

# Distribution of Health Services In Missouri

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## SUMMARY

Changes have occurred in medical services and demands for services which are in some ways reflected in their distribution. As changes in distribution of medical services are examined more closely it is apparent that they focus on centralization and interdependence. Certain centers emerge which offer quite specialized services on the one hand; at the other extreme, many centers that had offered the minimum services of a physician no longer do so. The development of differences in levels of services among centers and the maintenance of these differences is an indication of the interdependency among centers. While some places provide "first aid stations" for a limited geographical area, others provide extremely specialized services for the entire state.

## CONTENTS

Introduction .....	3
Physicians .....	5
Medical Doctors .....	5
Doctors of Osteopathy .....	6
Dentists .....	10
General Hospital Beds .....	11
Medical Service Centers .....	12
Changes in Medical Services .....	18
References .....	21
Appendix .....	22

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This report is concerned with the distribution of professional health services in Missouri. Basic to understanding the trends in location of physicians and other professional health personnel is awareness of the technological revolution that has taken place in medicine on the one hand and the affluence, mobility, and relocation of the population on the other.

The changing technology has greatly increased the specialization of medical practitioners and resulted in greater concentration of services at certain places. Medical services are becoming concentrated together to form a type of medical complex. The hospital, in particular, has become an essential adjunct of modern medical care. Most physicians relate themselves to a hospital as well as to other physicians, pharmacies, and trained nurses.

These combined trends of specialization, interdependence, and centralization have resulted in significant changes in the location of medical services. It is with this redistribution of medical services in Missouri that this report is concerned.

The same scientific-technological revolution that has enabled advances in medical knowledge has also enabled greater participation by the general public in the benefits of medical technology. Generally speaking, the public accepts health care as desirable and expects to participate fully in the benefits of modern medicine. The affluence of American people has permitted them to purchase medical services and they have responded with ever greater utilization. In addition, the advances in transportation have paralleled those of medical science so that improved mobility has facilitated concentration of medical services without reducing their availability. A. H. Anderson has estimated that one-half hour's travel time in Nebraska was about three miles in 1915; now it is conservatively estimated to be 15 miles. A three-mile radius represents 36 square miles; a 15-mile radius, 700 square miles. Both areas represent approximately the same time-distance.<sup>1</sup> So in terms of time, the doctor who is 15 miles away today is at least as close as the doctor who was three miles away in 1915. Consequently, concentration of medical services does not necessarily mean that they are any less accessible or available.

However, there are qualifications to these general statements. In some cases services are so maldistributed that none is reasonably accessible. Persons are not equally mobile and therefore not equally capable of obtaining services. Elderly people, for example, may not have transportation readily available to them. In

addition, it is difficult to break old patterns and accept and adjust to new ones. The image of the country family doctor is deeply ingrained into health folklore.

In the United States, the location of medical services is largely a function of supply and demand. Doctors by and large are independent practitioners who make decisions about the location of their practice on the basis of assessment of opportunity. Of course other things enter into such decisions, including urban-rural background of the physician; availability of medical facilities to supplement his practice, such as hospitals and pharmacies; community facilities and services, such as schools; and preferences in climate and other living conditions. Once a doctor establishes practice in a place, however, he is unlikely to move.<sup>2</sup> Consequently the redistribution of doctors tends to occur when doctors entering practice choose to locate in larger centers rather than replacing a doctor who has retired in a small town. Redistribution therefore tends to occur slowly rather than abruptly.

The building of medical facilities such as hospitals in rural areas has been largely a matter of individual community decision and unplanned in the sense that communities do not usually take into account relationships with similar facilities in neighboring centers and with more complex centers at greater distances. This is not to say that there has not been some conscious planning with regard to adjunct medical services. The factors of population needs, competition, and local ability to finance services have operated to space facilities and to differentiate them functionally. In 1945 a U.S. Public Health Service report suggested a coordinated hospital service plan in which rural health centers, rural hospitals, district hospitals and base hospitals would be brought into working interrelationships.<sup>3</sup> This plan anticipated the program of Federal aid in hospital construction under Hill-Burton legislation. The provisions of the Hill-Burton legislation require a survey of needs and the preparation of a statewide plan. However, initial decisions about constructing local health facilities have been made almost exclusively at the local level.

Despite the lack of general planning regarding the location of health services the data in this report indicate that such services generally are located in accord with population densities and that changes in the distribution of health services apparently have been responsive to changes in the location of the population. There are, however, some lags and maldistributions as will be discussed in the report.

## PHYSICIANS

## Medical Doctors

According to the 1965 American Medical Association Directory, there were 5,329 medical doctors in Missouri.<sup>4</sup> Of these, 3,501 were in private practice; 1,587 were active in the medical field but not in private practice. The latter category included those employed in hospitals or other health facilities; in administrative work in the medical field; teaching in medical schools, and public health work. Two-hundred and forty-one medical doctors were not in active medical practice, mostly because of retirement. Of the doctors in private practice, nearly two out of three reported being full-time specialists.

In 1965 there were 119.6 medical doctors per 100,000 population in Missouri. This compares with 132 for the nation in 1963. Considering only those in private practice the figures for the state and nation were 78.6 and 91 per 100,000, respectively.<sup>5</sup>

The distribution of medical doctors has changed sufficiently to become a source of major concern to many localities in the state. Nine counties are without an active medical doctor. The disproportional location of medical doctors in the urban areas is revealed by the fact that more than three-fourths (76.1 percent) of the total are located in the four major urban counties: Buchanan, Greene, Jackson and St. Louis (and St. Louis City). These counties include only 53 percent of the total population.

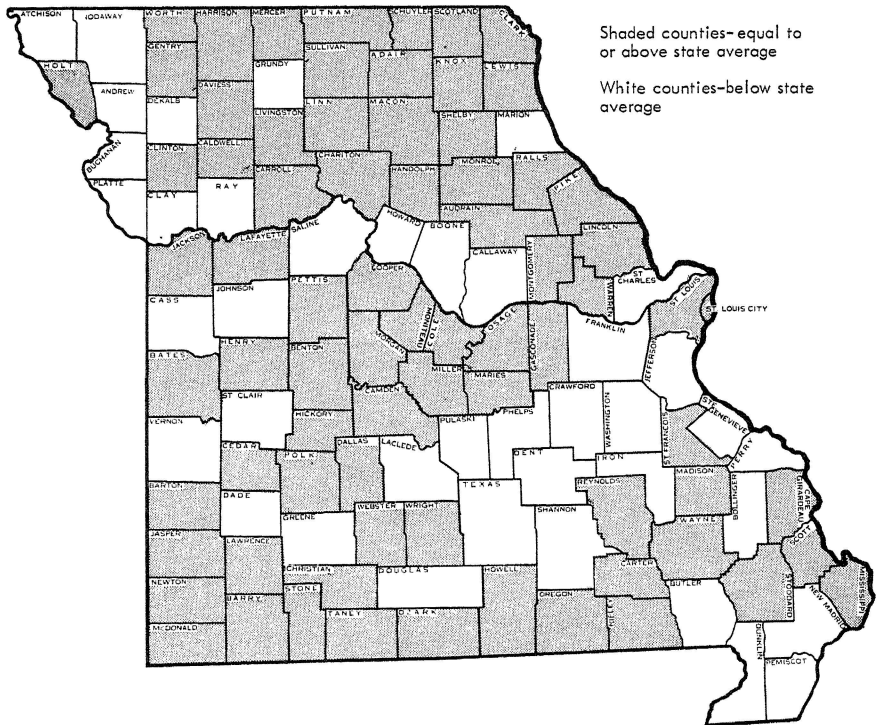
Table IV of the Appendix reports the number of medical doctors per 100,000 population for each of the counties of the state. These ratios range from zero for the eight counties not having an M.D. to 435 for Boone County. Boone County is highest on this index because the University of Missouri Medical School is located in the county. Considering only M.D.'s in private practice, St. Louis City ranks highest with 186.4 M.D.'s per 100,000 population. The ratio of medical doctors in private practice for each county is compared with the state average in Figure 1. With the exception of Iron County, the 11 counties which are above the state average contain the largest population centers of the state.

One of the most important trends taking place in medical practice is that of specialization. Of the 3,501 medical doctors in private practice in 1965, two of every three reported themselves as being full-time specialists; 36.4 percent in private practice were board certified in their designated specialty. These data are reported for each county in Table I of the Appendix.

Specialists were highly concentrated in the larger centers and in the environs of the University of Missouri Medical School. Ninety-two percent of all M.D. specialists in the state were located in the seven most populated counties plus St. Louis City. Furthermore, a higher percentage of the M.D.'s in urban centers are classified as specialists. For example, 77 percent of the medical doctors in private practice in St. Louis City reported being full-time specialists and in Boone County, the site of the University of Missouri Medical School, 84 percent of the







*Fig. 3—Counties in which the number of osteopathic doctors in private practice per 100,000 population is equal to or above the state average.*

in Table 1. Almost 30 percent of the osteopathic doctors in private practice in the state are located in places less than 2,500 population; just over five percent of the medical doctors in private practice are so located. On the other hand, three-fourths of the medical doctors are in the metropolitan counties while fewer than one-half of the osteopathic doctors are in those counties.

Different conclusions concerning the level of the physician/population ratio for the state can be derived, depending on whether medical doctors are considered alone or whether osteopathic doctors are included. For example, when osteopaths are included all counties in the state have a least one medical practitioner. Previous research at the University of Missouri has indicated that osteopaths tend to function as general practitioners in rural areas and are regarded as such by the people.<sup>8</sup> If osteopaths are included, Missouri has the highest physician/population ratio of any state in the North Central region. When only medical doctors were considered three of the 12 North Central states exceeded Missouri in physician/population ratio.

Figure 4 indicates the counties which were above the state average in combined M.D. and D.O. physicians in private practice per 100,000 population. The



TABLE 1--PERCENTAGE OF MEDICAL DOCTORS AND OSTEOPATHIC DOCTORS IN CENTERS ACCORDING TO POPULATION OF CENTER

Population of Center	Medical Doctors				Osteopathic Doctors			
	Private Practice		Full-Time Specialist		Private Practice		Full-Time Specialist	
Center	Pct.	Cumulative	Pct.	Cumulative	Pct.	Cumulative	Pct.	Cum.
-500	.9	0.9	.1	0.1	6.9	6.9	2.9	2.9
500-999	.9	1.8	.1	0.2	7.7	14.6	1.4	4.3
1,000-2,499	3.8	5.6	.3	0.5	14.6	29.2	7.2	11.5
2,500-4,999	4.2	9.8	.5	1.0	9.1	38.3	4.7	16.2
5,000-9,999	4.6	14.4	1.0	2.0	7.2	45.5	6.5	22.7
10,000-49,999	10.6	25.0	13.1	15.1	10.4	55.9	16.2	38.9
Metropolitan Areas	75.0	100.0	84.9	100.0	44.1	100.0	61.1	100.0

Source: American Medical Directory, 1965; Directory of Osteopathic Physicians, 1966.

Metropolitan Areas include: Buchanan, Clay, Greene, Jackson, Jefferson, St. Charles, St. Louis County and St. Louis City

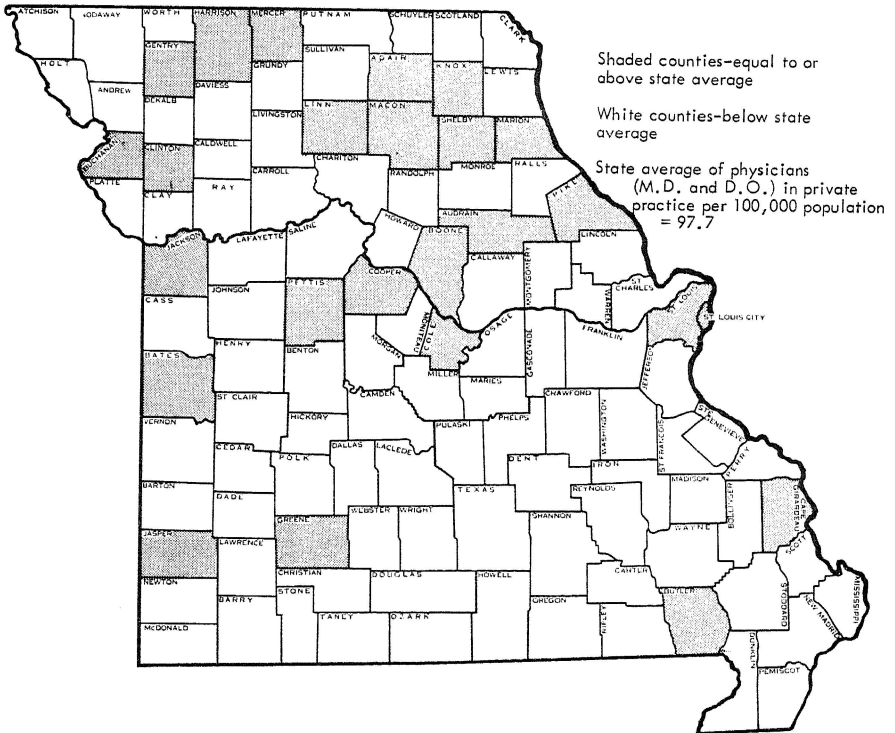
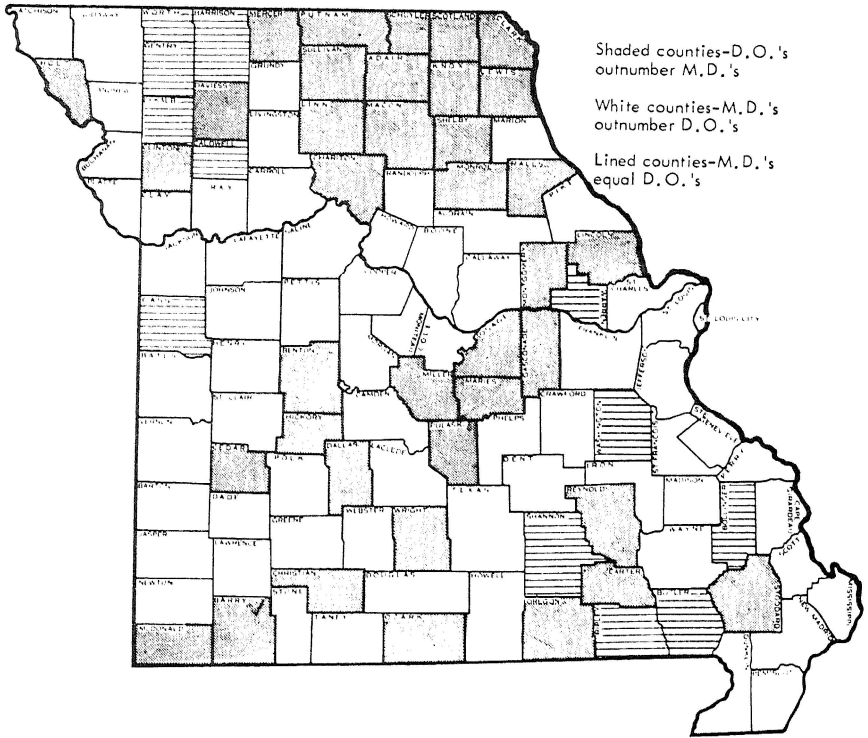


Fig. 4—Counties in which the number of physicians (M.D. and D.O.) in private practice per 100,000 population is equal to or above the state average.



*Fig. 5—Counties in which the number of osteopathic doctors in private practice equalled or exceeded the number of medical doctors in private practice.*

counties that exceeded the state average by virtue of adding osteopaths were largely in the northern part of the state, indicating again the heavy concentration around Kirksville.

The counties in which osteopathic doctors equalled or outnumbered medical doctors is indicated in Figure 5. In 49 of the 114 counties, the number of osteopathic doctors equalled or exceeded medical doctors. The counties in which this occurred were spread throughout the state, but generally tended to be the most rural counties.

### Dentists

Most dentists are in private practice. In the state as a whole there are 49.8 dentists in private practice per 100,000 population or about one dentist for every 2,000 people.<sup>9</sup> Four counties have no active dentist in private practice. Of these four counties three have no medical doctors and three (Carter, Reynolds, Shannon) are contiguous.

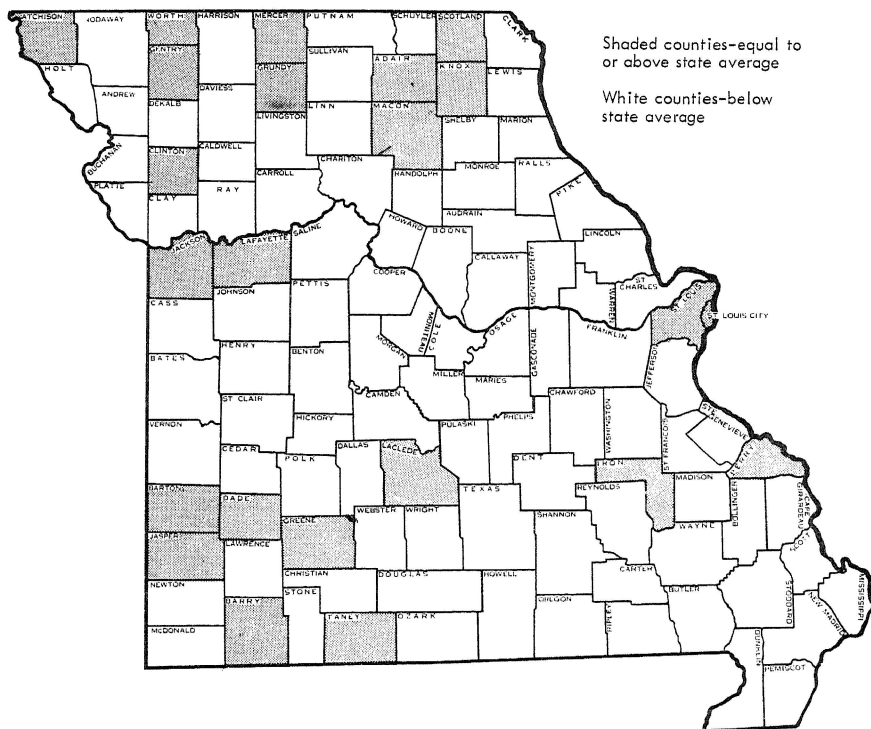
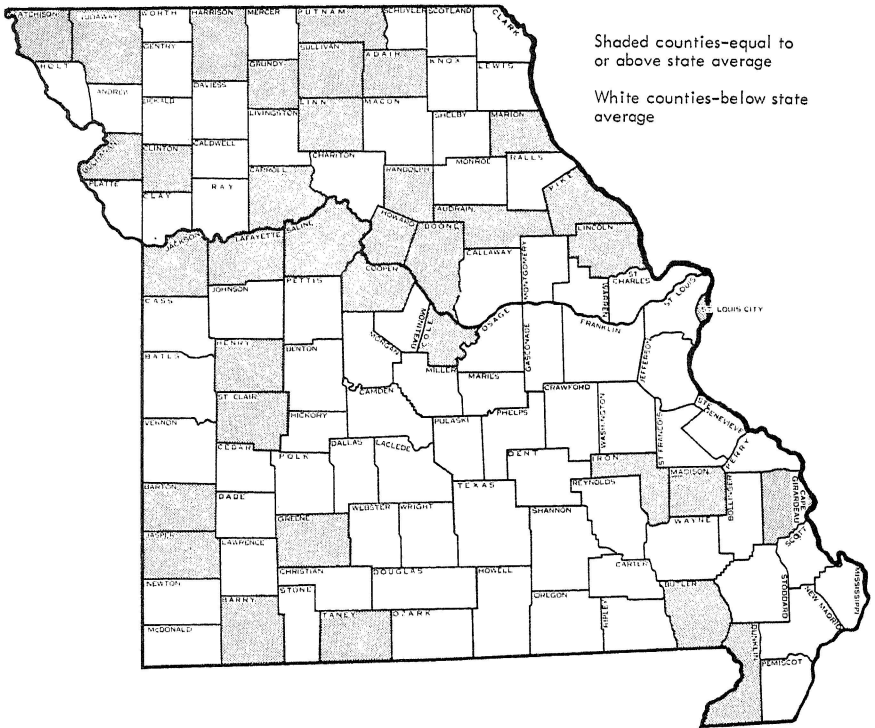


Fig. 6—Counties in which the number of dentists in private practice per 100,000 population is equal to or above the state average.

Figure 6 indicates the counties in which the ratio of dentists to population is greater than the state average. Although there is a tendency for dentists to be disproportionately located in metropolitan centers they are more evenly spread throughout the state than medical doctors. As reported in Figure 1 there are 11 counties which are above the state average in number of medical doctors but 22 counties above the state average in number of dentists.

### General Hospital Beds

For the state as a whole there are 4.30 general hospital beds per 1,000 population.<sup>10</sup> This does not include federal hospitals. As indicated in Figure 7, counties with a general hospital bed/population ratio above the state average are quite widely distributed throughout the state. About 70 percent of the general hospital beds are in the metropolitan counties and within these counties they tend to be located in the central city. For example, St. Louis City is above the state average but St. Charles, St. Louis, and Jefferson Counties in that metropolitan area are under the state average.



*Fig. 7—Counties in which the number of general hospital beds per 1,000 population is equal to or above the state average.*

### Medical Service Centers

Each of several types of professional health personnel or service has been considered separately. However, as mentioned in the introduction, recent trends have been in the direction of increased centralization and specialization of professional health personnel and services. To determine the extent to which certain health services are predictive of the location of other health services, an analysis was made of the level of services found in each of the incorporated places of the state (excluding places located in the metropolitan counties: St. Louis, St. Louis City, St. Charles, Jefferson, Buchanan, Clay, Jackson and Greene). In determining the level of services for each place the following categories of services were employed: (1) a physician in private practice (medical doctor<sup>4</sup> osteopathic doctor<sup>6</sup>), (2) a dentist in private practice<sup>9</sup>, (3) a general hospital of 10 or more beds<sup>10</sup>, (4) a medical doctor who reported being a full-time specialist<sup>4</sup>, (5) a full-time specialist approved by a board in his speciality<sup>4</sup>, (6) a general hospital of 75 or more beds<sup>10</sup>.

The pattern of services by type is shown in Table 2. When observed as a whole the regularity of the pattern is apparent. Thus, if a center has a large hospital it will very likely have all the other categories of services. If there is a small general hospital, there is likely to be a dentist and a physician in the center (there were two places with a hospital but no physician and four places with a hospital and no dentist). The data in the table demonstrate the differential in services among centers and suggest a division of function among them which is accompanied by interdependencies among centers. If such interdependencies did not exist, one would expect to find greater similarities in services among the centers.

TABLE 2--THE PATTERN OF PROFESSIONAL HEALTH SERVICES IN INCORPORATED PLACES IN NON-METROPOLITAN MISSOURI

Type of Center	Number of places	Physician (MD <sup>1</sup> or DO <sup>2</sup> )	Dentist <sup>3</sup>	General Hospital 10 Beds or more <sup>4</sup>	Full-Time Spec. (MD <sup>5</sup> )	Full-Time Spec. -Brd. Approved(MD <sup>6</sup> )	General Hosp. 75 beds or more <sup>7</sup>
I	<u>438</u>	--	--	--	--	--	--
II	<u>118</u>	X	--	--	--	--	--
III	<u>112</u>	X	X	--	--	--	--
	19	--	X	--	--	--	--
III	<u>29</u>	X	X	X	--	--	--
	1	--	X	X	--	--	--
	1	--	--	X	--	--	--
	2	X	--	X	--	--	--
IV	<u>14</u>	X	X	X	X	--	--
	6	X	X	--	X	--	--
	1	X	--	X	X	--	--
	3	X	--	--	X	--	--
V	<u>10</u>	X	X	X	X	X	--
	4	X	X	--	X	X	--
	1	X	--	--	X	X	--
VI	<u>14</u>	X	X	X	X	X	X
	2	X	X	X	X	--	X
	2	X	X	X	--	--	X

Source: 1 - American Medical Directory, 1965  
2 - Directory of Osteopathic Physicians, 1966

3 - American Dental Directory, 1966  
4 - Division of Health of Missouri, Hospital Directory, 1966

Outside the metropolitan areas, the most common occurrence was for incorporated places to have none of the services listed above. There were 438 such places, most of them small. The next most common service pattern was for a place to have one or more physicians but none of the other services listed. There were 118 such places. In addition, 112 places had a physician and a dentist but none of the other more specialized services. Nineteen places had a dentist but no physician;

this constitutes an anomaly in the pattern. It is of interest to note that most of these places (with a dentist but without physician) had lost a physician between 1950 and 1965 and it is a reasonable prediction that they may lose their dental service in the future.

As professional health services become more complex and specialized, the number of centers offering them becomes fewer. Seventy-six centers outside the metropolitan areas had at least a small general hospital; there were only 29 which had one or more board approved medical doctors practicing their specialty and 18 places had general hospitals with 75 or more beds. This last category of service was chosen as identifying those centers which had fairly complete services. Hospitals of this size normally have specialized services (such as cancer, dental, orthopedic, and mental hygiene as well as clinical laboratory) available and are more likely to be accredited by national bodies.

Additional understanding of these patterns of services may be gained by plotting the services of centers on a map (Figure 8). The most complex medical ser-

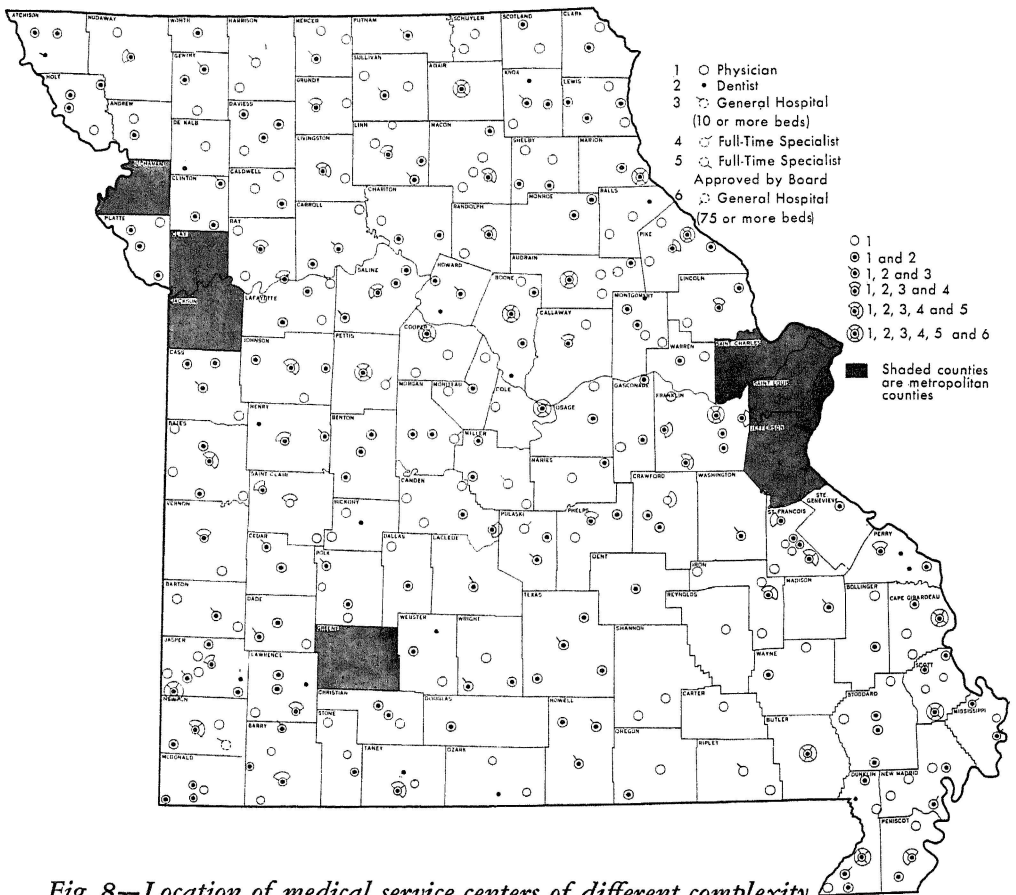


Fig. 8—Location of medical service centers of different complexity.

vice centers are widely distributed throughout the state. The northern four tiers of counties, with the exception of Adair County (Kirksville) and, along the extreme eastern edge, Marion (Hannibal) and Pike (Louisiana), have no centers that were classified as the most complex. On the other hand, there appears to be a concentration of complex medical centers in the central part of the state midway between St. Louis and Kansas City. There is one *highest level* center in each of the following counties which form a contiguous chain: Audrain (Mexico), Boone (Columbia), Cole (Jefferson City), Cooper (Boonville), Pettis (Sedalia). In addition several other centers in this area (Moberly in Randolph County, Marshall in Saline County) barely miss being centers of highest complexity on the basis of the criteria established.

In Southeast Missouri, Dunklin (Kennett), Scott (Sikeston), Cape Girardeau (Cape Girardeau), and Butler (Poplar Bluff) are locations of medical centers of the highest order of complexity. A rather sizable area of south central Missouri seems to be particularly lacking in higher order medical services. The area bounded by a line running from Springfield to Jefferson City to Poplar Bluff contains virtually no medical specialists and no specialized general hospitals. In this whole south central area, medical service centers tend to be of a simple order. In the three contiguous counties of Carter, Reynolds, and Shannon there is no center that has more than a physician among the services which were included. These counties are only extreme examples of what appears to be rather limited services in this entire south central area.

In the southwestern area extending from Greene County (Springfield) to Joplin in Jasper County (a center of the highest order), medical service centers are more closely spaced and the level of service available is more complex. The only other center of highest medical service complexity in the state is Washington in Franklin County. This place is the only one of this type which is adjacent to a metropolitan area. The concentration of complex services, in addition to metropolitan areas, had occurred most prominently in the center of the state and in the southeast section, and to a lesser degree in the southwest section and along the northeast border of the state. The concentration of services in centers that tend to be located fairly close to each other suggests a dimension in the ecology of medical services that may be overlooked. This possibility is that these centers may be multi-nucleii of a single ecological area analogous to separate business-service areas within a city or metropolitan area.

In Figure 9, a summary of level of services is made for each county. In most cases the service level of the county is the same as the highest level center within the county. Exceptions are in Ste. Genevieve, Ozark, and Atchison where two or more centers combine to form a more complete service pattern than any one of them individually.

In an effort to determine some of the factors associated with differences in location of specialized medical services, the level of services in each county was

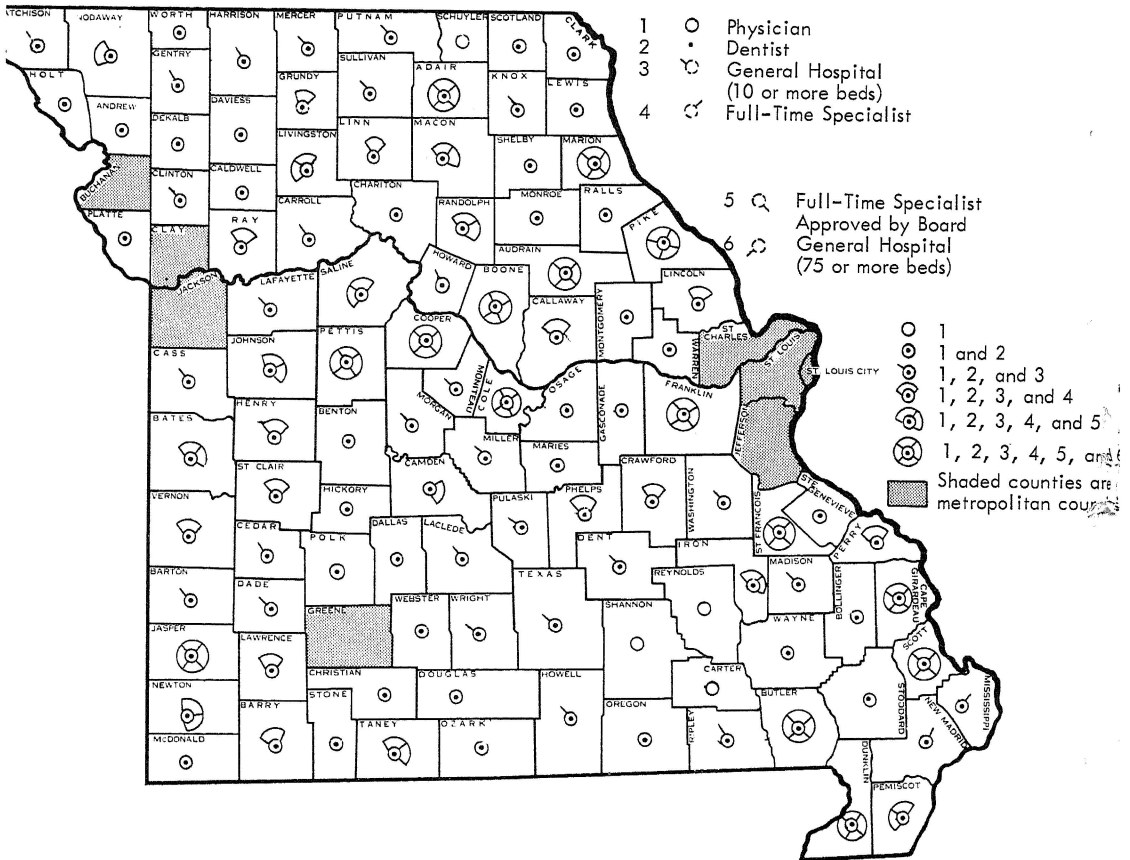


Fig. 9—Levels of medical service in counties of the state.

correlated with the population density of the county and with median family income in the county. The correlation of  $r = .66$  between population density and the level of services in the non-metropolitan counties reinforces the previous discussion concerning concentration of medical services in the more populated counties. However, in Missouri there are some rather wide extremes in family income between counties. For example, in extreme southeast Missouri population density is rather high but median family income is relatively low. Conversely, in parts of northern Missouri population density is low but income is relatively high.



For this reason family income was included in the analysis. Median family income was found to correlate  $r=.49$  with the level of specialized services in each county.

Although family income and population density were highly correlated with each other ( $r=.57$ ) it was found that using both these variables provided a more adequate explanation of the location of specialized health services than either one by itself. These two variables were used together to develop an equation to predict the location of services. This equation may be expressed as:

$$Y = 1.159 + .0405 X_1 + .00033X_2$$

where

Y = level of specialized services in each county ranging from 1 to 6

$X_1$  = population per square mile in each county

$X_2$  = median family income in each county

An interpretation of this equation may be stated in the following fashion: There is a constant for each county of 1.159 on the specialized services scale regardless of population density or income but a value of 1 is added to the services score for each 25 persons per square mile and a value of 1 is added for each \$3000 in median family income. As an illustration, if a county had a population per square mile of 25 and a median family income of \$3000 it would be expected that the county would have one or more medical doctors in private practice, one or more dentists and a general hospital of 10 or more beds, making a specialized services score of 3. As a further example, if the population per square mile of a county were 75 and if median family income were \$6000 it would be expected that such a county would have all categories of health service up through a large general hospital. The actual services score, the predicted score, and the population density and median family income of each county are reported in Table VIII of the Appendix.

The equation developed above is not sufficiently accurate for exact prediction of the services found in each county. As may be noted from Table VIII in the Appendix, in some counties (notably Platte, Ste. Genevieve and Stoddard) the population density and the income of the county would lead to the expectation of a higher level of services. However, in each of these cases the counties are adjacent to counties having the highest level of specialized services.

On the other hand there are a number of counties where the level of specialized health services is in excess of the level expected on the basis of population density and income. Examples of such counties are Bates, Adair, Livingston, and Taney. For these counties one explanation seems to be that they are located in the midst of a group of counties which are low in specialized services and which are considerably removed from metropolitan areas. This explanation suggests that some comparatively small places, because of their relative location, have developed as specialized health centers serving areas including several counties.

## Changes in Medical Services

It was asserted that a trend has occurred toward general concentration of medical services in the state. The purpose of this section is to examine this trend. Table IV presents the physician/population ratios for the state; for the four city-counties—St. Louis (and St. Louis City), Jackson (Kansas City), Greene (Springfield), and Buchanan (St. Joseph); and for the balance of the state outside the four city-counties. The division of the state in this manner is an attempt to identify areas of highest concentration of physicians and determine the trend in these areas over a period of time. From the table, it can be seen that the physician/population ratios declined from 1921 to 1961 and increased somewhat from 1961 to 1965.<sup>11</sup> This decline in physician/population ratios has been relatively greater over this period in the counties outside the four city-counties. Whereas in 1921 about one and one-half times as many medical doctors per 100,000 population were in the four city-counties as were in the rest of the state, in 1965 the figure was more than two and one-half times as many.

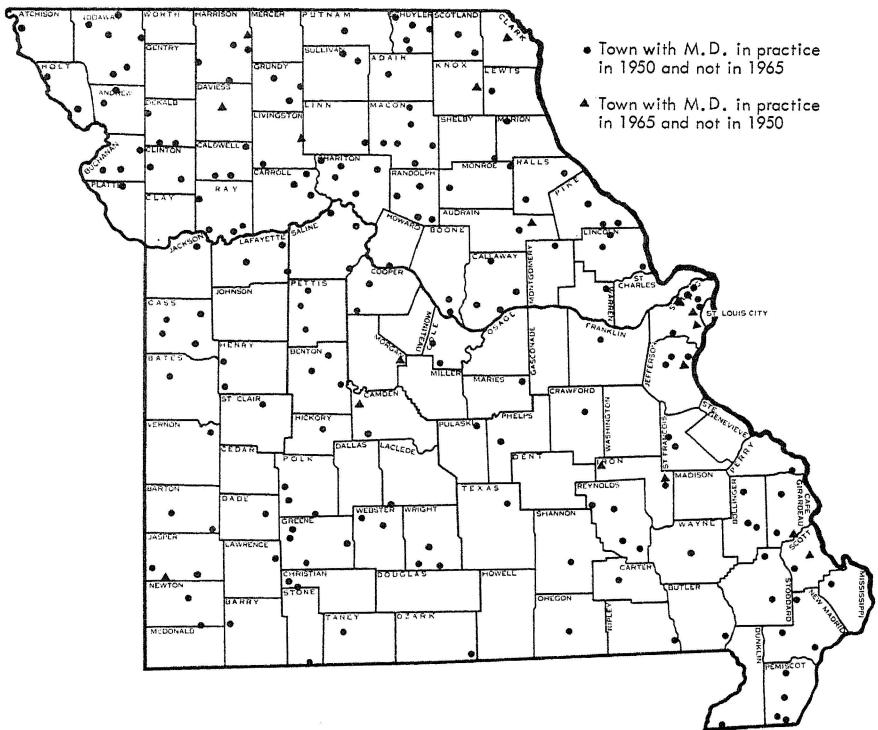


Fig. 10—Change in location of M.D.s, 1950-1965.

The changes in location of physicians may be observed more directly by determining the places that had a physician in 1950<sup>12</sup> but did not in 1965<sup>4</sup> and, conversely, those that had a physician in 1965 but had none in 1950. This was done separately for medical doctors and for doctors of osteopathy. For medical doctors, these changes are indicated in Figure 10. There were 197 places of the first type (with a doctor in 1950, without one in 1965) and 17 of the second (without a doctor in 1950, with one in 1965).

Places that lost their medical doctor services were generally small but ranged up to more than 2,000 population. Losses in these small places occurred largely from the death or retirement of a doctor who had been in the community many years. In most cases such small-town doctors have not been replaced. More than one-third of the places that had a medical doctor in 1965 but not in 1950 were in the St. Louis metropolitan area and were centers of rapid population increase.

The geographical distribution of centers which had an osteopathic doctor in 1950<sup>13</sup> but not in 1966<sup>6</sup> and the converse of this is shown in Figure 11. There

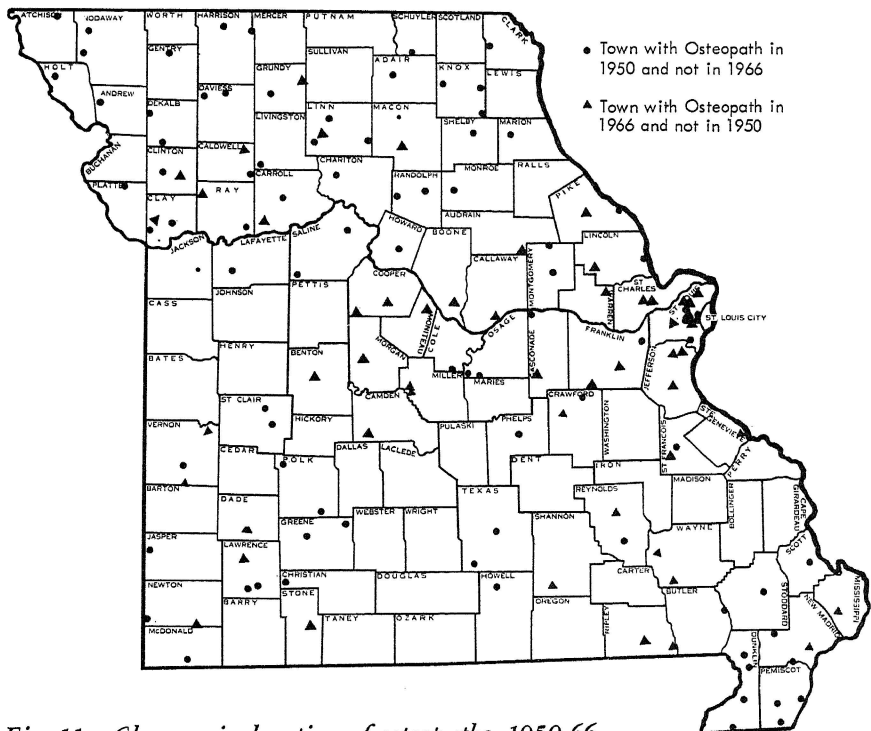


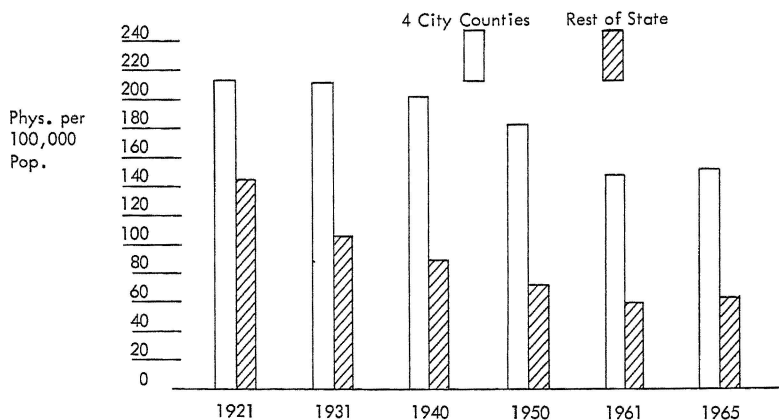
Fig. 11—Changes in location of osteopaths, 1950-66.

were 93 centers that had an osteopathic physician in 1950 but none in 1966; there were 56 places that had acquired an osteopath by 1966 when none was present in 1950. The balance between centers that lost services and those that acquired services for the first time was considerably more even for osteopathic physicians than for medical doctors. The loss of osteopathic services was not tied as directly to size of place as was the loss of medical doctor services; 27 of the 93 places without an osteopath in 1966 but with such services in 1950 had a population of more than 1,000, while for medical doctors the number was 18 of 197.

The question may be raised whether the loss of a medical doctor in a center resulted in replacement by an osteopath. About one-third of the centers that had acquired an osteopath in 1966 where none was present in 1950 had been left without a medical doctor in the same period. The succession of medical doctors by osteopaths operates to some extent but it is only a part of the explanation of the location and relocation of medical services.

TABLE 3. MEDICAL DOCTOR/POPULATION RATIOS FOR SELECTED YEARS, 1921-1965, IN FOUR-CITY COUNTIES AND BALANCE OF THE STATE

	Medical Doctors/100,000 population					
	1921	1931	1940	1950	1961	1965
State	172.3	154.6	139.9	128.3	115.3	119.6
Four City Counties	216.1	210.0	200.5	183.8	164.5	167.1
Rest of State	140.5	106.5	87.7	71.2	59.6	62.8
Ratio of Four City Counties to Rest of State	1.54	1.97	2.29	2.58	2.76	2.66



Source: American Medical Directories for the years indicated

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## APPENDIX

TABLE I--NUMBER OF MEDICAL DOCTORS BY TYPE OF PRACTICE,  
BY COUNTY, 1965

County	Total	Private Practice		Non-Private Practice	Not in Practice		
		Total	General Practice		Specialist	Retired	Other
Missouri Total	5329	3501	1189	2312	1587	204	37
Adair	9	8	6	2	1		
Andrew	5	4	4			1	
Atchison	4	4	4				
Audrain	20	19	12	7		1	
Barry	8	7	6	1		1	
Barton	6	6	6				
Bates	9	9	8	1			
Benton	3	2	2		1		
Bollinger	1	1	1				
Boone	251	57	9	48	187	4	3
Buchanan	95	78	24	54	13	4	
Butler	38	36	20	16	1	1	
Caldwell	3	3	3				
Callaway	23	9	8	1	13	1	
Camden	5	5	5				
Cape Girardeau	57	54	21	33	2	1	
Carroll	7	7	7				
Carter	--	--	--				
Cass	7	6	6		1		
Cedar	3	3	3				
Chariton	3	3	3				
Christian	1	1	1				
Clark	1	1	1				
Clay	48	43	27	16	1	4	
Clinton	6	6	6				
Cole	47	35	12	23	11	1	
Cooper	12	11	5	6		1	
Crawford	4	4	3	1			
Dade	4	4	4				
Dallas	3	1	1		2		
Daviess	3	3	3				
DeKalb	1	1	1				
Dent	6	4	2	2	1	1	
Douglas	2	2	2				
Dunklin	21	18	14	4		2	1
Franklin	25	25	18	7			
Gasconade	4	4	4				
Gentry	4	4	4				
Greene	182	163	27	136	8	10	1
Grundy	8	7	6	1			1
Harrison	6	5	5			1	
Henry	13	9	8	1		3	1
Hickory	--	--	--				

TABLE I--(CONT.)

County	Total	Private Practice		Non-Private Practice	Not in Practice		
		Total	General Practice		Specialist	Retired	Other
Holt	2	2	2				
Howard	9	8	7	1		1	
Howell	12	11	11			1	
Iron	7	6	4	2		1	
Jackson	1017	756	160	596	219	33	9
Jasper	63	61	21	40	1	1	
Jefferson	16	13	7	6	2	1	
Johnson	14	12	10	2		2	
Knox	2	2	2				
Laclede	8	7	7			1	
Lafayette	16	16	15	1			
Lawrence	22	9	8	1	11	1	1
Lewis	4	2	2			2	
Lincoln	4	4	3	1			
Linn	11	9	8	1		1	1
Livingston	9	7	6	1		2	
McDonald	3	1	1			1	1
Macon	7	5	4	1		2	
Madison	6	4	4		1	1	
Maries	--	--	--				
Marion	29	26	11	15	1	2	
Mercer	1	1	1				
Miller	2	2	2				
Mississippi	8	7	6	1			1
Moniteau	5	5	5				
Monroe	2	2	2				
Montgomery	3	3	3				
Morgan	6	5	4	1		1	
New Madrid	9	9	8	1			
Newton	16	14	11	3		2	
Nodaway	6	6	6				
Oregon	1	1	1				
Osage	1	--	--			1	
Ozark	2	1	1			1	
Pemiscot	17	16	14	2		1	
Perry	7	7	6	1			
Pettis	30	26	17	9	2	2	
Phelps	11	11	9	2			
Pike	12	11	9	2		1	
Platte	5	5	5				
Polk	7	6	6			1	
Pulaski	5	4	3	1	1		
Putnam	--	--	--				
Ralls	--	--	--				
Randolph	13	11	4	7		2	
Ray	5	5	4	1			
Reynolds	--	--	--				

TABLE I--(CONT.)

County	Total	Private Practice		Non-Private Practice	Not in Practice		
		Total	General Practice		Specialist	Retired	Other
Ripley	3	2	2			1	
St. Charles	34	33	10	23	1		
St. Clair	5	5	3	2			
St. Francois	24	16	12	4	8		
St. Louis	403	295	70	225	85	18	5
Ste. Genevieve	3	3	3				
Saline	20	14	13	1	4	2	
Schuyler	--	--	--				
Scotland	--	--	--				
Scott	24	23	12	11	1		
Shannon	2	1	1			1	
Shelby	3	2	2			1	
Stoddard	4	3	3			1	
Stone	5	4	4				1
Sullivan	1	1	1				
Taney	8	7	6	1		1	
Texas	5	5	5				
Vernon	16	7	5	2	7	2	
Warren	4	3	3			1	
Washington	2	2	2				
Wayne	2	2	2				
Webster	5	4	4			1	
Worth	2	1	1			1	
Wright	2	2	2				
St. Louis City	2359	1275	291	984	1001	72	11

Source: American Medical Directory, 23rd Edition, 1965.



TABLE II--NUMBER OF OSTEOPATHIC DOCTORS BY TYPE OF PRACTICE, BY COUNTY, 1966

County	Total	Private Practice			Non-Private Practice	Not in Practice	
		Total	General Practice	Specialist		Retired	Other
Missouri Total	1119	851	586	266	143	64	61
Adair	91	21	9	12	59	8	3
Andrew	2	2	1	1			
Atchison	2	1	1				1
Audrain	9	9	5	4			
Barry	10	8	8			1	1
Barton	3	3	3				
Bates	6	6	5	1			
Benton	5	4	4				1
Bollinger	2	1	1			1	
Boone	7	6	5	1		1	
Buchanan	17	14	8	6		2	1
Butler	4	4	4				
Caldwell	4	3	3				1
Callaway	10	3	2	1	3	3	1
Camden	4	4	4				
Cape Girardeau	9	8	3	5		1	
Carroll	6	4	3	1		1	1
Carter	1	1	1				
Cass	9	6	6			2	1
Cedar	4	4	3	1			
Chariton	6	6	5	1			
Christian	4	4	4				
Clark	5	3	2	1			2
Clay	23	17	13	4	4	1	1
Clinton	8	8	5	3			
Cole	24	14	4	10	5	2	3
Cooper	4	4	3	1			
Crawford	2	2	1	1			
Dade	1	1	1				
Dallas	3	3	2	1			
Daviess	5	5	5				
DeKalb	1	1	1				
Dent	--	--	--				
Douglas	1	1	1				
Dunklin	2	2	2				
Franklin	4	3	2	1			1
Gasconade	7	5	4	1		2	
Gentry	4	4	2	2			
Greene	21	16	11	5	1	4	
Grundy	1	1	1				
Harrison	8	5	3	2	1	2	
Henry	12	7	3	4	3	1	1
Hickory	2	2	2				

TABLE II--(CONT.)

County	Total	Private Practice			Non-Private Practice	Not in Practice	
		Total	General Practice	Specialist		Retired	Other
Holt	3	3	3				
Howard	2	1	1			1	
Howell	4	4	3	1			
Iron	--	--	--				
Jackson	267	190	102	88	45	14	18
Jasper	34	32	19	13	1		1
Jefferson	8	6	4	2			2
Johnson	2	2	1	1			
Knox	7	6	6				1
Laclede	3	2	2				1
Lafayette	7	6	6			1	
Lawrence	6	5	3	2		1	
Lewis	7	5	5			1	1
Lincoln	8	7	4	3		1	
Linn	12	10	9	1		1	1
Livingston	6	6	4	2			
McDonald	5	5	5				
Macon	16	11	8	3	2	2	1
Madison	2	2	2				
Maries	2	2	2				
Marion	4	3	2	1			1
Mercer	4	4	4				
Miller	6	6	5	1			
Mississippi	5	5	5				
Moniteau	3	3	3				
Monroe	5	5	5				
Montgomery	5	5	5				
Morgan	2	2	2				
New Madrid	1	1	1				
Newton	11	7	5	2	1		3
Nodaway	4	3	2	1		1	
Oregon	3	3	3				
Osage	2	2	2				
Ozark	3	2	2			1	
Pemiscot	2	2	2				
Perry	2	2	2				
Pettis	10	9	6	3			1
Phelps	2	2	2				
Pike	9	9	8	1			
Platte	2	1	1		1		
Polk	3	3	3				
Pulaski	5	5	4	1			
Putnam	5	5	4	1			
Ralls	2	2	2				
Randolph	11	9	5	4	1	1	
Ray	2	2	2				
Reynolds	1	1	1				

TABLE II--(CONT.)

County	Total	Private Practice			Non-Private <u>Practice</u>	<u>Not in Practice</u>	
		Total	General Practice	Specialist		Retired	Other
Ripley	2	2	2				
St. Charles	9	9	8	1			
St. Clair	1	1	1				
St. Francois	15	13	9	4		1	1
St. Louis	45	43	28	15		1	1
Ste. Genevieve	2	2	2				
Saline	3	3	3				
Schuyler	3	3	3				
Scotland	6	5	4	1		1	
Scott	7	7	6	1			
Shannon	1	1	1				
Shelby	8	7	5	2			1
Stoddard	9	9	9				
Stone	3	2	1	1		1	
Sullivan	4	4	3	1			
Taney	2	2	2				
Texas	2	2	2				
Vernon	3	2	2		1		
Warren	3	3	3				
Washington	2	2	2				
Wayne	3	2	2				1
Webster	4	3	2	1			1
Worth	2	1	1			1	
Wright	7	7	6	1			
St. Louis City	105	82	46	36	15	2	6

Source: Directory of Osteopathic Physicians, 58th Edition, 1966.

TABLE III--NUMBER OF DENTISTS BY TYPE OF PRACTICE, BY COUNTY, 1965

County	Total	Private Practice		Non-Private Practice	Not in Practice		
		Total	General Practice		Specialist	Retired	Other
Missouri Total	2387	2220	2045	175	107	55	5
Adair	10	10	9	1			
Andrew	1	1	1				
Atchison	3	3	3				
Audrain	2	2	2				
Barry	10	9	9			1	
Barton	5	5	5				
Bates	8	6	6			2	
Benton	4	4	4				
Bollinger	2	1	1		1		
Boone	25	25	22	3			
Buchanan	42	42	34	8			
Butler	15	14	14			1	
Caldwell	1	1	1				
Callaway	6	6	6				
Camden	2	2	2				
Cape Girardeau	20	19	18	1		1	
Carroll	5	5	5				
Carter	-	-	-				
Cass	12	12	12				
Cedar	4	4	4				
Chariton	5	5	5				
Christian	5	4	4			1	
Clark	2	2	2				
Clay	30	27	27		3		
Clinton	6	6	6				
Cole	27	20	19	1	5	1	1
Cooper	6	6	6				
Crawford	3	3	3				
Dade	4	4	4				
Dallas	1	1	1				
Daviess	3	3	3				
Dekalb	3	3	3				
Dent	3	3	3				
Douglas	2	2	2				
Dunklin	15	15	15				
Franklin	21	20	20			1	
Gasconade	4	4	4				
Gentry	4	4	4				
Greene	88	82	71	11	2	4	
Grundy	8	6	6			1	1
Harrison	4	3	3			1	
Henry	7	7	7				
Hickory	1	1	1				
Holt	3	2	2			1	

TABLE III-CONT.

County	Total	<u>Private Practice</u>		Non-Private Practice	<u>Not in Practice</u>	
		Total	General Practice		Specialist	Retired
Howard	4	4	4			
Howell	7	7	7			
Iron	4	4	4			
Jackson	513	460	400	60	43	9
Jasper	45	45	39	6		
Jefferson	12	10	10			2
Johnson	11	10	10			1
Knox	3	3	3			
Laclede	11	10	10		1	
Lafayette	14	13	13			1
Lawrence	10	8	8		1	
Lewis	4	4	4			
Lincoln	5	5	5			
Linn	7	7	7			
Livingston	7	7	7			
McDonald	5	4	4			1
Macon	18	16	16		1	1
Madison	2	2	2			
Maries	2	2	2			
Marion	3	3	3			
Mercer	3	3	3			
Miller	3	3	3			
Mississippi	4	3	3			1
Moniteau	2	2	2			
Monroe	3	3	3			
Montgomery	4	4	4			
Morgan	4	4	4			
New Madrid	4	4	4			
Newton	10	10	10			
Nodaway	6	5	5			1
Oregon	2	1	1			1
Osage	1	1	1			
Ozark	2	1	1		1	
Pemiscot	6	6	6			
Perry	8	8	8			
Pettis	13	12	12			1
Phelps	12	12	12			
Pike	8	8	8			
Platte	6	6	6			
Polk	4	3	3			1
Pulaski	4	4	4			
Putnam	3	3	3			
Ralls	1	1	1			
Randolph	8	8	8			
Ray	5	5	5			
Reynolds	1	-	-		1	

TABLE III-CONT.

County	Total	<u>Private Practice</u>		Non-Private Practice	<u>Not in Practice</u>		
		Total	General Practice		Specialist	Retired	Other
Ripley	2	1	1		1		
St. Charles	18	17	17			1	
St. Clair	3	3	3				
St. Francois	13	13	13				
St. Louis	261	242	212	30	13	6	
Ste. Genevieve	4	4	4				
Saline	11	11	11				
Schuyler	-	-	-				
Scotland	6	6	6				
Scott	10	10	10				
Shannon	0	-	-				
Shelby	3	3	3				
Stoddard	6	6	6				
Stone	2	2	2				
Sullivan	1	1	1				
Taney	6	6	6				
Texas	7	7	7				
Vernon	8	8	8				
Warren	1	1	1				
Washington	4	3	3		1		
Wayne	3	2	2			1	
Webster	3	3	3				
Worth	2	2	2				
Wright	6	6	6				
St. Louis City	761	715	661	54	33	12	1

Source: American Dental Directory, 1966

TABLE IV--MEDICAL DOCTORS PER 100,000 POPULATION, BY COUNTY, 1965

County	Total	In Private Practice
Missouri Average	119.6	78.6
Adair	45.7	40.6
Andrew	47.6	38.1
Atchison	48.8	48.8
Audrain	77.0	73.2
Barry	46.4	40.6
Barton	59.8	59.8
Bates	61.3	61.3
Benton	36.5	24.3
Bollinger	12.2	12.2
Boone	434.9	98.8
Buchanan	110.8	90.9
Butler	118.5	112.3
Caldwell	37.3	37.3
Callaway	98.8	38.6
Camden	53.7	53.7
Cape Girardeau	135.9	128.7
Carroll	55.2	55.2
Carter		
Cass	19.6	16.8
Cedar	35.6	35.6
Chariton	26.2	26.2
Christian	8.4	8.4
Clark	12.0	12.0
Clay	40.1	36.0
Clinton	54.0	54.0
Cole	112.3	83.6
Cooper	83.0	76.1
Crawford	31.7	31.7
Dade	54.5	54.5
Dallas	35.3	11.8
Daviess	35.4	35.4
DeKalb	15.1	15.1
Dent	61.4	40.9
Douglas	23.9	23.9
Dunklin	59.2	50.8
Franklin	52.5	52.5
Gasconade	34.3	34.3
Gentry	51.6	51.6
Greene	137.6	123.2
Grundy	71.0	62.2
Harrison	58.7	48.9
Henry	71.4	49.4
Hickory		
Holt	29.2	29.2
Howard	88.3	78.5
Howell	57.4	52.6
Iron	97.2	83.3

TABLE IV--Cont.

County	Total	In Private Practice
Jackson	159.3	118.4
Jasper	83.2	80.6
Jefferson	18.6	15.1
Johnson	42.2	36.2
Knox	33.5	33.5
Laclede	43.8	38.3
Lafayette	65.8	65.8
Lawrence	98.1	40.1
Lewis	37.0	18.5
Lincoln	26.7	26.7
Linn	72.1	59.0
Livingston	60.5	45.9
McDonald	28.4	9.4
Macon	46.0	32.9
Madison	70.6	47.1
Maries		
Marion	102.5	91.9
Mercer	20.0	20.0
Miller	15.0	15.0
Mississippi	41.7	36.4
Moniteau	50.0	50.0
Monroe	19.7	19.7
Montgomery	27.6	27.6
Morgan	67.9	56.6
New Madrid	32.5	32.5
Newton	53.7	47.0
Nodaway	29.0	29.0
Oregon	11.4	11.4
Osage	9.6	
Ozark	34.7	17.3
Pemiscot	49.3	46.4
Perry	50.4	50.4
Pettis	84.1	72.9
Phelps	41.8	41.8
Pike	74.6	68.3
Platte	17.7	17.7
Polk	56.5	48.4
Pulaski	10.9	8.7
Putnam		
Ralls		
Randolph	62.3	52.7
Ray	31.8	31.8
Reynolds		
Ripley	37.4	24.9
St. Charles	48.3	46.9
St. Clair	67.2	67.2
St. Francois	68.1	45.4
St. Louis	197.4	144.5



TABLE IV--Cont.

County	Total	In Private Practice
Ste. Genevieve	25.1	25.1
Saline	84.3	59.0
Schuyler		
Scotland		
Scott	75.9	72.7
Shannon	30.8	15.4
Shelby	35.5	23.7
Stoddard	14.8	11.1
Stone	66.8	53.5
Sullivan	13.1	13.1
Taney	80.0	70.0
Texas	30.1	30.1
Vernon	83.9	36.7
Warren	44.2	33.2
Washington	14.7	14.7
Wayne	26.0	26.0
Webster	38.9	31.2
Worth	58.5	29.3
Wright	15.4	15.4
St. Louis City	344.9	186.4

Source: American Medical Directory, 23rd Edition, 1965

TABLE V--OSTEOPATHIC DOCTORS PER 100,000 POPULATION  
BY COUNTY, 1966

County	Total	In Private Practice
Missouri Average	25.1	19.1
Adair	462.2	106.6
Andrew	19.0	19.0
Atchison	24.4	12.2
Audrain	34.6	34.6
Barry	58.0	46.4
Barton	29.9	29.9
Bates	40.8	40.8
Benton	60.9	48.7
Bollinger	24.3	12.2
Boone	12.1	10.4
Buchanan	19.8	16.3
Butler	12.5	12.5
Caldwell	49.8	37.3
Callaway	42.9	12.9
Camden	43.0	43.0
Cape Girardeau	21.5	19.1
Carroll	47.3	31.6
Carter	28.1	28.1
Cass	25.2	16.8
Cedar	47.5	47.5
Chariton	52.4	52.4
Christian	33.7	33.7
Clark	59.8	35.8
Clay	19.2	14.2
Clinton	71.9	71.9
Cole	57.3	33.4
Cooper	27.7	27.7
Crawford	15.8	15.8
Dade	14.9	14.9
Dallas	35.3	35.3
Daviess	59.0	59.0
DeKalb	15.1	15.1
Dent		
Douglas	11.9	11.9
Dunklin	5.6	5.6
Franklin	8.4	6.3
Gasconade	60.0	42.8
Gentry	51.6	51.6
Greene	15.9	12.1
Grundy	8.9	8.9
Harrison	78.2	48.9
Henry	65.9	38.4
Hickory	49.9	49.9
Holt	43.8	43.8
Howard	19.6	9.8
Howell	19.1	19.1
Iron		

TABLE V--Cont.

County	Total	In Private Practice
Jackson	42.0	29.8
Jasper	44.9	42.3
Jefferson	9.3	7.0
Johnson	6.0	6.0
Knox	117.4	100.6
Laclede	16.4	10.9
Lafayette	28.8	24.7
Lawrence	26.8	22.3
Lewis	64.7	46.2
Lincoln	53.5	46.8
Linn	78.7	65.6
Livingston	40.3	40.3
McDonald	47.3	47.3
Macon	105.2	72.3
Madison	23.6	23.6
Maries	29.0	29.0
Marion	14.1	10.6
Mercer	80.0	80.0
Miller	45.0	45.0
Mississippi	26.0	26.0
Moniteau	30.0	30.0
Monroe	49.3	49.3
Montgomery	46.1	46.1
Morgan	22.6	22.6
New Madrid	3.6	3.6
Newton	36.9	23.5
Nodaway	19.4	14.5
Oregon	34.3	34.3
Osage	19.3	19.3
Ozark	52.0	34.7
Pemiscot	5.8	5.8
Perry	14.4	14.4
Pettis	28.0	25.2
Phelps	7.6	7.6
Pike	55.9	55.9
Platte	7.1	3.5
Polk	24.2	24.2
Pulaski	10.9	10.9
Putnam	82.7	82.7
Ralls	26.5	26.5
Randolph	52.7	43.1
Ray	12.7	12.7
Reynolds	22.5	22.5
Ripley	24.9	24.9
St. Charles	12.8	12.8
St. Clair	13.4	13.4
St. Francois	42.6	36.9
St. Louis	22.0	21.1
Ste. Genevieve	16.7	16.7

TABLE V--Cont.

County	Total	In Private Practice
Saline	12.6	12.6
Schuyler	65.2	65.2
Scotland	101.0	84.2
Scott	22.1	22.1
Shannon	15.4	15.4
Shelby	94.7	82.8
Stoddard	33.3	33.3
Stone	40.1	26.7
Sullivan	52.5	52.5
Taney	20.0	20.0
Texas	12.0	12.0
Vernon	15.7	10.5
Warren	33.2	33.2
Washington	14.7	14.7
Wayne	39.0	26.0
Webster	31.2	23.4
Worth	58.5	29.3
Wright	54.0	54.0
St. Louis City	15.4	12.0

Source: Directory of Osteopathic Physicians, 58th Edition, 1966

TABLE VI--DENTISTS PER 100,000 POPULATION BY COUNTY, 1965

County	Total	In Private Practice
Missouri Average	53.6	49.8
Adair	50.8	50.8
Andrew	9.5	9.5
Atchison	36.6	36.6
Audrain	7.7	7.7
Barry	58.0	52.2
Barton	49.8	49.8
Bates	54.5	40.8
Benton	48.7	48.7
Bollinger	24.3	12.2
Boone	43.3	43.3
Buchanan	49.0	49.0
Butler	46.8	43.6
Caldwell	12.4	12.4
Callaway	25.8	25.8
Camden	21.5	21.5
Cape Girardeau	47.7	45.3
Carroll	39.4	39.4
Carter		
Cass	33.6	33.6
Cedar	47.5	47.5
Chariton	43.7	43.7
Christian	42.1	33.7
Clark	23.9	23.9
Clay	25.1	22.6
Clinton	54.0	54.0
Cole	64.5	47.8
Cooper	41.5	41.5
Crawford	23.8	23.8
Dade	59.5	59.5
Dallas	11.8	11.8
Daviess	35.4	35.4
DeKalb	45.3	45.3
Dent	30.7	30.7
Douglas	23.9	23.9
Dunklin	42.3	42.3
Franklin	44.1	42.0
Gasconade	34.3	34.3
Gentry	51.6	51.6
Greene	66.5	62.0
Grundy	71.0	53.3
Harrison	39.1	29.3
Henry	38.4	38.4
Hickory	25.0	25.0
Holt	43.8	29.2
Howard	39.2	39.2
Howell	33.5	33.5
Iron	55.6	55.6

TABLE VI--Cont.

County	Total	In Private Practice
Jackson	80.4	72.1
Jasper	59.4	59.4
Jefferson	14.0	11.6
Johnson	33.2	30.2
Knox	50.3	50.3
Laclede	60.2	54.7
Lafayette	57.6	53.5
Lawrence	44.6	35.7
Lewis	37.0	37.0
Lincoln	33.4	33.4
Linn	45.9	45.9
Livingston	47.0	47.0
McDonald	47.3	37.8
Macon	118.4	105.2
Madison	23.6	23.6
Maries	28.9	28.9
Marion	10.6	10.6
Mercer	60.0	60.0
Miller	22.5	22.5
Mississippi	20.8	15.6
Moniteau	20.0	20.0
Monroe	29.6	29.6
Montgomery	36.8	36.8
Morgan	45.3	45.3
New Madrid	14.4	14.4
Newton	33.6	33.6
Nodaway	29.0	24.2
Oregon	22.9	11.4
Osage	9.6	9.6
Ozark	34.7	17.3
Pemiscot	17.4	17.4
Perry	57.6	57.6
Pettis	36.5	36.5
Phelps	45.6	45.6
Pike	49.7	49.7
Platte	21.2	21.2
Polk	32.3	24.2
Pulaski	8.7	8.7
Putnam	49.6	49.6
Ralls	13.2	13.2
Randolph	38.3	38.3
Ray	31.8	31.8
Reynolds	22.5	
Ripley	24.9	12.5
St. Charles	25.6	24.2
St. Clair	40.3	40.3
St. Francois	36.9	36.9
St. Louis	127.8	118.5
Ste. Genevieve	33.5	33.5

TABLE VI--Cont.

County	Total	In Private Practice
Saline	46.3	46.3
Schuyler		
Scotland	101.0	101.0
Scott	31.6	31.6
Shannon		
Shelby	46.2	46.2
Stoddard	22.2	22.2
Stone	26.7	26.7
Sullivan	13.1	13.1
Taney	60.0	60.0
Texas	42.1	42.1
Vernon	41.9	41.9
Warren	11.0	11.0
Washington	29.4	22.0
Wayne	39.0	26.0
Webster	23.4	23.4
Worth	58.5	58.5
Wright	46.2	46.2
St. Louis City	111.3	104.5

Source: American Dental Directory, 1966

TABLE VII--BEDS IN GENERAL NON-FEDERAL HOSPITALS,  
PER 1,000 POPULATION 1966

County	No. of Beds	Beds per 1,000 population
Missouri Total	19,146	Average 4.30
Adair	224	11.38
Andrew		
Atchison	61	7.45
Audrain	216	8.32
Barry	80	4.64
Barton	50	4.98
Bates	50	3.40
Benton		
Bollinger		
Boone	250	4.33
Buchanan	508	5.92
Butler	344	10.73
Caldwell		
Callaway	59	2.53
Camden		
Cape Girardeau	296	7.06
Carroll	57	4.49
Carter		
Cass	50	1.40
Cedar	34	4.04
Chariton		
Christian		
Clark		
Clay	177	1.48
Clinton	58	5.21
Cole	247	5.90
Cooper	85	5.88
Crawford		
Dade	27	4.01
Dallas		
Daviess		
DeKalb		
Dent		
Douglas		
Dunklin	170	4.79
Franklin	160	3.36
Gasconade		
Gentry	31	4.00
Greene	977	7.39
Grundy	52	4.62
Harrison	56	5.47
Henry	115	6.32
Hickory		
Holt		
Howard	50	4.91



TABLE VII--CONT.

County	No. of Beds	Beds per 1,000 population
Howell	67	3.21
Iron	40	5.56
Jackson	3621	5.67
Jasper	460	6.08
Jefferson	52	0.61
Johnson	58	1.75
Knox	15	2.51
Laclede	41	2.24
Lafayette	115	4.73
Lawrence	55	2.45
Lewis		
Lincoln	66	4.41
Linn	74	4.85
Livingston	48	3.22
McDonald		
Macon	33	2.17
Madison	53	6.24
Maries		
Marion	292	10.32
Mercer	18	3.60
Miller	18	1.35
Mississippi		
Moniteau	20	2.00
Monroe		
Montgomery		
Morgan		
New Madrid		
Newton	44	1.48
Nodaway	95	4.60
Oregon		
Osage		
Ozark		
Pemiscot	86	2.49
Perry	57	4.10
Pettis	133	3.73
Phelps	64	2.43
Pike	79	4.91
Platte		
Polk	22	1.77
Pulaski	50	1.09
Putnam	30	4.96
Ralls		
Randolph	93	4.45
Ray	50	3.18
Reynolds		
Ripley	30	3.74
St. Charles	175	2.49
St. Clair	48	6.45

TABLE VII--CONT.

County	No. of Beds	Beds per 1,000 population
St. Francois	109	3.09
St. Louis	788	3.86
Ste. Genevieve		
Saline	123	5.18
Schuyler		
Scotland		
Scott	110	3.48
Shannon		
Shelby		
Stoddard		
Stone		
Sullivan	53	6.95
Taney	50	5.00
Texas	34	2.04
Vernon	54	2.83
Warren		
Washington	30	2.20
Wayne		
Webster		
Worth		
Wright	23	1.77
St. Louis City	7086	10.36

Source: Division of Health of Missouri, Hospital Directory, April 1966

TABLE VIII--ACTUAL AND PREDICTED SPECIALIZED HEALTH SERVICES  
AND POPULATION DENSITY AND INCOME BY COUNTY

County	Actual Services*	Predicted Services	Pop./sq. mile <sup>1</sup>	Median Family Income <sup>1</sup>
Adair	6	4	35.0	3636
Andrew	2	3	25.4	3520
Atchison	3	3	16.8	3557
Audrain	6	4	37.7	4875
Barry	4	3	24.0	2897
Barton	3	3	18.7	3055
Bates	5	3	18.9	3391
Benton	2	3	11.8	2891
Bollinger	2	3	14.8	2344
Boone	6	6	80.8	4975
Butler	6	4	48.5	2864
Caldwell	2	3	20.5	2908
Callaway	4	4	28.6	4356
Camden	4	3	13.9	3029
Cape Girardeau	6	6	73.0	4516
Carroll	3	3	20.0	3528
Carter	1	2	7.9	2254
Cass	3	4	42.6	4613

TABLE VIII--CONT.

County	Actual Services*	Predicted Services	Pop./sq. mile <sup>1</sup>	Median Family Income <sup>1</sup>
Cedar	3	3	18.5	2781
Chariton	2	3	16.8	2921
Christian	2	3	21.8	3189
Clark	2	3	17.1	3407
Clinton	3	4	27.6	3842
Cole	6	6	105.9	5503
Cooper	6	4	27.4	4142
Crawford	4	3	16.6	3395
Dade	3	3	15.0	2457
Dallas	2	3	17.3	2393
Daviess	2	3	16.9	2725
DeKalb	2	3	17.1	3034
Dent	3	3	13.8	2777
Douglas	2	2	11.9	2050
Dunklin	6	5	72.1	2711
Franklin	6	5	47.8	4863
Gasconade	2	3	23.5	3906
Gentry	3	3	18.0	2994
Grundy	4	3	28.1	3282
Harrison	3	3	16.1	2621
Henry	4	3	26.1	3630
Hickory	2	2	11.0	2311
Holt	2	3	17.0	3333
Howard	3	3	23.2	3463
Howell	3	3	23.9	2998
Iron	5	3	14.5	3305
Jasper	6	6	122.8	4432
Johnson	5	4	35.1	3907
Knox	3	3	12.8	2934
Laclede	3	3	24.7	3179
Lafayette	4	4	39.9	4066
Lawrence	4	4	37.6	3538
Lewis	2	3	21.8	3875
Lincoln	4	3	23.5	4000
Linn	4	3	26.9	3436
Livingston	6	4	29.6	3490
McDonald	2	3	21.8	2635
Macon	5	3	20.2	3236
Madison	3	3	18.9	3863
Maries	2	3	13.8	2891
Marion	6	5	67.1	4512
Mercer	3	3	12.6	2774
Miller	3	3	22.9	3411
Mississippi	3	4	50.4	2736
Moniteau	3	3	25.1	3349
Monroe	2	3	16.0	3171
Montgomery	2	3	20.8	3403
Morgan	3	3	15.9	3001
New Madrid	3	4	46.2	2173
Newton	5	4	47.8	4002
Nodaway	4	3	25.3	3338
Oregon	2	2	12.6	2357
Osage	2	3	18.1	3769
Ozark	2	2	9.1	2107
Pemiscot	5	5	78.1	2276

TABLE VIII--CONT.

<u>County</u>	<u>Actual Services*</u>	<u>Predicted Services</u>	<u>Pop./sq. mile<sup>1</sup></u>	<u>Median Family Income<sup>1</sup></u>
Perry	4	4	30.8	3554
Pettis	6	5	51.7	4199
Phelps	4	4	37.5	4184
Pike	6	3	24.5	3729
Platte	2	5	55.6	5898
Polk	3	3	21.4	2505
Pulaski	4	4	42.5	3955
Putnam	3	2	13.5	2355
Ralls	2	3	16.9	3773
Randolph	5	4	45.5	3935
Ray	4	4	28.0	4352
Reynolds	1	2	6.3	2913
Ripley	3	2	14.2	1977
St. Clair	4	2	12.0	2273
St. Francois	6	6	79.9	4405
Ste. Genevieve	2	4	24.2	4460
Saline	6	4	33.3	3974
Schuyler	1	3	16.5	2372
Scotland	2	3	14.7	3039
Scott	6	6	78.3	3957
Shannon	1	2	7.1	2565
Shelby	2	3	18.1	3325
Stoddard	2	4	35.2	2904
Stone	2	3	17.7	2871
Sullivan	3	3	13.4	2709
Taney	5	3	16.4	2892
Texas	3	3	15.0	2940
Vernon	4	3	24.5	3399
Warren	2	3	20.4	4185
Washington	3	3	18.9	3363
Wayne	2	2	11.7	2466
Webster	2	3	23.3	2554
Worth	2	3	14.7	2808
Wright	3	3	20.7	2588

<sup>1</sup> Source: U.S. Population Census 1960

\* The services scores should be interpreted as follows:

1 = presence of general medical practitioners in private practice

2 = presence of dentist(s)

3 = general hospital (10 or more beds)

4 = full-time medical specialist

5 = board approved specialists

6 = general hospital of 75 or more beds