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METHODS OF ESTIMATING PROFESSIONAL INCOME
IN THE COUNTIES OF OKLAHOMA

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METHODS OF ESTIMATING PROFESSIONAL INCOME
IN THE COUNTIES OF OKLAHOMA

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METHODS OF ESTIMATING PROFESSIONAL INCOME
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CHAPTER I

INTRODUCTION

Measurement and analysis of national income are a relatively new and rewarding phase of economic study. Only in recent years have income statistics become widely used as a tool for economic analysis. Estimates of national income in the form of aggregates are becoming an accepted measure of the achievements of an economy. As an aid to policy determination the National Income Division currently prepares annual estimates of national income. These estimates have the dual objective of measuring the national output and placing it in perspective with the transactions which underlie its production and distribution.¹

The National Income Division also prepares annual estimates of state income which are released in the Survey of Current Business, a monthly publication of the Department

¹U. S. Department of Commerce, National Income, 1954 Edition (Washington: Government Printing Office, 1954), p. 27.

of Commerce. These estimates cover total income and per capita income and make it possible to examine the differences in the amount of income in the several states. These data also provide information as to the type or kind of income and its sources which helps to explain the differences in the amount of income in the several states.

Income estimates of this nature provide a useful source of factual information for the solution of diverse problems. Many social scientists outside the field of economics find this information helpful in evaluating social and economic patterns and changes. Government administrators use the information to determine the taxpaying ability of a political unit or to allocate money for such governmental activities as roads, health, and welfare on a relative need basis. Further, they can be used to isolate local economic problems or to develop national and local resource policy. Businessmen find the estimates an invaluable aid in determining the location of a business or in examining alternative investment opportunities. The information is helpful in estimating market demand, in projecting sales potentials, and in the determination of general business policy.

Government officials and businessmen who are directly concerned with political or geographic areas smaller than the state often find their use of national and state income estimates limited. Regional variations in income at times have been known to move in opposite directions to that of national

income. Often local income trends run counter to a state or national trend for extended periods of time. Aggregate state figures may not reflect the effect on an agricultural county hard hit by drought or flood. Conversely, state aggregates may fail to describe adequately the plight of a local mining area with no market during a bumper crop year. The addition or withdrawal of a military installation may cause a local income pattern to fluctuate violently for a temporary period. Public works, government aid, and unusual business activities such as an oil boom may cause a local income pattern to shift markedly from its previous norm.

During the past decade the need for county income information has increased along with a widespread recognition of the inadequacies of presently available data. Agencies in a number of states have attempted to provide realistic county data. They have been encouraged and assisted in these efforts by the National Income Division.

The Development of National Income Statistics

The theoretical framework of national income analysis is now well established. A large statistical body of information has been accumulated. Individuals, private research organizations, and governmental agencies have all contributed to the establishment of this new discipline.² Many of the

²For examples of the work of an individual see: Scott Nearing, Income (New York: The Macmillan Co., 1915) and Simon S. Kuznets, National Income and Its Composition, 1919-1938 (New York: National Bureau of Economic Research, Inc., 1941).

important contributions were made by the National Bureau of Economic Research which was established in 1920. This private research organization developed much of the methodology as well as some of the major concepts now found useful in the preparation of national income estimates.

In 1932 the United States Department of Commerce became involved in the study and estimation of national income. This was the result of Senate Resolution No. 220 submitted during the first session of the Seventy-second Congress. Simon Kuznets was borrowed from the National Bureau of Economic Research to organize and supervise the study. The first government report on this subject which was published in 1934 contained national estimates for each year 1929-1932.³ The immediate acceptance of this report by economists and businessmen led to the creation of a special section in the Department of Commerce to continue work in the field. This section is now known as the National Income Division. Annually since 1936 the National Income Division has prepared and published in the Survey of Current Business estimates of national income.

In addition, the National Income Division has prepared three supplements (1947, 1951, and 1954) to the Survey of Current Business. These supplements contain comprehensive

³U. S., Congress, Senate, National Income, 1929-1932, 73rd Cong., 2nd Sess., 1934, Senate Doc. 124.

statistical data on national income in the United States. They show the development of the national income accounts and discuss the concepts, definitions, and statistical methods used to develop the estimates. The 1954 edition contained the latest revised data for each of the years 1929 to 1953.⁴

The National Income Division has also prepared a series on income payments to individuals in each state extending back to 1929. Current figures are published annually in the August issue of the Survey of Current Business. In 1956 a supplement to the Survey of Current Business entitled Personal Income by States Since 1929 was published. These estimates represent for the first time a major revision of the state income payment series initiated in the late 1930's. Overall figures on total and per capita personal income are recorded along with a detailed enumeration of the sources of income by industry and by type (Table 1). The concept of the state income estimates is discussed as is their statistical derivation and their reliability. A record of the methodology used is presented in summary form.⁵

In recent years a number of attempts have been made to allocate National Income Division estimates of personal

⁴U. S. Department of Commerce, National Income, 1954 Edition.

⁵U. S. Department of Commerce, Personal Income by States Since 1929 (Washington: Government Printing Office, 1956).

TABLE 1
PERSONAL INCOME PAYMENTS IN OKLAHOMA, BY TYPE OF PAYMENT,
SELECTED YEARS, 1929-1957*
(Millions of Dollars)

Personal Income	1929	1933	1939	1944	1949	1954	1957
Wages and salaries	\$ 576	\$308	\$449	\$1,181	\$1,312	\$1,962	\$2,326
Other labor income	7	6	7	21	33	68	94
Proprietor income	294	117	200	535	627	558	602
Property income	181	74	113	166	273	386	431
Transfer payments	21	26	41	60	209	238	308
Less: Personal contributions for social insurance	2	1	4	23	23	50	74
Total	\$1,077	\$530	\$805	\$1,940	\$2,432	\$3,162	\$3,687

*Source: Data for 1929-1949 from U. S. Department of Commerce, Personal Income by States Since 1929 (Washington: Government Printing Office, 1956), pp. 188-89; data for 1954 and 1957 from Robert C. Graham, Jr., "Regional Income Distribution in 1957," Survey of Current Business, XXXVIII, No. 8 (Aug., 1958), 18.

income for a state to the counties of the state. Almost without exception these attempts have been made within the theoretical and methodological framework established by the National Income Division. While some of the studies have been limited to a single year, others have attempted to keep the income data current on an annual basis.⁶ One study has attempted to provide such data for a single city.⁷ Efforts have been made to provide county data in at least one-third of the states.

One of the more important contributions to the growth of county income statistics was made by the Conference on the Measurement of County Income. The report of the Conference was published in 1952 and was entitled County Income Estimates for Seven Southeastern States.⁸ The Conference was organized by representatives of the Universities of Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee and Virginia, and the Tennessee Valley Authority. The immediate purpose of the Conference was to develop estimates of income on a county basis for the states encompassed by the Conference. However, the Conference also hoped to develop an approach

⁶For example, the New York Department of Commerce currently makes annual estimates of county income in New York.

⁷Louis R. Salkever, Personal Income in Philadelphia (Philadelphia: Department of Commerce, City of Philadelphia, December, 1955).

⁸John Littlepage Lancaster, County Income Estimates for Seven Southeastern States, A Report of the Conference on the Measurement of County Income (Charlottesville: Bureau of Population and Economic Research, University of Virginia, 1952).

to the problem of estimating income by counties, to develop statistical procedures for making the estimates, and to stimulate more intense research in county income estimation. The Conference hoped that its work might lead to such a standardization of method that results over the nation might be comparable. A detailed explanation of the concepts, methodology, and statistical procedures developed by this group was published in Methods for Estimating Income Payments in Counties which appeared as a technical supplement to the report of the Conference.⁹

State Personal Income

The National Income Division defines state personal income as the current income received by residents of the states from all sources.¹⁰ It is measured before income and other direct personal taxes have been deducted. The measurement, however, is taken after deductions have been made for individual contributions to government retirement, social security, or other social insurance programs. On a national basis cash income accounts for about 95 per cent of the total. Personal income includes some nonmonetary income, or income

⁹ Lewis C. Copeland, Methods for Estimating Income Payments in Counties, a Technical Supplement to County Income Estimates for Seven Southeastern States (Charlottesville: Bureau of Population and Economic Research, University of Virginia, 1952).

¹⁰ For a more detailed discussion of personal income and its components see: U. S. Department of Commerce, Personal Income by States, pp. 49-65.

in kind.

Personal income is defined as income received by state residents from business establishments, federal, state, and local governments, households and institutions, and foreign countries. The five major components of personal income are wage and salary disbursements, other labor income, proprietor income, property income, and transfer payments.

Wage and salary disbursements consist of all money flows to employees which are commonly regarded as wages and salaries. They include the compensation of executives, commissions, tips, bonuses, and the monetary value of payments in kind. They include contributions to any of the social security programs although these are not properly a part of personal income. They are measured before the deduction of union dues.

Other labor income consists of supplementary types of labor income received during the current accounting period. It consists of all employer contributions under private pension, health and welfare, and group insurance plans. This category includes compensation for injuries, pay of military reservists, directors' fees, and several other minor items.

Proprietor income measures the net business earnings of farmers, independent professional practitioners, entrepreneurs in nonfarm business, and others in a self-employment status. Generally these people are owners of unincorporated enterprises which consist of sole proprietorships and part-

nerships. It includes some minor forms of noncorporate business, such as producers' cooperatives. It is assumed that the net income of the non-corporate businesses accrues to the proprietors in their personal capacity.

Property income consists of three components: rental income of persons, dividends, and personal interest income.

Transfer payments consist of those receipts from government or business for which no current services are rendered. Government transfer payments consist of federal, state, and local government payments to individuals or private nonprofit institutions such as hospitals or charitable organizations. Business transfer payments include such items as individuals' bad debts to business, corporate gifts to private nonprofit institutions, and cash prizes.

Methods of Estimation

In general, the National Income Division estimates the personal income of states from records showing income flows from both business and government to individuals. Limited use is made of the records by which individuals report their income. These are found to be generally inferior to the records kept by business or governmental agencies.¹¹

The total estimate of wages and salaries for the several states is built up from a series of separate estimates

¹¹For a more detailed discussion of this subject see: Ibid., pp. 66-138.

for individual industries. Reliable tabulations of wages and salaries paid under state unemployment insurance programs are available. These have been supplemented by special tabulations furnished by the Bureau of Old-Age and Survivors Insurance. This effectively covers the wages paid by small-sized firms which are excluded from unemployment insurance coverage by the various provisions of the state laws. Since these tabulations cover virtually the whole of industrial and commercial employment, the National Income Division estimates of wages and salaries are highly reliable. They are affected only slightly by that small portion of wages and salaries which must be estimated independently.

Other labor income is generally computed on the basis of industrial payrolls and compilations supplied by the Social Security Administration. These tabulations are supplemented by reports of state insurance funds and various government records and publications. Basic data for some items of other labor income are not satisfactory. However, since other labor income is a relatively small part of personal income these errors are not significant.

The national estimates of property income have been distributed to the states largely on the basis of tabulations released by the Internal Revenue Service. These tabulations have recorded the amount of property income reported on individual federal income tax returns. Because of the nature of this simple system of allocation, property income esti-

mates have a much lower order of reliability than do the other types of state income flows.

The bulk of total transfer payments originates in various government agencies. The fiscal records of these agencies provide actual disbursement data which can be used for rather reliable estimates. Data concerning those transfer payments which originate in business are weak. These, however, account for only a small fraction of total personal income.

The National Income Division reports that proprietor income is probably the most difficult type of income to measure. Basic data are limited or missing. Existing data are deficient. As a result, the accuracy of these estimates is limited. Farm income in the main is based on data from the Census of Agriculture and other statistical sources developed in the Department of Agriculture. Estimates for business income have generally been derived from Internal Revenue Service tabulations and enumerations of the Census Bureau. The income of persons engaged in professional practice is a function of the number of persons in practice and their average income.

Income of Professional Practitioners

In 1949 the income of professional practitioners was about 11 per cent of total proprietor income (Table 2). It was estimated on a national basis by multiplying the number

TABLE 2
 PROPRIETOR INCOME IN THE UNITED STATES, SELECTED YEARS,
 1929-1949*
 (Millions of Dollars)

Industry	1929	1939	1949
Farms	\$ 5,968	\$ 4,317	\$12,718
Business	6,880	5,668	17,612
Professional Services	1,911	1,625	3,819
Physicians	635	551	1,509
Lawyers	571	553	987
Dentists	289	209	492
Others	416	312	831
Total	\$14,759	\$11,610	\$34,149

*Source: U. S. Department of Commerce, Personal Income by States Since 1929
 (Washington: Government Printing Office, 1956), p. 104.

of persons engaged in independent practice in the several professions by their average income. The number of persons in each profession was estimated from enumerations of the Census of Population. This estimate was extended into other years on the basis of records of professional associations. Information on average net income, however, was generally not available. This led the National Income Division to collect data on the average net income of the various professional persons. The results of these periodic surveys have been reported in the Survey of Current Business.¹²

In order to estimate the number of self-employed physicians for the state series the National Income Division developed benchmark years from the Census of Population. These benchmark years were extended to other years by means of data obtained from the American Medical Directory, published by the American Medical Association. Data obtained from questionnaire surveys and other income studies were used to estimate the average net income of self-employed physicians in each state. The number of self-employed physicians was then multiplied by the derived average net income. The state allocation was then made.

The total income, by states, of lawyers engaged in independent practice was estimated in a manner similar to that of physicians. The number of self-employed lawyers was

¹²For a more complete discussion of this component of personal income see: Ibid., pp. 104-106.

tabulated for certain benchmark years from the Census of Population. The benchmark years were extended to other years on the basis of data tabulated from the Martindale-Hubbell Law Directory. Data taken from National Income Division statistics, as well as several other studies, were used to estimate the average net income of self-employed lawyers. The number of self-employed lawyers multiplied by their average net income was then used to allocate national totals to the several states.

Tabulations of the number of self-employed dentists by states were prepared from the Census of Population. These tabulations provided benchmark years which were extended to other years on the basis of information furnished by the American Dental Association. Data taken from questionnaire surveys and other studies were used to arrive at the average net income of self-employed dentists. The product of these, as in other professions, was used to allocate the national total of dental income to the several states.

The remaining professions were classified under the heading of other professional services. Included in this grouping were such professions as private duty nursing, veterinarians, engineers, osteopaths, accountants, bookkeepers, authors, etc. The state distribution of the number of practitioners was derived from the Census of Population and rosters secured from the appropriate professional association. Rough measures of average income were compiled from numerous

sources. The national total was then allocated in a manner similar to that used for other professional groups.

Plan of Study

This study is part of a larger study aimed at determining the methodology which will best permit county personal income aggregates to be compiled for the state of Oklahoma. Methodology adequate for allocating wages and salaries among the counties of Oklahoma has been developed.¹³ Work also has been completed on the methodology necessary to allocate transfer payments in Oklahoma to the various counties.¹⁴ This study will suggest methodology which might be used to allocate to Oklahoma counties the income of self-employed professional people. This is known as professional service income and is part of the personal income component known as proprietor income.

This study has followed the pattern of most studies of county income made in recent years. It has been made within the conceptual framework of the personal income series of the United States Department of Commerce. The method of approach assumes that the estimates periodically prepared by

¹³Thomas Harry McKinney, "Methods of Estimating Wages and Salaries in the Counties of Oklahoma" (unpublished Ph. D. dissertation, Dept. of Economics, University of Oklahoma, 1955).

¹⁴Paul Eric Nelson, "Methods of Estimating Transfer Payments in the Counties of Oklahoma" (unpublished Ph. D. dissertation, Dept. of Economics, University of Oklahoma, 1956).

the National Income Division are the most adequate available measures of the various types of personal income payments in the state. The problem is to determine how the estimates of the National Income Division of professional service income for the state may be allocated most satisfactorily to the counties of the state.

The most desirable method is that of direct allocation. Direct allocation is possible in the case of professional service income only when some direct measure of this income (such as state tax returns) is available for tabulation. In the absence of direct measures of this type, the most feasible alternative is that of indirect allocation.

When the latter method is used it is necessary to find some statistical series which is closely related in character to the component of personal income known as professional service income. In almost all cases it is necessary to use a series which was compiled for some other purpose than county income estimation. One such indirect allocator would be the number of professional people in the counties weighted by their average income. Statistical information on average net income for professional people has been compiled only on a national or regional basis; so it is necessary to use another series even though the relationships are less direct. The series of county data should be the one which will most adequately reflect the geographic distribution of professional service income within the state.

Friedman and Kuznets in their study Income From Independent Professional Practice note that the ". . . differences in average income from independent professional practice in large part reflect similar differences in the average income of the public."¹⁵ Lewis C. Copeland in the technical supplement Methods for Estimating Income Payments in Counties recommends that income originating in medical and other health services be allocated on the ". . . basis of number of doctors, dentists, veterinarians, registered nurses in private practice, and other professional own-account health workers. . . . Weight with average earnings in covered industries for appropriate year."¹⁶ He also suggests that the income derived from legal services be allocated on the ". . . basis of numbers of lawyers, weighted by average earnings in all covered industries for appropriate year."¹⁷

Numerous other studies have substantiated the existence of this relationship between the average income of the general public and the average income of professional people. Most current county studies assume that with the data presently available the most satisfactory allocator for professional income is the number of professional people weighted

¹⁵Milton Friedman and Simon Kuznets, Income from Independent Professional Practice (New York: National Bureau of Economic Research, 1954), p. 186.

¹⁶Copeland, p. 68.

¹⁷Ibid., p. 69.

by the average income of the public they serve.

In some instances indirect allocators are highly satisfactory and yield results the accuracy of which is comparable to that of direct allocators. In other instances the use of indirect allocators yields results that are not highly satisfactory but are the best obtainable. Distributing the National Income Division estimates of the income in the state derived from legal, medical, and dental practice on the basis of the average income of the public as done in this study is not a very satisfactory method. However, professional services income in the state of Oklahoma is only about 2 per cent of total personal income (Table 3). The errors introduced by this method of allocation are, therefore, not significant in relation to the total income picture.

Other professional income is earned by such diverse groups of professional persons as accountants, engineers, architects, registered nurses and veterinarians. The listing also includes osteopaths, occupational therapists, physiotherapists, naturopaths, actuaries, lecturers and writers. Statistical information is not available to permit the direct allocation of the income of these professional people among counties. Data which currently exist are so fragmentary in nature that it is extremely difficult to make even an indirect allocation. These groups, like other professional groups, provide little or no information on their average income. Contrary to the major professional groups these peo-

TABLE 3

PERCENTAGE DISTRIBUTION OF PROFESSIONAL INCOME IN OKLAHOMA
BY TYPE OF PROFESSION, SELECTED YEARS, 1929-1957*

Year	Personal Income	Professional Service Income	Income of Physicians	Income of Lawyers	Income of Dentists	Income of Other Professionals
1929	100	2.0	0.8	0.6	0.3	0.4
1933	100	3.0	0.9	1.0	0.2	0.4
1939	100	2.0	0.9	0.8	0.2	0.4
1944	100	2.0	0.7	0.4	0.2	0.2
1949	100	2.0	0.8	0.5	0.2	0.4
1954	100	2.0	0.5	0.5	0.2	0.5
1957	100	2.0	0.9	0.7	0.2	0.5

*Source: Computed from data provided through the courtesy of the U. S. Department of Commerce, National Income Division.

ple as a whole are characterized by lack of professional organization. As a result, it is impractical to secure the distribution of their numbers by counties.

Because of this lack of data, the assumption has been made, for the purposes of this study, that the splinter professional groups are distributed geographically throughout the state in relation to the distribution of the general population. This assumption is a questionable one, but appears to be the most realistic one in view of the paucity of reliable statistical data. The county income estimates made for these smaller groups of professional people are less satisfactory than are those made for doctors, lawyers, and dentists. However, these small groups are responsible for only about 0.5 per cent of total personal income (Table 3). The errors introduced by the use of this technique do not significantly change the estimate of the total personal income aggregate for any county.

Sources of County Data

Reliable data on the number of doctors, lawyers, and dentists by county in Oklahoma are available. Each year the Board of Medical Examiners publishes a list of physicians and surgeons licensed to practice in the state. A similar list of dentists who are licensed to practice in the state is published annually by the Board of Governors of Registered Dentists. The Oklahoma State Dental Association publishes an

annual roster of its members, as does the Oklahoma State Medical Association. The Oklahoma Bar Association tabulation of the number of lawyers and the location of their practice is published in directory form by a commercial organization.

Annual directories of lawyers and dentists (by states) are published with the approval of the American Bar Association and the American Dental Association. Periodically the American Medical Association publishes a directory which is also national in scope and on a state basis. None of these listings in published form are an adequate measure of the distribution of self-employed professional people by counties. However, they have been used in this study in conjunction with each other. The result has been a satisfactory tabulation of the number of self-employed physicians, lawyers and dentists by county.

Although data on the number of self-employed doctors, lawyers, and dentists have a high degree of reliability, data on their income are not compiled in any systematic way. After examining various possibilities, the best that can be done under the circumstances is to allocate professional income among the counties on the basis of the number of self-employed professional people in each county, weighted by the average annual wage of industrial workers in the respective counties. The reasons for this decision are set forth in detail in subsequent chapters.

The most complete series of available county data on

wages and salaries in the counties of Oklahoma is published by the Oklahoma Employment Security Commission. This series is compiled from the quarterly reports and county supplements filed by employers in Oklahoma who are covered under the unemployment insurance program. The data prepared by the Oklahoma Employment Security Commission consist of total employment and payrolls covered by the Oklahoma Employment Security Act. The series was first published in 1949. Since then it has been published by calendar quarter in the Oklahoma Labor Market, a monthly publication of the Oklahoma Employment Security Commission.¹⁸ The annual data for each of the years 1949 to 1955 have also been published in handbook form.¹⁹

"Covered employment" in the Oklahoma Employment Security Commission series is defined as

. . . the number of workers employed each month in the payroll period ending nearest the 15th of the month by all employers subject to the Oklahoma Employment Security Act. Until December 31, 1955, an employer was subject to this Act when he had eight or more employees in each of 20 different calendar weeks within one year. Some employers voluntarily elected coverage even though they did not have eight employees in 20 weeks. Covered employment does not include government, interstate railroads, agriculture, religious or charitable organiza-

¹⁸Oklahoma Employment Security Commission, The Oklahoma Labor Market, monthly.

¹⁹Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1949-51 (Oklahoma City: Oklahoma Employment Security Commission, 1952); Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1952-1953 (Oklahoma City: Oklahoma Employment Security Commission, 1954); and Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1954-1955 (Oklahoma City: Oklahoma Security Employment Commission, 1956).

tions, domestic service, self-employed, or family workers.²⁰

This series defines "covered wages" as

. . . all wages and salaries paid to covered employees by their employers, including bonuses, commissions, and cash value of all remuneration received in any medium other than cash. These wages include both taxable and nontaxable wages. Only the first \$3,000 paid to each worker in a calendar year by each employer is taxable under the Oklahoma Employment Security Act; however, the nontaxable wages are reported and are included herein.²¹

The major source used in allocating other professional income to counties was the Census of Population.

Selection of the county data used as the base for allocation was made after consultation with numerous individuals and organizations with interests and activities in the subject. All of the universities known to be working in county income estimation were contacted by mail. In each instance their current procedure and their recommendations were examined in detail. Advice was solicited from individuals active in income estimation for small areas. Personal interviews were held with the executive officers of the Oklahoma Bar Association, the Oklahoma State Medical Association, and the Oklahoma State Dental Association. There were other personal interviews with practicing lawyers, physicians, and dentists in several counties of the state.

²⁰Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1954-1955 (Oklahoma City: Oklahoma Employment Security Commission, 1956), p. 1.

²¹Ibid., p. 1.

CHAPTER II

INCOME OF LAWYERS

The nomenclature used to describe professional persons engaged in medical and health services is generally simple, clear, and standardized in common usage. The terms doctor, nurse, and dentist are used in the same general sense by the great majority of people, both lay and professional. The descriptive nomenclature used to describe persons engaged in various legal activities has been developed over longer periods of time and span more than one legal system. As a result, varying and conflicting concepts of the nomenclature are held.

Henry C. Black has defined a lawyer as

a person learned in the law; as an attorney, counsel, or solicitor; a person licensed to practice law.

Any person who, for a fee or reward, prosecutes or defends causes in courts of record or other judicial tribunals of the United States, or of any of the states, or whose business it is to give legal advice in relation to any cause or matter whatever.¹

In a broader sense, the Encyclopedia Britannica has

¹Henry Campbell Black, Black's Law Dictionary (3rd ed. rev.; St. Paul, Minn.: West Publishing Co., Printers, 1933), p. 1079.

described the lawyer as

. . . one whose principal occupation is related to the making or administration of the law, and who has received an education sufficiently wide in its scope to distinguish him from minor administrative officials; . . . the student, after his formal education is completed, is admitted by the State to the privilege of engaging in general practice of the law.²

Historically, and especially in England, Ireland, and Scotland, the specific terms of attorney, counsel, and solicitor have been used to describe the functional performance of persons engaged in the practice of law. However, in the United States legal functions have been less precisely defined. This, coupled with common usage, has led to a considerable overlap in meaning among the various terms. For example, one authority states that

in the United States, a counsellor-at-law is, specifically, an attorney, admitted to practice in all the courts; but as there is no formal distinction of the legal profession into two classes, as in England, the term is more often used loosely in the same sense as "lawyer" i.e., one who is versed in, or practises [sic] law.³

This study uses the term lawyer to mean one who is versed in and practices law, that is, one who is engaged in the profession of law. It is a comprehensive term and is understood to include counsel, counselor, attorney, barrister, and solicitor.

²"Lawyer," Encyclopedia Britannica, 14th ed., XIII, 814.

³"Counsel and Counsellor," Ibid., VI, 592.

The lawyer is expected to serve society, the system of courts, and his clients. He may elect as clients the individual or the family, the organizations of labor and business, or some level of government. In serving the client he may offer advice and consultation. He may be responsible for tax and real estate matters. He may draft wills, care for personal property and estates, and help unravel domestic affairs. He may engage in probate proceedings, draft articles of co-partnership, and prepare charters for corporations. He may handle cases of bankruptcy, collect bad debts, and serve as an attorney for the court. He may defend when criminal charges are made or file for action in civil cases.

Before the attorney can enter the practice of law, he must be admitted to the bar. This means he must satisfy the profession that he is equipped, by character and education, to join its ranks.⁴ In the United States admission to the bar means admission to the bar of one of the several states or to the bar of the District of Columbia. In other instances it may mean admission to the courts in the federal system or specialized administrative agencies.⁵

Requirements for admission to the bar are not standardized among the several states. All states, however, in-

⁴Albert P. Blaustein, Charles O. Porter, and Charles T. Duncan, The American Lawyer (Copyright 1954 by the University of Chicago, Chicago, Ill.), p. 210.

⁵Ibid.

clude several factors among the requirements. These are

. . . academic training, legal training, moral character, and belief in and loyalty to the form of the United States Government.

In almost all states the applicant for admission to the bar must take an examination, even though he is a graduate of a law school. Graduates of a few schools are admitted without examination in some of the states. Admission to practice in one state does not license the attorney to practice in another state. He must comply with the rules that state has for admission of an "attorney applicant." However, almost all of the states will admit an attorney from another state without examination after he has practiced a specified length of time, provided he meets other requirements. A few states require the attorney applicant to take an examination.

License to practice in one or more states does not admit the lawyer to practice in the Federal courts. To be admitted to the United States Supreme Court, an attorney must have practiced three years in the highest court in his state or territory. A member of the bar moves the attorney's admission in open court. Requirements for admission to the Federal courts of appeals and district courts vary with the circuit and the district.

An attorney may obtain special permission to argue a particular case before a court in which he is not licensed to practice. This often happens in criminal cases when the accused wants a nationally famous criminal lawyer to represent him in the state in which he is to be tried.⁶

In Oklahoma, the attorney-to-be must meet the following general requirements for admission to practice law. He must be a citizen of the United States or have declared his intent to become a citizen. He must have been a resident of Oklahoma for sixty days. He must have a good moral character, be at least twenty-one years of age, and take the prescribed oath. He must stand for examination by the Board of

⁶Besse May Miller, Legal Secretary's Complete Handbook (Copyright 1953 by Prentice-Hall, Inc., Englewood Cliffs, N. J.), Reprinted by permission of the publishers.

Bar Examiners after beginning the formal study of law. He must pay the necessary fees and have been enrolled and have signed the roll of attorneys.⁷

The Legal Service Industry

Law is one of the traditional professions. It is generally considered to meet the requisites of a profession in that it is characterized by organization, a pursuit of knowledge, and a spirit of public service. Those who engage in the practice of law are professional people.

However, the National Income Division recognizes the existence of the Legal Service Industry. In the analysis of the income of lawyers, they feel it necessary

. . . to distinguish between lawyers as an occupational group and the legal service industry, consisting of the offices of law firms engaged in furnishing legal services on a fee or contract basis. A lawyer may conduct a law office alone or as a member of a partnership, may be employed on a salaried basis by a law firm, or may be employed entirely outside the legal service industry as a salaried lawyer for an industrial corporation, labor union, governmental organization, or any other employer. Interest attaches not only to law as an occupation, but also to the legal service industry as one of the Nation's major industries.⁸

The income of the legal profession is understood to mean the income of lawyers engaged in all forms of legal

⁷Oklahoma Bar Association, Rules and Regulations Governing Admission to the Practice of Law in the State of Oklahoma (Oklahoma City: Board of Bar Examiners, 1954), pp. 5-15.

⁸William Weinfeld, "Income of Lawyers, 1929-48," Survey of Current Business, XXIX, No. 8 (Aug., 1949), 19.

practice. One major group consists of the nonsalaried lawyers. These lawyers engage in private practice as entrepreneurs with or without partners. They receive no salaries for the legal services they perform. The second major group is the all-salaried group. These lawyers receive salaries. They do not engage in private independent practice and receive no income from this type of practice. The third group is the part-salaried group. These lawyers receive both a salary and other income on a fee or contract basis.⁹

The National Income Division uses an alternative method of grouping lawyers. In these instances the three groups previously defined are consolidated into two groups. The major independent group consists of lawyers who receive all of their income from independent practice (the nonsalaried lawyers) as well as the portion of part-salaried group receiving more than half of their income from independent practice. The major salaried group includes lawyers receiving all their income from salaries and the portion of the part-salaried group receiving more than half of their incomes from salaries.¹⁰

On the basis of these groupings, the legal service industry is separated from the legal profession. The legal

⁹Maurice Liebenberg, "Income of Lawyers in the Post-war Period," Survey of Current Business, XXXVI, No. 12 (Dec., 1956), 35.

¹⁰Ibid.

service industry includes

. . . that income which is received by lawyers in their capacity as independent practitioners, that is, as providing legal services on a fee or contract basis. The legal service industry, therefore, includes the total of income earned by nonsalaried lawyers and that portion of the income of the part-salaried group which is received from independent practice.¹¹

Excluded is that type of salaried income earned serving a business or an individual, serving any level of government, or earned as a teacher of law.

Some indication of the relative importance of the legal service industry when related to the legal profession is found in a study conducted by the National Income Division. In 1954, about 66 per cent of the reporting lawyers were classified as independents while 34 per cent were salaried. Using an alternative grouping, some 61 per cent were classified as nonsalaried. About 26 per cent were all-salaried and 13 per cent were part-salaried.¹² In this same year, \$1.6 billion (one-half of one per cent of the total national income) originated in the legal service industry.¹³

Factors Affecting Income

The income of lawyers is affected by many factors. Some of the factors are tangible and measurable. Others are

¹¹Ibid., p. 28.

¹²Ibid.

¹³Robert M. Segal, "A New Look: The Economics of the Profession," American Bar Association Journal, XLIII, No. 9 (Sept., 1957), 790.

intangible and more difficult to prove but no less real. General economic conditions play an important part in determining the location and number of lawyers as well as the size of their income. As a general statement, ". . . the demand for lawyers and their services as well as their incomes is directly related to the economic activity in the state."¹⁴ In addition, the income of lawyers is directly related to such factors as the nature of the clientele, the size of firm, the regional location, the source of income, and the size of the community.

In 1954 lawyers received about one-half of their gross income from the business community and the remainder from individuals. Lawyers with higher incomes were generally employed by some form of business enterprise. Those with the lower incomes were engaged largely in rendering services to individuals.¹⁵

A distinct and positive relationship exists between the size of the firm and the average income of lawyers. In firms consisting of five to eight members, participating lawyers tend to receive on the average over three times as much income as those engaged in solo practice.¹⁶

Marked differences in income are found among the

¹⁴Ibid., p. 853.

¹⁵Maurice Liebenberg, Survey of Current Business (Dec., 1956), p. 29.

¹⁶Ibid., p. 30.

various regions and states. In 1954 Florida lawyers reported a mean income of \$7,831 while lawyers in California reported a mean income of \$12,184. The mean income for Oklahoma lawyers was \$9,296. Among regions, the Middle East had the highest mean income (\$11,522) while the Northwest had the lowest (\$8,424).¹⁷

Professions, when compared generally to most other occupations, are found to generate long periods of earning power. The earning period does not terminate until the practitioner reaches a very old age. As a rule, the income received is at relatively low levels during the early stages of the earning cycle and then rises to a peak towards its end. The peak is followed by a gradual decline. Lawyers, as a group, follow this pattern.

In 1954 lawyers in the 25 to 29 year age group earned on the average \$5,280 each year. Lawyers aged 55 to 59 years had average earnings of \$12,870 each year, while those 65 years and older averaged \$9,050. Lawyers in the major independent group varied from this pattern only slightly.¹⁸

An important reason for differences in income among lawyers is the size of the community in which they practice. A positive relationship exists between the size of lawyer income and the size of the community in which it is earned.

¹⁷Ibid., p. 35.

¹⁸Ibid., p. 32.

This relationship is such that legal income continues to mount from the smallest to the largest communities. In 1954 the average income of lawyers practicing in cities of 1,000,000 or more people was over twice the average of those practicing in communities with a population of less than 1,000.¹⁹

The importance of the relationship between the size of community and the size of legal income is emphasized by Friedman and Kuznets. One important finding of their investigation was the low average income of professional people in the smaller communities. After examining the three professions of law, medicine, and dentistry, they concluded that the average incomes in communities under 2,500 in population ". . . are only one-half to two-thirds as large as in communities over 10,000 in population; and average incomes in communities of 2,500-10,000 about two-thirds as large."²⁰

An additional conclusion of this study is that the size of community income differences in average income from independent professional practice reflect, in part, like differences in the average income of the public.

The average income of nonrelief families decreases consistently with size of community from 150 per cent of the national average in communities over 1,500,000 in population to 80 per cent in communities under 2,500. Dentists, lawyers, and accountants follow exactly the same pattern, . . .²¹

¹⁹Ibid., p. 30

²⁰Friedman and Kuznets, p. 181.

²¹Ibid., p. 186

It is apparent that the factors which determine the income of lawyers, as well as the other professional groups, are many and varied. Some of them have been determined, and the direction of their efforts has been approximated. Many factors remain unknown, and others resist quantitative evaluation.

How can we measure 'personality,' the influence of family and personal connections, and the like? Finally, there are the many factors of which we are ignorant; these we usually combine with the ever-present element of 'pure luck,' under the convenient heading of 'chance.'²²

Factors Affecting Legal Income in Oklahoma

Information on the income of lawyers is inadequate and incomplete for it is based on a limited number of studies, largely unrelated and scattered throughout time. Too, there has been little continuity in the collection or compilation of data. At the state level the lack of information is even more pronounced. Only a very few states have made any effort toward the collection and analysis of adequate data.²³ The existing data have been gathered largely

²²Ibid., p. 174.

²³See Milton Z. Kafoglis, Economic Condition of the Legal Profession in Ohio, A Report Prepared under the Auspices of the Professional Economic Committee of the Ohio State Bar Association, (Delaware: Ohio State Bar Association, 1955).; State Bar of Texas, "Preliminary Report on the Economic Condition of the Legal Profession in Texas," The Roll-Top Desk in the Atomic Age, A Report Prepared by the Committee on Legal Education and Institutes (Austin: State Bar of Texas, 1956).; and Incomes of Iowa Lawyers, (Des Moines: Iowa State Bar Association, 1956).

by mail questionnaire, and unfortunately are compromised by inaccurate and incomplete reporting, poor coverage, and other limitations inherent in this kind of collection procedure.

An inventory of the existing and available information on the income of lawyers in Oklahoma reveals that little, if any, such data are to be had in usable form. Changing economic conditions have recently caused members of the Oklahoma Bar Association to express alarm at this lack of information. They are certain in their own minds that legal income has not enjoyed the same rate of growth as have incomes in general. They wonder if their income position relative to other professional groups, especially physicians and dentists, has not worsened. In particular, they are concerned with the encroachment by specialists from other fields in areas previously held to be the professional domain of lawyers. The movement of the accountants into tax practice is of primary concern.

As a result of this alarm, action is being contemplated. The Fees Committee of the Oklahoma Bar Association has been renamed the Economic Status Committee, and the functions of the new committee are now being determined. One of the primary functions of the committee is to be the periodic collection of facts relative to legal practice and legal income.

The author questioned the chairman of the Economic Status Committee of the Oklahoma Bar Association in detail

about the data presently available from the committee as well as that which might be available in the future. The following is a summary of the observations of the committee chairman.

The economic position of the lawyer in Oklahoma is poor compared to that of other professional groups. Remedial action will come slowly for two reasons. First, lawyers engaged in independent practice are individualists who believe in independent action. Second, the supply of lawyers is such that they are forced to practice under conditions of rigorous competition. Not to be overlooked is the movement of other professional groups such as accountants, insurance agents, and real estate agents into areas of practice previously reserved to members of the legal profession.

The fees which Oklahoma lawyers charge are determined by three factors working in combination. First, the Oklahoma Bar Association has prepared a minimum fee schedule based on the size of the city of practice. The lower schedule is used for cities with a population under 25,000 and the higher schedule is recommended for cities with a population of 25,000 and over. Although this minimum fee schedule is not always adhered to, actual charges tend to follow it.

The second factor affecting both the number and size of legal fees is the economic character of the clientele. Residents of rural communities use fewer legal services and are more reluctant to pay for them than are people in urban

centers. Areas where industrial activity is great, especially in the manufacturing and extractive industries, demand extensive legal services and are willing to pay for them. Communities composed of retail, wholesale, and service organizations require relatively little service from the legal profession.

Finally, the field of practice in which the lawyer engages affects his individual fee scale. Generally, the lawyer concentrating on probate matters will earn higher fees than the one who practices in the field of domestic relations. The lawyer who specializes in accident or damage cases usually determines his individual fee on the basis of a percentage of the claims awarded.

Most lawyers in Oklahoma engage in general legal practice, and a large part of their professional work derives from real estate practice. Although not true for specific areas in the state, for the state as a whole most of the clients are farmers, since much legal practice deals with rural farm matters.

At the present time the Economic Status Committee of the Oklahoma Bar Association has collected no quantitative data on legal income in Oklahoma. They have been surveying the field, investigating the work of other states, and attempting to delineate the type of study they will sponsor in Oklahoma. Probably, in time, they will conduct a study similar to the one recently completed by the Iowa State Bar Asso-

ciation entitled Incomes of Iowa Lawyers.²⁴

In the latter study a voluminous amount of data was collected by mail questionnaire from the practicing lawyers in Iowa. It has been tabulated to determine the annual net income of lawyers from practice, according to the size of city. Other tables show the effect of age and partnership practice on income, while still another series indicates how attorneys rate the various fields of practice in terms of income production.

Such a study for Oklahoma will not be available any time in the near future. Quite likely the first surveys will be made in those counties where the county bar associations are most willing to cooperate. As techniques are perfected and a recognition of the value of the activity spreads, the survey may be expanded to cover all counties in the state.²⁵

Twelve lawyers (in addition to the chairman of the Economic Status Committee of the Oklahoma Bar Association) currently in practice in eight cities in Oklahoma were interviewed for this study. The group chosen for interview was not intended to constitute a scientific sample. Neither the time nor the financial resources available to the writer per-

²⁴Ibid.

²⁵Interview with Austin R. Deaton, Jr., Chairman of the Economic Status Committee, Oklahoma Bar Association, July 2, 1958.

mitted an investigation of great scope. Three factors were considered in selecting the eight cities: the size of the city; its geographic location in the state; and the income generators of the community. In Oklahoma the main generators of income are industry, agriculture, federal spending, and state spending such as welfare payments.

The Executive Secretary of the Oklahoma Bar Association prepared a list of lawyers practicing in the eight selected cities. These men were chosen because of their known interest in legal income or because they had served on related committees in their work with the bar of Oklahoma. The original list was refined by deleting lawyers who, because of temperament or other reasons, were likely to be reluctant to grant an interview.

Despite the differences in geographical location, the differences in clientele, and the differences in the factors which produce community income, the lawyers agreed to a surprising degree on the factors which determine legal income in Oklahoma. All of them agreed that lawyers in the state are in general practice not from choice but from the necessity of making a living. On the whole the field that produces most of the legal income is that of real estate, especially farm real estate. Where there is oil activity, legal income rises sharply. Most agreed that the only lawyers who had high incomes over a long period of time were those who were able to work consistently in an oil-producing

area.

In the rural areas legal income was held to be dependent on crops and the cattle business, and when these two industries had a good year, legal income was good. Conversely, when these industries suffered any sort of reverse, legal income suffered in like manner. In rural areas state and federal spending on roads, highways, dams, and reclamation projects gave a strong boost to the legal income in the area. As this spending was reduced, legal income fell correspondingly.

Lawyers located near military installations found that military spending tended to increase their income, especially when military funds were expended for construction. General military spending, however, also helped because the community as a whole was able to purchase more legal services. An installation which supported a large number of troops also tended to raise legal incomes, especially for lawyers engaged in criminal practice.

In urban areas legal income was reported to be largely dependent on the economic condition of industry. In one city with a dominant coal mining industry the lawyers interviewed believed that the coal industry was one of the controlling factors of their income. When the coal miners (who were described as prodigious spenders) were employed business in general was good and the lawyers were busy. In another city with several light industries lawyers believed

that these and the extent of their production influenced their income. In one city where the rural element held part-time jobs, one lawyer believed that the availability of part-time jobs was a decisive factor. All lawyers reported that little business came their way from the independent commercial enterprises along main street. On the other hand, all lawyers interviewed agreed that their income closely followed general economic conditions.

Most lawyers believe that the fees they charge are determined by competition, and the amount of business they get depends on their ability and how hard they are willing to work. They recognize that the starting point for fee determination is the minimum fee schedule of the Oklahoma Bar Association, but they insist that competition continually forces realized fees far below this minimum fee schedule. Lawyers practicing in rural areas maintain that farmers and ranchers are hard bargainers and will not tolerate high legal fees, such as they tolerate in other professional fields.

Lawyers in one small agricultural town reported a different pattern than that expressed above. They reported that over the last decade their income had remained about constant. This was true despite the fact that the town was dying and that the farmers had experienced a series of bad crop years. They were not at all sure of the reason but thought that two conditions contributed to this stability. Most of their legal practice came from probate practice.

The population of the community was an older population with a high death rate. Because of this, the real estate field was unusually active. In addition, various insurance companies were investing heavily in farm property in the area and lawyers were getting a lot of "insurance business."

A significant number of lawyers touched on another point in their conversations. They were concerned about the low esteem in which they were held by great numbers of people. In general they believed that their social status was much lower than that of other professional groups, which had an adverse effect on their income. Many of them believe that little constructive action towards equating legal income with that of doctors and dentists can be undertaken until an improved social position for lawyers is attained.

In summary, most Oklahoma lawyers interviewed are in agreement on the following general statements. First, most Oklahoma lawyers are engaged in general legal practice. Second, a large portion of their income is earned from real estate practice, especially that connected with farms. Third, in many communities most clients are ranchers and farmers. Fourth, where significant oil activity occurs, legal income rises sharply. Fifth, legal income rises and falls with changes in general economic conditions. Sixth, in specific communities, legal income rises and falls directly with other business activities. Seventh, military spending has a significant influence on the size of legal income. Eighth, al-

though the minimum fee schedule of the Oklahoma Bar Association is the basis of fee determination, competition tends to force realized fees below this schedule. Since the minimum fee schedule calls for larger fees in larger communities, the size of the city in which the lawyer practices is a determinant of the size of legal income.

Methods of Estimating Legal Income in
Oklahoma, by County

An annual census would be the ideal method of determining the income of lawyers in the counties of Oklahoma since it would be both accurate and comprehensive. Too, it would provide valuable supplemental information about gross income, overhead, costs of doing business, and the advantages and limitations of partnership practice. Such a census is not likely to occur within the foreseeable future.

An alternative method of determining legal income in Oklahoma counties would be a census taken in a given year and repeated at intervals less frequent than a year. This would serve as a benchmark year and could be extended with a reasonable degree of accuracy to account for those years when the census was not taken. Although not as satisfactory as the annual census, this approach eliminates the inadequacies of the various sampling techniques and averaging methods inherent in the statistical treatment. Such a periodic census is not likely to occur within the foreseeable future.

Use of Oklahoma income tax returns would be a desir-

able way to approximate the county income of lawyers in Oklahoma, but unfortunately, these returns are not available for public inspection. The officials of the Oklahoma Tax Commission will, upon request for a reasonable purpose, prepare a sample of about 100 returns of lawyers filing in Oklahoma, but the income figures derived from this sample are inadequate. In the first place the size of the sample is too small. In addition, since the sample is selected at random, it has no known relationship to the many counties of the state. Finally, such an income figure does not separate legal income earned from independent practice and income earned from commercial activities. Many lawyers maintain a law office as a convenient place from which to direct their varied business ventures. Many lawyers have extensive investment programs. Others draw a large portion of their total income from quasi-salaried practice. It is probable that the extent of this salaried and nonlegal income is considerable.

A usable county average income estimate could be obtained through the use of a sample survey conducted by the Oklahoma Bar Association or by the several county bar associations. Officials of these associations express keen interest in such surveys, and the Oklahoma Bar Association is making tentative plans to conduct one. However, at the present rate of progress, it will be several years before any results are available. Probably the first of such surveys will be fragmentary in nature.

Periodically the National Income Division conducts a sample survey to determine the incomes of lawyers on a state and regional basis. The response is adequate to determine both a state and regional average income figure that is usable, but it is not adequate for the determination of county average income. Until such time as the sample represents adequately each county within the state, these data will be appropriate for only the more general type of approximation.

The number of lawyers practicing in each county can be used to allocate estimates of state legal income to the counties. Since it is known that the size of legal incomes varies among the several counties, such a procedure is more satisfactory if weights are used to adjust for these differences in incomes. The most desirable weight would be the average income of the lawyers in the county. When this is not available, a statistical series that approximates the county distribution of legal income must be used. A series which approximates the average income of the county as a whole is one of the more satisfactory weights.

Methodology in Current Use

A number of universities have been active in county income estimation for the past decade. These universities were contacted by mail to determine the methodology used in making estimates of professional income for units smaller than a state.

The Bureau of Business Research of the University of Alabama reported that it had recently completed preparing estimates for 1956. These estimates were prepared within the framework of the National Income Division. In so far as possible, the Bureau applied to the county level the state methods described in Personal Income by States Since 1929, published by the Department of Commerce.

The number of lawyers by county in the state of Alabama was tabulated. The number of licences issued to attorneys of Alabama by county was secured from the Alabama State Department of Revenue. The Martindale-Hubbell Law Directory was used to complete the tabulation of the number of lawyers by county within the state. Similar distributions of physicians, nurses, and dentists were compiled. Professional rosters, lists furnished by the Alabama State Department of Revenue, and lists from the State Board of Examiners and Registration were adequate for this purpose. However, satisfactory material from which to tabulate county distributions of the other types of proprietors was not available.

An earlier study had established benchmark allocators for each segment of nonfarm proprietor income for 1950, but the Bureau believed that these were no longer appropriate. Since new benchmark allocators would not be established until 1960, associated factors were used to establish a single allocator for nonfarm proprietor income. It was then allocated as one lump sum. After considerable testing of the

results, it seemed to them that their estimate of nonfarm proprietor income for 1956 was reasonable.

The Bureau of Business and Economic Research of the State University of Iowa is currently engaged in a study to estimate income for counties. It reported that the procedures used for allocating the income of lawyers, doctors, and dentists, by county will vary from the procedures used in their 1950 study. In the latter study both proprietor and professional income were allocated to the counties on the basis of sales tax data secured from the Iowa State Tax Commission. The Bureau now plans to divide proprietor income into five parts consisting of retail and wholesale trade, amusements, hotels and tourist courts, medical and other health services, and legal services. The two latter parts will then be allocated by counties on the basis of their county distribution by numbers as well as their average income. Such information can be secured from the American Medical Association, the American Dental Association, the American Hospital Association, and the Iowa Bar Association.

The Martindale-Hubbell Law Directory will be used to tabulate the number of lawyers by counties and the Survey of Current Business will be used to compile information on professional income. The issues of July 1951, July 1952, and December 1956 are considered to be especially fruitful sources of information.

The Center for Research in Business of the University

of Kansas reported that it had allocated proprietor and professional income in service as a group in its last study. This component consisted of the earnings of proprietors of service establishments, places of amusement, and hotels and tourist courts; and the income of self-employed professionals such as doctors, dentists, lawyers, accountants, etc. It was found that this group allocation was necessary because no separate state income estimates for the sub-groups had been provided by the United States Department of Commerce. The allocator consisted of the number of proprietors and professionals, adjusted for differences in average income. The adjusted numbers were weighted to correct for county variations in earnings.

The number of proprietors of service establishments was obtained from the Census of Business; the number of doctors from the American Medical Directory; the number of lawyers from the Martindale-Hubbell Law Directory; and the number of dentists was compiled from a List of Licensees obtained from the Kansas State Board of Dental Examiners. Since there are wide variations in earnings among the components of this group, weights were used to adjust for the occupational differences in income. Higher average incomes are earned in the professions; therefore, proprietors of service establishments were weighted with 1.0, doctors with 1.8, dentists with 1.4, and lawyers with 1.6 to adjust for those higher earnings. When this computation had been completed,

the estimated number of service proprietors for each year was combined with the number of professionals. The totals were then weighted by the average payrolls in wholesale and retail trade. Percentage distributions were computed and used as the allocator.

The Bureau of Business Research, College of Commerce, University of Kentucky reported that it used a simple and direct allocator in preparing the annual estimate of personal income in Kentucky counties. The number of lawyers by county was obtained from the Martindale-Hubbell Law Directory. The county weight which it applied to the number of lawyers by county was the average covered wage by county. This wage information was acquired from unpublished employment compensation data.

The Bureau of Business Research of the University of Mississippi reported that it used information supplied by the State Tax Commission in estimating the income of lawyers by counties. The number of income taxpayers and their incomes by county was secured from an income tax tabulation. Since this direct allocation did not account for the total estimate of proprietor income of lawyers made by the United States Department of Commerce, the remainder was allocated by the following method. The number of own-account lawyers by county was compiled from the Mississippi Law Journal and the Martindale-Hubbell Law Directory. By subtracting the number of income taxpayers from the total number of lawyers

the number of non-taxpaying lawyers was computed. These were weighted by the county average wage index. The two partial distributions were then added together to obtain the total county allocation.

The Department of Commerce of the state of New York has done substantial work in estimating personal income for New York. It reported that an estimated number of lawyers by county was obtained from the Martindale-Hubbell Law Directory. Information issued by the New York State Bar Association was used to refine and complete the county distribution. Data on mean income of lawyers were obtained from published information found in several issues of the Survey of Current Business. The basic allocator was derived from these two basic sources of information.

The Bureau of Population and Economic Research of the University of Virginia called attention to the fact that the current estimates of professional service income for states are prepared by the National Income Division by multiplying the number of self-employed professionals, such as lawyers, etc. by regional average income estimates for the appropriate profession. This income estimate is obtained from periodic surveys conducted by the National Income Division. The number of such persons is based on projections from the last census and on professional registers in the several states. The estimates are subject to errors inherent in the application of overall averages. Since professional income

amounts on the average to about 11 per cent of proprietor income (almost 2 per cent of total income) it is believed that there is little reason for trying to develop methods for use at the county level that are more exact than those employed by the National Income Division.

The Bureau suggested that if one is working within the framework of the National Income Division the number of professional self-employed lawyers can be secured from state license records. State registers of such lawyers might also be used. Averages used by the National Income Division for the state can be recovered by dividing the total income of lawyers by the number of lawyers. These averages can then be weighted by multiplying by the average wage of covered workers in the county. These weighted averages can then be multiplied by the number of persons in the legal profession to secure an allocator. More involved procedure is not believed justified.

The School of Business Administration, University of North Carolina, the College of Business Administration of the University of Tennessee, and the Industrial Economics Branch of the Tennessee Valley Authority all participated in a conference on the measurement of county income. The results of this conference were published in County Income Estimates for Seven Southeastern States, and a technical supplement entitled Methods for Estimating Income Payments in Counties. These three organizations reported that they had no sugges-

tions other than those found in the original publication. This study recommended that the income of own-account lawyers be allocated on the basis of the number of lawyers. The number of lawyers can be secured from the professional roster of the state Bar association or the Martindale-Hubbell Law Directory. The number of lawyers distributed to counties should be weighted by average earnings in all covered industries for the appropriate year.

The study also suggested that if separate income estimates are not available for the service groups, a combined allocator can be used. In order to use a combined allocator a complete county series covering the number of proprietors of service establishments and professional own-account workers should be compiled. Each group should be weighted to correct for the variation in the county distribution of earnings. The number of professional own-account workers should receive heavier weight than proprietor groups to take account of higher average income in the professions.

One individual suggested that an allocator might be formulated from the basis on which legal fees are determined. Since they are set not only in terms of actual time expended but also in regard to the financial status of the clients, an allocator might be related to this fact. The general level of business activity by county, the size and number of banks, the days spent in court, the aggregate value of real estate, or the total award of damages by county residence of the

plaintiffs' lawyers might serve as rough allocators.

Sources of County Data

The existing and available data on legal income generated within the state leave little choice in the method by which this income is allocated to the several counties. It must be allocated on the basis of the number of lawyers presently in practice, weighted by an appropriate income series. A number of rosters and lists of practicing lawyers is readily available from which a county distribution of the number of self-employed lawyers can be compiled.

County averages of legal income are not available to use as weights; so the alternative weighting procedure is to use the series which most closely approximates the county distribution of legal income. Two such series of data are currently available.

Distribution of Lawyers by County

There are two primary sources of county data on the number of self-employed lawyers in Oklahoma. One is The Oklahoma Legal Directory which contains a roster of all lawyers, listed alphabetically by county. The other is the Martindale-Hubbell Law Directory which contains a roster of all lawyers listed alphabetically by city. However, each city is identified by its appropriate county. From this it is possible to compile a roster of state lawyers, in each county.

The Oklahoma Legal Directory.--The Oklahoma Legal Directory is published annually by the Legal Directories Publishing Company of Los Angeles, California. The Standing Committee on Law Lists of the American Bar Association certifies that the directory has been published in compliance with the Rules and Standards as to Law Lists of the Association. In the directory are lists of attorneys and law firms, judges and officials of federal, state, city, and county courts, and county officers and officials. The jurisdiction and terms of United States District Courts and state courts are included, as is a biographical section. The classified section contains expert service for lawyers.

The roster of the bar of Oklahoma published in this directory is compiled from information furnished by the Oklahoma Bar Association. By court order the Oklahoma Bar is an integrated bar, which means that all lawyers in the state who engage in the practice of law in any form are required to secure and to maintain membership in the bar. This assures that such a roster is current and complete. It is also up-to-date. The directory for 1957, available before March 1, 1957, included data as of February 1, 1957.

It is a convenient reference source. In printed form the lawyers are listed alphabetically by city. Since the cities are grouped under their respective counties, it is relatively easy to compile a county distribution of lawyers (Table 4). In addition to the list of lawyers, certain sup-

TABLE 4

DISTRIBUTION OF THE NUMBER OF LAWYERS IN OKLAHOMA, BY
COUNTY, ACCORDING TO THE MARTINDALE-HUBBELL
LAW DIRECTORY AND THE OKLAHOMA
LEGAL DIRECTORY, 1957*

County	Martindale-Hubbell Law Directory	Oklahoma Legal Directory
Adair	9	11
Alfalfa	8	7
Atoka	10	10
Beaver	6	7
Beckham	16	16
Blaine	14	14
Bryan	24	24
Caddo	24	23
Canadian	24	25
Carter	70	63
Cherokee	11	13
Choctaw	12	13
Cimarron	8	8
Cleveland	61	88
Coal	6	7
Comanche	51	49
Cotton	9	5
Craig	12	15
Creek	59	64
Custer	22	24
Delaware	14	16
Dewey	5	5
Ellis	8	7
Garfield	66	67
Garvin	35	38
Grady	27	27
Grant	8	10
Greer	11	10
Harmon	6	6
Harper	7	7

TABLE 4--Continued

County	Martindale-Hubbell Law Directory	Oklahoma Legal Directory
Haskell	5	6
Hughes	29	31
Jackson	19	22
Jefferson	8	8
Johnston	5	5
Kay	66	71
Kingfisher	15	12
Kiowa	18	21
Latimer	4	4
Le Flore	10	11
Lincoln	15	17
Logan	16	18
Love	6	6
McClain	16	18
McCurtain	13	18
McIntosh	8	10
Major	7	9
Marshall	8	8
Mayes	14	14
Murray	13	10
Muskogee	113	115
Noble	9	10
Nowata	10	10
Okfuskee	16	18
Oklahoma	1,280	1,576
Okmulgee	55	68
Osage	45	49
Ottawa	38	41
Pawnee	16	17
Payne	31	43
Pittsburg	45	41
Pontotoc	48	51
Pottawatomie	55	54
Pushmataha	8	8
Roger Mills	4	4

TABLE 4--Continued

County	Martindale-Hubbell Law Directory	Oklahoma Legal Directory
Rogers	19	21
Seminole	57	58
Sequoyah	9	11
Stephens	46	43
Texas	17	18
Tillman	14	14
Tulsa	980	1,021
Wagoner	17	17
Washington	110	95
Washita	9	9
Woods	16	16
Woodward	14	15
Total	4,019	4,441

*Source: Compiled from the Martindale-Hubbell Law Directory (Summit, N. J.: Martindale-Hubbell, Inc., 1957) II, 2101-2148 and The Oklahoma Legal Directory (Los Angeles: Legal Directories Publishing Company, 1947).

plementary information is available. County judges, county attorneys, court clerks, sheriffs, and other officials are listed. These people are likely salaried officials.

Despite the many advantages of the directory, its use is limited in some respects. Only the name of the lawyer, his business address, and telephone number are given. There are several classes of membership in the Oklahoma Bar: active--inactive--senior member--and military member, but the roster does not permit the segregation of these classifications of memberships. Such segregation is often helpful because only those holding an active membership may engage in the practice of law within the state.

Many lawyers in Oklahoma are salaried members of the business community. Other lawyers engage in legal practice but derive a significant portion of their income from business activities. The various levels of government absorb the efforts of a sizable number of lawyers, and at any given time some lawyers are out of the state in military service. Some lawyers holding active membership in the Oklahoma Bar are retired, while in one community many lawyers are employees of an educational institution. The directory does not permit the identification of these special groups. Unfortunately at the present the records on individual lawyers of the Oklahoma Bar Association are not suitable for the accomplishment of this purpose.

The roster of the bar of Oklahoma, as provided by

The Oklahoma Legal Directory, is more nearly a roster of the legal profession than of the legal service industry. It is not possible to develop a roster of the legal service industry from it. It can be used to estimate the number of self-employed lawyers in Oklahoma; however, it would be more desirable to use it after the salaried lawyers had been deleted from its listing.

The Martindale-Hubbell Directory.--In various forms the Martindale-Hubbell Law Directory has published a roster of lawyers for the past sixty years and is the only general legal directory available in this country. The Standing Committee on Law Lists of the American Bar Association has certified that the directory has been published in compliance with the Rules and Standards as to Law Lists of the Association.

The basis of its Oklahoma roster is a list of attorneys furnished by the Oklahoma Bar Association during August of the preceding year. The lawyers are requested to prepare and return questionnaires verifying the facts of the basic roster. In addition, they are invited to furnish a great deal of supplemental information which becomes a basic part of the completed roster. Voluntary information is solicited from the general body of lawyers, and other reliable sources are used when appropriate and necessary.

This directory is published in three volumes. Volumes I and II contain as complete a roster (by states) as is

possible of the Bar of the United States and Canada. Within each state the lawyers are listed by city, and each city is identified with the appropriate county. As in The Oklahoma Legal Directory, the lawyer's name and business address are given, but this basic roster is supplemented by voluminous subsidiary information.

Since the directory is compiled from secondary source material, it is possible that it may not always be complete. For example, this directory listed 4,019 lawyers who were practicing in Oklahoma in 1957 (Table 4). The Oklahoma Legal Directory listed 4,441 practicing lawyers in that same year (Table 4). The list of lawyers available in the directory is a current list, although it is usually compiled some six months earlier than is the comparable list in The Oklahoma Legal Directory. Generally, it is not available for use as early in the calendar year as is the latter directory. The compilation of a county list from it is more laborious than from The Oklahoma Legal Directory because it uses the city as the basis of classification in its internal arrangement.

The complete listing in this directory approximates a listing of the legal profession and a reasonably accurate list of salaried lawyers may be developed from it (Table 5). Salaried lawyers are not members of the legal service industry.

The individual listings of lawyers include, when appropriate, a series of confidential and explanatory notes

TABLE 5

DISTRIBUTION OF SALARIED LAWYERS, LAWYERS ON
MILITARY LEAVE, AND SELF-EMPLOYED LAWYERS,
IN OKLAHOMA, BY COUNTY, 1957*

County	Total	Salaried Lawyers	Lawyers on Military Leave	Self-Employed Lawyers ¹
Adair	11	4	..	7
Alfalfa	7	2	..	5
Atoka	10	3	..	7
Beaver	7	1	..	6
Beckham	16	2	..	14
Blaine	14	3	..	11
Bryan	24	3	..	21
Caddo	23	4	..	19
Canadian	25	4	2	19
Carter	63	9	3	51
Cherokee	13	2	..	11
Choctaw	13	4	..	9
Cimarron	8	3	..	5
Cleveland	88	22	4	62
Coal	7	3	..	4
Comanche	49	6	5	38
Cotton	5	1	1	3
Craig	15	2	1	12
Creek	64	6	..	58
Custer	24	3	..	21
Delaware	16	2	1	13
Dewey	5	1	..	4
Ellis	7	2	1	4
Garfield	67	9	2	56
Garvin	38	5	..	33
Grady	27	3	2	22
Grant	10	1	..	9
Greer	10	3	..	7
Harmon	6	2	..	4
Harper	7	2	..	5

TABLE 5--Continued

County	Total	Salaried Lawyers	Lawyers on Military Leave	Self-Employed Lawyers ¹
Haskell	6	2	..	4
Hughes	31	4	2	25
Jackson	22	2	1	19
Jefferson	8	3	..	5
Johnston	5	2	..	3
Kay	71	14	3	54
Kingfisher	12	2	1	9
Kiowa	21	1	1	19
Latimer	4	2	..	2
Le Flore	11	2	1	8
Lincoln	17	4	1	12
Logan	18	2	..	16
Love	6	1	..	5
McClain	18	2	1	15
McCurtain	18	3	..	15
McIntosh	10	1	..	9
Major	9	2	..	7
Marshall	8	2	..	6
Mayes	14	2	..	12
Murray	10	3	2	5
Muskogee	115	35	2	78
Noble	10	2	..	8
Nowata	10	2	..	8
Okfuskee	18	3	..	15
Oklahoma	1576	243	19	1314
Okmulgee	68	5	2	61
Osage	49	5	1	43
Ottawa	41	6	3	32
Pawnee	17	3	..	14
Payne	43	8	1	34
Pittsburg	41	7	2	32
Pontotoc	51	7	1	43
Pottawatomie	54	9	1	44
Pushmataha	8	3	..	5
Roger Mills	4	2	..	2

TABLE 5--Continued

County	Total	Salaried Lawyers	Lawyers on Military Leave	Self-Employed Lawyers ¹
Rogers	21	4	..	17
Seminole	58	5	..	53
Sequoyah	11	2	..	9
Stephens	43	15	..	28
Texas	18	1	..	17
Tillman	14	4	..	10
Tulsa	1021	298	9	714
Wagoner	17	4	..	13
Washington	95	84	1	10
Washita	9	3	1	5
Woods	16	4	3	9
Woodward	15	1	..	14
Total	4441	938	81	3422

*Source: Compiled from The Oklahoma Legal Directory (Los Angeles: Legal Directories Publishing Company, 1957) and the Martindale-Hubbell Law Directory (Summit, N. J.: Martindale-Hubbell Inc., 1957), II, 2101-2148.

¹Self-employed lawyers computed by subtracting salaried lawyers and lawyers on military leave from the total number of lawyers.

and symbols. By properly using these notes and symbols the user may determine such general information as the year in which the lawyer was born, his date of graduation from law school, and whether or not he has been admitted to practice in the state in which he now resides. One symbol indicates that the lawyer is currently serving with the armed forces. Another symbol means that the lawyer has retired or is principally engaged in activities other than the practice of law. It may also mean that the lawyer devotes all or most of his time to the affairs of a single client. If a public office is held by the lawyer, this will be noted. If the lawyer is connected with a company or government agency, the name of the company or agency is given. Association with an educational institution is noted by name.

A lawyer currently serving with the armed forces is not contributing to the income produced by self-employed lawyers within the state. A lawyer connected with an educational institution is likely to be a member of its faculty. By the same token the lawyer identified with a company, corporation, or other business organization is most likely to be on its payroll as a full or part-time salaried employee. It is reasonable to assume that lawyers so identified are not primarily engaged in independent legal practice. It is also reasonable to assume that the group of lawyers symbolized as being retired, serving a single client, or active in affairs other than the practice of law is also outside the legal ser-

vice industry.

A great deal of difficulty is encountered in determining whether or not the lawyer holding a position with some level of government is a salaried employee of the state or is merely a part-time employee spending a major portion of his time in the independent practice of law. In the case of the county attorney or the city attorney for a large metropolitan center, the issue is generally clear: they are likely to be full time and on a salary basis. Where the lawyer is serving as attorney for a smaller city or as an assistant county attorney it is quite possible he is a part-time employee holding the position to supplement his income while building his private practice to a satisfactory level. The problem is further complicated by numerous positions such as police judge, municipal judge, and assistant county attorney held on varying degrees of part time. There appears to be no single source of information on the basis of which this uncertainty can be resolved.

A reasonable answer may be had by examining the size of cities within the state. According to the opinion of lawyers aware of the situation, it is possible to select the half-dozen or so cities in the state which are of a size to support full-time employees in these positions. In the remaining cities it is reasonable to assume that the positions are part time and do not contribute significantly to the total income of the man currently holding the job. If the

assumptions mentioned above are accepted, it is possible to compile from this directory a county distribution of lawyers who are not currently engaged in the independent practice of law. This makes the directory a valuable aid in estimating the number of self-employed lawyers for the counties of the state.

The Martindale-Hubbell Law Directory may be used in two ways. A county distribution of the legal profession can be compiled from its listings. By using the notes and symbols accompanying the listings, lawyers who are in salaried positions can be deleted from the distribution. The remaining lawyers, it may be assumed, constitute the legal service industry. As an alternate method, a county distribution of salaried lawyers can be compiled from the directory. This distribution can then be subtracted from a county distribution of the legal profession compiled from another source (Table 5). This, too, is a reasonable approximation of the legal service industry. Both methods are satisfactory for use in the estimation of the number of lawyers by county.

County Weights

Average county income data for self-employed lawyers are not available to use as weights for the number of self-employed lawyers in the several counties. Nor are reliable data on county per capita income derived independently from National Income Division estimates. On the other hand, reli-

able and independent data on wages and salaries in the counties of the state are available. Wages and salaries is the largest and one of the more stable components and generally account for about 60 per cent of state personal income (Table 1). Two series on wages and salaries in the counties of Oklahoma are available.

Old-age and survivors insurance (OASI) data.---Periodically the Bureau of Old-Age and Survivors Insurance and the Bureau of the Census publish county wage and employment data based on tax returns filed under the old-age and survivors insurance program. The last such publication was entitled County Business Patterns, First Quarter 1953. It is the seventh publication in a series giving this type of data for selected years beginning with 1946.²⁶ The local office of the Social Security Administration reports that the next published series for 1956 was expected to become available some time during 1958.²⁷

Most of the data available in the County Business Patterns bulletin of the first quarter of 1953 were tabulated

²⁶For a complete listing of the series see the back cover of: U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors Insurance, cooperative report, County Business Patterns, First Quarter 1953, Part VIII, West South Central States (Washington: Government Printing Office, 1955).

²⁷Data for 1956 have been published since this was written. See: U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors Insurance, cooperative report, County Business Patterns, First Quarter 1956, Part VIII, West South Central States (Washington: Government Printing Office, 1958), pp. 104-56.

from first quarter 1953 tax returns. These returns were filed by employers subject to the Federal Insurance Contributions Act. The tax form requires employers to list the names of all employees to whom taxable wages were paid during the quarter. The amount of such wages was listed as well as the states in which the employees worked. Employers indicated the number of persons employed during the pay period which ended nearest the 15th of March.

Employment and wage data for each county in the state of Oklahoma are available in this bulletin for the first quarter of 1953. The employment figure ". . . represents the number of employees during the pay period ending nearest March 15, 1953."²⁸ Taxable payrolls for the period January through March 1953

. . . is the amount of taxable wages paid for covered employment during the quarter. Under the law in effect in 1953, taxable wages for covered employment were all wages up to the first \$3,600 paid to any one employee by any one employer during the year, including the cash value of payments in kind for industries in the "regular" group. In general, all payments for covered employment in the first quarter were taxable unless the employee was paid at the rate of more than \$14,400 per year.²⁹

Data for the first quarter of 1953 were presented because first quarter wages were least affected by the provisions of the law which then limited taxable wages to \$3,600

²⁸U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors Insurance, County Business Patterns, First Quarter 1953, p. vi.

²⁹Ibid.

each year.³⁰ The application of this law results in a reduction of the taxable proportion of total wages in the later quarters of the year. About 98 per cent of total wages and salaries of covered employment was taxable during the first quarter of 1953.³¹

The availability of these data permits the calculation of an average monthly earnings figure per employee in each of the counties of the state (Table 6). This average monthly earnings figure is one measure of the variation in average income within the counties.

Oklahoma Employment Security Commission (OESC) data.--

Payroll and employment data for each county of Oklahoma are published by the Oklahoma Employment Security Commission. Published totals are the employment and payrolls covered by the Oklahoma Employment Security Act. These are reported by employers subject to the Act on quarterly contribution reports and county supplements.

Covered county employment and wage data are published by calendar quarter. They appear about every third month in the Oklahoma Labor Market.³² (At a later date this informa-

³⁰Currently taxable wages are limited to \$4,800. See: U. S. Congress, Senate, House Rule 13549, 85th Cong., 2nd Sess., 1958, p. 79.

³¹U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors Insurance, County Business Patterns, First Quarter 1953, p. vi.

³²Oklahoma Employment Security Commission, Oklahoma Labor Market, monthly.

TABLE 6

NUMBER OF EMPLOYEES, TAXABLE PAYROLLS, AND AVERAGE
MONTHLY EARNINGS IN INDUSTRIES COVERED BY THE
OLD-AGE AND SURVIVORS INSURANCE PROGRAM,
IN OKLAHOMA, BY COUNTY, 1953*

County	Number of Employees ¹	Taxable Payrolls (Thousands of Dollars) ²	Average Monthly Earnings (Dollars) ³
Adair	620	\$ 174	\$ 94
Alfalfa	620	302	162
Atoka	590	304	172
Beaver	451	302	233
Beckham	2,225	1,326	199
Blaine	1,164	725	208
Bryan	1,942	952	163
Caddo	2,313	1,447	209
Canadian	2,127	1,334	209
Carter	7,439	5,676	254
Cherokee	715	363	169
Choctaw	986	471	159
Cimarron	234	143	204
Cleveland	3,215	1,827	189
Coal	243	119	163
Comanche	6,778	4,213	207
Cotton	629	334	177
Craig	1,230	625	169
Creek	5,948	4,117	231
Custer	2,071	1,096	176
Delaware	273	117	143
Dewey	329	120	122
Ellis	446	266	199
Garfield	9,998	6,812	227
Garvin	3,101	2,468	265
Grady	3,278	2,000	203
Grant	615	335	182
Greer	721	348	161
Harmon	352	185	175
Harper	319	171	179

TABLE 6--Continued

County	Number of Employees ¹	Taxable Payrolls (Thousands of Dollars) ²	Average Monthly Earnings (Dollars) ³
Haskell	460	\$ 174	\$126
Hughes	1,580	804	170
Jackson	1,833	1,002	182
Jefferson	478	210	146
Johnston	257	120	156
Kay	10,754	9,311	289
Kingfisher	929	579	208
Kiowa	1,352	676	167
Latimer	263	107	136
Le Flore	1,564	808	172
Lincoln	1,864	1,074	192
Logan	2,290	1,377	200
Love	206	117	190
McClain	727	437	200
McCurtain	1,852	873	157
McIntosh	490	197	134
Major	693	324	156
Marshall	653	416	212
Mayes	1,204	620	172
Murray	1,072	646	201
Muskogee	9,754	6,203	212
Noble	1,230	713	193
Nowata	1,341	893	222
Okfuskee	771	404	175
Oklahoma	94,359	74,039	262
Okmulgee	6,898	5,532	267
Osage	2,899	1,858	214
Ottawa	5,344	4,512	281
Pawnee	1,000	612	204
Payne	5,497	5,851	234
Pittsburg	5,044	3,177	210
Pontotoc	5,916	4,111	232
Pottawatomie	7,656	5,547	242
Pushmataha	450	167	124
Roger Mills	202	78	129

TABLE 6--Continued

County	Number of Employees ¹	Taxable Payrolls (Thousands of Dollars) ²	Average Monthly Earnings (Dollars) ³
Rogers	1,394	\$ 746	\$178
Seminole	5,325	3,859	242
Sequoyah	588	390	221
Stephens	7,104	5,837	274
Texas	1,465	979	223
Tillman	1,122	615	183
Tulsa	103,465	93,306	301
Wagoner	632	310	164
Washington	11,371	11,895	349
Washita	666	345	173
Woods	1,292	747	193
Woodward	1,600	986	205
Statewide	16,246	17,874	367
State Total	392,124	\$308,173	\$262

*Source: Compiled from U. S. Bureau of the Census and U. S. Bureau of Old-Age and Survivors Insurance, cooperative report, County Business Patterns, First Quarter 1953, Part VIII, West South Central States (Washington: Government Printing Office, 1955), Tables 3 and 4, pp. 61-82.

¹Mid-March pay period.

²January-March.

³Calculated by the author by dividing taxable payrolls in the January-March period by the number of employees in Mid-March pay period, and further dividing the quarterly average by three.

tion is published in handbook form.³³⁾ Annual data in this form are available from 1949 to 1955. Covered employment in the Oklahoma Employment Security Commission series is

. . . the number of workers employed each month in the payroll period ending nearest the 15th of the month by all employers subject to the Oklahoma Employment Security Act. Until December 31, 1955, an employer was subject to this Act when he had eight or more employees in each of 20 different calendar weeks within one year. Some employers voluntarily elected coverage even though they did not have eight employees in 20 weeks. Covered employment does not include government, interstate railroads, agriculture, religious, or charitable organizations, domestic service, self-employed, or family workers.³⁴

On January 1, 1956 employers with four or more employees became subject to the Act. When allowances are made for exclusions from the Act, covered employment in Oklahoma is usually about 65 per cent of the total nonfarm employment in the state.³⁵

Covered wages in the series

. . . include all wages and salaries paid to covered employees by their employers, including bonuses, commissions, and cash value of all remuneration received in any medium other than cash. These wages include both taxable and non-taxable wages. Only the first \$3,000 paid to each worker in a calendar year by each employer is taxable under the Oklahoma Employment Security Act; however, the nontaxable wages are reported and are included herein.³⁶

³³Oklahoma Employment Security Commission, County Employment Data, Oklahoma.

³⁴Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1954-1955, p. 1.

³⁵Oklahoma Employment Security Commission, Oklahoma Labor Market, July, 1958, p. 27.

³⁶Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1954-1955, p. 1.

These data make it possible to calculate an annual average wage figure for each county in the state (Table 7).

Comparison of old-age survivors insurance data and Oklahoma Employment Security Commission data.--An average county wage can be computed from both OASI data and OESC data. Either can be used as the county weight to estimate the income of self-employed lawyers. Each has advantages and disadvantages.

The OASI data are broader in coverage. Since the law currently requires covered employers to pay taxes on wage payments up to \$4,800 to all employees, the size of the firm is not a factor. In addition, more industries and occupational groups are included in OASI data than are in OESC data. This would be the main reason for using this series as the county weight.

However, OASI data are not current. Since funds are not provided to compile this series on an annual basis, it is necessary in some years to use the average county wage of a previous year. Average wages in the counties of Oklahoma fluctuate significantly over a short period of time. For example, the average wage in Adair county in 1953 was \$1,561, in Ottawa county it was \$3,681, and in Washington county it was \$4,476 (Table 7). In 1957, the average wage of Adair county in 1953 was \$2,141, in Ottawa county it was \$4,244, and in Washington county it was \$5,314 (Table 8). Because the average county wage changes from year to year, it would

TABLE 7

NUMBER OF EMPLOYEES, TOTAL WAGES, AND AVERAGE ANNUAL
WAGES IN INDUSTRIES COVERED BY THE OKLAHOMA
EMPLOYMENT SECURITY ACT, BY COUNTY, 1953*

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Adair	356	\$ 555,884	\$1,561
Alfalfa	203	558,874	2,753
Atoka	284	774,691	2,728
Beaver	274	933,125	3,406
Beckham	1,866	5,751,313	3,082
Blaine	651	2,113,748	3,247
Bryan	1,259	2,975,951	2,364
Caddo	1,375	4,205,072	3,058
Canadian	1,309	3,776,791	2,885
Carter	6,100	20,817,061	3,413
Cherokee	385	993,716	2,581
Choctaw	755	1,757,073	2,327
Cimarron	127	491,779	3,872
Cleveland	2,106	5,557,349	2,639
Coal	180	610,185	3,390
Comanche	5,699	16,807,630	2,949
Cotton	461	1,218,605	2,643
Craig	766	1,867,918	2,439
Creek	4,502	15,403,222	3,421
Custer	1,362	3,532,979	2,594
Delaware	97	240,472	2,479
Dewey	74	139,417	1,884
Ellis	144	359,889	2,499
Garfield	7,678	24,602,551	3,204
Garvin	2,065	7,646,103	3,703
Grady	2,447	6,811,296	2,784
Grant	220	593,692	2,699
Greer	339	805,183	2,375
Harmon	227	540,194	2,380
Harper	89	226,259	2,542

TABLE 7--Continued

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Haskell	612	\$ 1,981,588	\$3,238
Hughes	1,117	2,920,393	2,614
Jackson	1,412	3,615,233	2,560
Jefferson	205	465,227	2,269
Johnston	124	337,783	2,724
Kay	8,856	35,007,998	3,953
Kingfisher	474	1,236,917	2,610
Kiowa	995	2,462,141	2,475
Latimer	120	266,032	2,217
Le Flore	1,142	3,062,696	2,682
Lincoln	1,217	3,935,942	3,234
Logan	1,457	3,815,971	2,619
Love	107	293,523	2,743
McClain	396	1,296,394	3,274
McCurtain	1,297	2,931,801	2,260
McIntosh	224	614,329	2,743
Major	258	652,041	2,527
Marshall	420	1,306,716	3,111
Mayes	968	3,449,318	3,563
Murray	698	2,163,324	3,099
Muskogee	7,238	20,908,352	2,889
Noble	809	2,611,178	3,228
Nowata	1,135	3,961,756	3,491
Okfuskee	597	1,767,409	2,960
Oklahoma	81,536	289,822,424	3,555
Okmulgee	5,732	20,849,739	3,637
Osage	2,024	6,209,864	3,068
Ottawa	3,717	13,684,027	3,681
Pawnee	565	1,823,900	3,228
Payne	4,297	14,900,417	3,468
Pittsburg	3,976	11,370,233	2,860
Pontotoc	3,971	12,787,895	3,220
Pottawatomie	5,886	18,620,901	3,164
Pushmataha	236	478,534	2,028
Roger Mills	59	196,702	3,334

TABLE 7--Continued

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Rogers	793	\$ 2,336,556	\$2,946
Seminole	3,618	12,024,877	3,324
Sequoyah	438	1,305,836	2,981
Stephens	6,580	24,359,451	3,702
Texas	944	3,177,309	3,366
Tillman	785	2,247,125	2,863
Tulsa	89,720	362,450,615	4,040
Wagoner	245	560,161	2,286
Washington	8,821	39,480,697	4,476
Washita	334	955,862	2,862
Woods	803	2,209,685	2,752
Woodward	936	2,486,682	2,657
Multi-County	14,281	66,278,589	4,641
State Total	315,575	\$1,144,350,255	\$3,626

*Source: Compiled from Oklahoma Employment Security Commission, County Employment Data, Oklahoma, 1952-1953 (Oklahoma City: Oklahoma Employment Security Commission, 1954), Tables 1 and 2, pp. 5-15.

Arithmetic mean computed by the author.

TABLE 8

NUMBER OF EMPLOYEES, TOTAL WAGES AND AVERAGE ANNUAL
WAGES IN INDUSTRIES COVERED BY THE OKLAHOMA
EMPLOYMENT SECURITY ACT, BY COUNTY, 1957*

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Adair	422	\$ 903,672	\$2,141
Alfalfa	322	872,608	2,710
Atoka	386	965,882	2,502
Beaver	541	2,510,731	4,641
Beckham	2,136	7,012,827	3,283
Blaine	912	3,014,674	3,306
Bryan	1,834	4,821,325	2,629
Caddo	1,757	5,813,464	3,309
Canadian	1,605	5,188,478	3,233
Carter	6,848	24,607,678	3,593
Cherokee	583	1,382,335	2,371
Choctaw	1,172	2,742,580	2,340
Cimarron	216	762,992	3,532
Cleveland	3,025	9,040,488	2,990
Coal	134	362,097	2,702
Comanche	6,712	21,388,941	3,187
Cotton	537	1,490,012	2,775
Craig	1,300	3,610,114	2,777
Creek	4,350	14,837,023	3,411
Custer	1,845	5,105,455	2,767
Delaware	285	626,007	2,197
Dewey	152	296,541	1,951
Ellis	250	679,770	2,719
Garfield	8,378	29,703,198	3,545
Garvin	3,352	12,810,165	3,822
Grady	3,249	10,305,616	3,172
Grant	349	1,044,869	2,994
Greer	490	1,315,370	2,684
Harmon	267	666,728	2,497
Harper	228	612,490	2,686

TABLE 8--Continued

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Haskell	465	\$ 1,335,338	\$2,872
Hughes	1,449	3,760,210	2,595
Jackson	1,883	5,086,300	2,701
Jefferson	373	787,550	2,111
Johnston	199	613,673	3,084
Kay	10,020	44,588,754	4,450
Kingfisher	594	1,591,348	2,679
Kiowa	1,170	3,093,834	2,644
Latimer	223	584,356	2,620
Le Flore	1,539	4,404,058	2,862
Lincoln	1,289	4,176,131	3,240
Logan	1,734	4,795,135	2,765
Love	219	645,492	2,947
McClain	559	1,629,440	2,915
McCurtain	1,608	4,056,425	2,523
McIntosh	359	787,697	2,194
Major	361	913,970	2,532
Marshall	703	2,220,390	3,158
Mayes	1,419	5,596,152	3,944
Murray	822	2,553,223	3,106
Muskogee	8,433	28,539,307	3,384
Noble	970	3,241,937	3,342
Nowata	1,261	4,637,601	3,678
Okfuskee	666	2,095,329	3,146
Oklahoma	95,193	380,614,578	3,999
Okmulgee	5,333	21,117,338	3,960
Osage	2,939	10,169,567	3,460
Ottawa	4,554	19,326,210	4,244
Pawnee	575	1,763,858	3,068
Payne	4,933	17,823,077	3,613
Pittsburg	3,426	10,349,599	3,021
Pontotoc	4,668	15,700,700	3,363
Pottawatomie	6,094	20,464,998	3,358
Pushmataha	262	626,891	2,393
Roger Mills	64	174,483	2,726

TABLE 8--Continued

County	Average Yearly Employment	Annual Wages (Dollars)	Average Annual Wages (Dollars)
Rogers	1,273	\$ 3,963,143	\$3,113
Seminole	3,543	12,086,207	3,411
Sequoyah	571	1,625,970	2,848
Stephens	7,850	33,427,251	4,258
Texas	1,268	4,618,570	3,642
Tillman	1,019	3,123,028	3,065
Tulsa	104,888	487,425,853	4,647
Wagoner	532	1,212,561	2,279
Washington	10,738	57,057,334	5,314
Washita	522	1,381,046	2,646
Woods	920	2,741,432	2,980
Woodward	1,308	3,810,759	2,913
Multi-County	14,114	58,287,193	4,130
State Total	368,533	\$1,492,552,013	\$4,050

*Source: Compiled from "County Employment Data," Oklahoma Labor Market, October, 1957, pp. 24-27; "County Employment Data," Oklahoma Labor Market, January, 1958, pp. 26-29; "County Employment Data," Oklahoma Labor Market, April, 1958, pp. 28-31; and "County Employment Data," Oklahoma Labor Market, July, 1958, pp. 24-27.

Arithmetic mean computed by the author.

be more desirable to use a series compiled on an annual basis, as are OESC data.

OESC data are continuous from the time of their first publication in 1949. Data are usually available within six months after the completion of a calendar year. The averages which are computed from this series are, to some degree, more meaningful and realistic than the averages computed from OASI data. In the latter series data on covered wages are given for the first quarter of the year. In the former series data on covered wages are given for each month of the year which more adequately compensates for seasonal variations in the wage structure.

As in OASI data, certain limitations are found in the OESC series. In the latter series firms with three or less employees are excluded. Self-employed persons are excluded. Government employees, farm employees, and certain employees in the transportation industry are excluded. OESC data are, therefore, more limited in scope than OASI data.

Recommended Method of Allocation

It is recommended that the income of the legal service industry be allocated to the several counties of the state on the basis of the number of self-employed lawyers in practice, weighted by the average income of industrial workers. In 1957 the income of the legal service industry in Oklahoma amounted to about \$25 million, some 0.7 per cent of

the personal income in the state (Table 3). In 1957 the income of self-employed lawyers was almost one-third of total professional service income (Table 9). The National Income Division estimate is accepted as the most adequate measure of the income of self-employed lawyers in Oklahoma. This is the estimate which is allocated to the counties of the state.

The following steps are involved in the computations. Secure from the Oklahoma Bar Association the appropriate annual roster of lawyers. Distribute the lawyers by number to the counties. Compute the number of salaried lawyers and the number of lawyers on military leave from the appropriate edition of the Martindale-Hubbell Law Directory. Distribute these among the counties. Estimate the number of lawyers in independent practice (Table 5). Compute an average annual wage for each county from data supplied by the Oklahoma Employment Security Commission (Table 8). Weight the number of self-employed lawyers in each county by the average annual wage of the county. The percentage allocator for each county is obtained by dividing the weighted number of lawyers in that county by the weighted sum of the number of lawyers in all counties. The percentage allocator for each county is multiplied by the National Income Division estimate of legal income for the state. This figure is the dollar amount to be allocated to each county.

TABLE 9
PERCENTAGE DISTRIBUTION OF PROPRIETOR INCOME, PROFESSIONAL SERVICE
INCOME, AND LAWYER INCOME, IN OKLAHOMA,
SELECTED YEARS, 1929-1957*

Component	1929	1933	1939	1944	1949	1954	1957
Proprietor income	100	100	100	100	100	100	100
Professional service income	8	11	9	6	7	10	14
Lawyer income	2	5	3	1	2	3	4
Professional service income	100	100	100	100	100	100	100
Lawyer income	30	40	34	26	25	29	31

*Source: Computed from data provided through the courtesy of the U. S. Department of Commerce, National Income Division.

CHAPTER III

INCOME OF PHYSICIANS

Lawyers in this country are often referred to by such diverse nomenclature as attorney, counselor, and barrister. In other legal systems these varied terms have specific application. In this country they are all used loosely to refer to one engaging in the practice of law. Physicians, on the other hand, are usually referred to as "doctor" regardless of the type of practice in which they may engage.

A physician, doctor, or surgeon, is one who practices the art of medicine and attempts to prevent, treat, and cure diseases of the human body. In fact,

the word "medicine" comes to us directly from the Latin word medicus - the physician. Consequently, it means in its broad sense the art of healing or of caring for the sick or the injured or the suffering. It is only in a very narrow sense that it applies to drugs, more or less useful, more or less pleasant or unpleasant to take.¹

In the United States a physician must have attended a recognized medical school and have received a degree from this school. In addition, he must be licensed to practice medi-

¹Joseph Garland, M. D., The Story of Medicine (Boston: Houghton Mifflin Co., 1949), p. 1.

cine under the laws of the state in which he practices.

The practice of medicine has been traditionally considered a profession. It meets the requirements of a profession. It is organized, is characterized by a spirit of learning, and connotes public service. The practitioner of medicine is a professional person.

The income of physicians is understood in this study to include the income earned by the practice of medicine as a specialist, a general practitioner, or as a surgeon. For purposes of income analysis, the National Income Division divides physicians into three major groups. One group consists of nonsalaried physicians who are in private practice as entrepreneurs, with or without partners. The second major group is the all-salaried group, the members of which do not engage in private practice but receive salaries for the services they perform. Members of the third--or part-salaried group--receive both a salary and other income on a fee basis.

The National Income Division uses an alternate method of grouping physicians. Their major independent category consists of self-employed physicians whose major source of medical income comes from fees. Included in this group are all nonsalaried physicians and part-salaried physicians who earn most of their income in independent fee practice. The major salaried category consists of physicians whose income comes from salaried practice. Included in this group are part-salaried physicians who earn most of their income from sala-

ried practice.

In National Income Division estimates the income of some physicians is excluded. Interns, residents, and fellows--although currently receiving a salary--are excluded. Physicians in the medical services and those who receive most of their income from a medical school are excluded. Retired physicians are excluded. All physicians engaging in nonmedical work are excluded when medical work is defined as being work normally done by a physician, including the practice of medicine for a fee or a salary and medical administration.²

According to one survey, the reporting physicians were distributed among these groups established by the National Income Division as follows. About 66 per cent of the physicians were in nonsalaried practice. Some 17 per cent were in part-salaried practice, and slightly more than 16 per cent were in an all-salaried practice. Almost 78 per cent of the physicians were in the category of the major independent and 22 per cent were in the major salaried category.³

Factors Making for Income Differentials

Many factors affect the income physicians receive. Some of the significant factors are obvious and generally known but are not readily measured. Family or professional

²William Weinfeld, "Income of Physicians, 1929-49," Survey of Current Business, XXXI, No. 7 (July 1951), 10.

³Ibid., p. 13.

connections, good business judgment, drive, desire, ambition, luck, and windfall opportunities cannot be portrayed in a statistical expression. Physical skill, health, quality and extent of training all defy numerical expression. Moral standards, or the lack, may at times be decisive in influencing the size of incomes physicians receive. The degree of professional accountability may affect income flows to physicians as well as to other professional groups.

Nevertheless, many diversified factors can be associated with the size of physician income. Significant among these are form of practice, degree and field of specialization, geographic location, size of community, the age of the practitioner, and general economic conditions.

In general the average net income of physicians has followed a course similar to other professional groups when related to the business cycle. The trend has been to follow closely general economic conditions. In 1929 the income of physicians began to decline and in 1933 was some 44 per cent below the 1929 peak. During this period, the income of dentists declined about 49 per cent while that of lawyers declined only 30 per cent. Following 1933, physician income began to increase but suffered a slight set-back in 1938. There was a marked acceleration during the war years, and in the postwar period physician income has continued to increase but at a slower rate.⁴

⁴Ibid., p. 10.

Physicians engaged in independent practice tend to earn considerably more money than those working for a salary. This appears to hold true not only for the country as a whole but for physicians who practice in the same city, even when such factors as age, sex, community size, and degree of specialization are held constant. In 1949 the mean net income (before taxes) for independent physicians was \$11,858 while that of salaried physicians was \$8,272.⁵

Evidence exists, however, that salaried physicians are closing the gap between the size of their incomes and those of self-employed physicians. It has been reported that in 1951, the self-employed earned almost 50 per cent more than the salaried man. In 1955 the self-employed earned only 33 per cent more.⁶

Specialization is much more common in the field of medicine than in law and dentistry. This has been true for at least twenty years and seems to have been increasing in recent years. As a general statement, part-time specialists earn more than general practitioners, and full-time specialists earn more than part-time specialists. In 1949 the mean net income of full specialists engaged in independent practice was \$15,014. This is 70 per cent larger than the mean of \$8,835 which was reported by physicians engaged in general

⁵Ibid., p. 12.

⁶"How Much Are Physicians Earning?," Medical Economics, October, 1956, pp. 111-12. Copyrighted, 1956 by Medical Economics, Oradell, N. J. Reprinted by permission.

practice. For this same year part-time specialists reported a mean net income of \$11,758--about one-third larger than that of general practitioners. Although the income gap is much less, salaried specialists and salaried general practitioners present an income pattern which is similar in many respects.⁷

The field of specialization appears to be a significant determinant of the size of medical incomes. The highest incomes among specialists in independent practice are found in the specialties having very few members. The scarcity of members in a given specialty does not, however, assure a high income. Some of the lowest average incomes occur in some of the smallest specialties such as allergy and plastic surgery. Low average incomes are also found in the practice of internal medicine which is the largest independent full specialty, and in pediatrics which is the third largest independent full specialty.⁸

There is strong evidence that regional income differences exist among physicians, and that geographic location is a major determinant of their incomes. Some of the regional differences are extreme. In 1949 physicians in the Far West reported a mean net income for independent practice of \$14,368. In the same year physicians in New England earned a mean net income of \$9,740. Arizona in that year reported the figure

⁷William Weinfeld, Survey of Current Business, July, 1951, pp. 14-15.

⁸Ibid., p. 16.

of \$15,599 for independent physicians while Wyoming reported \$13,000. On the other hand, such states as New York, New Jersey, Pennsylvania, and Massachusetts had average incomes for independent physicians well below the average of the country as a whole. It is interesting to note that these same states have per capita incomes well above the average for the country.⁹

Contrary to expectations, physicians practicing in the largest cities do not necessarily make the most money. As a general rule, physicians in independent practice in cities with a population of 300,000-399,999 have the largest mean net income. In 1949 the mean net income in cities of this size was \$15,111. As the size of the city increases beyond 400,000, the income of the physicians tends to decrease to the point that in cities of one million or more the mean for independent physicians was \$10,661 in 1949.¹⁰

As the size of the community increases, the number of physicians per 100,000 population increases markedly. The average net income of each earner in the general population increases as the size of the city increases. The average net income of the physician increases as the size of place increases and reaches a peak in cities with a population of 250,000-499,999. At this point the average income of physi-

⁹Ibid., p. 18.

¹⁰Ibid., p. 21.

cians begins to decrease as the size of the community increases. In 1949, considering all physicians, the smallest mean net income of \$7,090 was reported in communities with a population of less than 1,000. The largest mean net income of \$12,766 was reached in cities of 250,000-499,999. In places with a larger population the average incomes of physicians tended to fall.¹¹

Age is one of the determinants of physician income. Physicians do not begin to earn as early as other occupational groups, but their earnings ordinarily start at a higher level and usually reach a higher peak. In 1949 the mean net income of physicians under 30 years of age was \$6,787. Independent practitioners between 45 and 50 years of age earned \$14,967.¹²

Data on differences in earnings due to sex are inadequate. However, women doctors usually earn less than men. Women are more likely to accept salaried positions and are more likely to go into the less lucrative specialities. This inclination tends to magnify the differences.¹³

The amount of time a physician devotes to his practice is a major factor in determining the size of his income. Those who engage in part-time practice earn less from the practice of medicine than those who practice full time. Al-

¹¹Ibid., pp. 21-23.

¹²Ibid., p. 23.

¹³Ibid., p. 24.

though most doctors are full-time practitioners, in 1949 some 8 per cent of all physicians reported that they worked part time. Full-time physicians earned three or four times as much as did those working part time.¹⁴

The patient load of the individual physician is also a factor in determining the size of his income. One study indicates that physicians who see less than ten patients per day earn less than \$10,000 per year. Physicians who see fifty or more patients a day earn more than \$26,000 per year. If a physician seeing twenty to twenty-nine patients per day can earn in excess of \$16,000 annually, by seeing ten more patients each work day he increases his net earnings some \$3,000 to \$5,000 a year.¹⁵

The importance of the relationship between the size of community income and the size of legal income emphasized in the study made by Friedman and Kuznets was mentioned in the preceding chapter. One of the significant results of their investigation was the discovery that the average income of professional people in the smaller communities was very low. They concluded that in the medical profession, as well as in the legal profession, average income in communities under 2,500 was often only one-half as large as that in communities with more than 10,000 in population.

¹⁴Ibid., p. 24.

¹⁵"How Much are Physicians Earning," Medical Economics, Oct., 1956, p. 115.

They also noted that community income differences from independent legal practice reflected similar differences in the average income of the public. They found the average income of nonrelief families decreased consistently as the size of the community decreased. The income of lawyers followed the same pattern while that of physicians varied from it only slightly. Chief among the discrepancies found in physician income were ". . . the relatively low average income of physicians in communities over 500,000 . . . and the relatively high income of physicians and dentists in intermediate size communities."¹⁶ The authors felt that these discrepancies were ". . . overshadowed by the similarity among the professions and between the professions and the public at large in the general character and magnitude of size of community differences in income."¹⁷

Many factors determine both the income and the differences among incomes of physicians. As in other professions, some of the objective criteria can be measured and their effects partially determined. The services of the medical practitioner are personal, and like other professional people, the physician

. . . renders services whose quality cannot easily be judged by a layman objectively; the 'customer' often does not even know what he wants to buy; he buys what the professional man tells him he needs. Since he can seldom judge directly the quality of highly specialized

¹⁶Friedman and Kuznets, p. 186.

¹⁷Ibid., p. 188.

services, he must discriminate among professional men on the basis of reputation, personal integrity, personality and the like.¹⁸

Because of the personal nature of the service, because of the variability of the service, and because of the difficulty in determining quality of the service, subjective criteria have greater scope in medicine than in the other professions.

Factors Affecting Medical Income in Oklahoma

Information regarding both the size and the source of medical income in this country is inadequate. It is based on a limited number of surveys which lack continuity through time. At the state level the paucity of information is felt to a greater degree, for little has been done to collect and compile data relative to medical service income. The scanty bits of information available are the by-product of surveys and studies conducted to approximate the national total of physician income. Such data have generally been gathered by mail questionnaire and, unfortunately, they are compromised by inaccurate reporting, lack of completeness, and poor coverage.

An inventory of the existing and available information on medical income reveals that practically no data exist in usable form with respect to physicians in Oklahoma, and none of the data are appropriate for the study of medical in-

¹⁸Ibid., p. 138.

come on a county basis. While lawyers are deeply concerned over the status of legal income, the members of the medical profession, with whom the author talked, express no such concern. While lawyers are considering tentative steps toward the collection of data which will shed some light on the size and source of legal income, physicians are reported strongly opposed to such efforts.

The full-time executives of the Oklahoma State Medical Association were interviewed several times. They reported that in so far as they were able to determine, no interest exists at the present time in this matter among members of the association. The association has done no work along these lines and contemplates none in the future. When such information is needed, the association uses the study made by Weinfeld for the National Income Division.¹⁹ About 5 per cent is added to the net income figures shown in this study to adjust for changes through time.

These officials believed that the income of physicians in Oklahoma is a function of the income of the patients they serve. As the income of the community grows larger, the income of physicians increases. Although not sure, these officials thought that the income of physicians in the larger cities is larger than the income of physicians in the smaller communities. This is in accord with the findings of Friedman

¹⁹William Weinfeld, Survey of Current Business, July, 1951.

and Kuznets.

Individual physicians generally rely on National Income Division statistics as a yardstick to measure the appropriateness of their incomes. However, some of the members of the association refer to the statistics developed from surveys planned, prepared, and published periodically by the editors of Medical Economics.²⁰ The data are collected by mail questionnaires, and the returned questionnaires are tabulated by Columbia University's Bureau of Applied Social Research. The use of these data in preference to those provided by the National Income Division appears to be a matter of personal preference on the part of the individual physician.

The executive secretary of one county medical association reported that consideration had been given to conducting local surveys in order to determine the income of the physicians in that county. The members reacted with such strong opposition that the plan was discarded. In his opinion such a project seems impractical any time within the foreseeable future. He reported that in the county within the jurisdiction of his office, the income of physicians varied directly with general economic conditions. As the general level of income dropped, the patient load of the practicing physicians dropped. In addition, the physicians were forced to resort

²⁰"How Much Are Physicians Earning?" Medical Economics, Oct., 1956, p. 109.

to the collection agency of the local medical association in order to secure payment for an increasing part of the work they did.

This official reported that physicians who were members of his association do well in an economic sense. A young man in general practice in his county can expect to earn about \$9,000 the first year out of medical school. The second year in practice his earnings will likely increase to \$12,000 a year. After the third year, earnings fluctuate between \$13,000 and \$20,000. Over a long period of time his earnings will continue to grow slowly. Specialists in the area do even better. Although the specialist is faced with more rigorous competition and must spend more time getting established, he may earn as high as \$75,000 a year.

Practicing physicians were interviewed in various parts of the state. Eight cities were selected in which to conduct the interviews, and interviews were completed in seven of them. Two of the cities were large, two were small, and three were of medium-size. They were geographically spread throughout the state. In two of the cities a large part of total income was generated in manufacturing activity. In three of them most of the income came from farming and ranching. One of the cities had a large number of inhabitants receiving state welfare payments, and one city was in no small measure supported by military spending.

The executive secretary of the Oklahoma State Medical

Association prepared a list of physicians practicing in the eight cities. These men were chosen because they were likely to be willing to devote time to such an interview. Because physicians are busy and often impatient, it was necessary to make a number of substitutions in the original list. In all, ten physicians were interviewed.

An informative and unusual interview was conducted almost by accident in one of the cities. A nonmedical member of the City Hospital Board volunteered to meet with the writer. He seemed to be well informed about medical income in that part of the state and talked freely and at length. Subsequent interviews substantiated his statements.

The physicians who were interviewed did not agree (as did the lawyers) about which factors were important determinants of their income. There is some evidence, however, that what they really disagree about is not fundamental. For example, rural physicians reported that their income tends to remain stable in both good and poor crop years. When questioned further these men admitted that in a bad crop year collections were down, cash receipts were down, and the amount outstanding on their books increased appreciably. These men may have been noting a rather stable patient work load and confusing this with earned and realized income.

Physicians are more likely to specialize than are lawyers. Those who specialize tend to concentrate in Tulsa, Oklahoma City, and Lawton. Lawton has become a center for

specialized medical care during the past twelve years. However, most doctors in Oklahoma are in general practice. They report that they serve all kinds of people without regard for their social class or the source of their income.

Little information was obtained about the size of medical fees or the manner in which the fees were determined. The physicians were emphatic when discussing fees. They stated that fees are the private business of the individual doctor; they are determined by the individual doctor, and they do not ask for or receive advice relative to fees from any of their professional associations. All but one of the men interviewed denied that competition had any effect on fees. The exception was a pediatrician who had recently gone into practice. He stated that his fees had been determined on the basis of what other pediatricians charged. He had checked fees in effect in a nearby smaller town, those in a nearby larger town, and then had set his fee schedule between the two.

Many physicians felt that the size of community in which they practiced had a significant effect on the size of their income. Although the patient load per physician might not necessarily be greater in the larger communities, fees were generally higher. The patients in the larger cities have larger incomes and can afford to pay higher fees. Those physicians practicing in the larger communities were quick to point out that their overhead was also much larger. Growing

communities tend to force medical income higher for another reason: any significant increase in population tends to outrun the increase in practicing physicians and to increase the patient load of doctors. A number reported they were desperately trying to "slow down" but could discover no way to decrease their number of patients. One man reported that he had absolutely no control over the amount of money he made. He felt that the demands of his patients determined his income.

Physicians practicing in cities with industrial concentrations reported that their income fluctuated with general business conditions. Just as soon as wage earners began to be laid off, their demand for medical service decreased. In the areas which have recently suffered severe industrial declines, medical practice was reported to have consisted almost entirely of emergency work. Physicians practicing in rural areas are not so certain that general economic conditions greatly influence their earnings. As noted earlier, however, their collections are down in the years when crops are bad. Rural areas, dependent on farm crops for cash incomes, are likely to receive substantial state welfare payments. This tends to keep the income of their patients stable and assure the physician of eventual payment. Rural medical income may be somewhat more stable because of the fewer number of doctors in practice in these areas. Fewer doctors, less money with which to purchase their services, and a lack

of public recognition of the value of preventative medicine may limit rural practice to that primarily emergency in nature. This type of practice is less likely to be responsive to general business conditions.

Military spending tends to increase medical income in two ways. As the number of troops stationed at an installation increases, the patient load of civilian doctors increases which increases their income. In some areas a program known as "Medicare" has been established. This is the program in which military dependents are cared for by civilian physicians in civilian hospitals, partially at government expense. This program has caused medical income to rise sharply.

Many physicians were not willing to discuss the income that individual doctors earned. Several said they believed those physicians who were in general practice gross about \$25,000 per year, and surgeons gross about \$35,000 per year. Overhead, in general, is about 40 per cent of the gross income, and they felt that the average doctor in Oklahoma nets between \$15,000 and \$21,000 annually.

In summary, the physicians who were interviewed reported that most physicians in the state engage in general practice but those who specialize are located in the large cities. They accept patients without regard to social or financial background. The fees charged by doctors are a part of their private business. Competition is generally not re-

cognized as a fee determinant, but the size of the city in which the practice is conducted influences the size of the income of the physicians. As cities grow larger, the income of the public increases and so do the fees which doctors charge. General economic conditions are one of the more important determinants of medical income. When patients are employed, they buy many medical services, and when unemployment occurs, they go to their physician mainly for emergency treatment. In certain areas medical income is significantly affected by military spending. This is especially true when military dependents are cared for by the civilian doctors at government expense.

Methods of Estimating Medical Income in Oklahoma, by County

The possible methods of determining county medical income in Oklahoma are almost identical with those which can be used to determine county legal income. As indicated in the earlier discussion, the ideal method would be an annual census, but the next best method would be a census taken every few years to establish benchmark years. Another source would be the state income tax returns which are not available for public inspection. There seems to be no likelihood that any form of a census will be taken within the next few years, nor is it likely that the Oklahoma State Medical Association will sponsor any study of medical income because of the opposition of the association members.

In the absence of a direct method of allocating physician income among the counties of the state an indirect allocator must be chosen. The best available allocator is the number of physicians in practice in the counties. Since medical income varies among the counties of the state, it is desirable to weight the number of practicing physicians in each county in order to account for the differences in income. Current studies of medical income do not provide income data at the county level. The samples used in these studies provide income data only for states and regions. Since data on the county distribution of medical income are not available, a series which approximates the distribution of medical income among the counties must be used for the weight. There is some evidence that the average industrial wage does this.

Methodology in Current Use

The universities known to have been active in county income estimation for the past decade were contacted by mail to determine the methodology they were currently using to estimate medical income by county. They reported that generally they used for medical income the same methodology used in distributing legal income to counties. Different rosters and lists were used to compile and distribute the number of physicians among the counties.

The University of Alabama and the University of Kansas reported that they had allocated proprietor income as one lump

sum. Since they were unable to secure from benchmark years or from the National Income Division separate estimates of medical income in their respective states, they made no effort to treat this component separately.

A number of universities reported that they followed the recommendations made some years earlier in the publication Methods for Estimating Income Payments in Counties.

This study suggested that the number of practicing physicians be secured from the Public Health Service or from the American Medical Association. When the number of physicians had been distributed among the counties, it was weighted by the average earnings in all covered industries for the appropriate year.

The remaining universities reported that they, too, allocated state medical income among the counties on the basis of the number of physicians practicing in the counties. Some of them compiled a county distribution of physicians from the appropriate state licensing agency. Others used the professional roster of the local medical association, while still others used the national and state directory prepared by the American Medical Association. In each case the number of physicians was weighted to account for variations in county income. One university used average income figures taken from National Income Division studies. Other universities used approximations of the average income paid to the general public. One university was able to secure an average

county medical income estimate from state tax returns.

One individual suggested that an allocator might be based on the variability of medical fees. Differences in fees charged by county could be satisfactorily developed from a small sample. In some instances this information might be obtained from county medical associations. After tabulating these differences, a rough allocator for the state total could be constructed.

Sources of County Data

The available data on medical income generated within the state leave little choice in the method by which this income may be allocated to the several counties. It must be allocated on the basis of the number of physicians presently in practice, weighted by some series which will account for the differences in medical income among the counties.

A number of rosters and lists of practicing physicians is readily available from which a county distribution of self-employed physicians can be compiled. County averages of medical income are not available to use as county weights; so the alternative weighting procedure is to use the series which most closely approximates the county distribution of medical income. Two such series are available.

Distribution of Physicians by County

There are three primary sources of county data on self-employed physicians in Oklahoma. One is the Official

List of Licensed and Registered Physicians and Surgeons and Registered Physical Therapists which contains a roster of physicians by county. Another source is the membership list prepared by the Oklahoma State Medical Association. This list also provides a roster of physicians by county. The third source is the American Medical Directory which contains a roster of the physicians in each state listed alphabetically by city. Each city is identified with its proper county.

The Official List of Licensed and Registered Physicians and Surgeons and Registered Physical Therapists.--This list is published annually with data current as of the first of January. It is prepared by the Board of Medical Examiners of the State of Oklahoma. When the changes during a given year are not great, it may be made current by the publication of a supplement in lieu of reproduction of the entire publication. This list contains a roster of all physicians and surgeons licensed in the state and who hold a Renewal Certificate of Registration entitling them to practice medicine and surgery. In this listing city and county of residence are given. A second roster arranged by the county of residence is also given which makes the list a convenient reference for the purpose of preparing the county distribution of physicians within the state (Table 10).

The supplement to the list is easy to use for it lists by city and county the additions of licensed physicians added to the official records of the Board of Medical Examiners

TABLE 10

DISTRIBUTION OF PHYSICIANS IN OKLAHOMA, BY COUNTY, ACCORD-
 ING TO THE OFFICIAL LIST OF LICENSED AND REGISTERED
 PHYSICIANS AND SURGEONS, THE JOURNAL OF THE
 OKLAHOMA STATE MEDICAL ASSOCIATION, AND
 THE AMERICAN MEDICAL DIRECTORY*

County	Official List of Licensed and Registered Physicians and Surgeons	Journal of the Oklahoma State Medical Association	American Medical Directory
Adair	4	3	5
Alfalfa	7	7	6
Atoka	1	2	3
Beaver	4	2	4
Beckham	22	19	21
Blaine	10	11	10
Bryan	16	13	16
Caddo	21	14	18
Canadian	20	23	25
Carter	38	28	32
Cherokee	9	9	10
Choctaw	7	6	6
Cimarron	4	4	4
Cleveland	49	40	55
Coal	3	1	3
Comanche	37	35	36
Cotton	3	2	5
Craig	15	11	16
Creek	21	25	23
Custer	25	21	24
Delaware	5	2	5
Dewey	3	1	2
Ellis	8	6	8
Garfield	58	54	57
Garvin	14	12	13
Grady	33	29	32
Grant	3	2	3
Greer	9	7	10
Harmon	5	4	4
Harper	2	1	3

TABLE 10--Continued

County	Official List of Licensed and Registered Physicians and Surgeons	Journal of the Oklahoma State Medical Association	American Medical Directory
Haskell	3	2	5
Hughes	14	10	15
Jackson	19	18	19
Jefferson	6	6	6
Johnston	1	1	4
Kay	49	42	50
Kingfisher	12	8	13
Kiowa	12	9	12
Latimer	5	2	5
Le Flore	18	15	23
Lincoln	11	8	11
Logan	12	12	14
Love	5	1	5
McClain	6	6	6
McCurtain	15	7	15
McIntosh	5	4	5
Major	2	2	3
Marshall	4	3	4
Mayes	10	9	11
Murray	10	6	10
Muskogee	70	57	66
Noble	6	3	7
Nowata	7	7	7
Okfuskee	12	10	15
Oklahoma	679	492	704
Okmulgee	24	22	28
Osage	16	15	20
Ottawa	23	20	27
Pawnee	8	6	8
Payne	32	29	32
Pittsburg	26	28	35
Pontotoc	32	30	34
Pottawatomie	31	27	29
Pushmataha	4	2	3
Roger Mills	1	1	1

TABLE 10--Continued

County	Official List of Licensed and Registered Physicians and Surgeons	Journal of the Oklahoma State Medical Association	American Medical Directory
Rogers	11	8	13
Seminole	24	16	26
Sequoyah	5	2	5
Stephens	24	20	25
Texas	11	9	10
Tillman	8	9	11
Tulsa	367	322	371
Wagoner	4	3	4
Washington	41	35	38
Washita	8	7	10
Woods	8	8	11
Woodward	18	19	17
Total	2,175	1,772	2,252

*Source: Compiled from the Medical Laws of Oklahoma and Official List of Licensed and Registered Physicians and Surgeons and Registered Physical Therapists (Oklahoma City: Board of Medical Examiners, 1957), pp. 87-119; the "Oklahoma State Medical Association Roster by Counties," The Journal of the Oklahoma State Medical Association, XXXXVIII, No. 5 (April 1955), pp. 28-42; and the American Medical Directory (Chicago: American Medical Association, 1956), pp. 1665-1681.

during the preceding year. A separate listing records the deaths of licensed members during the year as well as those who are retired and are not holding Renewal Certificates of Registration. A third roster lists physicians who have failed to secure their Renewal Certificate of Registration and who are therefore ineligible to practice in the state. The last roster lists physicians who have been called into active military service during the year.

This is a complete and up-to-date list of the physicians practicing in the state. The law requires a physician to be licensed by the Board in order to practice; so the license must be renewed each year. In addition, the office of the Board keeps its records current on a daily basis. These are the records from which the list is compiled.

However, neither the publications nor the records of the Board indicate if the physician is in independent or salaried practice. Some physicians are on a salaried basis serving at one of the several state hospitals while others are full-time employees of the state universities. They may be serving as faculty members or working in the student health services. Other physicians are government employees working in a public health activity. Some physicians specialize in industrial medicine and are salaried employees of business organizations. Some licensed physicians are retired. In the larger cities many physicians are in residency or are interns. Such persons do not contribute to medical income earned in

independent practice. A satisfactory county distribution of physicians can be developed from the list of physicians in Oklahoma prepared by the Board. Enough of the physicians in this list are in salaried practice or have retired from practice that it would be desirable to remove them. If this is done, the list becomes even more satisfactory for this purpose.

Membership Roster of the Oklahoma State Medical Association.--The Oklahoma State Medical Association prepares from its membership files a roster of state members which is published in The Journal of the Oklahoma State Medical Association in two forms. The first is a membership roster giving the town of practice, and the second is a roster arranged by county (Table 10).

Membership in the Oklahoma State Medical Association is a voluntary matter, and many physicians are licensed and practice in the state who do not hold membership. The roster is prepared at irregular intervals as the directors of the Oklahoma State Medical Association feel the need. As a result, it is usually not up-to-date, and therefore at times it may fail to show as many as three hundred physicians who are currently practicing within the state.

Little biographical information is included in the roster. It fails to distinguish between physicians who are active and self-employed, those who are not active or engaged in practice, and those who are working for a salary. It is

more nearly a roster of the medical profession than one of self-employed physicians.

This roster can be used to compile a county distribution of physicians. It is not as satisfactory for this purpose as is the list of physicians prepared by the Board of Medical Examiners of the state of Oklahoma because it is not as complete. When the roster is used for this purpose, it would be desirable to use other sources to complete the coverage and to delete from the roster those physicians not engaged in independent practice.

The American Medical Directory.--The American Medical Directory is prepared and published by the American Medical Association. In order to be listed, a physician must possess a degree of Doctor of Medicine or its equivalent from a bona fide medical school and be licensed to practice medicine in the state in which he is listed. This register also lists those who hold a degree of doctor of medicine from an approved medical school and who engage in scientific, educational, or public health activities. Some listed physicians have been licensed in the past on the basis of having been in practice for a number of years even though they lack some phase of formal training.

Those listed are grouped according to the state in which they practice and by county and city within the state. This arrangement permits the compilation of a county distribution of doctors. It is, however, a somewhat more laborious

procedure than that required by the Official List of Licensed and Registered Physicians and Surgeons and Registered Physical Therapists (Table 10).

The directory is compiled from information obtained from official state agencies, questionnaires completed by individual physicians, and other sources. It is a reasonably complete directory. Some physicians in salaried positions are not listed in the state registers. Several classes of physicians are listed separately: commissioned medical officers of the Army, Navy, Air Force, and the United States Public Health Service who are on active duty, those employed by the Indian Service, and permanent full-time medical officers of the Veterans Administration. This makes the directory more nearly a listing of self-employed physicians than the other two rosters.

In addition, this roster contains certain biographical information that can be used to delete other salaried physicians from it. A number of symbols are used with each individual physician listing indicating a specialty, if appropriate, the degree of specialty, work in the area of public health, or a relationship with industrial medicine. This information can be used to make certain reasonable guesses. If a man is engaged in the full-time practice of surgery, he is likely a self-employed surgeon. If he is engaged full time in hospital administration or public health work, he is likely a salaried physician. If a doctor specializes in in-

dustrial medicine and lists his office with a business organization, he is probably on a salary basis. Those physicians listed with an educational institution or a state hospital likely hold salaried positions. Residents and interns are not yet self-employed doctors. Physicians who are retired or are not in practice do not belong to the group of self-employed physicians.

The directory is published at irregular intervals. Nevertheless, it is useful in making estimates of the number of physicians in the various counties of the state. When salaried physicians and physicians not in practice are deleted from its listing, it is a satisfactory source from which to compile a county distribution of doctors. The directory may be used in another manner. A county distribution of salaried physicians and physicians not in practice may be compiled from it. This distribution may be subtracted from a distribution of the medical profession compiled from another source. In this way rosters of physicians can be combined and the best from each used to estimate more satisfactorily the number of physicians engaged in independent practice in the counties of Oklahoma (Table 11).

County Weights

Average county income data for self-employed physicians are not available to use as weights for the number of self-employed physicians in the several counties. Available

TABLE 11

DISTRIBUTION OF RETIRED PHYSICIANS, SALARIED
PHYSICIANS, AND SELF-EMPLOYED PHYSICIANS
IN OKLAHOMA, BY COUNTY, 1957*

County	Total	Retired and Not in Practice	Salaried Physicians	Self- Employed Physicians
Adair	4	..	..	4
Alfalfa	7	..	..	7
Atoka	1	..	..	1
Beaver	4	2	..	2
Beckham	22	..	..	22
Blaine	10	..	..	10
Bryan	16	1	..	15
Caddo	21	2	..	19
Canadian	20	..	1	19
Carter	38	1	..	37
Cherokee	9	..	..	9
Choctaw	7	..	..	7
Cimarron	4	..	..	4
Cleveland	49	..	24	25
Coal	3	1	..	2
Comanche	37	1	..	36
Cotton	3	1	..	2
Craig	15	9	..	6
Creek	21	..	..	21
Custer	25	..	4	21
Delaware	5	2	..	3
Dewey	3	..	..	3
Ellis	8	1	..	7
Garfield	58	1	..	57
Garvin	14	..	..	14
Grady	33	1	..	32
Grant	3	..	..	3
Greer	9	2	..	7
Harmon	5	..	..	5
Harper	2	..	..	2

TABLE 11--Continued

County	Total	Retired and Not in Practice	Salaried Physicians	Self- Employed Physicians
Haskell	3	1	..	2
Hughes	14	..	..	14
Jackson	19	..	..	19
Jefferson	6	..	..	6
Johnston	1	..	..	1
Kay	49	2	..	47
Kingfisher	12	1	..	11
Kiowa	12	..	..	12
Latimer	5	..	..	5
Le Flore	18	2	3	13
Lincoln	11	1	..	10
Logan	12	..	..	12
Love	5	..	..	5
McClain	6	..	..	6
McCurtain	15	1	..	14
McIntosh	5	1	..	4
Major	2	..	..	2
Marshall	4	..	..	4
Mayes	10	2	..	8
Murray	10	2	..	8
Muskogee	70	1	..	69
Noble	6	1	..	5
Nowata	7	..	..	7
Okfuskee	12	..	..	12
Oklahoma	679	41	165	473
Okmulgee	24	1	..	23
Osage	16	1	..	15
Ottawa	23	1	..	22
Pawnee	8	..	..	8
Payne	32	5	3	24
Pittsburg	26	1	1	24
Pontotoc	32	1	..	31
Pottawatomie	31	3	..	28
Pushmataha	4	..	..	4
Roger Mills	1	..	..	1

TABLE 11--Continued

County	Total	Retired and Not in Practice	Salaried Physicians	Self- Employed Physicians
Rogers	11	1	..	10
Seminole	24	..	..	24
Sequoyah	5	..	..	5
Stephens	24	1	..	23
Texas	11	1	..	10
Tillman	8	..	..	8
Tulsa	367	9	22	336
Wagoner	4	..	..	4
Washington	41	2	..	39
Washita	8	2	..	6
Woods	8	..	..	8
Woodward	18	2	1	15
Total	2,175	112	224	1,839

*Source: Compiled from Medical Laws of Oklahoma and Official List of Licensed and Registered Physicians and Surgeons and Registered Physical Therapists (Oklahoma City: Board of Medical Examiners, 1957), pp. 87-119 and the American Medical Directory (Chicago: American Medical Association, 1956), pp. 1665-1681.

Self-employed physicians computed by subtracting physicians retired and not in practice and salaried physicians from total physicians.

data on per capita county income cannot be used, because they have not been derived independently from National Income Division estimates. There are two series on wages and salaries in the counties of Oklahoma. Wages and salaries is the largest component of state personal income. It generally accounts for about 60 per cent of state personal income (Table 1). Since several studies have established that medical income tends to fluctuate as does the income of the public, and since wages and salaries are a large portion of the income of the public, such data may be used as county weights.

Both of the available series are sufficiently reliable and independent. The OASI series is published periodically by the Bureau of Old-Age and Survivors Insurance and the Bureau of the Census. The OESC series is published annually by the Oklahoma Employment Security Commission. These series have been discussed previously in detail. Both are useful as weights in the estimation of county medical income.

Recommended Method of Allocation

In 1957 the income of self-employed physicians was about 0.9 per cent of state personal income (Table 3). It amounted to about \$33 million and was almost two-fifths of professional service income (Table 12). With the data presently available the most satisfactory manner in which this amount can be allocated to the counties of the state is probably on the basis of the number of physicians in practice.

TABLE 12

PERCENTAGE DISTRIBUTION OF PROPRIETOR INCOME, PROFESSIONAL
SERVICE INCOME, AND PHYSICIAN INCOME, IN OKLAHOMA,
SELECTED YEARS, 1929-1957*

Component	1929	1933	1939	1944	1949	1954	1957
Proprietor income	100	100	100	100	100	100	100
Professional service income	8	11	9	6	7	10	14
Physician income	3	4	4	3	3	3	5
Professional service income	100	100	100	100	100	100	100
Physician income	39	35	41	48	43	29	38

*Source: Computed from data provided through the courtesy of the U. S. Department of Commerce, National Income Division.

It is desirable to weight the number of physicians in each county in order to compensate for the differences in income among the counties. The National Income Division estimate is accepted as the most satisfactory measure of the income of self-employed physicians in Oklahoma. This is the estimate which is allocated to the seventy-seven counties of the state.

The following procedure is recommended. Secure from the Board of Medical Examiners of the State of Oklahoma the appropriate annual list of licensed physicians. Distribute these physicians by number among the counties. Use the appropriate edition of the American Medical Directory to find the number of physicians in each county who are not active in the practice of medicine or who are holding salaried positions. Estimate the number of self-employed physicians (Table 11). Compute an average annual wage for each county (Table 8). Use the appropriate data furnished by the Oklahoma Employment Security Commission. Weight the number of physicians in independent practice in each county by the average annual wage of the county. The percentage allocator for each county is obtained by dividing the weighted number of physicians in that county by the weighted sum of the number of physicians in all counties. The percentage allocator for each county is multiplied by the National Income Division estimate for medical income for the state. This figure is the dollar amount to be allocated to each county.

CHAPTER IV

INCOME OF DENTISTS

Most lay people understand the work of the dentist to be that of the repair and treatment of the teeth and associated tissues. When the teeth can no longer be preserved, the dentist is expected to make and insert artificial substitutes. The understanding of the layman is essentially correct. In this country in order to engage in the practice of dentistry, one must hold a professional degree from a recognized dental school and be licensed to practice under the laws of the state within which the practice is undertaken.

The practice of dentistry is now recognized as a profession for it meets the traditional requirements of a profession: an organized body of thought; a spirit of learning; and a recognition of the requirement of public service. The number of practicing dentists has grown until they constitute the third largest group of independent professionals--outnumbered only by lawyers and physicians. This growth is evidence of the increasing demand for dental care and the development of dentistry as a profession.

Oklahoma, with approximately 800 dentists in 1953, ranks as the 36th State in the supply of dentists in relation

to population. There are approximately 2,727 persons in the State per dentist. Only 13 States occupy a less favorable dental manpower situation.¹

The income of dentists includes income earned by the practice of dentistry whether as a specialist or as a general practitioner. Most dentists in Oklahoma are in general practice.

In 1953, Oklahoma had only 45 dental specialists. . . . Even with this small total, however, Oklahoma is better supplied than many States. Almost two percent of all recognized specialists are located in Oklahoma, although Oklahoma includes somewhat less than one and one-half percent of the nation's civilian population.²

For purposes of income analysis, the National Income Division classifies dentists into three major groups. One such group consists of the non-salaried dentists who engage in private practice as entrepreneurs and may practice with or without partners. The second major group of dentists is the all-salaried group. They receive salaries for the dental services they perform. They do not engage in private independent practice and receive no fees for any dental work done by them. Part-salaried dentists make up the third major group. They receive both a salary and other income earned on a fee basis.

The National Income Division uses an alternate grouping of dentists for some purposes. Their major independent

¹A Study of Oklahoma's Dental Manpower Requirements (Washington: U. S. Department of Health, Education, and Welfare, 1954), p. 13..

²Ibid., pp. 13-14.

category consists of dentists who receive the major portion of their income from independent practice. Included in this group are all non-salaried dentists and part-salaried dentists who earn most of their income from independent practice. The major salaried category consists of dentists who earn their income in salaried practice. Included in this group are part-salaried dentists who earn most of their income in their salaried practice.

A study made by the National Income Division for 1948 gave the following distribution of the reporting dentists into major groups. Some 92 per cent of the dentists were in independent practice while 8 per cent were in a salaried practice. About 88 per cent were in non-salaried practice, about 5 per cent were in part-salaried practice, and some 7 per cent were in an all-salaried practice.³

Factors Affecting Dental Income

Many factors affect the income dentists receive. Some of the significant factors are generally known and recognized, at least by those who move within the dental environment. Some of these factors are measurable to a degree while others, intangible in nature, do not lend themselves to numerical treatment. Family background, professional connections, good business sense, drive, desire, ambition, luck,

³William Weinfeld, "Income of Dentists, 1929-48," Survey of Current Business, XXX, No. 1 (Jan., 1950), 11..

and unusual windfall opportunity defy objective measurement. Physical skill, health, quality and extent of training are almost impossible to portray statistically. Moral standards (or their lack) may at times be a decisive factor in determining the size of the income dentists receive. The implementation of and the degree of professional accountability may affect dental income as well as that of other professional groups.

Nevertheless, many diversified factors can be associated with the size of dental income. General economic conditions, degree of specialization as well as type of specialization, geographic location, age, size of community, and number of employees all appear to be significant determinants of dental income. All of these lend themselves to measurement.

Since 1929 the income of dentists in independent practice has been influenced by general business conditions in much the same manner as the other major professions. The predepression highpoint of dental income was a mean of \$4,267 and a median of \$3,676. By 1933 dental income had fallen to a low of \$2,188 for the mean and a median of \$1,880. Dental income was reduced almost by one-half and fell somewhat more than the income of physicians and considerably more than did the income of lawyers. It must be recognized that many dental services can be postponed. After the depression years, dental income began to climb and by 1948 the mean had reached

\$7,039 and the median \$5,939.⁴

Specialization has been uncommon among dentists in the past although this appears to be in the process of change. In 1948, 88.5 per cent of the dentists were engaged in general practice. Only 5.6 per cent reported that they were wholly specialized while 5.9 per cent indicated that they were partially specialized. The earnings of the totally specialized dentist were almost 75 per cent greater than the earnings of the dentist in general practice in 1948. Their mean net income was \$11,784 while that of the partly specialized dentist was \$7,906 and somewhat larger than the mean net income of the dentist in general practice.⁵

Little information is currently available on the effect of type of specialization on dental income, but those data that are available imply that specialization is significant to some degree. In 1948 orthodontists reported a mean net income of \$13,353 and a median net income of \$12,750. This group was not only the highest paid of the specialists but also the largest group of complete specialists.⁶

Significant income differentials exist among the various regions of the country. For example, in 1948 the Far West reported the highest average income for dentists, the

⁴Ibid., pp. 8-9.

⁵Ibid., pp. 10-11.

⁶Ibid., p. 11.

Southwest, the second highest, and New England reported the lowest. The mean net income of dentists in the West was \$9,751, almost 66 per cent larger than the \$5,891 reported by the dentists in New England. Such differentials are also found when the state is used as the basic geographic unit. The states of Washington, California, Texas and Oregon reported high incomes for dentists. Other large states such as New York, Pennsylvania, and Illinois reported only average dental incomes. In states with a high per capita income for the general population, the expenditures for dental services are high. The average income of dentists appears to be affected not only by per capita income of the general population but also by the supply of dentists in relation to the size of the general population.⁷

The size of the community in which the dentist practices exerts a strong influence on the size of income received. In 1948 the smallest mean net income, \$5,010, was received by dentists practicing in the smallest communities. As the size of the community increased, average dental income increased with minor fluctuations until the peak of about \$8,000 was reached in communities having between 25,000 and 250,000 persons. However, this relationship was reversed as cities grew larger. Average dental income began to decrease until in cities with a population of one million or more the

⁷Ibid., pp. 11-13.

mean net income had fallen to \$5,980.⁸

Age as a factor associated with income shows remarkably consistent behavior, generally unmarred by irregular and unexplained fluctuations. In 1948 the mean net income of all dentists rose steeply and consistently from a low of \$2,823 for practicing dentists under 25 years of age to a peak of \$9,117 for dentists 40-44 years of age.⁹

In the dental profession the number of employees per dentist tends to increase as net income rises. This allows the dentist to devote his efforts to the more profitable aspects of dental practice, which has a favorable effect on the level of income. A significant correlation is found between the size of a dentist's income and the number of employees he has. Almost two-thirds of the non-salaried dentists had employees of some kind in 1948. About four out of ten dentists had one employee; about one out of ten had two employees; and slightly less than one out of ten had three or more employees. The dentists who had no employees had the lowest average net income (mean, \$3,819; median, \$3,239)--well below the average for all dentists. Those with one employee earned an average net income more than twice as large, with a mean of \$8,134 and a median of \$7,321. As the number of employees per dentist increased, the average net of income of the dentist continued to increase. For dentists with

⁸Ibid., pp. 12-13.

⁹Ibid., pp. 14-15.

five or more employees, the mean net income reached \$18,955--about five times greater than that for dentists with no employees.¹⁰

About 92 per cent of all dentists were in private practice in 1948 and earned a mean net income of \$7,047 while the salaried dentists earned \$5,358. Almost two-thirds of the salaried dentists were employees of industry or of federal, state, or local governments. The remaining one-third of the salaried group was employed by other dentists. Dentists working for other dentists received lower average incomes than did the dentists in independent practice. Their mean was \$5,968, and their median was \$5,432. Dentists employed on a salary basis by industry or the various levels of government earned still lower incomes. Their mean was \$4,993, and their median \$5,241. Only 3 per cent of the dentists practiced in partnerships although some 10 per cent shared office space or employees. It would seem that form of practice is also a determinant in the size of dental income.¹¹

Friedman and Kuznets discovered a significant relationship between the size of community income and the income of professional people who practiced in the community. This study was discussed in some detail in the chapter on legal income. The outstanding facet of the investigation was the

¹⁰Ibid., pp. 15-16.

¹¹Ibid., p. 8.

additional discovery that the average income of professional people in the smaller communities was very low. The study showed that in the dental profession, as well as in the professions of law and medicine, average income in communities under 2,500 was often only one-half as large as that in communities over 10,000 in population.

The study also indicated that differences in the average income of the public varied in like manner with the differences found in dental income earned in independent practice. As the size of the community decreased, the average income of nonrelief families decreased. The income of physicians varied from this pattern only slightly while the income of lawyers and dentists followed this pattern with considerable regularity.

As in the other professions some of the objective criteria can be observed, measured, and their effects partially determined. Subjective criteria affect dental income in much the same manner as they do medical income. The services the dentist renders are personal in nature, and the demand for these services is relatively elastic--especially when compared to the demand for medical services.¹² The purchaser of dental services is usually unable to determine the quality of the service or the exact service needed. The dentist is often selected on the basis of reputation, personality, location of practice, and the like. These factors are

¹²Friedman and Kuznets, p. 139.

difficult to measure.

Factors Affecting Dental Income in Oklahoma

Information regarding the size, sources, and determinants of income of dentists engaged in independent practice in this country is fragmentary and inadequate for most purposes. Generally it is based on a limited number of surveys which have been made at irregular intervals. At the state level this lack of information is critical. Such scattered bits of information as exist are usually the by-product of work done at the national level. Such data have generally been collected by mail questionnaire. Unfortunately, they are compromised by inaccurate reporting, lack of completeness, poor coverage, and other limitations inherent in this kind of a collection procedure. Although a significant number of dentists believe they are not able to earn an income commensurate with their professional position, the majority seem to feel that their most significant professional problem is the available supply of dentists. Second, they believe they ought to be concerned with the distribution of their number. People close to the profession believe that although it is unlikely that dentists will initiate studies of their individual and collective income, they will not actively oppose such a study as the physicians are reported to have done.

The full-time executives of the Oklahoma State Dental Association were informally interviewed several times. They

reported that although no interest exists among Oklahoma dentists in state-wide income studies, there is a keen interest about income patterns within districts. These districts are administrative units composed of like counties which have been organized by the Oklahoma State Dental Association to facilitate member servicing by the association. Within each district, in most instances, a member who is active in association work acts informally to collect and disseminate to other members information concerning gross dental income and overhead.

The Oklahoma State Dental Association accepts the figure of \$12,000 as the average income of dentists engaged in independent practice. This figure was furnished them by the American Dental Association based on a survey conducted several years ago. The Oklahoma State Dental Association does no work in the area of dental fees for it considers this to be a private matter of concern to the individual dentist. Sometimes the fee is determined on the basis of enabling the dentist to net so much per hour worked. At other times it is determined on the basis of patient chair time. It is possible that in some instances a flat fee may be charged. The fee, of course, is determined by the type of work done. Competition plays no apparent part in fee or income determination.

It was reported by these people that general economic conditions influence the level of dental income. When times are good, people demand extensive dental services.

When times are bad, patients come only for emergency care. Although it is possible that dentists in larger cities may earn larger fees, dental income does not vary as much over the state as income in other professions.

As in the case of physicians and lawyers, practicing dentists were interviewed in various parts of the state. Eight cities were selected in which to conduct the interviews and interviews were conducted in all the cities. The cities spread geographically over the state. One was a large city, two were small, and five were medium-sized cities. In three of the cities most of the inhabitants were farmers or ranchers. One of the three cities had a great number of people receiving welfare payments from the state. Three of the cities were industrial cities and one city was largely supported by military and allied types of spending. One of the rural communities was just beginning to feel the impact of federal spending on a nearby air base.

The Executive Secretary of the Oklahoma State Dental Association selected the dentists who were to be interviewed in each of the cities. Since dentists in Oklahoma have an informal district system which reports on dental income, it was relatively easy to select the informal leaders in each district. In every case the man interviewed had previously been active in committee assignments with the Oklahoma State Dental Association. Willingness to cooperate was the final reason for selecting the dentist for interviewing. It was

necessary to make some skips because of vacations and afternoons off but no substitutions were necessary. Nine dentists were interviewed.

While lawyers in the state are in general agreement about most of the factors which affect their income, dentists, like physicians, tend to disagree on some of the determinants of their income. Dentists, like doctors practicing in rural areas, reported stable incomes over long periods of time. Crops, the cattle business, and other economic activity were reported to have little or no effect on the size of income. Weather, however, plays a significant part in income determination in the short run. When roads are impassable, office calls and appointments are broken. If bad weather persists for a number of days, the income of the dentist may fall to practically nothing for a week or two.

On the other hand, dentists practicing in or near industrialized centers report that their income is directly and immediately affected by changes in the general economic picture. As the number of jobless persons increases, or as total income falls, the patient load of the dentist decreases as does his income. In good times the dentist gets a good deal of restorative and repair work. This is long profit work. In bad times he gets emergency work which is short profit work.

The stability in dental income in rural areas may primarily be the result of the distribution of dentists. In

most rural areas the shortage of dentists is critical. So great is this shortage that the Oklahoma State Dental Association believes it to be the major problem to be solved in the next few years. It may be that the number of dentists is unable to meet even the reduced demand for dental care during periods of recession in rural areas. As a result they may incorrectly feel that the demand for dental care is unrelated to the realized purchasing power of their patients.

Two types of population movements are reported to adversely affect the income of dentists practicing in rural areas. As people move from the farm to the city dental income tends to be depressed. In the southeast part of the state small farms and ranches are being consolidated into larger units and the family work unit is being replaced by hired hands. Since hired hands typically are paid small salaries, they can afford to purchase only the most necessary emergency care. Such consolidations tend to depress dental income severely.

Most dentists agree that the size of city of practice is a determinant of the size of dental income. Larger incomes, of course, are earned in the larger cities. One dentist reported that recently he had investigated this relationship and discovered that in a large city about 100 miles away dental fees were two and one-half times higher than those in his own city.

All dentists interviewed agreed that individual

dentists determine their own fee schedule and none mentioned competition as a factor in such determination. A heavy emphasis is placed by most dentists on overhead as a factor in the size of dental fees. Overhead is reported to be a function of quality and the degree of sterility practiced within a dental office. For example, a dentist who sterilizes needles in the open flame of a Bunsen burner and uses drill bits several times can profitably fill a small cavity for two dollars. However, a dentist using steam to sterilize his equipment and using a new drill bit on each patient must charge five dollars to make a profit on the same filling.

Most dentists interviewed report a gross income of \$30,000 to \$35,000 annually with overhead fluctuating between forty and fifty per cent. In earning this income dentists serve all classes of people, with the great bulk of their patients coming from the middle class.

As a group, dentists believed that specifics were determinants of their income to a far greater degree than did the other professional groups. The size of the office is important in that the patient flow is more easily handled and the dentist has more room to work. Within limits, the larger the office the larger the income. Along with office size the number of chairs available to the dentist is an important determinant. With two and three chairs assigned and available to a single dentist, a far larger number of patients can be handled in a single day than can be processed with a

single chair.

The number of hours a dentist is willing to work influences in a large measure the size of his income. A dentist working ten hours a day for six days each week will have a far larger income than will the dentist who works seven hours each day and only four and one-half days per week. A number of dentists are reported to have moved to a four and one-half day work week.

After general economic conditions and community size, the most important determinant of dental income seems to be the individual philosophy of practice of the dentist. If he is willing to accept large numbers of emergency cases, he will work very hard and will receive a relatively low income. If he limits his practice to restorative cases, he will not work as hard and will earn a relatively high income. The dentist who strikes a balance between the two types of practice but emphasizes restorative work will receive a relatively high income.

The location of military installations may play an important part in determining the size of dental income. As more people are congregated in a given area, both the fee and the patient load of the dentist tend to increase. In addition, as the military installation becomes larger, it is less likely that military dentists will be able to care for military dependents. When a military post instructs military dependents to secure their dental care from civilian dentists,

the income of the civilian dentists rises sharply. It is quite likely that in the very near future some sort of program similar to Medicare will be implemented to provide dental care to military dependents. Dentists agree that such a factor will significantly increase the income of those affected by such a program.

In general, most dentists interviewed in Oklahoma believe that their incomes are determined in no small part by general economic conditions. Dental income follows the general economic pattern. The size of the city is an important factor in the determination of dental income. As cities grow, the tendency is for dental income to increase. Fees are determined by the practicing dentist without reference to association recommendations and apparently are not influenced greatly by any competitive factor. Reportedly, overhead is an important factor in fee determination.

Contrary to the beliefs of other professional groups, dentists report that many specifics are important in determining their incomes. Size of office and the number of chairs located within the office are significant. The hours a dentist is willing to work are important. Finally, the philosophy of practice of the individual dentist is a major factor in the size of his income.

Methods of Estimating Dental Income in
Oklahoma, by County

As might be expected, the ways in which county dental

income can be estimated in Oklahoma are similar to those which can be used to estimate the income of physicians or lawyers. There seems to be no hope that a periodic census of dental income will be taken in the near future. This, of course, is the ideal method because benchmark years could be established from such a census. Reliable projections could be made from the benchmarks to estimate dental income in those years when the census was not taken. State tax returns filed by dentists are not available for public inspection or for use in specific research projects. It is not likely that the Oklahoma State Dental Association will sponsor a study of dental income in the state. It is possible, however, that this agency might support such a study of dental income if the results were not made public.

Since direct methods of allocating dental income in the state to the several counties are not available, some indirect allocator must be chosen. The best allocator of this type is the number of dentists practicing within the counties, weighted by differences in average income among counties. The National Income Division and the American Dental Association have computed regional and state average dental income figures. Their samples, however, are too small to use for units of county size. Since several studies have established that dental income changes as the income of the general public changes, the average annual wage of the counties might be used to approximate the distribution of county

dental income.

Methodology in Current Use

The universities known to have been active in county income estimation for the past few years were contacted to determine the procedures and methodology they had found to be useful. They reported that they had estimated county income for dentists in much the same manner they had estimated county income for lawyers. The only important difference was in the source material from which county distributions of dentists were compiled.

Some of the universities were still using the early recommendations laid down in the publication Methods for Estimating Income Payments in Counties. This study recommended that the number of dentists in practice in counties be secured from any of the available professional rosters. The number of dentists should be weighted by the average earnings in covered industries. From this the percentage allocator could be computed. Some universities made no effort to estimate dental income by county as a separate component. They allocated proprietor income as a lump sum.

The remaining group of universities allocated dental income to the counties on the basis of the number of practicing dentists. To compile the distribution of dentists a number of sources were used. These sources included professional rosters, lists of state licensing agencies, and

national directories. In most instances the number of dentists was weighted by some series which approximated the average income of the counties. In some cases average dental income estimates taken from National Income Division studies were used. In one case an average dental income figure was obtained from state tax returns.

One individual suggested that, as in the case of physicians, an allocator might be based on differences in dental fees. These differences might be developed from a small sample survey or from county dental associations. After these differences had been tabulated, a rough allocator for the state could be computed.

Sources of County Data

The existing and available data on dental income in the state leave little choice in the method by which this income is allocated to the several counties. It must be allocated on the basis of the number of dentists presently in practice, weighted to allow for variations in county income. A number of rosters and lists of practicing dentists are readily available from which a county distribution of the number of self-employed dentists can be compiled.

Distribution of Dentists in Oklahoma by County

There are four sources of county data on dentists in Oklahoma who are engaged in independent practice. One is the directory of Members of the Registered Dentists of

Oklahoma issued by the Board of Governors of Registered Dentists of the State of Oklahoma. Another source is the annual directory of its members issued in The Journal of the Oklahoma State Dental Association by the Oklahoma State Dental Association. The third source for this type of data is the annual American Dental Directory published by the American Dental Association. The other source, a periodic publication entitled Distribution of Dentists in the United States by State, Region, District, and County, is also a publication of the American Dental Association.

Members of the Registered Dentists of Oklahoma.--This directory is prepared from the licensing files of the Board of Governors of Registered Dentists of the State of Oklahoma. It is divided into five sections. First, there is an alphabetical roster of registered dentists. Second, there is a list of dentists who are out of the state, including those with the armed forces. Third, there is a list of registered dental hygienists. Fourth, there is a list of those who hold a specialist license and, last, there is a roster of registered dentists by district and by community.

Since all dentists who practice within the state must maintain a state license, the files of the Board of Governors of Registered Dentists of the State of Oklahoma are inclusive. The geographic unit of the Board is the district. Eight such districts have been defined in the state. Rosters of the Board list dentists according to the location of their practice

within each district. City of practice is given. This permits the compilation of a county distribution of dentists although the process is slower and more tedious than in other rosters available for this purpose (Table 13).

Since the supply and distribution of dentists in the state remain relatively stable, such rosters are brought up-to-date only when the Board feels that the supply or distribution of dentists has changed materially. The officers of the Board state that at present these rosters are revised no oftener than every two years. No supplement to the rosters which will add to or delete dentists from the rolls is issued in years when the rosters are not revised; so in many years the rosters are not up-to-date.

No information is given which can be used to determine if dentists are in independent practice or if they hold salaried positions. Nor do the rosters show which dentists who are licensed to practice are not currently in practice. In only one case can the rosters be refined. When the notation "retired" is found following the member's name, it means that the member has held a license for twenty-five years and is presently retired because of age or physical disability. These men do no dentistry at all.

The drawbacks to the use of this listing to compile a county distribution of dentists are minor. Since there is no dental school in Oklahoma and since very few dentists are employees of industry or government, almost all dentists are

TABLE 13

DISTRIBUTION OF DENTISTS IN OKLAHOMA, BY COUNTY,
 ACCORDING TO MEMBERS OF THE REGISTERED DENTISTS
 OF OKLAHOMA AND THE JOURNAL OF THE OKLA-
 HOMA STATE DENTAL ASSOCIATION*

County	Registered Dentists of Oklahoma	Journal of the Oklahoma State Dental Association
Adair	..	1
Alfalfa	3	3
Atoka	1	1
Beaver	2	1
Beckham	10	7
Blaine	4	3
Bryan	6	5
Caddo	9	6
Canadian	8	4
Carter	10	9
Cherokee	3	2
Choctaw	3	2
Cimarron	1	1
Cleveland	11	10
Coal	..	..
Comanche	16	14
Cotton	2	..
Craig	3	3
Creek	12	10
Custer	10	7
Delaware	3	2
Dewey	1	..
Ellis	2	2
Garfield	25	21
Garvin	8	8
Grady	12	10
Grant	4	3
Greer	2	2
Harmon	2	1
Harper	..	..

TABLE 13--Continued

County	Registered Dentists of Oklahoma	Journal of the Oklahoma State Dental Association
Haskell	2	2
Hughes	5	3
Jackson	5	8
Jefferson	2	1
Johnston	..	..
Kay	24	19
Kingfisher	4	4
Kiowa	6	6
Latimer	2	2
Le Flore	3	2
Lincoln	6	6
Logan	5	4
Love	1	1
McClain	2	2
McCurtain	3	3
McIntosh	2	2
Major	2	2
Marshall	2	1
Mayes	4	4
Murray	2	2
Muskogee	26	20
Noble	4	4
Nowata	3	2
Okfuskee	4	1
Oklahoma	175	157
Okmulgee	14	12
Osage	7	6
Ottawa	12	8
Pawnee	6	2
Payne	12	12
Pittsburg	9	8
Pontotoc	7	8
Pottawatomie	15	12
Pushmataha	2	1
Roger Mills	..	..

TABLE 13--Continued

County	Registered Dentists of Oklahoma	Journal of the Oklahoma State Dental Association
Rogers	7	4
Seminole	11	9
Sequoyah	1	1
Stephens	11	12
Texas	4	4
Tillman	4	3
Tulsa	166	148
Wagoner	2	1
Washington	18	20
Washita	3	2
Woods	5	6
Woodward	6	5
Total	789	680

*Source: Compiled from Members of the Registered Dentists of Oklahoma (Oklahoma City: Board of Governors of Registered Dentists, State of Oklahoma, 1956), pp. 35-43 and "Directory of Members," Journal of the Oklahoma State Dental Association, XLVII, No. 1 (July, 1955), pp. 25-31.

in independent practice. When dentists who are licensed but are currently not in the state are removed from the roster, it becomes a satisfactory list of Oklahoma dentists engaged in independent practice. It would be desirable to remove those few dentists in salaried positions if their number could be identified from another source.

Directory of Members of the Oklahoma State Dental Association.--The Oklahoma State Dental Association publishes a directory of its membership each year in the July issue of The Journal of the Oklahoma State Dental Association. This organization follows the lead of the Board of Governors of Registered Dentists of the State of Oklahoma and uses an arbitrarily prescribed district as the unit of geographic control. The location of residence of each dentist is given; so it is possible to compile a county distribution of dentists from it (Table 13). The use of this roster is more laborious than the use of other available rosters because of this arrangement. Since it is published annually, it is always up-to-date.

No biographical information is furnished. It is impossible to determine which dentists are self-employed, which are in salaried positions, and which are licensed but are earning their livelihood from activities other than the practice of dentistry. Membership in the Oklahoma State Dental Association is voluntary. Some dentists whose names do not appear on this roster are licensed and are practicing within

the state. This means that the roster is incomplete. In addition it does not provide the type of information which would be helpful in deleting dentists who are not self-employed.

This is not a useful source from which to compile a county distribution of dentists engaged in independent practice. Other lists of dentists should be used when available.

The American Dental Directory.--This directory is a list of dentists compiled by the states, territories, possessions, and cities of the United States. Dentists in federal service are listed separately. Other separate lists show specialists, members, honorary members, and associate members. The manner in which the directory is organized permits the preparation of a county distribution of dentists (Table 14). It is a laborious procedure because each dentist is identified with a city which in turn must be identified with its proper county. The directory is published each year.

Some biographical information is included with each individual listing. This is given in code form. The key to the code is simple and easy to use. For example, the code number 70 means that the man is a public health dentist. Code number 82 indicates an industrial practice while the code number 95 means that the dentist is employed by a commercial agency in the dental field. Other code numbers show if the dentist is retired, is employed by a dental society, or is serving as a resident or intern. This code can be used

TABLE 14

DISTRIBUTION OF DENTISTS IN OKLAHOMA, BY COUNTY,
 ACCORDING TO THE 1957 AMERICAN DENTAL DIREC-
 TORY AND THE AMERICAN DENTAL ASSOCIATION*

County	American Dental Directory	American Dental Association
Adair	2	3
Alfalfa	4	4
Atoka	1	1
Beaver	4	3
Beckham	12	11
Blaine	5	4
Bryan	6	7
Caddo	8	9
Canadian	10	8
Carter	12	14
Cherokee	8	4
Choctaw	4	3
Cimarron	1	1
Cleveland	13	13
Coal	..	..
Comanche	18	16
Cotton	2	3
Craig	6	6
Creek	13	13
Custer	8	8
Delaware	2	3
Dewey	1	..
Ellis	2	2
Garfield	26	26
Garvin	10	10
Grady	12	12
Grant	4	5
Greer	2	2
Harmon	2	2
Harper	1	..

TABLE 14--Continued

County	American Dental Directory	American Dental Association
Haskell	3	3
Hughes	7	6
Jackson	7	8
Jefferson	..	2
Johnston	..	1
Kay	27	24
Kingfisher	4	5
Kiowa	6	6
Latimer	2	2
Le Flore	5	5
Lincoln	6	6
Logan	5	5
Love	1	1
McClain	2	2
McCurtain	3	3
McIntosh	2	2
Major	2	2
Marshall	2	2
Mayes	4	4
Murray	2	2
Muskogee	31	34
Noble	4	4
Nowata	5	5
Okfuskee	3	3
Oklahoma	189	194
Okmulgee	16	16
Osage	7	9
Ottawa	12	11
Pawnee	2	2
Payne	20	20
Pittsburg	11	10
Pontotoc	8	9
Pottawatomie	15	13
Pushmataha	2	2
Roger Mills	..	..

TABLE 14--Continued

County	American Dental Directory	American Dental Association
Rogers	7	6
Seminole	12	12
Sequoyah	4	3
Stephens	13	14
Texas	4	5
Tillman	4	5
Tulsa	173	187
Wagoner	2	3
Washington	19	21
Washita	3	3
Woods	9	7
Woodward	7	6
Total	871	888

*Source: Compiled from the 1957 American Dental Directory (Chicago: American Dental Association, 1957), pp. 605-12 and the Distribution of Dentists in the United States by State, Region, District, and County (Chicago: American Dental Association, 1958), pp. 44-45.

to compile a county distribution of dentists who are not engaged in private independent practice (Table 15).

The roster is a list of the dental profession. If the code is used to delete from the roster dentists who are not in independent practice, it becomes more nearly a roster of self-employed dentists. The roster is compiled from secondary source material. The main source of information is the licensing agencies in each of the states. It is compiled from lists furnished by these agencies.

The roster is satisfactory to use in estimating the number of self-employed dentists by county. It may be used by deleting from its rolls dentists who are not engaged in independent practice. It may also be used by compiling from it a county distribution of dentists who are not self-employed. This distribution may be subtracted from a county distribution of the dental profession (Table 15). The result is a distribution of self-employed dentists by county.

Distribution of Dentists in the United States by State, Region, District, and County.--This booklet is prepared by the Bureau of Economic Research and Statistics of the American Dental Association. Each year some 3,000 dentists graduate from dental schools and must decide where to locate their practice. Other dentists decide to relocate, while many others finish tours of duty with the armed forces. The American Dental Association publishes this booklet to furnish "leads" for dentists seeking a location.

TABLE 15

DISTRIBUTION OF DENTISTS NOT IN PRIVATE PRACTICE
AND SELF-EMPLOYED DENTISTS IN OKLAHOMA,
BY COUNTY, 1957*

County	Registered Dentists of Oklahoma	Dentists Not in Private Practice	Self-Employed Dentists
Adair	..	..	..
Alfalfa	3	..	3
Atoka	1	..	1
Beaver	2	..	2
Beckham	10	..	10
Blaine	4	1	3
Bryan	6	..	6
Caddo	9	..	9
Canadian	8	1	7
Carter	10	..	10
Cherokee	3	1	2
Choctaw	3	..	3
Cimarron	1	..	1
Cleveland	11	..	11
Coal	..	..	..
Comanche	16	..	16
Cotton	2	..	2
Craig	3	..	3
Creek	12	..	12
Custer	10	1	9
Delaware	3	..	3
Dewey	1	..	1
Ellis	2	..	2
Garfield	25	1	24
Garvin	8	..	8
Grady	12	..	12
Grant	4	..	4
Greer	2	..	2
Harmon	2	..	2
Harper	..	..	..

TABLE 15--Continued

County	Registered Dentists of Oklahoma	Dentists Not in Private Practice	Self-Employed Dentists
Haskell	2	..	2
Hughes	5	..	5
Jackson	5	1	4
Jefferson	2	..	2
Johnston	..	..	..
Kay	24	1	23
Kingfisher	4	..	4
Kiowa	6	..	6
Latimer	2	..	2
Le Flore	3	2	1
Lincoln	6	..	6
Logan	5	..	5
Love	1	..	1
McClain	2	..	2
McCurtain	3	..	3
McIntosh	2	..	2
Major	2	..	2
Marshall	2	..	2
Mayes	4	..	4
Murray	2	..	2
Muskogee	26	..	26
Noble	4	..	4
Nowata	3	1	2
Okfuskee	4	..	4
Oklahoma	175	5	170
Okmulgee	14	2	12
Osage	7	..	7
Ottawa	12	..	12
Pawnee	6	..	6
Payne	12	1	11
Pittsburg	9	..	9
Pontotoc	7	..	7
Pottawatomie	15	..	15
Pushmataha	2	..	2
Roger Mills	..	..	..

TABLE 15--Continued

County	Registered Dentists of Oklahoma	Dentists Not in Private Practice	Self-Employed Dentists
Rogers	7	1	6
Seminole	11	..	11
Sequoyah	1	..	1
Stephens	11	..	11
Texas	4	..	4
Tillman	4	..	4
Tulsa	166	..	166
Wagoner	2	..	2
Washington	18	..	18
Washita	3	1	2
Woods	5	..	5
Woodward	6	..	6
Total	789	20	769

*Source: Computed from Members of the Registered Dentists of Oklahoma (Oklahoma City: Board of Governors of Registered Dentists, State of Oklahoma, 1956), pp. 35-43 and the 1957 American Dental Directory (Chicago: American Dental Association, 1957), pp. 606-12.

Self-employed dentists computed by subtracting dentists not in private practice from registered dentists in Oklahoma.

The count of dentists shown in this publication is by the state in which they practice. Within the state the count of dentists is shown according to the district and the county in which they practice. Since the tedious work of counting the dentists by county has been done, this is the most convenient source of the four presently available (Table 14).

The dentists listed in this publication are a count of dentists made from the American Dental Directory of 1958. The number of dentists given for any county is the total number of living dentists, including those who are retired but excluding those in the federal services. Dental school graduates of 1957 are included. Since the count includes retired dentists, it is overstated for the purposes of determining the number of self-employed dentists. The inclusion of the 1957 graduates may cause the count to be either overstated or understated. In most cases graduates are listed according to their permanent mailing address furnished some time before they graduated from dental school. Many of them practice in a location other than that listed.

Not all dentists are engaged in private practice. For the United States as a whole, the American Dental Association estimates that

of the 100,534 dentists listed, it is estimated that 90,000 are active in the profession. Approximately 87,000 practice dentistry, i. e., work at the chair, and some 3,000 are engaged in teaching, research, administration, and so forth. About 81,000 are in private

practice.¹³

This indicates that a larger percentage of dentists practices privately than do physicians or lawyers. Since Oklahoma does not have a dental school, it is probable that in this state an even larger percentage of dentists may be engaging in private practice. However, there is no way that this list can be used to delete from it those dentists who are not in private practice. When they are included, a county distribution of self-employed dentists compiled from it is overstated. This booklet is published at irregular intervals. Often several years may elapse between revisions.

In the absence of other lists or rosters, the count of dentists by county furnished in this publication would be useful in preparing county distributions of self-employed dentists in Oklahoma. Certain adjustments would be necessary. Dentists who are not presently engaged in independent practice within the state would have to be removed from the count, and some method would have to be devised to keep the count current. It would seem that either the list prepared by the Board of Governors of Registered Dentists in Oklahoma or the list of the American Dental Association is more appropriate.

¹³Distribution of Dentists in the United States by State, Region, District, and County (Chicago: American Dental Association, 1958), p. 2.

County Weights

The source material presently available does not provide average county income data for self-employed dentists. This is the most desirable weight to apply to the number of self-employed dentists in the counties. Data on county per capita income are available, but they are not satisfactory to use as county weights because they have not been derived independently from National Income Division estimates.

Several studies have shown that a relationship exists between the income of dentists and the income of the public they serve. The relationship is similar to that found between the income of the public and the income of lawyers and physicians. Since adequate data on the income of the general public do not exist, some series which approximates the distribution must be used. Data on wages and salaries in Oklahoma are adequate for this purpose. Reliable data on wages and salaries in the counties of Oklahoma are available in both the OASI series and the OESC series. These series have been discussed earlier in detail.

Recommended Method of Allocation

In Oklahoma in 1957 the income of self-employed dentists was 0.2 per cent of state personal income (Table 3). It amounted to about \$7 million and was 10 per cent of professional service income (Table 16). It is recommended that dental income be allocated to the counties on the basis of

TABLE 16

PERCENTAGE DISTRIBUTION OF PROPRIETOR INCOME, PROFESSIONAL SERVICE
INCOME, AND DENTAL INCOME, IN OKLAHOMA,
SELECTED YEARS, 1929-1957*

Component	1929	1933	1939	1944	1949	1954	1957
Proprietor income	100	100	100	100	100	100	100
Professional service income	8	11	9	6	7	10	14
Dental income	1	1	1	1	1	1	1
Professional service income	100	100	100	100	100	100	100
Dental income	12	10	9	10	11	14	10

*Source: Computed from data provided through the courtesy of the U. S. Department of Commerce, National Income Division.

the number of practicing dentists in the counties, weighted by the average annual wage of industrial workers of the counties. The National Income Division estimate is accepted as the most satisfactory measure of the income of self-employed dentists in Oklahoma. This is the estimate which is allocated to the seventy-seven counties of the state.

The recommended procedure is as follows. Secure from the Board of Governors of Registered Dentists of the State of Oklahoma the appropriate annual roster of licensed dentists. Distribute these dentists by number to the counties of the state. Use the appropriate edition of the American Dental Directory to find the number of dentists who are not engaged in independent private practice. Distribute these men by number among the counties. Estimate the number of self-employed dentists (Table 15). Compute the average annual wage of industrial workers for each county (Table 8). Use the appropriate data furnished by the Oklahoma Employment Security Commission. Weight the number of dentists in independent practice in each county by the average annual wage of the county. The percentage allocator for each county is obtained by dividing the weighted number of dentists in that county by the weighted sum of the number of dentists in all counties. The percentage allocator for each county is multiplied by the National Income Division estimate for dental income for the state. This figure is the dollar amount to be allocated to each county.

CHAPTER V

OTHER PROFESSIONAL INCOME

Lawyers, physicians, and dentists are the largest groups of self-employed professional persons. In 1949 these three groups accounted for four-fifths of the nation's professional service income (Table 2). The remaining one-fifth of professional service income was generated by a number of small professions. In these small professions are found accountants, private duty trained nurses, engineers, architects, osteopathic physicians, veterinarians, chiropractors, occupational therapists, physiotherapists, naturopaths, actuaries, lecturers, writers, and other groups of professional people.

The National Income Division has prepared estimates of the income of these professional groups for the state on the basis of their numbers and their average incomes. State distributions of the number of practitioners were tabulated from the Census of Population and from rosters secured from some of the professional associations. Average income estimates were secured from surveys and by estimating rough

income differentials from the Census of Population.¹

Data of this sort are difficult to secure on a national or state basis. As a whole these small professional groups are characterized by a lack of organization. Many of them do not appear to have even a semblance of a professional association. As a result rosters of their membership are available in only scattered cases. Such rosters are usually dated and are far from being complete. There appears to be no information available on income differentials of these professional groups on a county basis.

Other professional income in Oklahoma in 1957 amounted to about 21 per cent of professional service income (Table 17). It was only 0.5 per cent of state personal income in that year (Table 3). The lack of data has imposed severe restrictions on the allocation of other professional income of the state to the several counties in the state. Since no data are available relative to the income of these small professional groups, county allocation must be made on the basis of the number of practitioners. Since the number of professional practitioners by county is not available, a series which approximates their county distribution must be used. It has been necessary, for the purposes of this study, to assume that the people in the small professional groups are distributed to the counties within the state as the general population

¹U. S. Department of Commerce, Personal Income, p. 106.

TABLE 17

PERCENTAGE DISTRIBUTION OF PROPRIETOR INCOME, PROFESSIONAL SERVICE
INCOME, AND OTHER PROFESSIONAL INCOME, IN OKLAHOMA,
SELECTED YEARS, 1929-1957*

Component	1929	1933	1939	1944	1949	1954	1957
Proprietor income	100	100	100	100	100	100	100
Professional service income	8	11	9	6	7	10	14
Other professional income	1	2	2	1	1	3	3
Professional service income	100	100	100	100	100	100	100
Other professional income	19	16	17	16	21	28	21

*Source: Computed from data provided through the courtesy of the U. S. Department of Commerce, National Income Division.

is distributed. This is not a wholly realistic assumption.

This method of allocating other professional income (on the basis of population) is the weakest possible method. If this method were used for all groups, per capita income in each county would be identical. This is obviously not the case.

Data on the county distribution of the population of the state are available in the Census of Population (Table 18). The most recent issue is for 1950.

Recommended Method of Allocation

The National Income Division estimate is accepted as the most satisfactory measure of other professional income in Oklahoma. This is the estimate which is allocated to the seventy-seven counties of the state.

The recommended procedure is as follows. Compile from the Census of Population a distribution by county of the population within the state. Convert the number of persons in each county to a percentage of the total state population (Table 18).

This percentage is the allocator for each county. It is multiplied by the National Income Division estimate for other professional income within the state. This figure, then, is the dollar amount to be allocated to each county.

TABLE 18
TOTAL POPULATION OF OKLAHOMA, BY COUNTY, 1950*

County	Number of Persons	Per Cent of Total ¹
Adair	14,918	0.7
Alfalfa	10,699	0.5
Atoka	14,269	0.6
Beaver	7,411	0.3
Beckham	21,627	1.0
Blaine	15,049	0.7
Bryan	28,999	1.3
Caddo	34,913	1.6
Canadian	25,644	1.1
Carter	36,455	1.6
Cherokee	18,989	0.9
Choctaw	20,405	0.9
Cimarron	4,589	0.2
Cleveland	41,443	1.9
Coal	8,056	0.4
Comanche	55,165	2.5
Cotton	10,180	0.5
Craig	18,263	0.8
Creek	43,143	1.9
Custer	21,097	0.9
Delaware	14,734	0.7
Dewey	8,789	0.4
Ellis	7,326	0.3
Garfield	52,820	2.4
Garvin	29,500	1.3
Grady	34,872	1.6
Grant	10,461	0.5
Greer	11,749	0.5
Harmon	8,079	0.4
Harper	5,977	0.3

TABLE 18--Continued

County	Number of Persons	Per Cent of Total ¹
Haskell	13,313	0.6
Hughes	20,664	0.9
Jackson	20,082	0.9
Jefferson	11,122	0.5
Johnston	10,608	0.5
Kay	48,892	2.2
Kingfisher	12,860	0.6
Kiowa	18,926	0.8
Latimer	9,690	0.4
Le Flore	35,276	1.6
Lincoln	22,102	1.0
Logan	22,170	1.0
Love	7,721	0.3
McClain	14,681	0.7
McCurtain	31,588	1.4
McIntosh	17,829	0.8
Major	10,279	0.5
Marshall	8,177	0.4
Mayes	19,743	0.9
Murray	10,775	0.5
Muskogee	65,573	2.9
Noble	12,156	0.5
Nowata	12,734	0.6
Okfuskee	16,948	0.8
Oklahoma	325,352	14.6
Okmulgee	44,561	2.0
Osage	33,071	1.5
Ottawa	32,218	1.4
Pawnee	13,616	0.6
Payne	46,430	2.1
Pittsburg	41,031	1.8
Pontotoc	30,875	1.4
Pottawatomie	43,517	1.9
Pushmataha	12,001	0.5
Roger Mills	7,395	0.3

TABLE 18--Continued

County	Number of Persons	Per Cent of Total ¹
Rogers	19,532	0.9
Seminole	40,672	1.8
Sequoyah	19,773	0.9
Stephens	34,071	1.5
Texas	14,235	0.6
Tillman	17,598	0.8
Tulsa	251,686	11.3
Wagoner	16,741	0.7
Washington	32,880	1.5
Washita	17,657	0.8
Woods	14,526	0.7
Woodward	14,383	0.6
Total	2,233,351	100.0

*Source: U. S. Bureau of the Census, United States Census of Population: 1950. Vol. II, Characteristics of the Population, Part 36, Oklahoma, Chapter B (Washington: Government Printing Office, 1952), Table 42, pp. 86-90.

¹Components do not necessarily add to total because of rounding.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The purpose of this study was to examine the various statistical sources available for allocating state professional income among the counties of Oklahoma. It was conducted within the framework of the state personal income series established by the National Income Division of the United States Department of Commerce. The professions are law, medicine, dentistry, and "other" professions. The latter group consists of many smaller professions such as nursing, engineering, accounting, and others which, because of the lack of basic data relevant to them, are grouped together for the purpose of estimating professional income.

Many studies of professional income have been made during recent decades. The studies have usually been on a national basis. For example, Friedman and Kuznets studied intensively the five professions of medicine, law, dentistry, certified public accountancy, and consulting engineering. Their results were published in Income from Independent Professional Practice. Periodically the editors of Medical Economics have gathered and published data about the income

of physicians. The United States Department of Commerce at intervals has used mail questionnaires to collect data about income levels of doctors, lawyers, and dentists. Although the studies provide information about professional income on a national, state, or regional basis, none of them have data which can be used to make estimates at the county level.

In the last few years a number of groups in other states have attempted to allocate professional income among counties. All have run into similar problems revolving about the lack of data available to be used for this purpose. None has developed a satisfactory method.

For the three large professional groups of law, medicine, and dentistry, adequate information on the number of practitioners in each Oklahoma county is available. Each of the groups has a state licensing agency which prepares lists of their professional people licensed to practice within the state. Each has a professional organization which maintains a roster of its members. In addition, all of the groups have a national professional organization which prepares a directory of its members in the state. These sources provide a satisfactory county distribution of professional people.

There are no data available about the income of these professional groups on a county basis. However, with many qualifications it has been found that professional income tends to vary directly with the income of the general public

served. Although data on the income of the general public are incomplete, reliable data are available on the wages and salaries paid industrial workers in each county of Oklahoma. The Oklahoma Employment Security Commission publishes annually data on employment and payrolls covered by the Oklahoma Employment Security Act.

Lacking a more satisfactory basis, the conclusion of this study was that medical, dental, and legal income for the state should be allocated among the counties on the basis of the number of physicians, dentists, and lawyers in each county, weighted by the average annual wages paid to industrial workers in the county. The amounts of medical, dental, and legal income to be allocated among the counties are the estimates for these components made by the National Income Division for the state (Table 19).

There were no data available on the number of persons in the smaller professions by county. Nor were there any data about their income. Necessarily, it was assumed that they were distributed throughout the state as was the general population. The estimate of the National Income Division for other professional income for Oklahoma was distributed among the counties on the basis of the population of the counties. The results of this method of allocation for 1957 are shown in Table 19.

TABLE 19

LEGAL, MEDICAL, DENTAL, AND OTHER PROFESSIONAL
INCOME IN OKLAHOMA, BY COUNTY, 1957*
(THOUSANDS OF DOLLARS)

County	Legal Income	Medical Income	Dental Income	Other Professional Income
Adair	\$ 30.7	\$ 40.8	\$	\$ 124.2
Alfalfa	27.8	90.4	23.9	89.1
Atoka	35.9	11.9	7.4	118.8
Beaver	57.1	44.2	27.3	61.7
Beckham	94.2	344.2	96.6	180.1
Blaine	74.5	157.6	29.2	125.3
Bryan	113.2	187.9	46.4	241.5
Caddo	128.9	299.6	87.6	290.8
Canadian	125.9	292.8	66.6	213.6
Carter	375.6	633.6	105.7	303.6
Cherokee	53.5	101.7	13.9	158.1
Choctaw	43.2	78.1	20.6	169.9
Cimarron	36.2	67.3	10.4	38.2
Cleveland	380.0	356.3	96.7	345.2
Coal	22.2	25.8	....	67.1
Comanche	248.3	546.8	150.0	459.4
Cotton	17.1	26.5	16.3	84.8
Craig	68.3	79.4	24.5	152.1
Creek	405.5	341.4	120.4	359.3
Custer	119.1	276.9	73.3	175.7
Delaware	58.5	31.4	19.4	122.7
Dewey	16.0	27.9	5.7	73.2
Ellis	22.3	90.7	16.0	61.0
Garfield	406.9	963.0	250.3	439.9
Garvin	258.5	255.0	89.9	245.7
Grady	143.0	483.8	112.0	290.4
Grant	55.2	42.8	35.2	87.1
Greer	38.5	89.5	15.8	97.8
Harmon	20.5	59.5	14.7	67.3
Harper	27.5	25.6	....	49.8

TABLE 19--Continued

County	Legal Income	Medical Income	Dental Income	Other Professional Income
Haskell	\$ 23.5	\$ 27.4	\$ 16.9	\$ 110.9
Hughes	133.0	173.1	38.2	172.1
Jackson	105.2	244.6	31.8	167.2
Jefferson	21.6	60.4	12.4	92.6
Johnston	19.0	14.7	....	88.3
Kay	492.6	996.8	301.1	407.2
Kingfisher	49.4	140.4	31.5	107.1
Kiowa	103.0	151.2	46.6	157.6
Latimer	10.7	62.4	15.4	80.7
Le Flore	46.9	177.3	8.4	293.8
Lincoln	79.7	154.4	57.2	184.1
Logan	90.7	158.1	40.7	184.6
Love	30.2	70.2	8.7	64.3
McClain	89.6	83.4	17.1	122.3
McCurtain	77.6	168.3	22.3	263.1
McIntosh	40.5	41.8	12.9	149.0
Major	36.3	24.1	14.9	85.6
Marshall	38.8	60.2	18.6	68.1
Mayes	97.0	150.4	46.4	164.4
Murray	31.8	118.4	18.3	89.7
Muskogee	541.1	1,112.8	258.8	546.1
Noble	54.8	79.6	39.3	101.2
Nowata	60.3	122.7	21.6	106.1
Okfuskee	96.7	179.9	37.0	141.1
Oklahoma	10,771.4	9,014.8	1,999.8	2,709.6
Okmulgee	495.2	434.1	139.8	371.1
Osage	305.0	247.3	71.2	275.4
Ottawa	278.4	445.0	149.8	268.3
Pawnee	88.0	117.0	54.1	113.4
Payne	251.8	413.2	116.9	386.7
Pittsburg	198.2	345.5	80.0	341.7
Pontotoc	296.4	496.9	69.2	257.1
Pottawatomie	302.9	448.1	148.2	362.4
Pushmataha	24.5	45.6	14.1	99.9
Roger Mills	11.1	13.0	....	61.6

TABLE 19--Continued

County	Legal Income	Medical Income	Dental Income	Other Professional Income
Rogers	\$ 108.5	\$ 148.4	\$ 54.9	\$ 162.7
Seminole	370.6	390.2	110.4	338.7
Sequoyah	52.5	67.9	8.4	164.7
Stephens	244.4	466.7	137.8	283.8
Texas	126.9	173.6	42.9	118.6
Tillman	62.8	116.9	36.1	146.6
Tulsa	6,801.4	7,441.4	2,269.1	2,096.1
Wagoner	60.7	43.4	13.4	139.4
Washington	108.9	987.7	281.4	273.8
Washita	27.1	75.7	15.6	147.1
Woods	55.0	113.6	43.8	121.0
Woodward	83.6	208.2	51.4	119.8
Total	\$26,999.4	\$32,899.2	\$8,600.3	\$18,600.1

*Source: Allocations made by the author.

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