special practice were classified

³Physicians were not excluded from the analysis because of age. If the 104 physicians over 70 years of age had been judged to average one-half as effective as younger physicians, the effective number of physicians would have been 648 and the ratio would have been 1,628 persons per effective physician.

Rank	County	Persons per physician (in hundreds)							Number of persons
		5	10	15	20	25	30	35	
1	Richland								776
2	Jackson								897
3	Perry								1199
4	Saline								1248
5	Franklin								1309
6	Marion								1312
7	Alexander								1338
8	Pope								1353
9	Lawrence								1426
10	Union								1470
11	Madison								1508
12	Gallatin								1527
13	St. Clair								1553
14	Bond								1562
15	Williamson								1590
16	Hamilton								1668
17	Jefferson								1701
18	Monroe								1723
19	Wabash								1756
20	Clay								1757
21	Massac								1792
22	Fayette								1828
23	Hardin								1959
24	Edwards								1985
25	Randolph								1999
26	Wayne								2112
27	White								2153
28	Clinton								2184
29	Washington								2262
30	Pulaski								2622
31	Johnson								3464
	Average								1507

Figure 2. Population Per Physician in Active Practice, By County, in Southern Illinois

TABLE 2. SPECIALISTS AND NON-SPECIALISTS IN ACTIVE PRACTICE,
BY COUNTY IN SOUTHERN ILLINOIS

COUNTY	POPULATION	NUMBER OF SPECIALISTS	PERSONS PER SPECIALIST	NUMBER OF NON-SPECIALISTS	PERSONS PER NON-SPECIALIST	TOTAL PHYSICIANS	PERSONS PER PHYSICIAN
Richland	16,299	20	814	1	16,299	21	776
Jackson	42,151	28	1,505	19	2,218	47	897
Perry	19,184	5	3,836	11	1,744	16	1,199
Saline	26,227	6	4,371	15	1,748	21	1,248
Franklin	39,281	11	3,571	19	2,067	30	1,309
Marion	39,349	11	3,577	19	2,071	30	1,312
Alexander	16,061	7	2,294	5	3,212	12	1,338
Pope	4,061	0	—	3	1,353	3	1,353
Lawrence	18,540	5	3,708	8	2,318	13	1,426
Union	17,645	2	8,822	10	1,765	12	1,470
Madison	224,689	77	2,918	72	3,121	149	1,508
Gallatin	7,638	2	3,819	3	2,546	5	1,527
St. Clair	262,509	97	2,706	72	3,646	169	1,553
Bond	14,060	1	14,060	8	1,757	9	1,562
Williamson	46,117	13	3,547	16	2,882	29	1,590
Hamilton	10,010	1	10,010	5	2,002	6	1,668
Jefferson	32,315	9	3,590	10	3,232	19	1,701
Monroe	15,507	2	7,753	7	2,215	9	1,723
Wabash	14,047	2	7,023	6	2,341	8	1,756
Clay	15,815	2	7,907	7	2,259	9	1,757
Massac	14,341	4	3,585	4	3,585	8	1,792
Fayette	21,946	3	7,315	9	2,438	12	1,828
Hardin	5,879	0	—	3	1,959	3	1,959
Edwards	7,940	2	3,970	2	3,970	4	1,985
Randolph	29,988	2	14,994	13	2,307	15	1,999
Wayne	19,008	4	4,752	5	3,801	9	2,112
White	19,373	2	9,686	7	2,768	9	2,153
Clinton	24,029	2	12,014	9	2,669	11	2,184
Washington	13,569	0	—	6	2,262	6	2,262
Pulaski	10,490	0	—	4	2,622	4	2,622
Johnson	6,928	1	6,928	1	6,928	2	3,464
Total	1,054,996	321	3,287	379	2,784	700	1,507

as specialists. One-third, or 105, of the specialists were certified by a specialty board. The other two-thirds indicated a part-time specialty because they had some specialized practice. Of course, they also were in general practice but they were not included among the 379 non-specialists who did not report any specialty.

Specialists were located mostly in the metropolitan and smaller urban counties (Table 2). Of the total of 321 specialists, 174 were located in Madison and St. Clair counties which were part of the St. Louis metropolitan area. Although these two counties had a majority of all the specialists in Southern Illinois, because of their large population, they did not have the smallest number of persons per specialist. Richland, Jackson, and Alexander counties each had a smaller number of persons per specialist than did Madison and St. Clair. Seven counties in Southern Illinois each had more than ten specialists and four counties had no specialists. Of these four counties—Pulaski, Hardin, Pope, and Washington—all but Washington were entirely rural. While physicians generally were well distributed in Southern Illinois, specialists were concentrated in the urban counties. As a result, counties with a relatively large number of specialists did not necessarily have a large number of non-specialists, and vice versa. This lack of direct relationship was clearly indicated in Richland and Pope counties (Fig. 3). Richland had the smallest number of persons per specialist and the largest number of persons per non-specialist. Pope, in contrast, had no specialists but it did have the smallest number of persons per non-specialist among the thirty-one counties (Table 2).

The relationship between the number of specialists and the number of non-specialists was not a simple one. It was complicated by the lack of information concerning the relative amounts of time which part-time specialists spent in special practice and in general practice. It was complicated further by the large number of specialists which were not certified to practice a specialty. But most of the differences between the distribution of specialists and non-specialists resulted naturally from the nature of their work and the necessary conditions for successful practice of a specialty. Medical specialists had to have specialized equipment and laboratory services available. Such facilities usually were available only in the better equipped hospitals. Physicians in general practice served a smaller total population and did not need such specialized equipment. However, many physicians in general practice used hospital equipment and services, when they were available, for minor surgery and other specialized practice and therefore reported that they were part-time specialists. This practice accounted for the relatively small number of non-specialists listed in counties where hospital facilities were available and specialists were more plentiful.

In general, the number of persons per generalist or non-specialist

specialists while Richland listed only one active physician who did not declare a specialty. Jackson County, which had three hospitals, had nineteen non-specialists and twenty-eight specialists. Jackson was second among the southern counties in the ratio of population to specialists, second in the ratio of population to total physicians in active practice, but ranked eleventh in population per non-specialist.

The number and type of physicians in active practice varied directly with the size of place in which they were located and the number of persons per physician in active practice was much larger in the small- or center-urban places averaged 800 persons per physician and rural places averaged 1,257 persons. While rural places were generally undersupplied with physicians, the urban places appeared to be unable to help meet total needs without neglecting the urban population. Centers which had less than 250 population, unincorporated places and open country populations had no resident physicians for a total population of 347,061 persons. The result was that one of every three persons in Southern Illinois had to travel to larger towns and cities to obtain medical care. Persons not living near towns and cities were at a disadvantage and physician service was jeopardized because physicians were not present in sufficient number to serve adequately the population of the centers in which they were located. The thirty-six places which had populations between 250 and 500, had little better, with five physicians in active practice and a total population of 21,787 persons, or 4,357 persons per physician. The three larger classes of rural places, 500-999, 1,000-1,499, and 1,500-2,499, averaged more than 1,000 persons per physician (Fig. 4). All but one of the urban size classes had less than 1,000 persons per physician in active practice. All urban classes were better than the best of the rural, but no class, either urban or rural, had a sufficient number of physicians to meet the standard of 742 persons per physician.

SPECIALISTS IN RURAL AND URBAN PLACES

Few physicians located in rural centers practiced either a part-time or a full-time specialty. Total physicians in active practice in rural areas was eighty-five and nine of these were specialists. Among the urban centers there were 572 specialists which was 10 more than the non-specialists located in the urban centers (Table 3). The field of surgery had the largest number of specialists, eighty-three or 35 per cent of the total. The second most active specialty field was internal medicine with thirty-eight specialists. Obstetrics and gynecology was third with thirty-two. The remaining specialties, approxi-

Distribution of Physicians by Size of Place

The number and type of physicians in active practice varied directly with the size of place in which they were located and the number of persons per physician in active practice was much larger in the smaller centers. Urban places averaged 899 persons per physician and rural places averaged 1,837 persons. While rural places were seriously undersupplied with physicians, the urban places appeared to be unable to help meet rural needs without neglecting the urban population.

Centers which had less than 250 population, unincorporated places, and open country populations had no resident physicians for a total population of 347,661 persons. The result was that one of every three persons in Southern Illinois had to travel to larger towns and cities to obtain medical care. Persons not living near towns and cities were at a disadvantage and physician service was jeopardized because physicians were not present in sufficient numbers to serve adequately the population of the centers in which they were located. The thirty-six places which had populations between 250 and 500, fared little better, with five physicians in active practice and a total population of 21,787 persons, or 4,357 persons per physician. The three larger classifications of rural places, 500-999, 1,000-1,499, and 1,500-2,499, averaged more than 1,000 persons per physician (Fig. 4). All but one of the four urban size classes had less than 1,000 persons per physician in active practice. All urban classes were better than the best of the rural but no class, either urban or rural, had a sufficient number of physicians to meet the standard of 742 persons per physician.

SPECIALISTS IN RURAL AND URBAN PLACES

Few physicians located in rural centers practiced either a part-time or a full-time specialty. Total physicians in active practice in rural areas was eighty-three and nine of these were specialists. Among the urban centers there were 312 specialists which was 16 more than the 296 non-specialists located in the urban centers (Table 3).

The field of surgery had the largest number of specialists, eighty-three or 26 per cent of the total. The second most active specialty field was internal medicine with thirty-eight specialists. Obstetrics and gynecology was third with thirty-three. The remaining specialists, approxi-

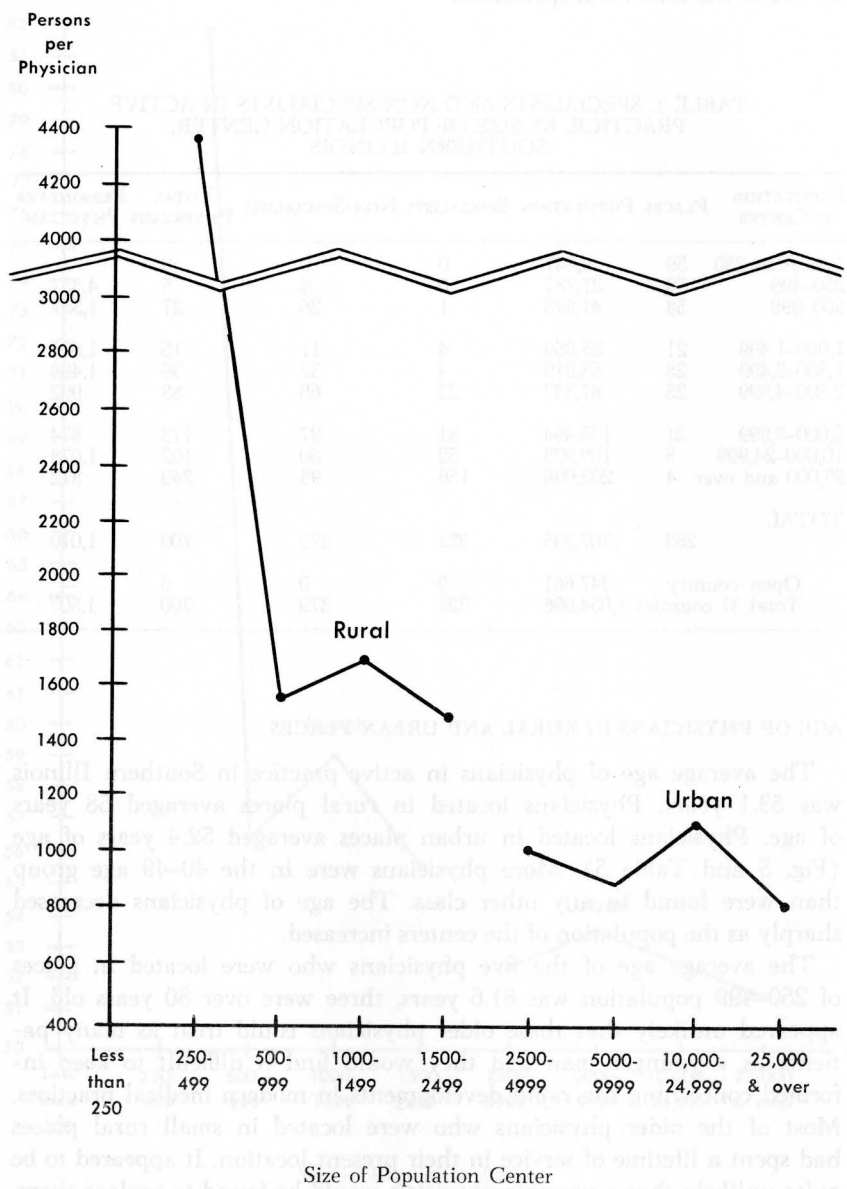


Figure 4. Persons Per Physician in Active Practice, By Size of Population Center, Southern Illinois

mately one half of the total, were widely scattered among many different areas of specialization, with no other specialty having more than twenty practitioners (Table 4). Surgery was listed as their specialty by five of the nine rural specialists.

TABLE 3. SPECIALISTS AND NON-SPECIALISTS IN ACTIVE PRACTICE, BY SIZE OF POPULATION CENTER, SOUTHERN ILLINOIS

POPULATION OF CENTER	PLACES	POPULATION	SPECIALISTS	NON-SPECIALISTS	TOTAL PHYSICIANS	PERSONS PER PHYSICIAN
Less than 250	59	9,847	0	0	0	—
250-499	59	21,787	0	5	5	4,357
500-999	58	41,873	1	26	27	1,551
1,000-1,499	21	25,059	4	11	15	1,671
1,500-2,499	28	53,919	4	32	36	1,498
2,500-4,999	25	87,337	23	65	88	992
5,000-9,999	21	155,494	81	97	178	874
10,000-24,999	8	109,923	52	50	102	1,078
25,000 and over	4	202,096	156	93	249	812
TOTAL	283	707,335	321	379	700	1,010
Open country		347,661	0	0	0	—
Total 31 counties		1,054,996	321	379	700	1,507

AGE OF PHYSICIANS IN RURAL AND URBAN PLACES

The average age of physicians in active practice in Southern Illinois was 53.1 years. Physicians located in rural places averaged 58 years of age. Physicians located in urban places averaged 52.4 years of age (Fig. 5 and Table 5). More physicians were in the 40-49 age group than were found in any other class. The age of physicians decreased sharply as the population of the centers increased.

The average age of the five physicians who were located in places of 250-499 population was 81.6 years, three were over 80 years old. It appeared unlikely that these older physicians could treat as many patients as a younger man and they would find it difficult to keep informed concerning the rapid developments in modern medical practices. Most of the older physicians who were located in small rural places had spent a lifetime of service in their present location. It appeared to be quite unlikely that a younger physician would be found to replace them. Professional equipment for modern medical practice and facilities for good living were too frequently lacking in small towns.

TABLE 4. NUMBER AND KINDS OF SPECIALISTS IN CENTERS BY SIZE OF CENTER, SOUTHERN ILLINOIS

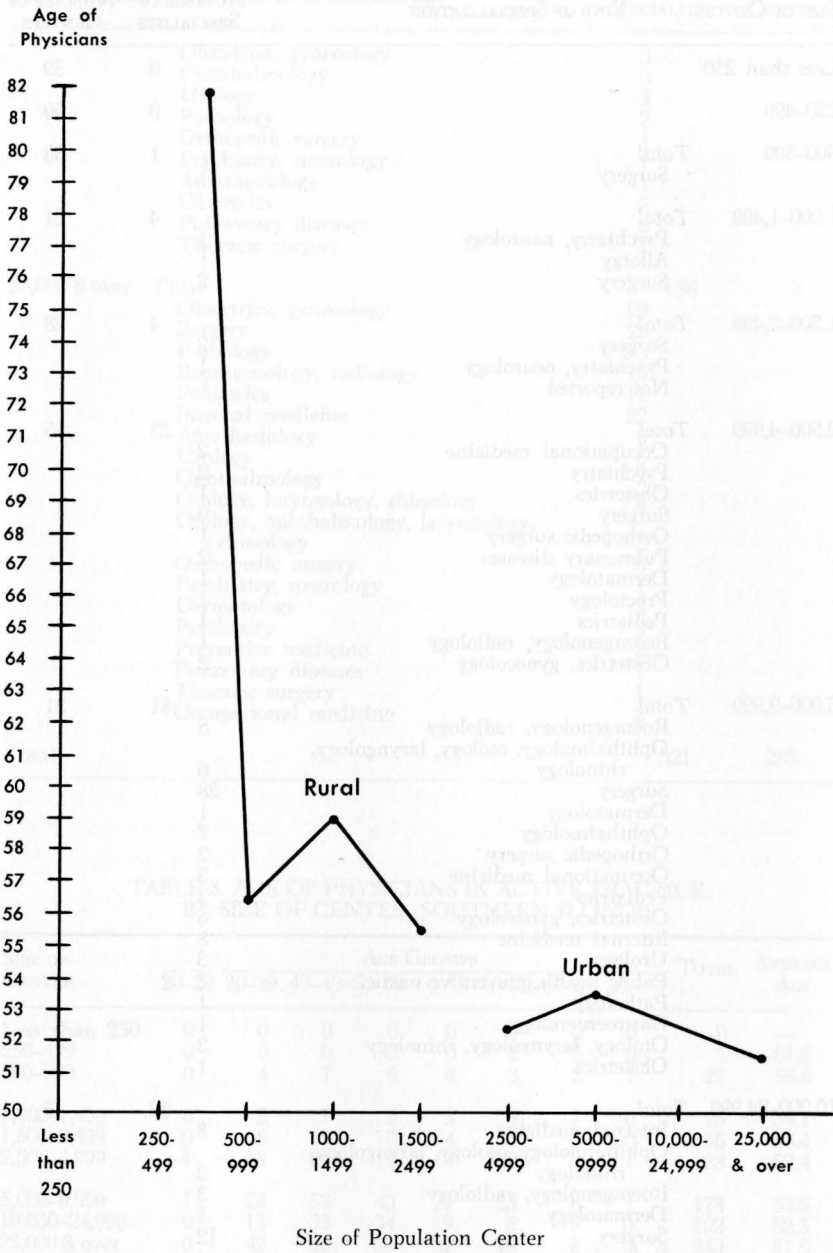


Figure 5. Average Age of Physician in Active Practice, By Size of Population Center, Southern Illinois

TABLE 4. NUMBER AND KINDS OF SPECIALISTS IN CENTERS,
BY SIZE OF CENTER, SOUTHERN ILLINOIS

SIZE OF CENTER	KIND OF SPECIALIZATION	NUMBER OF SPECIALISTS	NUMBER OF CENTERS
Less than 250		0	59
250-499		0	59
500-599	<i>Total</i>	1	58
	Surgery	1	
1,000-1,499	<i>Total</i>	4	21
	Psychiatry, neurology	1	
	Allergy	1	
	Surgery	2	
1,500-2,499	<i>Total</i>	4	28
	Surgery	2	
	Psychiatry, neurology	1	
	Not reported	1	
2,500-4,999	<i>Total</i>	23	25
	Occupational medicine	2	
	Psychiatry	2	
	Obstetrics	1	
	Surgery	9	
	Orthopedic surgery	1	
	Pulmonary diseases	2	
	Dermatology	1	
	Proctology	1	
	Pediatrics	1	
	Roentgenology, radiology	1	
	Obstetrics, gynecology	2	
5,000-9,999	<i>Total</i>	81	21
	Roentgenology, radiology	5	
	Ophthalmology, otology, laryngology, rhinology	6	
	Surgery	28	
	Dermatology	1	
	Ophthalmology	7	
	Orthopedic surgery	2	
	Occupational medicine	5	
	Pediatrics	3	
	Obstetrics, gynecology	6	
	Internal medicine	8	
	Urology	3	
	Public health, preventive medicine	2	
	Pathology	1	
	Gastroenterology	1	
	Otology, laryngology, rhinology	2	
	Obstetrics	1	
10,000-24,999	<i>Total</i>	52	8
	Internal medicine	8	
	Ophthalmology, otology, laryngology, rhinology	2	
	Roentgenology, radiology	3	
	Dermatology	1	
	Surgery	12	
	Pediatrics	4	
	Psychiatry	1	
	Preventive medicine	2	

(continued)

TABLE 4. (continued)

SIZE OF CENTER	KIND OF SPECIALIZATION	NUMBER OF SPECIALISTS	NUMBER OF CENTERS
	Obstetrics, gynecology	3	
	Ophthalmology	3	
	Urology	3	
	Pathology	2	
	Orthopedic surgery	1	
	Psychiatry, neurology	1	
	Anesthesiology	1	
	Obstetrics	2	
	Pulmonary diseases	2	
	Thoracic surgery	1	
25,000 & over	<i>Total</i>	156	4
	Obstetrics, gynecology	29	
	Surgery	29	
	Pathology	3	
	Roentgenology, radiology	10	
	Pediatrics	11	
	Internal medicine	22	
	Anesthesiology	9	
	Urology	6	
	Ophthalmology	8	
	Otology, laryngology, rhinology	8	
	Otology, ophthalmology, laryngology, rhinology	2	
	Orthopedic surgery	6	
	Psychiatry, neurology	1	
	Dermatology	3	
	Psychiatry	3	
	Preventive medicine	2	
	Pulmonary diseases	1	
	Thoracic surgery	1	
	Occupational medicine	2	
Total		321	283

TABLE 5. AGE OF PHYSICIANS IN ACTIVE PRACTICE,
BY SIZE OF CENTER, SOUTHERN ILLINOIS

SIZE OF CENTER	AGE GROUPS								TOTAL	AVERAGE AGE
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90+		
Less than 250	0	0	0	0	0	0	0	0	0	—
250-499	0	0	0	0	0	2	3	0	5	81.6
500-999	0	4	7	6	4	3	2	1	27	56.6
1,000-1,499	0	2	1	5	3	3	1	0	15	59.1
1,500-2,499	0	6	9	10	4	4	3	0	36	55.4
2,500-4,999	1	18	24	18	14	8	4	1	88	52.4
5,000-9,999	1	24	53	49	21	23	6	1	178	53.6
10,000-24,999	0	13	33	34	9	8	5	0	102	52.5
25,000 & over	0	42	81	69	31	18	8	0	249	51.5
Total	2	109	208	191	86	69	32	3	700	53.1

Summary and Conclusions

Analysis of the number, distribution, and selected characteristics of physicians in Southern Illinois indicated that no county in Southern Illinois, whether metropolitan, small city, or rural, had a large enough number of physicians to serve the county adequately. The thirty-one Southern Illinois counties had a total of 731 registered physicians to serve a population of 1,054,996. Of the registered physicians, 31 were retired or not in active practice and an additional 104 were over 70 years of age. Seven hundred physicians in active practice to serve a population of 1,054,996 resulted in an average of 1,507 persons for each physician. This has been defined as a crisis situation in which the public health of the area might be jeopardized. When a more adequate standard of 742 persons per physician was applied, a need for 1,422 physicians was indicated. This meant that the number of physicians in Southern Illinois needed to be doubled if adequate service were to be made available to the people of the area.

The supply of physicians in the State as a whole was reasonably adequate. However, the State average of one registered physician for 795 persons resulted from the tremendous concentration of physicians in Chicago's Cook County where the ratio was one registered physician for each 609 persons. Only one other county met the standard of 742 persons per physician.

There can be no disagreement with the fact that Southern Illinois must have many more physicians if total needs for medical care are to be met. Any reasonable plan which will alleviate the physician shortage should be inaugurated promptly. Among the more important considerations are the following:

1. Decrease in the number of the population in Southern Illinois is no answer to the problem of too few and too old physicians concentrated in urban areas. The population of the thirty-one counties has increased slowly but steadily since 1900. Redistribution of physicians now in practice would help somewhat, but it would not be sufficient to remedy the situation. There just are not enough physicians to go around. This means that Illinois must train more physicians as promptly as possible. The medical pro-

fession and the people of the area have recognized that there is critical need for more physicians in Southern Illinois.

2. As additional medical service becomes available, the people in Southern Illinois need to learn to satisfy their needs for medical care more completely. But increased health education for increased medical care cannot become effective until there is an increase in the number of physicians.
3. Employment and income are increasing slowly in Southern Illinois, but low income is still a major bar to adequate medical care for people in the area. Plans must be made to finance medical care more adequately for persons with low incomes and limited resources, as well as for those who are on public assistance, until such a time as employment and income reach more adequate levels.

