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GRADUATE COLLEGE

INCOME AND WEALTH OF TOP WEALTH-HOLDERS
IN THE UNITED STATES, 1958

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INCOME AND WEALTH OF TOP WEALTH-HOLDERS
IN THE UNITED STATES, 1958

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INCOME AND WEALTH OF TOP WEALTH-HOLDERS
IN THE UNITED STATES, 1958

CHAPTER I

INTRODUCTION

This study aims at tying together the wealth and income in 1958 of a relatively small group of people at the top of the wealth distribution. The group is defined as: Persons living in 1958 who, had they died in that year, estate tax returns would have been filed for their estates. Put another way, it is those persons possessing gross assets of more than \$60,000 in 1958. We will follow Lampman and refer to this group as "top wealth-holders".¹

The federal tax statutes require an estate tax return be filed for the estates of decedents leaving a gross estate of more than \$60,000. By use of the estate multiplier procedure, it is possible to estimate from data contained in the filed returns the number of living persons with gross assets of more than \$60,000 and the aggregate value of such estates.

¹Robert W. Lampman, The Share of Top Wealth-Holders in National Wealth 1922-56 for the National Bureau of Economic Research (Princeton, New Jersey: Princeton University Press, 1962).

It is also possible to estimate the types of asset held by top wealth-holders. By relating the number of such living persons to the total population, and their aggregate wealth to total national private wealth, it is possible to estimate the share of wealth in the hands of persons possessing gross assets over \$60,000. In this study we have estimated the total number of top wealth-holders, their total wealth, the asset composition of their wealth, and the proportion of private national wealth they own, cross-classified by age, sex and size of asset holdings for 1958. Prior to this study the most recent, detailed estimate of this type available was Lampman's for 1953.²

The distribution of wealth is a product of the play of numerous social, political, and economic forces. Before one assesses the impact of these forces, some measure of the distribution of wealth is desirable. Just as the distribution of wealth results from social, political and economic forces, wealth affords the power to help shape those forces. A knowledge of the distribution of wealth may serve as a basis for analyzing political and economic forces at work in the society.

This study goes beyond an estimate of wealth distribution. It seeks to associate wealth with income. Wealth both creates and is created by income. Private wealth may exist without any apparent in or out flow of income, such as

²Ibid.

in the case of personal jewelry, or the converse, as in a right to income from a trust. But even in these examples, stocks of wealth and flows of income are associated. The extent of one's command over goods and services represents his wealth at a point in time, changes in the magnitude of that command represent positive or negative income flows to wealth through time. The value of assets increase or decrease with changes in the price level. This appreciation or diminution in value is no less real than the receipt or expenditure of Federal Reserve notes. Indeed, changes in assets' command over Federal Reserve notes represent a real flow of income to or away from wealth. Even personal jewelry is associated with income flows of this type. On the other hand, income from a trust fund can be capitalized into a stock of wealth.

In analyzing economic power neither the distribution of income nor wealth by itself is adequate. Rather large incomes may flow to holders of relatively little wealth; persons with considerable wealth may receive rather low incomes.

In this country the business community has shown increasing interest in the distribution of wealth and income as a guide to potential purchasers of specific goods and services. One of the early estimates of wealth distribution, King's 1928 distribution, was done for the Hanover Bank and Trust Company. When W. Tresckow, the bank's vice-president, published the data he was concerned only with their significance for trust

departments of banks.³

In addition to the business community, interest in income and wealth distributions has always been manifested by social reformers.⁴

This study is limited to an estimate of the income and wealth of the wealthiest strata of the United States population. No attempt is made to appraise the meaning of the estimates in terms of economic efficiency or social justice.

General Estimating Procedure

Three basic steps were used to derive our estimates.

1. Data on the wealth of 1958 decedents published by the Internal Revenue Service was subjected to the estate multiplier technique to derive an estimate of the total wealth of top wealth-holders. In Chapters II and III there is a detailed description of the theoretical basis of the estate multiplier and its application to the 1958 data.

2. A special tabulation of estate tax returns for

³C. L. Merwin, Jr.. "American Studies of the Distribution of Wealth and Income by Size," Studies in Income and Wealth, Vol. III (New York: National Bureau of Economic Research, 1939), p. 17.

⁴King, in a comment cited by both Lampman and Merwin, states that two groups particularly interested in the distribution of wealth and income were reformers and sales managers. "The former need to know the facts about inequality of wealth holdings and income receipts in order to better carry out their social programs. The latter are anxious to know how wealth is distributed and income divided in order to gauge correctly the demand for their products." W. I. King, "Wealth Distribution in the Continental United States at the Close of 1921." Cited by C. L. Merwin, op. cit., p. 23.

1958 which cross-classified asset type by age, sex and marital status was used to estimate the composition of wealth. The tabulation was produced by the Internal Revenue Service for Raymond Goldsmith and Jeannette Fitzwilliams. Goldsmith and Fitzwilliams generously made available to the writer the special tabulation which permitted an estate multiplier estimate of the composition of wealth. In Chapter IV there are estimates of the composition of top wealth-holders, and in Chapter V there is a comparison of their asset holdings to mid-1958 national balance sheet estimates for individuals.

3. Income flows of three types were imputed to top wealth-holders. An average yield for 1958 for each asset type was used to estimate a yield flow; the change in indices of asset prices were used to estimate capital gain flows; and a ratio of salary income to total wealth, by wealth size class, was used to impute salary flows to top wealth-holders. The first of these imputed flows is rather straightforward. The second imputed flow, that resulting from changes in asset prices, is, in the main, affected by the choice of price index. Price change was measured as the relative difference in price between the end of 1957 and the end of 1958. It was also measured on the basis of a five year linear regression of asset prices. The third flow, salary income, was derived by use of a set of ratios of salary income to total wealth of persons with wealth of more than \$60,000. The data from

which the ratios were obtained was made available to the writer by the Board of Governors of the Federal Reserve System. The data was obtained in detailed interviews with 1,047 respondents believed to have high incomes. The respondents were asked to provide information on sources and amounts of income, types and value of assets owned, and other detailed demographic and economic information for each member of the family. The Federal Reserve Board's findings, and our use of them are discussed in Chapter VI.

The remainder of this chapter is devoted to brief historical sketches of attempts to estimate income and wealth in the United States. For studies prior to 1939 we have drawn extensively from C. L. Merwin.⁵ Discussion of the estate multiplier technique is omitted in this chapter. Since our estimates rest so heavily upon the technique, it is discussed in detail in Chapter II.

Estimates of Wealth in the United States

Apparently the first attempt at a wealth distribution for the United States was made for 1890 by G. K. Holmes.⁶ Using primarily Census data, Holmes estimated that 91 percent of the nation's families owned about \$17.3 billion of the nation's wealth. Coupling this with his \$60 billion estimate of national wealth, he concluded that the lower 91 percent of the

⁵Merwin, op. cit., p. 6.

⁶G. K. Holmes, "The Concentration of Wealth," Political Science Quarterly, Vol. III (1893), pp. 589-600.

families owned 29 percent and the upper 9 percent owned 71 percent of the total wealth. Holmes further divided the upper 9 percent using the New York Tribune's estimate that there were 4,047 millionaires in 1892. Assuming the average wealth among millionaires to be \$3 million and that each millionaire represented a distinct family, he concluded that together the 4,047 families owned \$12.1 billion, or 20 percent of the national wealth. On the other hand, millionaires represented 0.03 percent of the total number of families in the United States. Thus, Holmes estimated that in 1890 the upper 0.03 percent of families owned 20 percent of the wealth, the next 8.97 percent owned 51 percent and the remaining 91 percent of families owned 29 percent of the nation's wealth. Merwin used comments made by Holmes about the lower 91 percent of families to divide it into three classes.⁷ His distribution from Holmes' study appears in Table 1.

A second wealth distribution for 1890 was published by C. B. Spahr in 1896.⁸ Spahr started with surrogate court records from 36 counties in New York State. Reported wealth was distributed by three size classes; under \$5,000, \$5,000 to \$50,000 and \$50,000 and over. Within each size class, wealth was categorized either as realty or personalty. On the assumption that realty was underreported in rural

⁷Merwin, op. cit., p. 6.

⁸C. B. Spahr, The Present Distribution of Wealth in the United States (New York: Crowell, 1896).

TABLE 1
MERWIN'S RECONSTRUCTION OF HOLMES'
WEALTH DISTRIBUTION FOR 1890

Percent of Families		Percent of Wealth	
Single	Cumulated	Single	Cumulated
.03	.03	20	20
8.97	9.00	51	71
27.00	36.00	20	91
12.00	48.00	4	95
52.00	100.00	5	100

Source: Merwin, "American Studies of the Distribution of Wealth and Income by Size," Studies in Income and Wealth, Vol. III, p. 6.

counties and that personalty was severely diminished to pay debts of small estates, he increased realty by 50 percent and decreased personalty by 50 percent in the under \$5,000 class. From his distribution of wealth from the records of the Surrogate Court he then inferred the distribution among all United States families. His results were similar to those obtained by Holmes. However, as Merwin points out, Spahr's reader is not informed exactly how he moved from the distribution of the Surrogate Court wealth of New York to that of all United States families.⁹

W. I. King estimated the distribution of wealth for 1921, using Massachusetts's probate court records, probate court records from selected counties in 12 states and the District of Columbia, income tax tabulations and Census estimates. The main outline of his procedure is as follows:

1. The Census estimate for 1922 total wealth was adjusted to \$281.2 billion for 1921.
2. Total wealth was broken into two parts: farm wealth of \$46.5 billion and nonfarm wealth of \$234.7 billion.
3. Farm wealth was distributed among farmers in proportion to the Census distribution of farms, by size of farm.
4. The assets making up the remaining \$234.7 billion were, in general, distributed among non-farmers in the same proportion as the assets' respective yield flows, e.g., interest, rent and dividends, were distributed among persons filing income tax returns.¹⁰

⁹Merwin, op. cit., p. 8f.

¹⁰There is no published record of the methodology used

An estimate of the distribution of wealth for 1932 by R. R. Doane was made by capitalizing income.¹¹ His findings and procedures were severely criticized. Merwin, says of Doane's estimate,

The purpose of the most recent complete distribution of wealth is not far to seek. Doane is an apologist for the present concentration of wealth in the United States, and his purpose was not only to show that wealth concentration is decreasing, but that the current inequality in the distribution of wealth is justified on the basis of age differences in the population.¹²

Maxine Yapple, in an attempt to measure tax burdens, capitalized dividend, rent and interest income on income tax returns for the period 1928 to 1932. She pointed out that non-income producing wealth was completely missed by her method.

A more statistically sophisticated attempt to estimate a wealth distribution by income capitalization was carried out

by King to make his estimates. The manuscript of King's study, done for the National Bureau of Economic Research, has never been published but C. L. Merwin, Jr. was given permission to read the King manuscript. It is from his account that we have drawn our general description. See Merwin, op. cit., pp. 10-16.

¹¹R. R. Doane, "Summary of the Evidence on National Wealth and Its Increasing Diffusion." Annalist, July 26, 1935, pp. 115-118. Doane's estimates were spread through a series of issues of the Annalist.

¹²Merwin, op. cit., p. 23. See also R. H. Jackson, "Full Text of Memorandum on National Wealth and Its Distribution" Annalist, August 30, 1935, pp. 292ff; S. N. Whitney, "Weakness of Data Supporting Conclusions of Increase in Diffusion of Wealth." Annalist, March 6, 1936, pp. 368ff; and S. N. Whitney, "Statistical Bases for National Wealth Estimates," Annalist, April 10, 1936, pp. 542ff.

by Fritz Lehmann.¹³ Persons reporting incomes of more than \$5,000 on 1930 Federal Income Tax returns were grouped into four income categories: multimillionaires, over one million dollars; millionaires, between \$100,000 and one million dollars; rich between \$10,000 and \$100,000; and well-to-do, between \$5,000 and \$10,000. For each of the four groups he obtained, from Federal Income Tax data, the number of persons filing returns, the total reported income, and the total dividend income. Taking the average yield of common and preferred stock in 1930 as 5 percent, he capitalized the dividend income in each category to estimate stock holdings. He then went to Federal Estate Tax data and made the assumption that estates of \$5 million or more were owned by the same class of persons who reported incomes of one million dollars or more, i.e., multimillionaires. Similar assumptions relating wealth to income were made for each of the three other categories. Lehmann computed the ratios of total estate wealth to estate wealth held in stocks for each of the four assumed wealth classes. Then he multiplied his estimate of stock holdings (dividends capitalized at 5 percent) by the ratios of total wealth to stock holdings for each of the four wealth categories to obtain an estimate of total wealth. Working with Statistic of Income For 1930, and Lehmann's sketchy

¹³Fritz Lehmann, "The Distribution of Wealth," Political and Economic Democracy, ed. by Max Ascoli and Fritz Lehmann (New York: Norton, 1937), pp. 159-175; Gerhard Colm and Fritz Lehmann, Economic Consequence of Recent American Tax Policy, Supplement 1 (1938) to Social Research.

description¹⁴ of his method, we have reconstructed his wealth distribution in Table 2.¹⁵

From Table 2 it can be seen that the combined wealth of persons filing income tax returns in 1930 with reported incomes of over \$5,000 amounted to about \$155 billion. This was about 36 percent of the estimated national wealth of \$430 billion in that year. The 810,000 persons in the four classes represented about 1.1 percent of the adult population. These results are nearly identical to Lehmann's. Lehmann, assuming that each of these persons represented a distinct family and that families were on the average composed of 3.5 persons, estimated that 2.2 percent of all families owned 36 percent of the nation's wealth.

Two major contributions to wealth estimates appeared in 1956, first, Thomas R. Atkinson's study of financial asset ownership in Wisconsin and second, Mendershausen's application of the estate multiplier to estate tax data.¹⁶ Atkinson

¹⁴Lehmann, Political and Economic Democracy, pp. 161-2.

¹⁵For a detailed discussion of the advantages and shortcomings of Lehmann's method, see Charles Steward, "Income Capitalization as a Method of Estimating the Distribution of Wealth by Size Groups," and the discussion by Milton Friedman, W. L. Crum and Fritz Lehmann and the reply by Charles Steward in Studies in Income and Wealth, Vol. III (New York: National Bureau of Economic Research, 1939), pp. 96-146.

¹⁶Thomas R. Atkinson, The Pattern of Financial Asset Ownership: Wisconsin Individual, 1949, for the National Bureau of Economic Research (Princeton, New Jersey: Princeton University Press, 1956) and Horst Mendershausen, "The Pattern of Estate Tax Wealth" in Raymond W. Goldsmith, A Study of Saving in the United States, Vol. III.

TABLE 2
DERIVATION OF WEALTH: 1930, BY INCOME CLASS, USING LEHMANN'S TECHNIQUE

Lehmann's designation	Income tax class	Total dividend in income class	Dividends capitalized at 5 percent	Assumed estate size class	Ratio of total estate to stock	Total wealth (col. 5 x col. 3)	Number of persons
						(Thousands of dollars)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Well-to-do	\$5 under \$10	\$ 573,000	\$11.460,000	Under 400	3.0	\$ 34,380,000	550,977
Rich	10 under 100	2,100,000	42,000,000	400 under 1,000	2.0	84,000,000	253,252
Millionaires	100 under 1,000	798,000	15,960,000	1,000 under 5,000	1.8	28,728,000	6,052
Multimillionaires	1,000 and over	230,000	4,600,000	5,000 and over	1.7	7,820,000	150
Totals		\$3,701,000	\$69,880,000			\$54,928,000	810,431

Source: Statistics of Income, 1930,

worked with Wisconsin state income tax returns. A sample of 3,462 family units was used. Family units were defined as, a return of a single individual, a joint return of husband and wife, and the combined returns of husband and wife filing separately. The sample was weighted in favor of high income recipients in order to reduce sampling variability for that group. Income flows from financial assets were capitalized to obtain estimates of wealth. Because Wisconsin income tax returns require a specific identification of the source of income; for instance, "General Motors, \$209 dividends," it was possible for Atkinson to use specific capitalization rates. In the above case the average yield in 1949 for General Motors stock would have been used as the capitalization rate. It was not always possible to apply the capitalization procedure in such a straightforward manner. When corporations had more than one issue of stocks or bonds outstanding, it was not always possible to determine which issue was referred to. The problem associated with dividends from closed corporations, and interest from municipal, federal and foreign bonds were more troublesome. But by identifying, where possible, specific issues, Atkinson was able to estimate willingness to accept risk, by income size class. His conclusion was that higher income recipients held more speculative issues. The study also revealed that the ownership of closely held or seldom traded corporation stock was highly concentrated among upper income groups. Moreover, two-thirds

of the value of such stock was held by persons who also drew a salary income from the issuing corporation.

The estate multiplier was used for the first time in this country by Horst Mendershausen. He made estimates of the wealth owned by persons at the top of the wealth distribution for 1922, 1923, 1924, 1941, 1944 and 1946. For the year 1944 he was able to make estimates of the types of assets, as well as the total wealth owned by top wealth-holders. In general, the estate multiplier rests upon the assumption that death provides a random sample, stratified by age, of the living. The number of decedents of a given age is related to the number of living persons of the same age by a mortality rate. The mortality rate for a given age, times the number of living persons of the same age, should yield the decedents of that age; conversely, the inverse of the mortality rate times the number of decedents with given characteristics should give the number of living persons of like characteristics.

Using the same basic method, Lampman estimated the aggregate wealth and its composition among top wealth-holders in 1953. Moreover, Lampman compared his estimates to national balance sheets. In the next chapter the estate multiplier method is examined in detail.

Since 1946 the Survey Research Center has made annual studies of consumer finances which have yielded information on both income and wealth distributions.¹⁷

¹⁷Survey of Consumer Finances. Since 1961 the

The Survey Research Center also conducted a small sample study of wealthy persons for the Board of Governors of the Federal Reserve System in 1960.¹⁸ The sample consisted of 199 respondents: 61 with incomes between \$20,000 and \$29,999, 76 with incomes between \$30,000 and \$49,999 and 62 with incomes over \$50,000. The sample was from one Midwest city, and therefore not necessarily representative of the nation.

Estimates of Income Distribution
in the United States

The first attempt to estimate an income distribution for the United States can be traced to Spahr.¹⁹ Using Census returns, Labor reports, and a study of rental incomes in Boston, he estimated the distribution of income for 1890. His estimate often rested on conjectures of the average income of certain classes and at times the reader can only speculate how Spahr moved from one point to another.²⁰ F. H. Streightoff apparently started out to estimate an income distribution for 1904 but abandoned the attempt because he concluded that

finding have been published in book form by the Survey Research Center. Prior to that date the finding appeared in various issues of the Federal Reserve Bulletin.

¹⁸See "The Wealth of the Wealthy," George Katona and John B. Lansing, The Review of Economics and Statistics, Vol. XVI, February 1964, pp. 1-13.

¹⁹C. B. Spahr, op. cit.

²⁰Merwin has reconstructed much of Spahr's methodology and extended somewhat his estimates. Merwin, op. cit., pp. 30ff.

neither the number of income recipients nor the size of national income could be determined with confidence.²¹

The second estimate of an income distribution for the United States was made for 1910 by King.²² In brief, he distributed an aggregate national income of \$30.5 billion among families in fifty income size classes. The income of the middle range of classes was allocated in accordance with Wisconsin state income tax returns, the upper ranges were based on Treasury Department and Congressional estimates of incomes of upper income groups in Eastern Metropolitan areas, and the lower ranges from a variety of federal and state agency reports.²³

An estimate for 1918 by Macaulay used income tax data as a basic source and distributed income among individuals rather than families.²⁴

²¹F. H. Streightoff, The Distribution of Wealth in the United States (Columbia University, Studies, Vol. III, No. 2, 1912).

²²King, op. cit.

²³Studenski, says of King, ". . . [he] derived more from his conservative philosophy than from the figures themselves. He found no fault with the existing social and economic system in the United States, and went on record against most of the currently demanded social reforms, including the demands of organized labor for a 'living wage' in which he detected a drift toward socialism. The best way to insure American prosperity and particularly the prosperity of the American wage earner, he wrote, was to teach the laborer to practice birth control, and for the government to restrict immigration." Studenski, op. cit., p. 143.

²⁴W. C. Mitchell, W. I. King, F. R. Macaulay, and O. W. Knauth, Income in the United States (New York:

King also made income distributions for 1921 and 1928 for the National Bureau which were never published.²⁵ Starting with income aggregates for three groups (employees, farmers and nonfarm entrepreneurs) he distributed income among them on the basis of several sample distributions. Employees' income was distributed among those with incomes under \$2,000 on the basis of a sample survey; Statistics of Income was used to distribute income for those receiving over \$2,000. A sample survey by the Bureau of Agricultural Economics was used to distribute money incomes among farmers. Interest on owned consumer goods was imputed to farmers. Also distributed was an estimate of the money value of goods produced and consumed on the farm, and unrealized capital gains reflected in the change in property value. Since land values had declined, this last addition carried a negative sign. King argued that unrealized capital gains were real increases or losses of one's command over goods and services and should be included in an income distribution.²⁶

King then distributed entrepreneurial incomes below \$2,000 in the same manner as those of employees of similar

National Bureau of Economic Research, Vol. I, 1921, and Vol. II, 1922). King had argued in his study for 1918 that the income receiving unit should be the family; Macaulay argued that it was the individual who came into direct contact with the distributive machinery.

²⁵See footnote 10.

²⁶Merwin, op. cit., p. 40.

income. Incomes above \$2,000 for this group were distributed in the same proportions as in the distribution in Statistics of Income. To this money income were added unrealized capital gains and negative entrepreneurial incomes. The estimate of capital gains was based on changes in consumer prices. To estimate negative entrepreneurial income, King extrapolated the plotted income distribution curve into the negative dollar field of his graph and read off the number of recipients.

In 1935 the Brookings Institution published a study of the 1929 income distribution, which had been directed by Maurice Leven.²⁷ Starting with the Department of Commerce estimate of total occupational income, Leven distributed it among employed workers on the basis of federal income tax statistics. This distribution was then adjusted by ratios of occupational income to total income to estimate the distribution of total income among workers. A methodologically similar technique was used to estimate and distribute farm income. Once incomes for individual farmers and nonfarmers had been distributed, they were converted to family income distributions. Family incomes were further defined by the number of earners and distributed among twenty-seven income size classes.

The most comprehensive study of income distribution up to its time was executed by the National Resources

²⁷Maurice Leven, H. G. Moulton, and Clark Warburton, America's Capacity to Consume (New York: Brookings Institution, 1934).

Committee.²⁸ It was done under the direction of Hildegard Kneeland as a Works' Progress Administration project. Three hundred thousand families in 30 states and 66 counties were interviewed about their incomes from July 1935 through June 1936. Incomes of each family member were obtained. The income concept used included money income, exclusive of capital gains, plus certain non-money incomes in the form of commodities such as fuel, ice, tobacco, and wool produced and consumed on the farm, and food produced and consumed on the premises by families living in villages and on farms. Separate distributions were produced for 729 homogeneous groups and then combined into three distributions: families, individuals, and institutionalized persons. Numerous adjustments of the data were made to account for non-reporting and under-reporting.

The publication of the 1940 Census marks the beginning of a period of intensified interest in income distributions. The most significant aspect of this resurgence of interest was the role played by government financed studies. Beginning with the 1940 Census, information on income was collected along with other demographic data. The inclusion of income questions in the 1940 Census was not without opposition . . . "These census questions demanding you to divulge your income manifestly violates your constitutional

²⁸Consumer Incomes in the United States: Their Distribution in 1935-36, National Resource Committee (Washington: United States Government Printing Office, 1936).

rights . . . [these questions] constitute an unwarranted prying into your personal affairs, they open up personal information to people in your own community who have been politically appointed as enumerators, and they are an invasion of the natural right of privacy of every citizen."²⁹

Over similar protests the 1950 and 1960 Census also included questions on income. In addition to the income distributions from census data, the Bureau of the Census has since 1944 conducted a sample survey which includes questions on income. The Current Population Surveys provide a time series which, when viewed over a period of years, indicates trends. The work of the Bureau of the Census on income distributions reflects to a considerable extent the driving force of Selma Goldsmith and Herman Miller.

Prior to her death, Goldsmith had structured a set of highly detailed tabulations to be constructed from data obtained in the 1960 Census. The tabulations were finally produced and published by the Bureau of the Census in the spring of 1964.³⁰ The tabulations are the most detailed set of income distributions ever published from Census data.

Also, in 1944, the Office of Business Economics of the

²⁹Radio address by Senator Charles Tobey on February 19, 1940, cited by Herman P. Miller, Income of the American People (New York: John Wiley and Sons, 1955), p. 2.

³⁰United States Bureau of the Census, Sources and Structure of Family Income, PC(2)-4C (Washington: United States Government Printing Office, 1964).

Department of Commerce began publishing income size distributions. The concept of income used in these distributions dovetails into the income concepts of the national income accounts. In addition to money income (exclusive of capital gains), wages in kind, the value of food and fuel produced and consumed on the farm, net rental value of owner occupied homes, property income received by mutual life insurance companies, and services rendered without specific assessment of charges, are included in the income concept.

A study of income distribution from 1913 through 1948 produced by Kuznets was published in 1953.³¹ Kuznets worked with Federal Income Tax returns. He divided the population into two major groups: Upper income recipients, and all others. The upper income group was alternatively defined as the top five percent of income recipients in the total population and the top seven percent of the nonfarm population. Three concepts of income were used: Basic variant, money income exclusive of capital gains and losses; economic income, basic variant plus imputed rent on owner occupied homes and some technical adjustments; and disposable income variant, basically economic income plus capital gains and losses. Kuznets concluded from his findings that the share of total income received by upper income groups declined considerably from 1939 to 1948.

³¹ Simon Kuznets, Shares of Upper Income Groups in Incomes and Savings (New York: National Bureau of Economic Research, 1953).

Victor Perlo in a publication highly critical of Kuznet's conclusions presented his own findings.³² Where Kuznets has estimated the upper five percent by counting the number of individuals represented on tax returns i.e., counted dependents as well as income recipients; Perlo counted income recipients only. Further, Perlo allocated a heavier portion to the lower income groups. Perlo also included undistributed corporate profits as income.³³ On the basis of his method, Perlo concluded that no reduction in the share of income received by the upper five percent had occurred from 1929 through 1948. For 1948 he estimated that the upper five percent, as he defined them, received 32.6 percent of total income, compared to the estimate of 17.6 percent by Kuznets, according to his definition.³⁴

Summary of Income and Wealth Distribution

The brief sketch of studies of income and wealth distribution presented in this chapter hits only the highlights. A more detailed discussion of one technique, the estate multiplier method, is presented in the next chapter.

³²Victor Perlo, The Income Revolution (New York: International Publishers, 1954).

³³To add undistributed corporate profits Perlo followed the method suggested by Geoffrey H. Moore. This entailed adding the product of the ratio of total undistributed corporate profits over total dividends times dividend income. See Geoffrey H. Moore, "Secular Changes in the Distribution of Income." American Economic Review, Vol. XLII, No. 2, May, 1952, pp. 542-543.

³⁴Perlo, op. cit., p. 37.

The methods utilized by students of wealth distributions appear to have been of four general types: Allocation of aggregates, income capitalization, field surveys, and the estate multiplier technique. The first method is more closely associated with the early work in this country of Holmes, Spahr and King. Their interest in national accounts may partially explain their choice of method. Once aggregates were obtained, numerous devices were used for their distribution among persons or families. Income tax returns, probate court records, size of farm holdings from Census data and small sample surveys were the most popular distributive mechanisms. Distributions were modified by judgment based on familiarity with the data, and often by educated guesses.

Income capitalization was used to estimate wealth distribution by Doane, Yaple, Lehmann and Atkinson. The first three of these researchers used federal income tax data; Atkinson used a sample of Wisconsin state income tax returns.

In recent years the field survey has become a popular technique for estimating income and wealth size distributions. Considerable credit for the development of the method is owed Rensis Likert, who with a group of social scientists at the Department of Agriculture, developed the Survey of Consumer Finances. In 1946 Likert left the Federal Government to establish the Survey Research Center at the University of Michigan. The Federal Reserve System sponsored the Surveys

of Consumer Finances from 1946 to 1959. The Surveys are currently being done by the Center under private and foundation grants. The Federal Reserve System, on the other hand, has engaged the Bureau of the Census to continue surveys along the lines established by the Center. The results of the first of these studies is expected in 1965.

Prior to this study the estate multiplier method had been used by only two researchers in this country: Mendershausen and Lampman.

Estimates of income distributions have been, in general, based on three methods, two of which are the same as used for wealth distribution estimates. Spahr, King and Levin distributed income aggregates among recipients. Income tax distributions were used by Macaulay, Kuznets and Perlo. The field survey was used by Kneeland, the Survey Research Center and the Bureau of the Census.

The work of students of income and wealth distribution has been categorized by the method upon which their studies rested most heavily. In deriving the final results, most of these workers used two or more of the general methods. In this respect they have observed Corrado Gini's maximum for calculating wealth: "The best method consists in taking advantage of all methods."³⁵

³⁵Corrado Gini, L' Ammontare e la composizione della ricchezza della nazioni (Torino: 1914), cited by G. H. Knibbs, The Private Wealth of Australia and Its Growth (Melbourne: McCarron, Bind and Co., 1918), pp. 140-141.

CHAPTER II

THE ESTATE MULTIPLIER TECHNIQUE

In this chapter there is a discussion of the estate multiplier method, and an application of it to the 1958 estate tax tabulations.

The estate multiplier technique rests on the assumption that death draws a random sample stratified by age and sex of the living population. If it is known that in a given year one person out of 20 age 45 died, it can be said that decedents age 45 are a five percent sample of the living population of the same age. Multiplying the number of decedents age 45 by the inverse of the mortality rate, $1/0.05$, will yield an estimate of the number of living persons of the same age. If instead, the wealth of decedents age 45 is multiplied by the inverse of the mortality rate, an estimate of the wealth of living persons age 45 is obtained. Repeating this procedure for decedents of each age and summing the results, will give an estimate of the wealth of all persons. Because mortality rates differ with sex, if the sex of decedents is known, the estimates will be improved by use of age-sex-specific mortality rates. Further, to the extent to which

social or economic class mortality rate differentials exist, adjusting the age-sex-specific rates to reflect socioeconomic status will improve the estimates. The estate multipliers are the inverses of the selected mortality rates.

The estimating technique currently referred to as the estate multiplier can be traced back to the internal-devolution method. Early use of the method was made by Money, 1897, Bailleux de Marisy, 1878, Stuart, 1888, and Mitti, 1904.¹ The method rested on the premise that the interval between the births of children and parents was equal to the interval between the transfer of wealth (devolution interval). If the average interval was computed as 25 years, it was then presumed to follow, $1/25$ of the privately owned wealth was left by decedents each year. Considerable debate centered upon the determination of the length of the devolution interval. Turquan, working with French data, computed the interval by summing the ages of fathers at the births of their own children and then dividing by the total number of children born.² Rumelin contended the interval was best determined by taking the mean age at marriage and adding it to the mean interval between marriage and first child plus $1/2$ the mean interval between first and last child.³ A third

¹See G. H. Knibbs, The Private Wealth of Australia and its Growth (Melbourne: McCarron, Bird and Co., 1918).

²V. Turquan, "De la duree de la generation en France," Journal Society de Statistique de Paris, 1896.

³G. Rumelin, "Uber den Begriff and die Dauer einer

method of determining the interval was used by Vacher.⁴ He computed the mean number of years between marriage and child-births, weighing the number of years from marriage to birth by the number of children born in each duration by whole years. This mean was then added to the mean age at marriage to arrive at the devolution interval. Each of these methods result in a distinct devolution interval.

Whatever the difficulties of computing the duration between the births of parents of children, this approach does not bring us to the concept of the interval separating sequential transfers of wealth through time. Wealth need not flow directly from parent to child. Surviving spouses, and often times collateral relatives, are the recipients of all or part of a decedent parent's bequests, and even were this not the case, changes in life span could markedly alter the length of the interval. These problems were not unknown to early students of wealth distribution. Corrado Gini was completely aware of them and actually tested alternative procedures against empirical data.⁵ Knibbs, after a lengthy discussion of the interval-devolution method and its shortcomings, concluded in 1918:

Generation," Reden und Aufsätze (Freiburg i. B. - Tübingen, Mohr, 1875) cited by G. H. Knibbs, op. cit., pp. 70-1.

⁴L. Vacher, "De la durée generation et de ses applications statistiques," Journal Society de Statistique, de Paris, 1883.

⁵See G. H. Knibbs, op. cit., pp. 76-80.

Thus the idea of the "devolution-interval" should be abandoned and in its place the idea of "rate of devolution," should be adopted, computing this latter by means of the death-rates at different ages, weighted according to the amount of wealth possessed at these ages.⁶

The use of mortality rates as a bridge from the dead to the living was suggested by Sir T. A. Coghlan.⁷ The devolution-rate method, as this version of this estate multiplier was called, was first applied by Bernard Mallet to English estate duty returns for 1905 and 1906.⁸ Laughton applied the rate-devolution method to estate tabulations for the state of Victoria,⁹ Australia. Knibbs used the technique in making several estimates of Australian private wealth for the years between 1878 and 1911.¹⁰ Daniels and Campion made estimates of private wealth in England and Wales for the years 1911 to 1912 and 1924 to 1930 using the method, and Campion, working alone, estimated private wealth for 1932-34 and 1936.¹¹ Daniels and Campion introduced the use of social

⁶Knibbs, op. cit., p. 80.

⁷See Coghlan's comments on a paper by William J. Harris and the Rev. Kenneth A. Lake, "Estimates of the Realiable Wealth of the United Kingdom based mostly on the Estate Duty Returns," printed in the Journal of the Royal Statistical Society. Vol. LXIX, Part 4, December 1906, p. 735.

⁸Bernard Mallet, "A Method of Estimating Capital Wealth from Estate-Duty Statistics," Journal Royal Statistical Society of London, LXXI, March 1908, pp. 64-84.

⁹Victoria Year Book, 1911-1912, pp. 215-217.

¹⁰Knibbs, op. cit., pp. 68-137.

¹¹G. W. Daniels and H. Campion, The Distribution of

class mortality rates for persons filing estate tax returns. Prior to their introduction of this refinement, it had been assumed that age-specific mortality rates correctly related decedents for whom estate tax returns were filed with living persons of similar characteristics. Daniels and Campion contended the £ 100 filing exclusion filtered lower social classes out of the sample. Comparing occupations of decedents for whom estate duty returns had been filed with the occupational distribution in the Decennial Supplement on Occupational Mortality of the 1921 British Census of Population, they found the majority of decedents with more than £ 100 were in the top two social classes used in the census. They then pointed to the significantly lower mortality rates for each of the upper classes in each of the four age brackets spanning the age interval 25 to 65. On the basis of this evidence, they lowered the mortality rates (thus raising the multipliers used for their estimate).

Kathleen M. Langley estimated the distribution of private wealth in England, Scotland and Wales for the years 1936-38 and 1946-47.¹² She was aware of the desirability of using social class mortality rates; the registrar-General,

National Capital (Manchester: Manchester University Press, 1936).

¹² Kathleen M. Langley, "The Distribution of Capital in Private Hands in 1936-1938 and 1946-1947," Bulletin of the Oxford University Institute of Statistics, Part I, Vol. 12, December 1950, pp. 339-356 and Part II, Vol. 13, February 1951, pp. 33-54.

however, had not published an Occupational Mortality Supplement for a Census later than 1931 (that from which Daniels and Campion used preliminary figures). Further, she found that the social class mortality rates used by Daniels and Campion corresponded closely with the general mortality rates for 1936-1938, indicating that general mortality had been declining. Under these circumstances, Langley concluded that meaningful social class mortality rates could not be computed to serve as a basis for analytical work. She did, however, make estimates of the number of persons owning estates over £ 100, using the means of the differences between Daniels and Campion's social class mortality rates and the general mortality rates for comparative purposes.

The fact that distributions by both age and sex were not available for all years for which Langley made estimates further complicated her task. Distributions by age and sex of decedents were available for England and Wales for the fiscal years 1936-1937 and 1938-1939, and for Scotland for the fiscal year 1938-1939. For England and Wales the mean of the preceding and following fiscal years was used to estimate the total private wealth in the year 1937-1938. Her estimates for Scotland for 1936-1937 and 1937-1938 were based on the 1938-1939 distribution. Again, for fiscal 1946-1947, she did not have an age-sex distribution. An estimate of the distribution was arrived at by adjusting her 1936-1937 age-sex distribution pattern by the percentage differences

between the numbers of deaths that occurred within each age group of the general population between fiscal year 1936-37 and 1946-47.¹³

Following Langley's estimate for 1946-47, A. M. Carter made estimates of private wealth in England for the years 1947-1949.¹⁴ Carter used essentially the same technique as Langley, but employed social class mortality rates.¹⁵

Langley produced her third estate multiplier estimate for England, Wales and Scotland for 1950-51.¹⁶ She again used general mortality rates because new differential mortality data from the 1951 census was not available.

Lydall and Tipping made estate multiplier estimates for each year 1951 through 1958 for England, Wales and Scotland (England and Wales together for each year except 1957 and 1958).¹⁷

They used age-sex-specific mortality rates adjusted

¹³Langley, op. cit., Part I, p. 340. Also see footnote No. 3 on same page.

¹⁴A. M. Carter, "A New Method of Relating British Capital Ownership and Estate Duty Liability, to Income Groups," Economica, August 1953.

¹⁵Ibid., pp. 248-9.

¹⁶Kathleen Langley, "The Distribution of Private Capital, 1950-51," Bulletin of the Oxford University Institute of Statistics, January 1954, p. 1.

¹⁷H. F. Lydall and D. G. Tipping, "The Distribution of Personal Wealth in Britain," Bulletin of the Oxford University Institute of Statistics, January 1961, p. 96.

for the upper two social classes as defined in the 1951 Census of Population. Because social class mortality rates are available only in the years of the decennial census, general mortality rates for other years were reduced by the proportion that mortality rates for the top two social classes were of the general mortality rates in 1951.

As with previous estate multiplier estimates in Great Britain, it was not possible to estimate directly the asset composition of wealth because Her Majesty's Commissioners did not provide tabulations of assets by age and sex of decedent. Lydall and Tipping assumed that the asset composition by size of gross estate (which was published), was constant for each age-sex cell. Using this assumption, they imputed an asset composition on the basis of the size distribution of estates within each age-sex cell.

To dampen the effect of sampling variability, they averaged the estimates of wealth above £ 2000 for the years 1951 through 1956, taking the result as their best estimate at the beginning of year 1954 of the wealth of persons with £ 2000 and over.

J. R. S. Revell has made the first British estate multiplier estimate to get directly at the composition of wealth.¹⁸

¹⁸J. R. S. Revell, "Assets and Age," Bulletin of the Oxford University Institute of Statistics, March 1962, p. 363. Revell further analyzes the 1957-58 data in his forthcoming monograph on national balance sheets, now in manuscript.

The estate multiplier method was used to obtain official estimates of private wealth in New Zealand from 1908 to 1940.¹⁹ Its use was discontinued in 1940 because it was feared deaths resulting from World War II would distort the estimates. Although it was planned to resume the estimates in 1945, resumption was postponed because it was believed deaths related to the war were continuing to influence death rates. The estimates have never been resumed.

As pointed out earlier, two previous applications of the estate multiplier have been made to United States estate tax tabulations. Mendershausen made an estimate for each of the years 1922, 1924, 1941, 1944 and 1946. For the year 1944 a special tabulation of gross estate by type of asset and age of decedent was prepared for him by Internal Revenue Service. Unfortunately, the tabulation did not provide sex of decedents. Using both white age-specific mortality rates and a set of rates adjusted for social class, Mendershausen estimated the wealth of top wealth-holders by type of asset. The set of social class adjusted rates were based on the experience of the Metropolitan Life Insurance Company with a group of risks called the "\$5,000 whole life classification," composed predominantly of well-to-do-individuals.

With a tabulation by asset type, Mendershausen was able to isolate life insurance and adjust for the difference

¹⁹See Annual issues of the New Zealand Official Year Book, Annual issues 1909-1940.

between the value of proceeds reported in the estate of a decedent and cash surrender value the instant before death. To do this, he obtained from "one fairly large" insurance company the ratios of reserves to face values by age groups of policyholders. It was basically this set of ratios which he used to reduce the proceeds reported on estate tax returns to estimate the life insurance equity of top wealth-holders in 1944. Mendershausen excluded those returns on which age of decedent was not reported. Mendershausen's aggregate estimates for 1922, 1924, 1941, 1944, and 1946 are shown in Table 3. In Table 4 we present his breakdown by asset type for 1944, the only year for which the tabulations permitted him to make such detailed estimates.

Lampman estimated the wealth of top wealth-holders for 1953.²⁰ As did Mendershausen, he worked with a special Internal Revenue Service tabulation. Decedents were classified by 10 types (including debt). He used social class mortality rates, based mainly on a study of differential mortality by Moriyama and Guralnick and the mortality experience of a large insurance company with a group of risks buying relatively large policies.²¹ Insurance was reduced to cash surrender value by use of a set of ratios of cash surrender

²⁰Lampman, op. cit.

²¹I. M. Moriyama and L. Guralnick, "Occupational and Social Class Differences in Mortality," in Trends and Differentials in Mortality, proceedings of the 1955 Annual Conference, Milbank Memorial Fund.

TABLE 3
MENDERSHAUSEN'S ESTIMATES: 1922
1924, 1941, 1944 AND 1946

Year	Economic estate (white rates) ^a	Economic estate (selected risk rates)
	(Billions of dollars)	
1922	\$ 70.0	\$ 97.1
1924	75.9	b
1941	65.1	82.4
1944	104.5	141.9
1946	130.5	153.0

Source: Mendershausen, "The Pattern of Estate Tax Wealth," p. 343.

^aEconomic estate is gross estate minus debts. The exemption limit was \$100,000 for the 1922 and 1924 estimates, \$40,000 for a portion 1941, and \$60,000 for remainder of 1941 and all of 1944 and 1946. Because the number of returns and amount of economic estate is a function of the exemption limit these figures do not serve as a satisfactory base for comparing changes through time.

^bMendershausen did not compute economic estate for 1924 using selected rates.

TABLE 4

COMPOSITION OF WEALTH OF TOP WEALTH-HOLDERS: 1944

Asset	Percent of gross estate
Real estate.	16.5
Tangible personal property	1.4
Federal government bonds	7.7
State and municipal bonds.	4.6
Corporate bonds.	3.3
Corporate stock.	38.8
Cash	9.4
Mortgage and notes	3.3
Insurance.	4.4
Unincorporated business.	6.5
Other intangible property.	4.1
	<hr/> 100.0
Debts and mortgages.	9.1
Economic estate.	90.9

Source: Mendershausen, "The Pattern of Estate Tax Wealth," p. 371.

value to face value, by age class.

Lampman estimated that in 1953, 1,659,000 persons held wealth in excess of \$60,000, and together accounted for \$309.2 billion dollars of basic variant wealth. These 1,659,000 persons represented 1.6 percent of the adult population but the wealth they held represented 30.2 percent of prime wealth in the private sector.

Because in the United States since 1942 federal estate tax returns have been required only for the estates of decedents leaving gross assets over \$60,000, only the wealth of living persons with gross assets can be estimated by applying the estate multiplier technique to estate tax returns.

Technical Note*

The estate multiplier technique rests on the assumption that death draws a random sample stratified by age and sex of the living population.

If one has available age-sex-specific mortality rates, an estimate of total wealth can be derived as

$$W = \sum_{i=1}^m \sum_{j=1}^2 \frac{V_{ij}}{M_{ij}} w_{ij} \text{ where } w_{ij} \text{ is the wealth of decedents,}$$

V_{ij} is the number of living persons and M_{ij} is the number of

*The assistance of Michael G. Billings, Mathematical Statistician, Statistics Division, Internal Revenue Service, is gratefully acknowledged.

deaths, all associated with the i th age and j th sex. Decedents' wealth can be dimensioned to any degree, subject only to the tolerable sampling error for the purposes to which the estimates are to be put. For instance, $w_{ijk g}$ may be used to represent the wealth of decedents of the i th age, j th sex, of asset type k in the g th gross wealth size class. Using such a four-way classification, there is a partitioned matrix W , such that the distribution of wealth by any combination of the classification categories can be obtained as a result of pre-and/or post-multiplication of W by suitable vectors and/or matrices. The matrix W is defined by $W = (t_{ij} w_{ijk g})$ shown on page where $t_{ij} = V_{ij}/M_{ij}$, and where $i = 1, 2, \dots, m$; $j = 1, 2$; $k = 1, 2, \dots, n$; $g = 1, 2, \dots, s$. If one lets

$$W_{kg} = \begin{pmatrix} t_{11}w_{11kg} & t_{12}w_{12kg} \\ \vdots & \vdots \\ t_{m1}w_{m1kg} & t_{m2}w_{m2kg} \end{pmatrix} \quad \text{then it is possible to write}$$

$$W = \begin{pmatrix} W_{11} & W_{12} \dots W_{1s} \\ W_{21} & W_{22} \dots W_{2s} \\ \vdots & \vdots & \vdots \\ W_{n1} & W_{n2} & W_{ns} \end{pmatrix}$$

The following example illustrates how a particular

cross-category distribution of wealth may be obtained from W.

For any integer p, let J_p be the p-dimensional column vector of ones. Then, multiplication of W on the left by J_{mn}' gives a 1 x 2s matrix whose elements are column sums of W:

$$\begin{aligned} J_{mn}' W &= (J_m' W_{11} + J_m' W_{21} \dots + J_m' W_{n1}), \\ &\quad (J_m' W_{12} + J_m' W_{22} \dots + J_m' W_{n2}), \dots, \\ &\quad (J_m' W_{1s} + J_m' W_{2s} \dots + J_m' W_{ns}) \\ &= \left(\left[\sum_{k=1}^n J_m' W_{k1} \right] \left[\sum_{k=1}^n J_m' W_{k2} \right] \dots \left[\sum_{k=1}^n J_m' W_{ks} \right] \right). \end{aligned}$$

$$\begin{aligned} \text{Now, } J_m' W_{kg} &= (1, 1, 1, \dots, 1) \begin{pmatrix} t_{11} w_{11kg} & t_{12} w_{12kg} \\ t_{21} w_{21kg} & t_{22} w_{22kg} \\ \vdots & \vdots \\ t_{m1} w_{m1kg} & t_{m2} w_{m2kg} \end{pmatrix} \\ &= \left(\sum_{i=1}^m t_{i1} w_{i1kg}, \sum_{i=1}^m t_{i2} w_{i2kg} \right). \end{aligned}$$

$$\text{Therefore } J_{mn}' W = \left(\left[\sum_{k=1}^n \sum_{i=1}^m t_{i1} w_{i1k1}, \sum_{k=1}^n \sum_{i=1}^m t_{i2} w_{i2k1} \right] \right.$$

$$\left. \left[\sum_{k=1}^n \sum_{i=1}^m t_{i1} w_{i1k2}, \sum_{k=1}^n \sum_{i=1}^m t_{i2} w_{i2k2} \right] \dots \right.$$

$$\left. \left[\sum_{k=1}^n \sum_{i=1}^m t_{i1} w_{i1ks}, \sum_{k=1}^n \sum_{i=1}^m t_{i2} w_{i2ks} \right] \right)$$

Each of the $s \times 1 \times 2$ vectors in $J'_{mn} W$ has as one of its elements the total wealth of females and the other of males in a given wealth class. Thus, the product matrix $J'_{mn} W$ can be thought of as the distribution of total wealth by size of wealth-holding and sex of holder.

Similarly, the distribution of wealth by size of holding, sex and age of holder can be obtained as follows: Let $I_{pq} = (I_p, I_p, I_p, \dots, I_p)$ be the p -rowed matrix consisting of q $p \times p$ identity matrices.

Then $I_{mn} W = \left(\sum_{k=1}^n W_{k1}, \sum_{k=1}^n W_{k2}, \dots, \sum_{k=1}^n W_{ks} \right)$. The

submatrix $\sum_{k=1}^n W_{kg}$ of $I_{mn} W$ has as its ij th component the sum

of the wealth of size class g held by persons in age group i , sex group j .

The composition of wealth by asset type, age and sex of holder is given by $WI'_{2s} = \left(\sum_{g=1}^s W_{1g}, \sum_{g=1}^s W_{2g}, \dots, \right.$

$\left. \sum_{g=1}^s W_{ng} \right)$. The submatrix $\sum_{g=1}^s W_{kg}$ of WI'_{2s} has as its ij th component the value of asset type k held by persons of age group i , sex group j .

Once the matrix W has been set-up, any desired distribution of wealth using the selected variables can be extracted by choosing the appropriate vector and/or matrix

multipliers. The following definitions and table summarize the multipliers which would be used to obtain the various breakdowns in our four-way classification.

Definitions of the multipliers:

1. For any integer p , J_p is the column vector of p ones.
2. For any integers p and q , I_{pq} is the p -rowed matrix which can be partitioned into q $p \times p$ identity matrices:

$$I_{pq} = (I_p, I_p, \dots, I_p).$$
3. For any integers $m, n, p, p = n$, J_{nm}^p is the $n \times m$ matrix whose p th row is J_m' , where J_m is defined in 1.
4. For any integers m, n , K_{nm} is the $n \times nm$ matrix which can be partitioned as follows:

$$K_{nm} = (J_{nm}^1 \ J_{nm}^2 \ J_{nm}^3 \ \dots \ J_{nm}^n), \text{ where } J \text{ is defined in 3.}$$

With the matrices, vectors, and their transposes, defined above, any desired cross-classified wealth distribution can be obtained from W . If one thinks of W as an hierarchy of classifications, we can write $W = \text{asset (age-sex) size}$. Then,

1. Multiplication of W on the left by I_{mn} eliminates asset.
2. Multiplication of W on the right by I_{2s}' eliminates size.
3. Multiplication of W on the left by K_{nm} eliminates age.

4. Multiplication of W on the right by K'_{s2} eliminates sex.

5. Multiplication of W on the left by J'_{mn} eliminates asset and age.

6. Multiplication of W on the right by J_{2s} eliminates size and sex.

7. Sequential eliminations are obtained by performing operations in sequence (see table below).

MATRIX MULTIPLIERS, OPERATIONS AND PRODUCTS

Multipliers		Eliminates	Product	Product gives wealth-holding by
Left	Right			
J'_{mn}	-	Asset, age	$J'_{mn}W$	Sex, size
-	J_{2s}	Sex, size	WJ_{2s}	Asset, age
I_{mn}	-	Asset	$I_{mn}W$	Age, sex, size
-	I'_{2s}	Size	WI'_{2s}	Asset, age, sex
K_{nm}	-	Age	$K_{nm}W$	Asset, sex, size
-	K'_{s2}	Sex	WK'_{s2}	Asset, age, size
I_{mn}	K'_{s2}	Asset, sex	$I_{mn}WK'_{s2}$	Age, size
K_{nm}	I'_{2s}	Age, size	$K_{nm}WI'_{2s}$	Asset, sex
I_{mn}	I'_{2s}	Asset, size	$I_{mn}WI'_{2s}$	Age, sex
I_{mn}	J_{2s}	Asset, size, sex	$I_{mn}WJ_{2s}$	Age
J'_{mn}	I'_{2s}	Asset, age, size	$J'_{mn}WI'_{2s}$	Sex
J'_{mn}	K'_{s2}	Asset, age, sex	$J'_{mn}WK'_{s2}$	Size
K_{nm}	J_{2s}	Age, sex, size	$K_{nm}WJ_{2s}$	Asset
K_{nm}	K'_{s2}	Age, sex	$K_{nm}WK'_{s2}$	Asset, size

$$W = \begin{pmatrix} t_{11}w_{1111} & t_{12}w_{1211} & t_{11}w_{1112} & t_{12}w_{1212} & & & t_{11}w_{111s} & t_{12}w_{121s} \\ t_{21}w_{2111} & t_{22}w_{2211} & t_{21}w_{2112} & t_{22}w_{2212} & & & t_{21}w_{211s} & t_{22}w_{221s} \\ \vdots & \vdots & \vdots & \vdots & * & * & * & \vdots \\ \vdots & \vdots & \vdots & \vdots & & & & \vdots \\ t_{m1}w_{m111} & t_{m2}w_{m211} & t_{m1}w_{m112} & t_{m2}w_{m212} & & & t_{m1}w_{m11s} & t_{m2}w_{m21s} \\ t_{11}w_{1121} & t_{12}w_{1221} & t_{11}w_{1122} & t_{12}w_{1222} & & & t_{11}w_{112s} & t_{12}w_{122s} \\ t_{21}w_{2121} & t_{22}w_{2221} & t_{21}w_{2122} & t_{22}w_{2222} & & & t_{21}w_{212s} & t_{22}w_{222s} \\ \vdots & \vdots & \vdots & \vdots & * & * & * & \vdots \\ \vdots & \vdots & \vdots & \vdots & & & & \vdots \\ t_{m1}w_{m121} & t_{m2}w_{m221} & t_{m1}w_{m122} & t_{m2}w_{m222} & & & t_{m1}w_{m12s} & t_{m2}w_{m22s} \\ & * & & * & & & & * \\ & * & & * & & & & * \\ & * & & * & & & & * \\ t_{11}w_{11n1} & t_{12}w_{12n1} & t_{11}w_{11n2} & t_{12}w_{12n2} & & & t_{11}w_{11ns} & t_{12}w_{12ns} \\ t_{21}w_{21n1} & t_{22}w_{22n1} & t_{21}w_{21n2} & t_{22}w_{22n2} & & & t_{21}w_{21ns} & t_{22}w_{22ns} \\ \vdots & \vdots & \vdots & \vdots & * & * & * & \vdots \\ \vdots & \vdots & \vdots & \vdots & & & & \vdots \\ t_{m1}w_{m1n1} & t_{m2}w_{m2n1} & t_{m1}w_{m1n2} & t_{m2}w_{m2n2} & & & t_{m1}w_{m1ns} & t_{m2}w_{m2ns} \end{pmatrix}$$

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Application of Estate Multiplier to
1959 Estate Tax Returns

Under statutes in effect in 1959, a return was required for the estate of each citizen and resident decedent of the United States if the gross value of his estate was more than \$60,000. A return was also required for the estate of a nonresident alien decedent if his property located in the United States was valued at \$2,000 or more. Of the 56,977 returns filed during 1959, 1,292, or only 2.3 percent, were for the estates of nonresident aliens. The detailed tabulations in Statistics of Income, from which our estimates are derived, exclude the 1,292 returns of nonresident aliens. The estate of resident aliens, on the other hand, are included in the tabulation. Thus, our sample is composed of all citizens of the United States plus aliens residing in the United States.

A return was required within 15 months of the decedents' death except that the Internal Revenue Service might grant an extension of time if the person responsible for filing a return could show "good and sufficient cause."

The Internal Revenue Service states that in 1959, returns filed within 15 months of the date of death accounted for nearly 90 percent of the total.²² Because of the 15 month filing allowance, some returns filed in 1959 are for the estates of decedents who died as early as September 1957;

²²Internal Revenue Service, Statistics of Income, Individual Income Tax Returns, 1958, p. 53.

others for the estates of decedents who died during 1959. Ideally, one would deal only with the estates of decedents whose date of death was within one calendar year, but Internal Revenue Service tabulations are available only for the year in which returns are filed. Without providing the actual proportion, the Internal Revenue Service states that, "most of the returns filed during 1959, were for estates of decedents who died during 1958."²³

Both Mendershausen and Lampman were faced with data based on the date of filing rather than the date of death, and both proceeded by inferring that death occurred in the year proceeding the year of filing. Lampman states:

In 1953 there were 36,699 decedents whose estates were reported on the basis of a \$60,000 minimum. These are all returns which were filed in 1954, and they should represent the 1953 decedents since virtually all of them are persons who died in the calendar year 1953.²⁴

Less laconically, Mendershausen comments:

For the purposes of this study the date of death is more relevant than the date of filing; the relation of a decedent's wealth to demographic and economic variables . . . is bound to the date of death, and not to the date of filing. Since tabulations on a date-of-death basis are not available, it was necessary to assign the returns filed during a year to an inferred year of death of decedents. The inferred year of death chosen here is the calendar year proceeding the year of filing.²⁵

²³Ibid.

²⁴Lampman, op. cit., p. 28.

²⁵Mendershausen, op. cit., p. 285.

In this study, we infer that returns filed in 1959 were for persons who died in 1958.

The number of estate tax returns filed has increased rather steadily since 1944. From data in Table 5, it may be observed that in every year for which data is available (except 1954), the number of returns filed was greater than in the preceding year. The number of returns filed in 1958 was 3.5 times the number in 1944; the value of gross estates reported on returns increased 3.4 times during the same period.

Assets Included in Gross Estate

In general, the value of all assets in which the decedent held a legal interest at the moment preceding death must be reported in the federal estate tax return (Form 706). However, special provisions apply to certain financial assets, such as annuities and trusts, and to certain assets transferred prior to death.

The property included in gross estate includes stocks, bonds, real property, furniture, personal effects, jewelry, works of art, an interest in a business conducted as a sole proprietorship, an interest in a business conducted as a co-partnership, the interest of a tenant in common in real property, a remainder interest in trust property, a bank account, and a promissory note or other evidence of indebtedness.

Certain assets not in the legal possession of the decedent at the moment preceding death are also part of the

TABLE 5

RETURNS FILED BY CITIZENS AND RESIDENT ALIENS AND
BY NONRESIDENT ALIENS: 1944 TO 1958

Inferred year of death	Number of Tax Returns		Total Gross Estate Billions of dollars
	Citizen and Resident Aliens	Nonresident Aliens	
1944	15,898	652	\$ 3.4
1945			
1946	20,899	1,108	4.2
1947	23,356	1,025	4.8
1948	24,552	1,352	4.9
1949	25,858	1,286	4.9
1950	27,958	1,044	5.5
1951			
1952			
1953	36,699	973	7.4
1954	36,595		7.5
1955			
1956	46,473	908	10.3
1957			
1958	55,685	1,292	11.6

Source: Statistics of Income, various issues.

gross estate, if the decedent transferred their ownership in "contemplation of death" and their transfer was made for less than "full and adequate consideration in money or money's worth." All transfers made more than three years prior to death are ipso facto exempted from inclusion as transfers in contemplation of death. Transfers within three years of death for less than full and adequate consideration in money or money's worth are presumed to have been in contemplation of death unless shown otherwise.

The Internal Revenue Service interprets broadly "in contemplation of death" to mean "with apprehension that death is imminent or near." It considers a transfer as prompted by death if its purpose was to avoid death taxes, to substitute for a testamentary disposition, or if it was made for other motives associated with death.²⁶

Life estates.--In the case of a property transferred after March 3, 1931, without full and adequate compensation in money or money's worth, whether made in trust or otherwise, its value is included in the gross estate, if the decedent reserved the right to enjoy the property throughout his life, or to alone designate who could enjoy or transfer the property.

Property transferred after June 6, 1932 is included in the gross estate if, in addition to the above conditions,

²⁶Internal Revenue Service, A Guide to Federal Estate and Gift Taxation (Washington: Government Printing Office, 1961), p. 3.

the decedent retained for any period not ascertainable without reference to his date of death, the right to enjoyment of the property, or the right, alone or with others to designate the entity which should enjoy it. In cases of property transferred before June 6, 1932, if only part of the transferred property is subject to the above retentions of rights, only the portion over which rights have been retained is included in the gross estate.²⁷

Transfers taking effect at death.--All property transferred after September 7, 1916, is included in the gross estate if full and adequate compensation in money or money's worth was not received and if all of the following conditions prevailed:

1. Possession or enjoyment of the property transferred could, through ownership of such property, have been obtained by the beneficiaries only by surviving the decedent.
2. The decedent retained a reversionary interest in the property.²⁸
3. The value of the reversionary interest immediately before the decedent's death exceeded 5 percent of the value of the entire property.²⁹

²⁷U.S.C.A. Sec. 2036(a)(b).

²⁸U.S.C.A. Sec. 2037(a)(b).

²⁹In general, a reversionary right refers to the transfer of property in such a manner, that its ownership may be revested in the transferer. The revestment may be by the express conditions of a trust or other instrument of transfer, or by statutory law. However, for property transferred before October 8, 1949, reversionary rights refer only to rights conferred by the transfer instrument. (In any case the possibility that one could have legal title revested in

Revocable transfers.--If the decedent reserved the right to revoke transferred property, and the right was exercisable at the moment preceding death, the value of such property is included in the estate. Two exceptions to the above general rule exist. If the property was transferred prior to June 2, 1924, 4:01 e.s.t., the property is not to be included in the decedent's estate if the revocation could only be implemented in conjunction with an entity having a substantial adverse interest in the property. Or, if the power to revoke could be exercised only in conjunction with several entities, some of whom did not have substantial adverse interest in the property, the value attributable to the entities having substantial adverse interest is excluded. Revocable transfers made between June 2, 1924, and June 23, 1936, otherwise includable in gross estates, are excluded unless the power to revoke the transfers was in force from the time the transfer was consummated. This last exception serves to exclude from the gross estate the value of property which the decedent transferred to another person without reversionary control for a given period, but after which period reversionary rights were to be vested in the grantor.³⁰

Annuities.--The value of annuities purchased after March 31, 1931, which become payable to a beneficiary by

his name by inheritance from the transferee does not come within the preview of the statute.)

³⁰ 5 U.S.C.A. Sec. 2038(a)(b).

virtue of the decedent's death are included in gross estate to the extent of contributions made in their purchase. Certain insurance arrangements resulting in annuities to a beneficiary are excluded. If an annuity was payable to the insured alone or in conjunction with others for a period undeterminable without reference to his death, or if the decedent was in fact receiving payments from an annuity, the duration of which extended in time beyond his date at death, the value of such an annuity is included in his gross estate. The value of an annuity is also included in gross estate if the decedent at the moment preceding death had the enforceable right to receive payments at some future date.³¹

Annuities are exempted from inclusion in the gross estate if they were purchased by an employees' trust which met the conditions set out in section 401(a) of Title 26, U.S.C.A.

The above section of the U.S. code qualifies an annuity for exclusion from gross estate if the trust instrument under which the annuity came into being meets the following conditions:

1. The corpus and income of the trust is for distribution to employees and their beneficiaries.
2. No part of the trust corpus or income can be diverted to uses other than those directly benefiting employees and their beneficiaries until all liabilities of employees and beneficiaries have been satisfied.
3. A minimum proportion of employees must

³¹ 5 U.S.C.A. Sec. 2039(a)(b).

participate or be eligible to participate under the plan.

4. Contributions or benefits under the plan do not discriminate in favor of officer, shareholder, or personnel with a primarily supervisory function.
5. That a plan which excludes all employees whose income is in the whole from wages, or includes only clerical and/or salaried employees is not deemed discriminatory.
6. The minimal level of participation or eligibility is satisfied if said minimal levels are achieved one day in each quarter of the year.

Annuities purchased directly by an employer (not by an employees' trust) may be excluded from gross estate if they meet 3, 4, 5 and 6 of the conditions of Section 401(a) above.

Annuities purchased by an employer which is a tax exempt organization under the provisions of Section 503(b) (1), (2), or (3) and Section 501(a) Title 26 of U.S.C.A. are also exempted from inclusion in gross estate. The combined effect of the above provisions is to exclude from gross estate annuities purchased by nonprofit, religious and educational institutions for their employees.³²

Joint interests.--The value of property held jointly is included in the gross estate of a deceased to the extent attributable to the decedent's contribution in the property. If the decedent contributed one-half of \$10,000 to acquire a parcel of undeveloped land, and his nephew advanced another \$5,000, the value of the parcel of land included in the

³² U.S.C.A. Sec. 2039(c)(1)(2)(3).

deceased's estate would be one-half of the land's value on the decedent's date of death. However, if the decedent gave his nephew a one-half interest in a property which was paid for: \$7,500 by the decedent, and \$2,500 by the nephew, the value of the land included in the deceased's estate would be three-fourths of the value at the date of death. The above rules for determining the value of jointly held assets do not apply to property held by husband and wife in community property states.³³

Powers of appointment.--The value of general powers of appointment are includable in gross estate depending upon the circumstances of their exercise and date of creation. A power is deemed general if the decedent had the power, to exercise it in favor of himself, his estate or the creditors of his estate. A power of appointment is not general if the benefit which the decedent can appropriate to himself is "limited by an ascertainable standard relating to health, education, support, or maintenance."³⁴ The Internal Revenue Service considers the constraints, "support," "support in reasonable comfort," "support in his accustomed manner of living," and "education, including college and professional education," as ascertainable standards; hence, powers bound by such are not considered general, and not included in gross

³³5 U.S.C.A. Sec. 2041(b)(1).

³⁴5 U.S.C.A. Sec. 2041(b)(1).

estate.³⁵

Powers of appointment created prior to October 22, 1942 are included in gross estate if they were in fact exercised in such a way that, had they been property, the transfer would have been includable in gross estate on grounds that it was a revocable transfer (a transfer taking effect at death, a transfer with a retained life estate, or a transfer in contemplation of death).³⁶

Life insurance proceeds.--The proceeds of life insurance policies on the decedent's life are includable in gross estate if they were payable directly to the estate or to others for the benefit of the estate. Such proceeds are also included in the estate decedent's for tax purposes whether or not they resulted from a contract on the life of the decedent, if he held any incidence of ownership in the contract immediately proceeding his death.³⁷ Incidence of ownership is interpreted in a broad sense by the Internal Revenue Service. It includes the right to designate beneficiaries, to enjoyment of cash surrender value and the right to transfer one's right to cash surrender value.

³⁵Internal Revenue Service, A Guide to Federal Estate and Gift Taxation (Washington: Government Printing Office, 1961), p. 7.

³⁶5 U.S.C.A. Sec. 2041(6)

³⁷5 U.S.C.A. Sec. 2042(1)(2).

The Valuation of Property Included
in Gross Estate

Date of valuation.--The value at which property is included in gross estate is presumed to be its "fair market value"--the value for which the property would be exchanged between a "willing buyer and a willing seller, neither under any compulsion to buy or sell." The date of valuation is generally the date of the decedent's death. However, an alternate valuation procedure, if elected by the executor, allows the following timing:

1. All property disposed of within one year after decedent's death is valued at its fair market price at its date of disposition.
2. Property not disposed of is valued on the date one year after the decedent's death.
3. If this alternate timing is used, the value of property which changed merely because of the passage of time, e.g., a note due on a date three years after decedent's death, is valued at the date of death. In the case of property whose value changes by the passage of time and other phenomena, an adjustment is made to account for the change due solely to the passage of time.³⁸

Stocks and bonds.--If the estate includes securities which were listed on an exchange or were traded in the over-the-counter market, their value is set at the mean of the highest and lowest price at which they were traded on the selected valuation date. If no sales were transacted on the selected date of valuation, but were transacted within a reasonable period before and after the selected date of

³⁸5 U.S.C.A. Sec. 2032(a)(1)(2)(3).

valuation, the value is determined by averaging the means of the prices at which trading took place before and after the selected date. In averaging, the means are weighted inversely by the number of days between the valuation date and the dates of trading. If trading did not occur within a reasonable period both before and after the selected date of valuation, the mean price at which trading took place within a reasonable period before or after date of valuation may be used. If trading did not take place within a reasonable period before or after the selected evaluation date, the mean of bid and asked prices may be used in the same manner as trading prices.

Stock in closed corporations and other stocks for which values cannot be determined using the above methods must be valued subjectively. However, the Internal Revenue Service requires that general business appraising criteria be used in arriving at a fair market price. Such criteria include financial soundness, earning prospects, maturity dates of debt instruments and business net worth.

Interest in Business.--In the case of non-corporate business interests, valuation presumes a market encompassing a willing buyer and a willing seller, neither of which is under compulsion to act.

Annuities, life estates, remainder interests and reversionary interests.--All economic interests subject to a condition that persons continue to live, or that they come to

live, or that some live and others cease to live, are valued in accordance with actuarial principle. In general, the value of such economic interests is set by their value discounted 3 1/2 percent to the date of valuation. In arriving at their present value, adjustments are made for the actuarial probability of life and death among all parties upon whose life or death the economic interest is contingent. A set of tables and factors for computing the value of remainder interests involving one and two lives, and the value of annuities involving up to four lives is published by the Internal Revenue Service.³⁹

Personal Property.--All personal property, including real estate, is valued at its fair market value.

In general all property is valued by independent appraisers. Both the heirs of the estate and the Internal Revenue Service may contest the value and seek additional appraisals. If agreement cannot be reached between the Internal Revenue Service and the heirs, litigation may be resorted to.

Estate Tax Returns

Although the number of returns filed and the gross estates reported increased rather steadily from 1944 (Table 5), the composition of gross estates has changed only

³⁹Internal Revenue Service, Actuarial Values for Estate and Gift Tax (Washington: Government Printing Office, 1959).

slightly. As can be seen from Table 6, bonds and insurance accounted for less of gross estate in 1958 than they did in 1944; while the share accounted for by real estate has increased. The percent of gross estate represented by debt has been remarkably constant, varying within a one percent range over the 15 year period.

Classification of Assets.--The Internal Revenue Service has changed the definition of two class designations since 1944. First, the designation, "corporate bonds" was changed to "other bonds" in 1947. Second, since 1953, the classification "unclassified by type" has replaced "other tangible property" plus "tangible personal property." The assets included in each of the classifications currently used by the Internal Revenue Service are as follows.

Real Estate.--The value of all real estate and contracts to buy real estate vested in the decedent are included. In addition, real estate transferred prior to death with reversionary strings and that transferred in contemplation of death without full and adequate compensation are included. Accrued rents at the date of death are also included in this classification.

U.S. Government Bonds.--This classification includes the value of all types of bond issues of the Federal government and government corporations. The value of accrued interest on these bonds is also included.

State and local bonds.--The value of all bonds issued

TABLE 6

DISTRIBUTION OF ASSETS ON ESTATE TAX RETURNS: 1944 TO 1958

Type of Property	Percent of Gross Estate				
	1944	1945	1946	1947	1948
Real estate	15.2	--	18.1	18.7	19.3
U.S. government bonds	8.4	--	9.0	9.1	8.7
State and local bonds	5.7	--	3.9	3.2	3.9
Corporate bonds ^a	4.0	--	2.6	2.2	1.9
Corporate stock	39.5	--	38.4	37.1	36.5
Cash	9.5	--	10.4	11.6	11.1
Mortgages and notes	3.6	--	3.3	32.2	3.5
Insurance	7.0	--	6.8	6.8	7.1
Interest in unincorporated business	3.2	--	3.5	4.0	4.5
Other intangible property	2.7	--	2.8	2.9	2.3
Unclassified by type ^b	--	--	--	--	--
Tangible personal property	1.2	--	1.2	1.2	1.2
Total gross estate	100.0	--	100.0	100.0	100.0
Debts	6.1	--	5.5	5.7	5.8
Economic estate	93.9	--	94.5	94.3	94.2

Source: Statistics of Income, Fiduciary, Gift, and Estate Tax Returns, various issues.

^aSince 1947 this asset type is designated as "Other bonds."

^bSince 1953 this asset type has included tangible and intangible property (judgments, leaseholds, mineral and patent rights, pensions, royalties, tax sale certificates, and all other assets not elsewhere classified).

TABLE 6--Continued

Percent of Gross Estate									
1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
20.5	--	--	--	20.9	20.9	--	--	--	21.5
8.7	--	--	--	6.6	6.1	--	--	--	4.8
2.8	--	--	--	3.2	1.1	--	--	--	3.0
1.8	--	--	--	1.3	1.1	--	--	--	.9
36.0	--	--	--	40.2	41.1	--	--	--	42.8
10.7	--	--	--	10.1	10.0	--	--	--	9.9
3.9	--	--	--	3.4	3.7	--	--	--	3.6
7.3	--	--	--	6.4	6.3	--	--	--	5.6
4.4	--	--	--	--	--	--	--	--	--
2.8	--	--	--	--	--	--	--	--	--
--	--	--	--	7.9	8.1	--	--	--	7.9
1.1	--	--	--	--	--	--	--	--	--
100.0	--	--	--	100.0	100.0	--	--	--	100.0
6.0	--	--	--	5.4	5.1	--	--	--	5.2
94.0	--	--	--	94.6	94.9	--	--	--	94.8

by political subdivisions of the United States and by territorial possessions of the United States, and the accrued interest thereon is embraced by this classification.

Other bonds.--The value of all foreign, corporate, mortgage and debenture bonds, sinking fund and convertible notes are also included. Accrued interest on these instruments is [also] included.

Corporate stock.--Both foreign and domestic, preferred and common stock are included. This classification also encompasses certificates of savings and loan or building and loan associations. Accrued dividends are also included.

Cash.--Included are currency in hand, safety deposit boxes, checking and savings account balances, and balances with brokers.'

Mortgage and notes.--This classification includes the value of all mortgages and notes, including accrued interest thereon, owned by the decedent. Also included are contracts to sell land and trust deeds.

Insurance.--Insurance on the life of the decedent and life insurance on the lives of others to the extent of an includable economic interest on the part of the decedent are classed as "insurance".

Annuities.--The value of all annuities included in the decedent's estate are included.

Unclassified by type.--The value of judgments, mineral rights, patent rights, royalties, tax sale certificates,

debts due decedent, interests in unincorporated businesses, household goods and personal effects, farm products, farm machinery, automobiles, interests in partnerships, trust fund remainder interests, and pensions are included in this classification unless they have been allocated to one of the other classifications.

Internal Revenue Service Tabulations

Tabulations of returns filed in 1959 were published in Statistics of Income, Fiduciary, Gift and Estate Tax Returns: 1958. The tabulations cross classify all returns by their taxability, and the age, sex, and size of gross estate of the decedent. Tabulations from Statistics of Income . . . 1958 are reproduced in Table 7. Some returns were filed without statement of decedent's age. Of the 36,466 returns for males and the 19,219 returns for females, 761 and 622 returns are shown under the sub-heading "Age Unknown," but are cross-classified by size of gross estate and sex. Returns filed with a stated age are classified by five age intervals: Under 40, 40 under 50, 50 under 60, 60 under 70, 70 under 80, and 80 and over. As one would expect a priori, the age distribution is skewed to the left.

Ideally, one would have specific age-sex information for each decedent and a mortality rate could be assigned for each decedent by one year intervals. The only information available for 1958, however, is the breakdown by sex into the six age intervals noted above. It was decided that some

TABLE 7

NUMBER OF RETURNS AND GROSS ESTATE, BY GROSS ESTATE CLASSES AND BY AGE AND SEX OF DECEDENT, 1958

[Citizens and resident aliens]

Gross estate classes	All decedents				Age of decedent											
	Men		Women		Under 40				40 under 50				50 under 60			
	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Men		Women		Men		Women		Men		Women	
					Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Taxable returns:																
1 Under \$60,000.....	1	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 \$60,000 under \$70,000.....	774	51,791	1,050	70,064	6	407	2	127	17	1,140	5	334	44	2,965	41	2,751
3 \$70,000 under \$80,000.....	1,500	112,579	1,891	141,583	20	1,492	3	223	27	2,012	19	1,433	104	7,839	111	8,321
4 \$80,000 under \$90,000.....	1,358	115,389	1,502	127,470	10	846	2	176	32	2,708	19	1,591	103	8,811	85	7,182
5 \$90,000 under \$100,000.....	1,145	108,760	1,281	121,546	7	669	4	390	24	2,300	11	1,043	85	8,078	61	5,780
6 \$100,000 under \$120,000.....	1,981	217,149	1,985	217,175	13	1,386	4	446	61	6,740	28	3,084	187	20,496	107	11,718
7 \$120,000 under \$150,000.....	3,556	482,140	2,114	283,199	33	4,449	7	934	134	18,413	31	4,171	453	61,647	141	19,085
8 \$150,000 under \$200,000.....	4,119	710,633	1,893	326,486	44	7,646	7	1,243	175	29,942	39	6,789	615	106,158	113	19,611
9 \$200,000 under \$300,000.....	3,845	930,412	1,644	398,145	31	7,460	9	2,024	183	43,511	41	9,969	595	143,344	120	29,280
10 \$300,000 under \$500,000.....	2,488	947,711	1,066	406,128	14	5,229	5	1,745	87	32,504	24	9,538	318	121,380	65	25,419
11 \$500,000 under \$1,000,000.....	1,490	1,014,367	708	485,397	11	7,331	4	2,596	37	25,373	17	11,450	173	121,230	30	19,823
12 \$1,000,000 under \$2,000,000.....	489	667,217	270	370,593	2	3,259	-	-	15	19,680	7	9,830	48	64,777	20	27,433
13 \$2,000,000 under \$3,000,000.....	121	293,737	60	148,560	-	-	-	-	2	5,334	4	9,555	13	29,854	2	4,751
14 \$3,000,000 under \$5,000,000.....	53	205,084	47	177,919	-	-	-	-	-	-	1	3,780	2	8,771	1	3,765
15 \$5,000,000 under \$10,000,000.....	37	250,758	19	126,808	-	-	-	-	-	-	-	-	7	43,514	1	6,035
16 \$10,000,000 under \$20,000,000.....	16	216,860	5	76,539	-	-	1	14,526	-	-	1	18,038	-	-	-	-
17 \$20,000,000 or more.....	4	102,732	3	90,901	-	-	-	-	-	-	-	-	-	-	-	-
18 Total taxable returns.....	22,977	6,427,371	15,538	3,568,513	191	40,174	48	24,430	794	189,657	247	90,605	2,747	748,864	898	190,954
Nontaxable returns:																
19 Under \$60,000.....	7	373	4	211	-	-	-	-	1	58	-	-	1	45	-	-
20 \$60,000 under \$70,000.....	2,781	180,266	1,553	99,482	30	1,946	11	713	130	8,494	37	2,385	376	24,453	129	8,350
21 \$70,000 under \$80,000.....	2,312	173,026	598	44,592	42	3,141	7	520	136	10,227	20	1,504	365	27,404	93	6,977
22 \$80,000 under \$90,000.....	2,011	170,865	398	33,792	29	2,479	2	171	109	9,267	16	1,364	329	28,043	72	6,122
23 \$90,000 under \$100,000.....	1,827	173,416	292	27,663	21	1,979	3	289	132	12,553	18	1,701	326	30,928	40	3,785
24 \$100,000 under \$120,000.....	2,788	305,118	422	46,124	51	5,502	7	779	180	19,654	22	2,403	490	53,760	69	7,555
25 \$120,000 under \$150,000.....	1,254	162,067	192	25,074	30	3,933	-	-	124	16,252	9	1,173	310	40,319	32	4,122
26 \$150,000 under \$200,000.....	312	52,800	79	13,576	13	2,132	1	169	33	5,520	2	325	85	14,520	6	1,015
27 \$200,000 under \$300,000.....	112	26,758	75	17,887	2	490	1	201	11	2,674	1	226	20	4,710	4	848
28 \$300,000 under \$500,000.....	49	18,567	43	16,389	1	304	-	-	-	-	2	698	4	1,506	-	-
29 \$500,000 under \$1,000,000.....	25	16,873	19	13,575	-	-	-	-	2	1,038	-	-	-	-	-	-
30 \$1,000,000 under \$2,000,000.....	6	7,692	6	7,361	-	-	-	-	-	-	-	-	1	1,240	-	-
31 \$2,000,000 under \$3,000,000.....	3	7,721	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32 \$3,000,000 under \$5,000,000.....	1	4,949	-	-	-	-	-	-	-	-	-	-	1	4,949	-	-
33 \$5,000,000 under \$10,000,000.....	1	5,916	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34 \$10,000,000 or more.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35 Total nontaxable returns.....	13,489	1,306,407	3,681	345,726	219	21,906	32	2,842	858	85,737	127	11,779	2,308	231,877	445	38,774
36 Grand total.....	36,466	7,733,778	19,219	3,914,239	410	62,080	80	27,272	1,652	275,394	374	102,384	5,055	980,741	1,343	229,728

TABLE 7--Continued

Gross estate classes		Age of decedent—Continued															
		60 under 70				70 under 80				80 and over				Age unknown			
		Men		Women		Men		Women		Men		Women		Men		Women	
		Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)	Number of returns	Gross estate (Thousand dollars)
		(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
1	Taxable returns:																
2	Under \$60,000.....	1	52	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	\$60,000 under \$70,000.....	156	10,393	139	9,261	256	17,135	352	23,508	274	18,339	468	31,196	21	1,412	43	
4	\$70,000 under \$80,000.....	296	22,258	289	21,700	481	36,082	651	48,679	526	39,445	755	56,511	46	3,451	63	
5	\$80,000 under \$90,000.....	265	22,505	248	21,061	440	37,316	464	39,379	463	39,375	624	53,016	45	3,828	60	
6	\$90,000 under \$100,000.....	211	20,050	186	17,686	364	34,502	427	40,468	435	41,353	545	51,680	19	1,808	47	
7	\$100,000 under \$120,000.....	424	46,553	303	33,131	631	69,353	645	70,514	600	65,495	839	91,871	65	7,126	59	
8	\$120,000 under \$150,000.....	972	132,440	342	45,843	1,047	141,801	657	87,872	852	114,580	863	115,389	65	8,810	73	
9	\$150,000 under \$200,000.....	1,187	204,431	332	57,417	1,195	206,481	585	100,808	819	141,514	759	130,793	84	14,461	58	
10	\$200,000 under \$300,000.....	1,046	253,562	261	63,549	1,100	267,256	495	119,557	828	200,249	683	165,389	62	15,030	35	
11	\$300,000 under \$500,000.....	749	284,096	174	65,234	710	270,192	294	112,379	572	219,212	482	183,395	38	15,098	22	
12	\$500,000 under \$1,000,000.....	390	260,239	116	81,149	445	306,798	212	144,081	419	283,373	310	213,647	15	10,023	19	
13	\$1,000,000 under \$2,000,000.....	135	181,134	32	42,549	141	196,355	79	110,808	146	199,125	131	178,663	2	2,887	1	
14	\$2,000,000 under \$3,000,000.....	22	53,142	5	13,736	33	79,139	21	52,400	49	121,102	28	68,118	2	5,166	-	
15	\$3,000,000 under \$5,000,000.....	15	57,464	3	12,117	16	62,047	13	50,561	20	76,802	27	100,768	-	-	2	
16	\$5,000,000 under \$10,000,000.....	7	51,616	3	18,687	12	75,147	6	36,836	11	80,481	9	65,250	-	-	-	
17	\$10,000,000 under \$20,000,000.....	3	35,362	1	13,584	4	49,337	-	-	9	132,161	2	30,391	-	-	-	
18	\$20,000,000 or more.....	3	78,609	-	-	-	-	1	20,085	1	24,123	2	70,816	-	-	-	
19	Total taxable returns.....	5,882	1,713,906	2,434	516,704	6,875	1,848,941	4,902	1,057,935	6,024	1,796,729	6,527	1,606,893	464	89,100	482	
20	Nontaxable returns:																
21	Under \$60,000.....	1	43	2	115	3	174	1	51	1	53	1	45	-	-	-	
22	\$60,000 under \$70,000.....	738	47,985	291	18,739	827	53,536	490	31,342	592	38,173	533	34,003	88	5,679	62	
23	\$70,000 under \$80,000.....	734	54,872	154	11,477	655	48,969	183	13,580	331	24,752	121	9,039	49	3,661	20	
24	\$80,000 under \$90,000.....	644	54,629	101	8,602	546	46,407	95	8,061	311	26,425	92	7,784	43	3,615	20	
25	\$90,000 under \$100,000.....	591	56,133	87	8,245	502	47,611	77	7,313	221	21,003	57	5,394	34	3,209	10	
26	\$100,000 under \$120,000.....	986	108,038	131	14,329	738	80,686	105	11,505	287	31,342	72	7,826	56	6,136	16	
27	\$120,000 under \$150,000.....	414	53,396	47	6,010	252	32,181	43	5,584	102	13,123	57	7,660	22	2,863	4	
28	\$150,000 under \$200,000.....	86	14,515	9	1,498	49	8,304	22	3,739	44	7,458	34	5,931	2	351	5	
29	\$200,000 under \$300,000.....	26	6,312	7	1,598	17	4,004	29	6,992	35	8,362	33	8,022	1	206	-	
30	\$300,000 under \$500,000.....	8	2,884	4	1,686	16	5,847	11	4,261	18	7,199	24	9,091	2	827	2	
31	\$500,000 under \$1,000,000.....	4	2,620	1	571	8	5,377	4	2,843	11	7,838	13	9,218	-	-	1	
32	\$1,000,000 under \$2,000,000.....	-	-	1	1,020	1	1,027	1	1,184	4	5,425	4	5,157	-	-	-	
33	\$2,000,000 under \$3,000,000.....	-	-	-	-	1	2,789	-	-	2	4,932	-	-	-	-	-	
34	\$3,000,000 under \$5,000,000.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	\$5,000,000 under \$10,000,000.....	1	5,916	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	\$10,000,000 or more.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	Total nontaxable returns.....	4,233	407,343	835	73,890	3,615	336,912	1,061	96,455	1,959	196,085	1,041	109,170	297	26,547	140	
38	Grand total.....	10,115	2,121,249	3,269	590,594	10,490	2,185,853	5,963	1,154,390	7,983	1,992,814	7,568	1,716,063	761	115,647	622	

Source: Statistics of Income, Fiduciary, Gift, and Estate Tax Returns, 1958, pp. 69-70.

correction could be made for skewness by using information about the 1953 tabulations which were broken into twelve age intervals. In Table 8 the distribution of 1958 decedents within the six age intervals used in their tabulation in Statistics of Income are shown. In columns 1, 2, and 4 of Table 8 the 1958 and 1953 age intervals and the percentage distribution of the 1953 decedents within the 1958 age intervals are shown. As an example, the 1958 age interval 50 under 60 contains the 1953 age intervals 50 under 55 and 55 under 60. In 1953, the total number of decedents in the range 50 under 60 were distributed: 38.4 percent in the range 50 under 55 and 61.6 percent in the range 55 under 60. The correction for skewness rests on the assumption that the distribution of decedents by age within the 1958 is not significantly different in 1958 than it is in 1953. By utilizing the distribution of 1953 decedents in the 1953 age intervals that fall within each of the 1958 age intervals, it was possible to construct the synthetic distribution shown in column 4. The advantage of partially correcting for the skewness induced by the limited number of age classes will become apparent in the following discussion of the derivations of multipliers.

TABLE 8
DERIVATION OF WEIGHTED MULTIPLIERS: 1958

1953 Age intervals (1)	1958 Age intervals (2)	Number of estate tax decedents, 1953 (3)		Percentage distribution of 1953 estate tax deaths within 1958 age intervals percent (4) (Percent)		1958 Population (5) (Thousands)		1958 Deaths (6)	
		Male	Female	Male	Female	Male	Female	Male	Female
15 under 21	Under 40	5	2	1.8	3.0	5,453	5,398	6,752	2,715
21 under 30		37	8	13.0	11.9	9,255	9,623	14,811	6,403
30 under 40		243	57	85.3	85.1	10,643	11,107	22,960	13,720
40 under 50	40 under 50	1,213	251	100.0	100.0	9,764	10,051	53,907	29,995
50 under 55	50 under 60	1,477	342	38.4	38.9	4,141	4,235	48,562	24,086
55 under 60		2,370	537	61.6	61.1	3,640	3,794	63,709	31,948
60 under 65	60 under 70	3,201	820	46.5	39.3	3,077	3,337	84,925	46,278
65 under 70		3,684	1,264	53.5	60.7	2,611	2,906	106,083	65,535
70 under 75	70 under 80	3,563	1,686	51.4	44.9	1,961	2,279	112,116	82,348
75 under 80		3,369	2,068	48.6	55.1	1,205	1,492	102,489	91,466
80 under 85	80 and over	2,630	2,060	52.5	48.1	583	786	80,278	87,095
85 and over		2,379	2,223	47.5	51.9	322	502	67,452	93,947

Source: Column 3, Statistics of Income, 1954.
Column 5, Current Population Reports, May 1963.
Column 7, Vital Statistics of the United States, Vol. II, 1958.
Column 8, Robert J. Lampman, Share of Top Wealth-Holders in National

Wealth.

TABLE 8--Continued

1958 Death rates		Ratio of adjusted to white mortality percent	Adjusted death rates (col. 7 x col. 8)		1958 Multipliers		1958 Weighted multipliers (col. 4 x col. 10)	
Male	Female		Male	Female	Male	Female	Male	Female
(7)	(8)		(9)		(10)		(11)	
.0012	.0005	69.2	.0008	.0003	1,250.0	3,333.3		
.0016	.0007	66.7	.0011	.0005	909.0	2,000.0	642.4	1,283.5
.0022	.0012	78.3	.0017	.0009	588.2	1,111.1		
.0055	.0030	76.3	.0042	.0023	238.1	434.8	238.1	434.8
.0117	.0057	84.0	.0098	.0048	102.0	208.3		
.0175	.0084	92.4	.0162	.0078	61.7	128.2	77.2	161.1
.0276	.0139	91.8	.0253	.0128	39.5	78.1		
.0406	.0226	94.2	.0382	.0213	26.2	46.9	32.4	59.1
.0571	.0361	95.0	.0542	.0343	28.5	29.2		
.0851	.0613	91.7	.0780	.0562	12.8	17.8	15.7	22.9
.1377	.1108	92.9	.1279	.1029	7.8	9.7		
.2095	.1871	93.1	.1950	.1742	5.1	5.7	7.8	7.6

Derivation of Multipliers

The multiplier is defined as the inverse of the mortality rate. The mortality applicable to each of the age intervals in the synthetic distribution were computed by dividing the number of deaths in 1958 in the white population from all causes for each sex-age class by the number of white persons of the same age and sex living on July 1, 1958. The source of the number of deaths was Vital Statistics of the United States.⁴⁰ The source of the population figures was the May 21, 1963, Current Population Report.⁴¹ This latter source provides the 1958 population figures adjusted on the basis of the 1960 census. The age-sex mortality rates obtained were adjusted by a set of reduction factors. These reduction factors are shown in column 5 of Table 9. They have been taken directly from Lampman.⁴² Both the use of white mortality rates and their further reduction by the above mentioned adjustment factors were employed by Lampman to obtain mortality rates applicable to 1953 top wealth-holders.

Lampman has cited several studies supporting differential mortality rates for holders of large amounts of wealth.

⁴⁰Vital Statistics of the United States, 1958, Vol. II, U.S. Department of Health, Education and Welfare, Public Health Service, National Office of Vital Statistics (U.S. Government Printing Office, Washington, 1960), p. 132f.

⁴¹Current Population Reports, Population Estimates. Bureau of the Census, U.S. Department of Commerce, May, 1963, pp. 22, ff.

⁴²Lampman, op. cit., p. 48.

TABLE 9
MORTALITY RATES FOR WHITE POPULATION AND FOR
TOP WEALTH-HOLDERS BY SEX: 1953

Age group	Mortality rates				Reduction factors
	White		Top wealth-holders		
	Male	Female	Male	Female	
	(1)	(2)	(3)	(4)	
15 to 20	1.3	0.5	0.9	0.3	69.2
20 to 30	1.8	0.8	1.2	0.5	66.7
30 to 40	2.3	1.4	1.8	1.1	78.3
40 to 50	5.9	3.3	4.5	2.5	76.3
50 to 55	11.9	6.2	10.0	5.2	84.0
55 to 60	18.5	9.5	17.1	8.8	92.4
60 to 65	28.2	15.1	25.9	13.9	91.8
65 to 70	41.4	25.0	39.1	23.6	94.2
70 to 75	57.8	39.1	54.9	37.1	95.0
75 to 80	90.5	76.8	83.0	62.2	91.7
80 to 85	134.6	112.4	125.0	104.4	92.9
85 and over	203.1	187.3	189.0	174.4	93.1

Source: Columns 1 and 2, Lampman, op. cit., Table 21, p. 49.

Column 3, Lampman, op. cit., Table 19, p. 48.
Column 4, Lampman, op. cit., Table 20, p. 48.

Among those cited were Constantine A. Yeracaris' "Differential Mortality, General and Cause-Specific in Buffalo, 1939-41"⁴³ and Albert J. Mayer's study of differential mortality.

A study by R. Pearl indicates that physical labor of itself is positive correlated to mortality rates after ages 40 to 45.⁴⁴ On the other hand, Dublin et al., state:

Many trades, professions, and mechanical pursuits exert no harmful effects upon life, limb, or vitality as far as can be measured. Professional and clerical workers, merchants, salesman and financiers are especially advantageously placed.⁴⁵

Lampman also cites the work of I. M. Mariyama and L. Guralnick who compared the 1950 age adjusted death rates for males between the ages of 20 and 65 within five broad occupational groups to the average male death rate. The results of their study are shown in Table 10.

It was pointed out by Lampman that the Statistical Bulletin of the Metropolitan Life Insurance Company shows purchasers of industrial life insurance policies (a typical low income type of coverage, sold on weekly premium basis), have a higher mortality rate than purchasers of large

⁴³Constantine A. Yeracaris, "Differential Mortality, General and Cause-Specific in Buffalo, 1939-41," Journal of American Statistical Association, December 1955, pp. 1,235-1,247. Cited in Lampman, ibid., p. 42.

⁴⁴R. Pearl, "Research Proves that Hard Work Does Kill," New York Times, Special Article, VIII, 8:1, September 7, 1924. Cited by Dublin et al., op. cit., p. 233.

⁴⁵Ibid., p. 234.

TABLE 10

MALE MORTALITY RATES WITHIN FIVE OCCUPATIONAL GROUPS
AS A PERCENT OF AVERAGE MALE MORTALITY RATES

Occupational group	Percent of average male mortality rate age 20-65
Laborers.	165
Semi-skilled workers.	100
Proprietors, clerical, sales and skilled workers.	96
Technical, administrative and managerial workers	87
Professional workers	84

Source: Lampman, op. cit., p. 44.

insurance policies.⁴⁶

Finally, the records of a large insurance company were revealed to Lampman. The records showed a remarkably low mortality rate for men holding whole-life policies of \$5,000 or more face value.⁴⁷ With the counsel of actuaries and demographers, Lampman made a judgment as to the appropriate mortality rates applicable to top wealth-holders.⁴⁸ For males up to age 65, a mortality rate mid-way between the rates Mariyama and Guralnich found for the two most favorably situated occupational groups shown in Table 10 and the mortality rate of holders of whole-life policies of \$5,000 or more face value was used. For ages over 65, a rate mid-way between the rate for holders of whole-life policies of \$5,000 or more face value and the rates for white males was used. The relationship between the derived rates and the rates for white males was then used by Lampman to assign rates for female top wealth-holders. In Table 9 the mortality rates selected by Lampman as applicable to top wealth-holders and the percentage those rates represent of white mortality rates are shown. (Reduction factors)

The white age-sex mortality rate from post 1960

⁴⁶Lampman, op. cit., p. 45.

⁴⁷Lampman, op. cit., p. 45.

⁴⁸Lampman, acknowledges the counsel of Mortimer Spiegelman, Ray M. Peterson, Morris Pitler, Mrs. Eleanor Daniel, Irving Rosenthal, Lillian Guralrich and Ansley Coole.

Census data for each of the age intervals in the synthetic distribution was computed. The mortality rates were then adjusted by the reduction factor to give social class mortality rates (see columns 7, 8, and 9 of Table 8).

Next the multiplier for each age-sex class was obtained by computing the inverse of the mortality rate for each class. In order to obtain multipliers for the 1958 age intervals which would reduce the bias imposed by the skewed distribution, an average, weighted by the percentage distribution among the age intervals of the synthetic distribution within each of the 1958 tabulation intervals, was computed. The results of these computations are shown in column 11 of Table 8. With one exception, these are the multipliers which were used. Four of the five returns filed for decedents under 40 years of age with a gross estate of one million dollars or more in 1953 were for decedents in the age interval 30 to 40. Therefore, the multiplier used for decedents under 40 with gross estates of one million dollars or more has not been weighted, but is that applicable to the age interval 30 to 40.

Insurance Adjustment

Before the multiplier was applied to the raw data, an adjustment was made to remove from the wealth of decedents the excess of face value over cash surrender value of life insurance. The reasoning here is: we wish to learn the magnitude of wealth held by a particular segment of the living

population. The face value of a life insurance policy only becomes available upon death.⁴⁹ The cash surrender value on the other hand is available to the owner of a policy upon demand, and is therefore thought of as being a part of the wealth of the living.

In making the life insurance adjustment two problems were faced: (1) the determination of the total amount of life insurance proceeds included in the estate aggregate of each age-sex class, (2) the determination of the portion of life insurance proceeds which represent cash surrender value.⁵⁰

The first problem exists because the 1958 published tabulations do not include a breakdown of asset types by age and sex. It was possible however, to estimate the proportion of gross estate represented by life insurance by size of gross estate. It was then assumed that this proportion applied, on the average, to all age groups within the gross estate size class. The procedure may be followed through by referring to Table 11, which is derived from Table 3 in

⁴⁹When one thinks in terms of an individual policyholder, it is of course, true that a matured policy, endowment or other form, may have a cash surrender value equal to (or exceeding) the face value. However, in the aggregate, the sum of the face value exceed the sum of the cash surrender values.

⁵⁰It should be noted that proceeds of a life insurance policy may differ from the face value by the amounts of policy loans and accumulated dividends.

TABLE 11

PERCENT OF GROSS ESTATE REPRESENTED BY FACE VALUE OF
LIFE INSURANCE BY SIZE OF GROSS ESTATE
AND TAXABILITY OF RETURN: 1958

Size of gross estate	Taxable returns	
	Reported taxable insurance	Reported gross estate
	(1) (Thousands of dollars)	(2) (Thousands of dollars)
\$60,000 under \$70,000	\$ 4,145	\$ 121,855
\$70,000 under \$80,000	9,114	254,162
\$80,000 under \$90,000	9,059	242,859
\$90,000 under \$100,000	8,848	230,306
\$100,000 under \$120,000	17,527	434,324
\$120,000 under \$150,000	52,761	765,339
\$150,000 under \$200,000	84,461	1,037,119
\$200,000 under \$300,000	95,512	1,328,557
\$300,000 under \$500,000	83,036	1,353,839
\$500,000 under \$1,000,000	68,690	1,499,764
\$1,000,000 under \$2,000,000	27,010	1,037,810
\$2,000,000 under \$3,000,000	6,914	442,297
\$3,000,000 under \$5,000,000	3,445	383,003
\$5,000,000 under \$10,000,000	2,569	377,566
\$10,000,000 under \$20,000,000	2,281	293,399
\$20,000,000 and over	492	193,633

Source: Statistics of Income, Fiduciary, Gift and Estate Tax Returns, 1958, pp. 59-60.

TABLE 11--Continued

Percent of gross estate represented by insurance	Non-taxable returns		
	Reported taxable insurance	Reported gross estate	Percent of gross estate represented by taxable insurance
(3) (Percent)	(4) (Thousands of dollars)	(5)	(6) (Percent)
3.4	\$19,875	\$279,748	7.1
3.6	23,123	217,618	10.6
3.7	24,079	204,657	11.8
3.8	25,626	201,079	12.7
4.0	45,072	351,242	12.8
6.9	26,675	127,141	14.2
8.1	6,938	66,376	10.5
7.2	2,638	44,645	5.9
6.1	694	34,956	2.0
4.6	1,460	30,448	4.8
2.6	332	15,053	2.2
1.6	281	7,721	3.6
0.9	---	---	---
0.7	143	5,916	2.4
0.8	---	---	---
0.2	---	---	---

Statistics of Income.⁵¹ In each row reported taxable insurance was divided by reported gross estate. For taxable returns filed for gross estate size over \$150,000 under \$200,000 taxable insurance of \$84,461,000 was divided by total gross estate of \$1,037,119,000. This done, it is found that taxable insurance represents 8.1 percent (col. 3) of total gross estate for those estates over \$150,000 under \$200,000 in gross value. The same information for non-taxable estates is provided in Table 4 of Statistics of Income. The results of carrying out this computation for each of the 29 cells which a value for taxable insurance was reported are shown in Table 11.

By using the percentage estimates shown in columns 3 and 6 of Table 11, we estimated the total face value of life insurance held by decedents in each of 16 gross estate size classes.

In order to reduce life insurance proceeds to cash surrender value, Lampman's factors, shown in Table 12, were averaged within the six age intervals for which 1958 data is tabulated. The means are shown in column 3 of Table 12.

⁵¹ Statistics of Income . . . 1958, Fiduciary, Gift and Estate Tax Returns, p. 59.

TABLE 12
RATIO OF CASH SURRENDER VALUE TO FACE VALUE OF
LIFE INSURANCE: 1944, 1953 AND 1958

Age group	1944 Mendershausen (1)	1953 Lampman (2)	1958 Smith (3)
20 under 30	7.0	4.5	6.4
30 under 40	10.7	8.2	
40 under 50	20.6	18.1	18.1
50 under 55	32.8	30.3	
55 under 60	40.5	38.0	34.2
60 under 65	47.9	45.4	
65 under 70	54.5	52.0	48.2
70 under 75	60.4	57.9	
75 under 80	66.7	64.2	61.1
80 under 85	73.7	71.2	
85 and over	80.6	78.1	78.1

Source: Column 1 is from Mendershausen, "The Pattern of Estate Tax Wealth," pp. 304-6.
Column 2 is from Lampman, The Share of Top Wealth-Holders, p. 56.

CHAPTER III

DERIVATION OF WEALTH ESTIMATES FOR 1958

In the preceding chapter the technical classification of decedent's assets by type, and the problems of estimating insurance face and cash surrender values were discussed. In this chapter there is (1) an examination of the published data from which our estimates of wealth were directly derived, (2) step-by-step derivation of our estimates, (3) a brief summary of our major findings for 1958, and (4) an estimate of the wealth of top wealth-holders in 1953. The estimate for 1953 is compared to Lampman's estimate for the same years.

The 1958 Estate Tax Returns

Following Mendershausen and Lampman it is inferred that death occurred in the calendar year preceding the year of filing. On this basis there were 55,675 citizen and resident alien decedents in 1958. Although a return is not required for estates with gross values under \$60,000, 12 returns were filed for such estates. These estates averaged over \$50,000, and presumably were filed to avoid a charge of evasion if their value were set at a level above \$60,000 by

the Internal Revenue Service. Excluding the 12 returns filed for the estates of decedents with gross estates under \$60,000, 36,458 returns were filed for male decedents and 19,215 for female decedents. Of the 36,458 returns filed for male decedents, 1,343 were filed without specification of the decedent's age. For returns filed for females, 622 of the total 19,215 omitted the decedent's age. The median age of male decedents in 1958 was 70.6; and for female decedents 77.1. This compares to median ages of 69.8 and 76.3 respectively for 1953. These medians and the age distributions of decedents for 1958 and 1953, shown in Table 13, reveal that 1958 decedents were slightly older than those in 1953, with which Lampman worked. Lampman in turn had an older group than did Mendershausen in 1944. Females represented 34.5 percent of all decedents in 1958. In 1953 they were 32.5 percent of the total.

An examination of the age-sex cells reveals only one which warrants special mention. In the class "female-under 40" (see Table 7) one return was filed for an estate of \$14,526,000. Since this one estate accounts for over one-half of the total gross estate of 80 decedents in that class, caution should be attached to the interpretation of our estimates of the average wealth of the living in that specific cell. In the aggregate the law of large numbers of a sample of this size will tend to balance out unusual values; aggregate figures can be accepted with greater confidence. The

TABLE 13

AGE DISTRIBUTION OF DECEDENTS ON ESTATE TAX
 RETURNS: 1944, 1953, AND 1958

Age	1958		1953		1944
	Male	Female	Male	Female	Both Sexes
	(1)	(2)	(3)	(4)	(5)
	(Percent)				
Under 40	1.1	.4	1.2	0.6	2.0
40 under 50	4.6	2.0	5.0	2.2	4.6
50 under 60	14.1	7.2	15.9	7.8	13.3
60 under 70	28.3	17.6	28.5	18.4	24.1
70 under 80	29.4	32.1	28.7	33.2	31.9
80 and over	22.4	40.7	20.7	37.8	24.1
	Median Age				
	70.6	77.1	69.8	76.3	71.8

Source: Statistics of Income, various issues.

standard error of the mean wealth of all decedents is \$2,200, or about 1.3 percent of the mean wealth of top wealth-holders. In Appendix A the standard error attaching to each of the age-sex cells is shown.

The actual derivation of our estimates of total wealth can be followed by referring to Table 14. In the first four columns of the table data from the summary tabulations in Statistics of Income (see page 64 for a reproduction of the original table) have been restructured. In Table 14 only decedents leaving estates of from \$60,000 to \$70,000 are included. Columns 1 and 2 show the number of such decedents by age and sex. Columns 3 and 4 show the aggregate wealth of such decedents by age and sex. The first step in deriving the wealth estimate was to separate from the gross estate of decedents the amount life insurance represented of total estate as shown in Table 11. For instance, Table 11 shows that life insurance represented 3.4 percent of gross estate of taxable estates of \$60,000 but under \$70,000. Therefore all taxable estates shown in Table 14 were multiplied by 3.4 percent to estimate the face value of decedent's life insurance. In the case of non-taxable returns, life insurance represented 7.1 percent of gross estate. Non-taxable returns were multiplied by this value. In columns 5 and 6 of Table 14 the result of these multiplications on the estates of males and females respectively are shown.

The value of a life insurance contract in the estate

TABLE 14
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$60,000 TO \$70,000

Age	Number of Returns		Gross Estate		Insurance Component (Gross Estate) (.034)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	774	1,050	\$ 51,791	\$ 70,064	\$ 1,762	\$2,382			\$1,085	\$1,563	\$ 50,029	\$ 67,682			\$ 20,362	\$ 33,803	\$1,480,466	\$2,063,475
Under 40	6	2	407	127	14	4	6.4	6.4	1	...	393	123	642.4	1283.5	642	...	252,463	157,870
40 - 50	17	5	1,140	334	39	11	18.1	18.1	7	2	1,101	323	238.1	434.8	1,667	870	262,148	140,440
50 - 60	44	41	2,965	2,751	101	94	34.2	34.2	35	32	2,864	2,657	77.2	159.4	2,702	5,101	221,101	423,526
60 - 70	156	139	10,393	9,261	353	315	48.2	48.2	170	152	10,040	8,946	32.4	59.1	5,508	8,983	325,296	528,709
70 - 80	256	352	17,135	23,508	583	799	61.1	61.1	356	488	16,552	22,709	15.7	22.9	5,589	11,175	259,866	520,036
80 and over	274	468	18,339	31,196	624	1,061	78.1	78.1	487	829	17,715	30,135	7.8	7.6	3,799	6,300	138,177	229,026
Age unknown	21	43	1,412	2,887	48	98	61.1	61.1	29	60	1,364	2,789	15.7	22.9	455	1,374	21,415	63,868
Non-Taxable Returns					(.071) (Gross Estate)													
Total	2,781	1,553	\$180,266	\$ 99,482	\$12,792	\$7,062			\$6,986	\$4,293	\$167,468	\$ 92,420			\$190,039	\$136,933	\$7,466,778	\$5,060,430
Under 40	30	11	1,946	713	138	51	6.4	6.4	9	3	1,808	662	642.4	1283.5	5,782	3,850	1,161,459	840,677
40 - 50	130	37	8,494	2,385	603	169	18.1	18.1	109	31	7,891	2,216	238.1	434.8	25,953	13,479	1,878,647	963,517
50 - 60	376	129	24,453	8,350	1,736	593	34.2	34.2	594	203	22,717	7,757	77.2	159.4	45,857	32,358	1,753,752	1,236,466
60 - 70	738	291	47,985	18,739	3,407	1,330	48.2	48.2	1,642	641	44,578	17,409	32.4	51.1	53,201	37,883	1,444,327	1,028,872
70 - 80	827	490	53,536	31,342	3,801	2,225	61.1	61.1	2,322	1,359	49,735	29,117	15.7	22.9	36,455	31,121	780,840	666,779
80 and over	592	533	38,173	34,003	2,710	2,414	78.1	78.1	2,116	1,885	35,463	31,589	7.8	7.6	16,505	14,326	276,611	240,076
Age unknown	88	62	5,679	3,950	403	280	48.2	61.1	194	171	5,276	3,670	32.4	22.9	6,286	3,916	170,942	84,043
Grand total	3,555	2,603	\$232,057	\$169,546	\$14,560	\$9,444			\$8,071	\$5,856	\$217,497	\$160,102			\$210,401	\$170,736	\$8,947,244	\$7,123,905

See notes at end of Table 29.

of a decedent is, in general, its face value; the value of a life insurance contract to a living person is its cash surrender value.

The amount shown for life insurance in Statistics of Income is face value less policy loans plus accumulated dividends and some post-mortem dividends. The IRS has never tabulated separately the components of life insurance. It is therefore not possible to make a statistical allocation of life insurance among the above components. The procedure followed by Lampman implicitly assumes reported insurance to be the face value. The impressionistic judgment of the writer, based on contact with the returns, is that the assumption does not do violence to the facts.

Therefore, to estimate the life insurance equity of the living from that of the dead, it is necessary to adjust to cash surrender value the face value of life insurance reported on estate tax returns. In order to do this the insurance component of gross estate shown in columns 5 and 6 of Table 14 was multiplied by the ratio of cash surrender value to face values in column 3 of Table 12. It will be noted that the ratio of cash surrender value to face value is related to the age of the decedent. Therefore, this ratio, the equity factor, varies by age group within the income class. The product of this multiplication is referred to as insurance equity, and is shown in columns 9 and 10 of Table 14. Both the percentage figures used for deriving the insurance

component and the equity factors used for determining insurance equity (cash surrender value) are undifferentiated by sex.

Insurance equity is then multiplied by the appropriate estate multiplier, derived in Table 8, and the results are shown in columns 15 and 16 of Table 14. Each multiplier for males age 50-60 is 77.2; the cash surrender value of life insurance policies owned by male decedents age 50-60 with taxable estates of \$60,000 to \$70,000 was \$35,000 (column 9). Multiplying \$35,000 by 77.2, we get \$2,702,000. If we perform the same operation on the insurance equity of male decedents of the same age and estate size, with nontaxable estates (lower half of table), we get \$45,857,000. If this is added to the \$2,702,000, we have our final estimates of life insurance equity owned by living males, age 50-60, with gross assets of \$60,000 to \$70,000 in 1958: \$48,559,000.

The value of all assets in gross estate exclusive of life insurance equity for this same group of males was estimated by subtracting the insurance component from gross estate and then applying the multiplier to the remainder. For taxable estates of this group of males, the estimate is \$221,101,000; for non-taxable returns, \$1,753,752,000. The total wealth exclusive of life insurance equity of this group of males is then \$1,974,853,000.

The total value of insurance equity owned by living males of all ages with gross assets of \$60,000 but under

\$70,000 was \$210,401,000 (grand total column 15) in 1958; for females it was \$170,736,000. The values of total gross assets exclusive of insurance equity of this group of males and females were \$8.9 billion and \$7.1 billion respectively (columns 17 and 18).

Both sexes in the \$60,000 but under \$70,000 gross estate size class are estimated to have owned life insurance equity of \$0.4 billion (sum of columns 15 and 16) plus \$16.1 billion of other assets, or a total gross wealth of \$16.4 billion in 1958.

One additional adjustment of the data was performed in arriving at the final estimate. As will be noted, 21 taxable returns and 88 non-taxable returns for male decedents and 43 taxable and 62 non-taxable returns for female decedents were filed in the \$60,000 under \$70,000 gross estate size class without age information. Rather than discard these returns, a multiplier was applied to them. The multiplier used was that applicable to the age interval in which the mean age of decedents of known age, weighted by the incidence of decedents fell, computed separately for each estate size class, for taxable and non-taxable returns and for males and females. In the case of taxable returns shown in Table 14 gross estate size class \$60,000 under \$70,000, the weighted mean age of male decedents fell in the 70 under 80 age interval. The multiplier for that interval was 15.7, which was assigned to the wealth of the 21 male decedents for

whom taxable returns were filed with age unspecified. Similarly, the weighted mean age of female decedents in the same group was also in the interval 70 under 80, and the multiplier for females in that age interval, 22.9, was assigned to the wealth of females decedents for whom age information was omitted on filed returns. The assumption underlying this adjustment is that the age distributions of decedents for whom age was omitted from returns was the same as that of decedents for whom the information was provided within groups segregated by sex, size of gross estate, and taxability or non-taxability of returns. Tables 14 to 29 carry through this step-by-step derivation for the 16 gross estate size classes used in Statistics of Income. The basic data are presented here so that any one may change the proportion of gross estate allocated to life insurance, the equity factors, or the multipliers and produce his own estimates.

Summing all gross estate size classes, top wealth-holders owned \$10.6 billion of insurance equity and \$463.2 billion in other assets, or total gross wealth of \$473.9 billion (Table 30). The number of top wealth-holders can be obtained by applying the multiplier by the number of returns filed. The numbers top wealth-holder by size of gross estate and the total are shown in column 1 of Table 30. In 1958, 2.5 million persons held gross assets of \$60,000 or more; on the average they held assets of about \$189,247. The distribution of wealth among top wealth-holders is skewed. The

TABLE 15

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$70,000 TO \$80,000

Age	Number of Returns		Gross Estate		Insurance Component (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	1,500	1,891	\$112,579	\$141,583	\$ 4,052	\$5,097			\$ 2,477	\$3,252	\$108,527	\$136,486			\$ 47,248	\$82,798	\$ 3,559,214	\$4,984,028
Under 40	20	3	1,492	223	54	8	6.4	6.4	3	1	1,438	215	642.4	1203.5	1,927	1,284	923,771	275,953
40 - 50	27	19	2,012	1,433	72	52	18.1	18.1	13	9	1,940	1,381	238.1	434.8	3,095	3,913	461,914	600,459
50 - 60	104	111	7,839	8,321	282	300	34.2	34.2	96	103	7,557	8,021	77.2	159.4	7,411	16,418	583,400	1,278,547
60 - 70	296	289	22,258	21,700	801	781	48.2	48.2	386	376	21,457	20,919	32.4	59.1	12,506	22,222	695,207	1,236,313
70 - 80	481	651	36,082	48,679	1,299	1,752	61.1	61.1	794	1,070	34,783	46,927	15.7	22.9	12,466	24,503	546,093	1,074,628
80 and over	526	755	39,445	56,511	1,420	2,034	78.1	78.1	1,109	1,589	38,025	54,477	7.8	7.6	8,650	12,076	296,595	414,025
Age unknown	46	63	3,451	4,716	124	170	61.1	61.1	76	104	3,327	4,546	15.7	22.9	1,193	2,382	52,234	104,103
Non-Taxable Returns					(x 10.6)													
Total	2,272	598	\$173,026	\$ 44,592	\$18,341	\$4,726			\$ 9,422	\$2,581	\$154,685	\$ 39,866			\$299,553	\$129,487	\$ 8,433,394	\$3,200,640
Under 40	42	7	3,141	520	333	55	6.4	6.4	21	9	2,808	406	642.4	1283.5	13,490	11,552	1,803,859	596,828
40 - 50	136	20	10,227	1,504	1,084	159	18.1	18.1	196	29	9,143	1,345	238.1	434.8	46,668	12,609	2,176,948	584,806
50 - 60	365	93	27,404	6,977	2,905	740	34.2	34.2	994	253	24,499	6,237	77.2	159.4	76,737	40,328	1,891,323	994,178
60 - 70	734	154	54,872	11,477	5,816	1,217	48.2	48.2	2,803	587	49,056	10,260	32.4	59.1	90,817	34,692	1,589,414	606,366
70 - 80	655	183	48,969	13,580	5,191	1,439	61.1	61.1	3,172	879	43,778	12,141	15.7	22.9	49,800	20,129	687,315	278,029
80 and over	331	121	24,752	9,039	2,624	958	78.1	78.1	2,049	748	22,128	8,081	7.8	7.6	15,982	5,685	172,598	61,416
Age unknown	49	20	3,661	1,495	388	158	48.2	48.2	187	76	3,273	1,337	32.4	59.1	6,059	4,492	111,937	79,017
Grand total	3,772	2,489	\$285,605	\$186,175	\$22,393	\$9,823			\$11,899	\$5,833	\$263,212	\$176,352			\$346,801	\$212,285	\$11,992,608	\$8,184,668

See notes at end of Table 29.

TABLE 16
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$20,000 TO \$90,000

Age	Number of Returns		Gross Estate		Insurance Component (3.7) (Gross Estate)		Equity Factor		Insurance Equity Component Equity Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	1,358	1,502	\$115,389	\$127,470	\$4,270	\$4,716			\$2,601	\$3,013	\$111,119	\$122,754			\$50,625	\$76,086	\$3,419,546	\$4,553,515
Under 40	10	2	846	176	31	6	6.4	6.4	2	...	315	170	642.4	1283.5	1,285	...	523,556	218,195
40 - 50	32	19	2,708	1,591	100	59	18.1	18.1	18	11	2,608	1,532	235.1	434.8	4,286	4,783	620,965	666,114
50 - 60	103	85	8,811	7,182	326	266	34.2	34.2	11	91	8,425	6,916	77.2	159.4	8,569	14,505	655,042	1,102,410
60 - 70	265	248	22,505	21,061	833	779	48.2	48.2	401	375	21,672	20,282	32.4	59.1	12,992	22,163	702,173	1,198,666
70 - 80	440	464	37,316	39,379	1,381	1,457	61.1	61.1	844	890	35,935	37,922	15.7	22.9	13,251	20,381	564,180	868,414
80 and over	463	624	39,375	53,016	1,457	1,962	78.1	78.1	1,138	1,532	37,918	51,054	7.8	7.6	8,876	11,643	295,760	388,010
Age unknown	45	60	3,828	5,065	142	187	61.1	61.1	87	114	3,686	4,878	15.7	22.9	1,366	2,611	57,870	111,706
Nontaxable Returns																		
Total	2,011	398	\$170,865	\$33,792	\$20,162	\$3,987			\$10,443	\$2,161	\$150,703	\$29,805			\$325,606	\$106,601	\$7,748,812	\$2,329,018
Under 40	29	2	2,479	171	293	20	6.4	6.4	19	1	2,186	151	642.4	1283.5	12,206	1,284	1,404,286	193,309
40 - 50	109	16	9,267	1,364	1,093	161	18.1	18.1	198	29	8,174	1,203	238.1	434.8	47,144	12,609	1,946,229	523,064
50 - 60	329	72	28,043	6,122	3,309	722	34.2	34.2	1,132	247	24,734	5,400	77.2	159.4	87,390	39,372	1,909,465	860,760
60 - 70	644	101	54,629	8,602	6,446	1,015	48.2	48.2	3,107	489	48,183	7,587	32.4	59.1	100,667	28,900	1,561,129	448,392
70 - 80	546	95	46,407	8,061	5,476	951	61.1	61.1	3,346	581	40,931	7,110	15.7	22.9	52,532	13,305	642,617	162,819
80 and over	311	92	26,425	7,784	3,118	919	78.1	78.1	2,435	718	23,307	6,865	7.8	7.6	18,993	5,457	181,795	52,174
Age unknown	43	20	3,615	1,688	427	199	48.2	48.2	206	96	3,188	1,489	32.4	59.1	6,674	5,674	103,291	88,000
Grand total	3,369	1,900	\$286,254	\$161,262	\$24,432	\$8,703			\$13,044	\$5,174	\$261,822	\$152,559			\$376,231	\$182,687	\$11,168,358	\$6,882,533

See notes at end of Table 29.

TABLE 17
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$90,000 TO \$100,000

Age	Number of Returns		Gross Estate		Insurance Component (3.8) (Gross Estate)		Equity Factor		Insurance Equity Component Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	1,145	1,281	\$108,760	\$121,546	\$ 4,132	\$4,620			\$ 2,560	\$2,963	\$104,628	\$116,926			\$ 47,898	\$ 73,461	\$ 3,024,174	\$4,334,332
Under 40	7	4	669	390	25	15	6.4	6.4	2	1	644	375	642.4	1283.5	1,285	1,284	413,706	481,313
40 - 50	24	11	2,300	1,043	87	40	18.1	18.1	16	7	2,213	1,003	283.1	434.8	3,810	3,044	526,915	436,104
50 - 60	85	61	8,078	5,780	307	220	34.2	34.2	105	75	7,771	5,560	77.2	159.4	8,106	11,955	599,921	886,264
60 - 70	211	186	20,050	17,686	762	672	48.2	48.2	367	324	19,288	17,014	32.4	59.1	11,891	19,148	624,931	1,005,527
70 - 80	364	427	34,502	40,468	1,311	1,538	61.1	61.1	801	940	33,191	38,930	15.7	22.9	12,576	21,526	521,099	891,497
80 and over	435	545	41,353	51,680	1,571	1,964	78.1	78.1	1,227	1,534	39,782	49,716	7.8	7.6	9,571	11,658	310,300	377,842
Age unknown	19	47	1,808	4,499	69	171	61.1	48.2	42	82	1,739	4,328	15.7	59.1	659	4,846	27,302	255,785
Non-Taxable Returns					(x 12.7)													
Total	1,827	292	\$173,416	\$ 27,663	\$22,024	\$3,514			\$11,056	\$1,870	\$151,392	\$241,149			\$374,160	\$ 94,360	\$ 2,277,863	\$2,151,447
Under 40	21	3	1,979	289	251	37	6.4	6.4	16	2	1,728	252	642.4	1283.5	10,278	2,567	1,110,067	323,442
40 - 50	132	18	12,553	1,701	1,594	216	18.1	18.1	288	39	10,959	1,485	238.1	434.8	68,573	16,957	2,609,338	645,678
50 - 60	326	40	30,928	3,785	3,928	481	34.2	34.2	1,343	164	27,000	3,304	77.2	159.4	103,680	24,548	2,084,400	526,658
60 - 70	591	87	56,133	8,245	7,129	1,047	48.2	48.2	3,436	505	49,004	7,198	32.4	59.1	111,002	29,846	1,587,730	425,402
70 - 80	502	77	47,611	7,313	6,047	929	61.1	61.1	3,695	568	41,564	6,384	15.7	22.9	58,012	13,007	652,555	146,194
80 and over	221	57	21,003	5,394	2,667	685	78.1	78.1	2,081	535	18,336	4,709	7.8	7.6	16,232	4,066	143,021	35,788
Age unknown	34	10	3,209	936	408	119	48.2	48.2	197	57	2,801	817	32.4	59.1	6,383	3,369	90,752	48,285
Grand total	2,972	1,573	\$282,176	\$149,209	\$26,156	\$8,134			\$13,616	\$4,833	\$256,020	\$141,075			\$422,058	\$167,821	\$11,302,037	\$6,485,779

See notes at end of Table 29.

TABLE 18

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$100,000 TO \$120,000

Age	Number of Returns		Gross Estate		Insurance Component (3.8) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	1,981	1,985	\$217,149	\$217,175	\$ 8,686	\$ 8,687			\$ 5,145	\$5,572	\$208,463	\$208,488			\$110,219	\$138,982	\$ 7,005,635	\$ 7,871,017
Under 40	13	4	1,386	446	55	18	6.4	6.4	4	1	1,331	428	642.4	1283.5	2,570	1,283	855,034	549,338
40 - 50	61	28	6,740	3,084	270	123	18.1	18.1	49	22	6,470	2,961	238.1	434.8	11,667	9,566	1,540,507	1,287,443
50 - 60	187	107	20,496	11,718	820	469	34.2	34.2	280	160	19,676	11,249	77.2	159.4	21,616	25,504	1,518,987	1,793,091
60 - 70	424	303	46,553	33,131	1,862	1,325	48.2	48.2	897	639	44,691	31,806	32.4	59.1	29,063	37,765	1,447,988	1,879,735
70 - 80	631	645	69,353	70,514	2,774	2,821	61.1	61.1	1,695	1,724	66,579	67,693	15.7	22.9	26,612	39,480	1,045,290	1,550,170
80 and over	600	839	65,495	91,871	2,620	3,675	78.1	78.1	2,046	2,870	62,875	88,196	7.8	7.6	15,959	21,812	490,425	670,290
Age unknown	65	59	7,126	6,411	285	256	61.1	61.1	174	156	6,841	6,155	15.7	22.9	2,732	3,572	107,404	140,950
Non-Taxable Returns					(x 12.8)													
Total	2,788	422	\$305,118	\$ 46,124	\$39,055	\$ 5,905			\$19,340	\$3,067	\$266,063	\$ 40,219			\$670,625	\$169,940	\$15,325,391	\$ 3,941,585
Under 40	51	7	5,502	779	704	100	6.4	6.4	45	6	4,798	679	642.4	1283.5	28,908	7,701	3,082,235	871,497
40 - 50	180	22	19,654	2,403	2,516	308	18.1	18.1	455	56	17,138	2,095	238.1	434.8	108,336	24,349	4,080,558	910,906
50 - 60	490	69	53,760	7,555	6,881	967	34.2	34.2	2,353	331	46,879	6,588	77.2	159.4	181,652	52,761	3,619,059	1,050,127
60 - 70	986	131	108,038	14,329	13,829	1,834	48.2	48.2	6,666	884	94,209	12,495	32.4	59.1	215,978	52,244	3,052,372	738,455
70 - 80	738	105	80,686	11,505	10,328	1,473	61.1	61.1	6,310	900	70,358	10,032	15.7	22.9	99,067	20,610	1,104,621	229,733
80 and over	287	72	31,342	7,826	4,012	1,002	78.1	78.1	3,133	783	27,330	6,824	7.8	7.6	24,437	5,951	213,174	51,862
Age unknown	56	16	6,136	1,727	785	221	48.2	48.2	378	107	5,351	1,506	32.4	59.1	12,247	6,324	173,372	89,005
Grand total	4,769	2,407	\$522,267	\$263,299	\$47,741	\$14,592			\$24,485	\$8,639	\$474,526	\$248,707			\$780,844	\$308,922	\$22,331,026	\$11,812,602

See notes at end of Table 29.

TABLE 19
DERIVATION OF GROSS ESTATE OF LIVING TOP-WEALTH HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$120,000 TO \$150,000

Age	Number of Returns		Gross Estate		Insurance Component (6.9) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	3,556	2,114	\$482,140	\$283,199	\$33,267	\$19,540			\$18,585	\$12,376	\$448,873	\$263,659			\$493,412	\$338,931	\$18,338,763	\$11,060,635
Under 40	33	7	4,449	934	307	64	6.4	6.4	50	10	4,142	870	642.4	1283.5	32,120	12,835	2,660,821	1,116,645
40 - 50	134	31	18,413	4,171	1,270	288	18.1	18.1	230	52	17,143	3,883	238.1	434.8	54,763	22,610	4,081,748	1,688,328
50 - 60	453	141	61,647	19,085	4,254	1,317	34.2	34.2	1,455	450	57,393	17,768	77.2	159.4	112,326	71,730	4,430,740	2,832,219
60 - 70	972	342	132,440	45,843	9,138	3,163	48.2	48.2	4,404	1,525	123,302	42,680	32.4	59.1	142,690	90,128	3,994,985	2,522,388
70 - 80	1,047	657	141,801	87,872	9,784	6,063	61.1	61.1	5,978	3,704	132,017	81,809	15.7	22.9	93,855	84,822	2,072,667	1,873,426
80 and over	852	863	114,580	115,389	7,906	7,962	78.1	78.1	6,175	6,218	106,674	107,427	7.8	7.6	48,165	47,257	832,057	816,445
Age unknown	65	73	8,810	9,905	608	683	48.2	61.1	293	417	8,202	9,222	32.4	22.9	9,493	9,549	265,745	211,184
Non-Taxable Returns					(x 14.2)													
Total	1,254	192	\$162,067	\$ 25,074	\$23,013	\$ 3,561			\$10,566	\$ 2,012	\$139,054	\$ 21,513			\$489,740	\$ 88,908	\$10,244,092	\$ 1,492,242
Under 40	30	...	3,933	...	558	...	6.4	6.4	92	...	3,375	...	642.4	1283.5	59,101	...	2,168,100	...
40 - 50	124	9	16,252	1,173	2,308	167	18.1	18.1	418	30	13,944	1,006	238.1	434.8	99,526	13,044	3,320,066	437,409
50 - 60	310	32	40,319	4,122	5,725	585	34.2	34.2	1,958	200	34,594	3,537	77.2	159.4	151,158	31,880	2,670,657	563,798
60 - 70	414	47	53,396	6,010	7,582	853	48.2	48.2	3,655	411	45,814	5,157	32.4	59.1	118,422	24,290	1,484,374	304,779
70 - 80	252	43	32,181	5,584	4,570	793	61.1	61.1	2,792	485	27,611	4,791	15.7	22.9	43,834	11,107	433,493	109,714
80 and over	102	57	13,123	7,660	1,863	1,088	78.1	78.1	1,455	850	11,260	6,572	7.8	7.6	11,349	6,460	87,828	49,947
Age unknown	22	4	2,863	525	407	75	48.2	48.2	196	36	2,456	450	32.4	59.1	6,350	2,127	79,574	26,595
Grand total	4,810	2,306	\$644,207	\$308,273	\$56,280	\$25,101			\$29,151	\$14,388	\$587,927	\$285,172			\$983,152	\$427,839	\$28,582,855	\$12,552,877

See notes at end of Table 29.

TABLE 20

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$150,000 TO \$200,000

Age	Number of Returns		Gross Estate		Insurance Component (8.1) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	4,119	1,893	\$710,633	\$326,486	\$57,561	\$26,445			\$31,137	\$16,640	\$653,072	\$300,041			\$864,396	\$458,496	\$29,108,714	\$13,411,612
Under 40	44	7	7,646	1,243	619	101	6.4	6.4	40	6	7,027	1,142	642.4	1283.5	25,696	7,701	4,514,145	1,465,757
40 - 50	175	39	29,942	6,789	2,425	550	18.1	18.1	439	100	27,517	6,239	238.1	434.8	104,526	43,480	6,551,798	2,712,717
50 - 60	615	113	106,158	19,611	8,599	1,588	34.2	34.2	2,941	543	97,559	18,023	77.2	159.4	227,045	86,554	7,531,555	2,872,866
60 - 70	1,187	332	204,431	57,417	16,559	4,651	48.2	48.2	7,981	2,242	187,872	52,766	32.4	59.1	258,584	132,502	6,087,053	3,118,471
70 - 80	1,195	585	206,481	100,808	16,725	8,165	61.1	61.1	10,219	4,989	189,756	92,643	15.7	22.9	160,438	114,248	2,979,169	2,121,525
80 and over	819	759	141,514	130,793	11,463	10,594	78.1	78.1	8,953	8,274	130,051	120,199	7.8	7.6	69,833	62,882	1,014,398	913,512
Age unknown	84	58	14,461	9,825	1,171	796	48.2	61.1	564	486	13,290	9,029	32.4	22.9	18,274	11,129	430,596	206,764
Non-Taxable Return					(x 10.5)													
Total	312	79	\$ 52,800	\$ 13,576	\$ 5,545	\$ 1,426			\$ 2,539	\$ 904	\$ 48,733	\$ 12,250			\$111,831	\$ 24,785	\$ 4,195,486	\$ 685,631
Under 40	13	1	2,132	169	224	18	6.4	6.4	14	1	1,908	151	642.4	1283.5	8,994	1,284	1,225,699	193,808
40 - 50	33	2	5,520	325	580	34	18.1	18.1	105	6	5,415	291	238.1	434.8	25,000	2,609	1,289,312	126,527
50 - 60	85	6	14,520	1,015	1,525	107	34.2	34.2	522	37	13,998	908	77.2	159.4	40,298	5,898	1,080,646	144,735
60 - 70	86	9	14,515	1,498	1,524	157	48.2	48.2	735	76	12,991	1,441	32.4	59.1	23,814	4,492	420,908	85,163
70 - 80	49	22	8,304	3,739	872	393	61.1	61.1	533	240	7,432	3,346	15.7	22.9	8,368	5,496	116,682	76,623
80 and over	44	34	7,458	5,931	783	623	78.1	78.1	612	487	6,675	5,308	7.8	7.6	4,774	3,701	52,065	40,341
Age unknown	2	5	351	899	37	94	48.2	61.1	18	57	314	805	32.4	22.9	583	1,305	10,174	18,434
Grand total	4,431	1,972	\$763,433	\$340,062	\$63,106	\$27,871			\$33,676	\$17,544	\$701,805	\$312,291			\$976,227	\$483,281	\$33,304,200	\$14,097,243

See notes at end of Table 29.

TABLE 21
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$200,000 TO \$300,000

Age	Number of Returns		Gross Estate		Insurance Component (7.2) (Gross Estate)		Equity Factor		Insurance Equity Component Equity Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
					(Thousands of dollars)				(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	3,845	1,644	\$930,412	\$398,145	\$66,989	\$28,667			\$36,469	\$17,993	\$863,423	\$369,478			\$1,003,775	\$512,916	\$37,749,844	\$18,134,482
Under 40	31	9	7,460	2,024	537	146	6.4	6.4	34	9	6,923	1,878	642.4	1283.5	21,842	11,552	4,447,335	2,410,413
40 - 50	183	41	43,511	9,969	3,133	718	18.1	18.1	567	130	40,378	9,251	238.1	434.8	135,003	56,524	9,614,002	4,022,335
50 - 60	595	120	143,344	29,280	10,321	2,108	34.2	34.2	3,530	721	133,023	27,172	77.2	159.4	272,516	114,927	10,269,376	4,331,217
60 - 70	1,046	261	253,562	63,549	18,256	4,576	48.2	48.2	8,799	2,206	235,306	58,973	32.4	59.1	285,088	130,375	7,623,914	3,485,304
70 - 80	1,100	495	267,256	119,557	19,242	8,608	61.1	61.1	11,757	5,259	248,014	110,949	15.7	22.9	184,585	120,431	3,893,820	2,540,732
80 and over	828	683	200,249	165,389	14,418	11,908	78.1	78.1	11,260	9,300	185,831	153,481	7.8	7.6	87,828	70,680	1,449,482	1,166,456
Age unknown	62	35	15,030	8,377	1,082	603	48.2	61.1	522	368	13,948	7,774	32.4	22.9	16,913	8,427	451,915	178,025
Non-Taxable Returns					(x 5.9)													
Total	112	75	\$ 26,758	\$ 17,887	\$ 1,578	\$ 1,055			\$ 840	\$ 686	\$ 25,180	\$ 16,832			\$ 26,761	\$ 16,099	\$ 1,556,724	\$ 759,311
Under 40	2	1	490	201	29	12	6.4	6.4	2	1	461	189	642.4	1283.5	1,284	1,284	296,146	242,581
40 - 50	11	1	2,674	226	158	13	18.1	18.1	29	2	2,516	213	238.1	434.8	6,905	870	599,060	92,612
50 - 60	20	4	4,710	848	278	50	34.2	34.2	95	17	4,432	798	77.2	159.4	7,334	2,710	342,150	127,201
60 - 70	26	7	6,312	1,598	372	94	48.2	48.2	179	45	5,940	1,504	32.4	59.1	5,780	2,660	192,546	88,886
70 - 80	17	29	4,004	6,992	236	413	61.1	61.1	144	252	3,768	6,579	15.7	22.9	2,261	5,771	59,158	150,659
80 and over	35	33	8,362	8,022	493	473	78.1	78.1	385	369	7,869	7,549	7.8	7.6	3,003	2,804	61,378	57,372
Age unknown	1	..	206	...	12	..	48.2	61.1	6	...	194	...	32.4	...	194	...	6,286	...
Grand total	3,957	1,719	\$957,170	\$416,032	\$68,567	\$29,722			\$37,309	\$18,679	\$888,603	\$386,310			\$1,030,536	\$529,015	\$39,306,568	\$18,893,793

See notes at end of Table 29.

TABLE 22

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$300,000 TO \$500,000

Age	Number of Returns		Gross Estate		Insurance Component (6.1) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	2,488	1,066	\$947,711	\$406,128	\$57,811	\$24,773			\$32,222	\$15,798	\$889,900	\$381,355			\$818,381	\$526,948	\$33,911,533	\$17,328,759
Under 40	14	5	5,229	1,745	319	106	6.4	6.4	20	7	4,910	1,639	642.4	1283.5	12,848	8,984	3,154,184	2,103,656
40 - 50	87	24	32,504	9,538	1,983	582	18.1	18.1	359	105	30,521	8,959	238.1	434.8	85,478	150,654	7,267,050	3,894,069
50 - 60	318	65	121,380	25,419	7,404	1,551	34.2	34.2	2,532	530	113,976	23,868	77.2	159.4	195,470	84,482	8,798,947	3,804,559
60 - 70	749	174	284,096	65,234	17,330	3,979	48.2	48.2	8,353	1,918	266,766	61,255	32.4	59.1	270,637	113,354	8,643,218	3,620,170
70 - 80	710	294	270,192	112,379	16,482	6,855	61.1	61.1	10,070	4,188	253,710	105,524	15.7	22.9	158,099	95,905	3,983,247	2,416,500
80 and over	572	482	219,212	183,395	13,372	11,187	78.1	78.1	10,444	8,737	205,840	172,208	7.8	7.6	81,463	66,401	1,605,552	1,308,781
Age unknown	38	22	15,098	8,418	921	513	48.2	61.1	444	313	14,177	7,905	32.4	22.9	14,386	7,168	459,335	181,024
Non-Taxable Returns					(x 2.0)													
Total	49	43	\$ 18,567	\$ 16,389	\$ 372	\$ 328			\$ 231	\$ 221	\$ 18,195	\$ 16,061			\$ 3,825	\$ 7,703	\$ 554,651	\$ 573,030
Under 40	1	...	304	...	6	...	6.4	6.4	...	...	298	...	642.4	1283.5	...	...	191,435	...
40 - 50	...	2	...	698	...	14	18.1	18.1	...	3	...	684	238.1	434.8	...	4,304	...	297,403
50 - 60	4	...	1,506	...	30	...	34.2	34.2	10	...	1,476	...	77.2	159.4	772	...	113,947	...
60 - 70	8	4	2,884	1,686	58	34	48.2	48.2	28	16	2,826	1,652	32.4	59.1	907	946	91,562	97,633
70 - 80	16	11	5,847	4,261	117	85	61.1	61.1	71	52	5,730	4,176	15.7	22.9	1,115	1,191	89,961	95,630
80 and over	18	24	7,199	9,091	144	182	78.1	78.1	112	142	7,055	8,909	7.8	7.6	874	1,079	55,029	67,708
Age unknown	2	2	827	653	17	13	61.1	61.1	20	8	810	640	15.7	22.9	157	183	12,717	14,656
Grand total	2,537	1,109	\$966,278	\$422,517	\$58,183	\$25,101			\$32,453	\$16,019	\$908,095	\$397,416			\$822,206	\$534,651	\$34,466,184	\$17,901,789

See notes at end of Table 29.

TABLE 23
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$500,000 TO \$1,000,000

Age	Number of Returns		Gross Estate		Insurance Component (4.6) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)				
Taxable Returns																		
Total	1,490	708	\$1,014,367	\$485,397	\$46,661	\$22,329			\$26,995	\$14,296	\$967,706	\$463,068			\$617,752	\$366,863	\$34,082,603	\$20,487,327
Under 40	11	4	7,331	2,596	337	119	6.4	6.4	22	8	6,994	2,477	642.4	1283.5	14,133	10,268	4,492,946	3,179,230
40 - 50	37	17	25,373	11,450	1,167	527	18.1	18.1	211	95	24,206	10,923	238.1	434.8	50,239	41,306	5,763,449	4,749,320
50 - 60	173	30	121,230	19,823	5,577	912	34.2	34.2	1,907	312	115,653	18,911	77.2	159.4	147,220	49,733	8,928,412	3,014,413
60 - 70	390	116	260,239	81,149	11,971	3,733	48.2	48.2	5,770	1,799	248,268	77,416	32.4	59.1	186,948	106,321	8,043,883	4,575,286
70 - 80	445	212	306,798	144,081	14,113	6,628	61.1	61.1	8,623	4,050	292,685	137,453	15.7	22.9	135,381	92,745	4,595,154	3,143,674
80 and over	419	310	283,373	213,647	13,035	9,828	78.1	78.1	10,180	7,676	270,338	203,819	7.8	7.6	79,404	58,338	2,108,636	1,549,024
Age unknown	15	19	10,023	12,651	461	582	61.1	61.1	282	356	9,562	12,069	15.7	22.9	4,427	8,152	150,123	276,380
Non-Taxable Returns																		
Total	25	19	\$ 16,873	\$ 13,575	\$ 810	\$ 650			\$ 2,101	\$ 1,092	\$ 16,063	\$ 12,925			\$ 33,683	\$ 20,198	\$ 454,621	\$ 181,409
Under 40	...	...	...	...	...	...	6.4	6.4	...	...	...	...	642.4	1283.5	...	...	...	...
40 - 50	2	...	1,038	...	50	...	18.1	18.1	9	...	988	...	238.1	434.8	2,143	...	235,243	...
50 - 60	...	...	...	...	...	...	34.2	34.2	...	...	...	...	77.2	159.4	...	...	...	...
60 - 70	4	1	2,620	571	126	27	48.2	48.2	61	13	2,494	544	32.4	59.1	1,976	768	80,806	32,150
70 - 80	8	4	5,377	2,843	258	136	61.1	61.1	1,737	158	5,119	2,707	15.7	22.9	27,271	3,618	80,368	61,990
80 and over	11	13	7,838	9,218	376	442	78.1	78.1	294	345	7,462	8,776	7.8	7.6	2,293	2,622	58,204	66,698
Age unknown	...	1	...	943	...	45	61.1	61.1	...	576	...	898	...	22.9	...	13,190	...	20,564
Grand total	1,515	727	\$1,031,240	\$498,972	\$47,471	\$22,979			\$29,096	\$15,388	\$983,769	\$475,993			\$651,435	\$387,061	\$34,537,224	\$20,668,729

See notes at end of Table 29.

TABLE 24

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$1,000,000 TO \$2,000,000

Age	Number of Returns		Gross Estate		Insurance Component (2.6) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
Taxable Returns																		
Total	489	270	\$667,217	\$370,593	\$17,347	\$9,635			\$10,152	\$6,232	\$649,870	\$360,958			\$224,324	\$158,752	\$21,577,364	\$14,694,509
Under 40	2	...	3,259	...	85	...	6.4	6.4	5	...	3,174	...	588.2	1111.1	2,941	...	1,866,946	...
40 - 50	15	7	19,680	9,830	512	256	18.1	18.1	93	46	19,168	9,574	238.1	434.8	22,143	20,001	4,563,901	4,162,775
50 - 60	48	20	64,777	27,433	1,684	713	34.2	34.2	576	244	63,093	26,720	77.2	159.4	44,467	38,894	4,870,780	4,259,168
60 - 70	135	32	181,134	42,549	4,709	1,106	48.2	48.2	2,270	533	176,425	41,443	32.4	59.1	73,548	31,500	5,716,170	2,449,281
70 - 80	141	79	196,355	110,808	5,105	2,881	61.1	61.1	3,119	1,760	191,250	107,927	15.7	22.9	48,968	40,304	3,002,625	2,471,528
80 and over	146	131	199,125	178,663	5,177	4,645	78.1	78.1	4,043	3,628	193,948	174,018	7.8	7.6	31,535	27,573	1,512,794	1,322,537
Age unknown	2	1	2,887	1,310	75	34	61.1	61.1	46	21	2,812	1,276	15.7	22.9	722	480	44,148	29,220
Non-Taxable Returns																		
Total	6	6	\$ 7,692	\$ 7,361	\$ 169	\$ 161			\$ 118	\$ 115	\$ 7,523	\$ 7,200			\$ 1,671	\$ 1,685	\$ 150,794	\$ 123,834
Under 40	...	...	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	...	...	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	1	...	1,240	...	27	...	34.2	34.2	9	...	1,213	...	77.2	159.4	695	...	93,644	...
60 - 70	...	1	...	1,020	...	22	48.2	48.2	...	11	...	998	32.4	59.1	...	650	...	58,982
70 - 80	1	1	1,027	1,184	23	26	61.1	61.1	16	16	1,004	1,158	15.7	22.9	251	366	15,763	26,518
80 and over	4	4	5,425	5,157	119	113	78.1	78.1	93	88	5,306	5,044	7.8	7.6	725	669	41,387	38,334
Age unknown	...	...	...	...	...	...	61.1	61.1	...	...	...	...	...	...	...	...	...	...
Grand total	495	276	\$674,909	\$377,954	\$17,516	\$9,796			\$10,270	\$6,347	\$657,393	\$368,158			\$225,995	\$160,437	\$21,728,158	\$14,818,343

See notes at end of Table 29.

TABLE 25
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$2,000,000 TO \$3,000,000

Age	Number of Returns		Gross Estate		Insurance Component (1.6) (Gross Estate)		Equity Factor		Insurance Equity Component Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	121	60	\$293,737	\$148,560	\$4,700	\$2,377			\$2,927	\$1,523	\$289,037	\$146,183			\$54,202	\$40,776	\$7,443,762	\$7,322,164
Under 40	...	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	2	4	5,334	9,555	85	153	18.1	18.1	15	28	5,249	9,402	238.1	434.8	3,572	12,174	1,249,787	4,087,990
50 - 60	13	2	29,854	4,751	478	76	34.2	34.2	163	26	29,376	4,675	77.2	159.4	12,584	4,144	2,267,827	745,195
60 - 70	22	5	53,142	13,736	850	220	48.2	48.2	410	106	52,292	13,516	32.4	59.1	13,284	6,265	1,694,260	798,796
70 - 80	33	21	79,139	52,400	1,266	838	61.1	61.1	774	512	77,873	51,562	15.7	22.9	12,152	11,725	1,222,606	1,180,770
80 and over	49	28	121,102	68,118	1,938	1,090	78.1	78.1	1,514	851	119,164	67,028	7.8	7.6	11,809	6,468	929,479	509,413
Age unknown	2	..	5,166	...	83	...	61.1	61.1	51	...	5,083	...	15.7	22.9	801	...	79,803	...
Non-Taxable Returns					(x 3.6)													
Total	3	..	\$ 7,721	\$...	\$ 278	\$...			\$ 200	\$...	\$ 7,423	\$...			\$ 2,042	\$...	\$ 79,142	\$...
Under 40	...	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	...	..	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	...	..	...	...	...	...	34.2	34.2	...	...	...	...	77.2	159.4	...	...	...	...
60 - 70	...	..	...	...	...	...	48.2	48.2	...	...	...	...	32.4	59.1	...	...	...	...
70 - 80	1	..	2,789	...	100	...	61.1	61.1	61	...	2,689	...	15.7	22.9	958	...	42,217	...
80 and over	2	..	4,932	...	178	...	78.1	78.1	139	...	4,734	...	7.8	7.6	1,084	...	36,925	...
Age unknown	...	..	...	...	...	...	78.1	...	...	...	...	...	7.8	...	...	...	...	...
Grand total	124	60	\$301,458	\$148,560	\$4,978	\$2,377			\$3,127	\$1,523	\$296,460	\$146,183			\$56,244	\$40,776	\$7,522,904	\$7,322,164

See notes at end of Table 29.

TABLE 26
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$3,000,000 TO \$5,000,000

Age	Number of Returns		Gross Estate		Insurance Component (0.9) (Gross Estate)		Equity Factor		Insurance Equity Component Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	53	47	\$205,084	\$177,919	\$1,845	\$1,601			\$1,157	\$1,078	\$203,239	\$176,318			\$19,718	\$19,882	\$4,075,148	\$4,996,757
Under 40	..	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	..	1	...	3,780	...	34	18.1	18.1	...	6	...	3,746	238.1	434.8	...	2,609	...	1,628,761
50 - 60	2	1	8,771	3,765	79	34	34.2	34.2	27	12	8,692	3,731	77.2	159.4	2,084	1,913	671,022	594,721
60 - 70	15	3	57,464	12,117	517	109	48.2	48.2	249	53	56,947	12,008	32.4	59.1	8,068	3,132	1,845,083	709,673
70 - 80	16	13	62,047	50,561	558	455	61.1	61.1	341	278	61,489	50,106	15.7	22.9	5,354	6,366	965,377	1,147,427
80 and over	20	27	76,802	100,768	691	907	78.1	78.1	540	708	76,111	99,861	7.8	7.6	4,212	5,381	593,666	758,944
Age unknown	..	2	...	6,928	...	62	....	34.2	...	21	...	6,866	15.7	22.9	...	481	...	157,231
Non-Taxable Returns					x (-)													
Total	1	..	\$ 4,949	\$...	\$...	\$...			\$...	\$...	\$ 4,949	\$...			\$...	\$...	\$ 382,063	\$...
Under 40	..	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	..	..	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	1	..	4,949	...	...	...	34.2	34.2	...	...	4,949	...	77.2	159.4	...	...	382,063	...
60 - 70	..	..	...	...	...	...	48.2	48.2	...	...	...	...	32.4	59.1	...	...	...	...
70 - 80	..	..	...	...	...	...	61.1	61.1	...	...	...	...	15.7	22.9	...	...	...	...
80 and over	..	..	...	...	...	...	78.1	78.1	...	...	...	...	7.8	7.6	...	...	...	...
Age unknown	..	..	...	...	...	...	34.2	....	...	...	...	...	77.2	....	...	...	...	...
Grand total	54	47	\$210,033	\$177,919	\$1,845	\$1,601			\$1,157	\$1,078	\$208,188	\$176,318			\$19,718	\$19,882	\$4,457,211	\$4,996,757

See notes at end of Table 29.

TABLE 27

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$5,000,000 TO \$10,000,000

Age	Number of Returns		Gross Estate		Insurance Component (0.7) (Gross Estate)		Equity Factor		Insurance Equity Insurance Component Equity Factor		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)				
Taxable Returns																		
Total	37	19	\$250,758	\$126,808	\$1,755	\$888			\$1,039	\$592	\$249,003	\$125,920			\$53,027	\$12,286	\$6,791,307	\$3,382,007
Under 40	..	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	..	..	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	7	1	43,514	6,035	305	42	34.2	34.2	104	14	43,209	5,993	77.2	159.4	8,029	2,232	3,335,735	955,284
60 - 70	7	3	51,616	18,687	361	131	48.2	48.2	174	63	51,255	18,556	32.4	59.1	5,638	3,723	1,660,662	1,096,660
70 - 80	12	6	75,147	36,836	526	258	61.1	61.1	321	158	74,621	36,578	15.7	22.9	5,040	3,618	1,171,550	837,636
80 and over	11	9	80,481	65,250	563	457	78.1	78.1	440	357	79,918	64,793	7.8	7.6	34,320	2,713	623,360	492,427
Age unknown	..	..	...	...	...	...	61.1	61.1	...	...	...	...	15.7	22.9	...	...	...	...
Non-Taxable Returns																		
Total	1	..	\$ 5,916	\$...	\$ 142	\$...			\$ 68	\$...	\$ 5,774	\$...			\$ 2,203		\$ 187,078	\$...
Under 40	..	..	...	...	...	...	6.4	6.4	...	...	...	...	588.2	1111.1	...	...	...	...
40 - 50	..	..	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	..	..	...	...	...	...	34.2	34.2	...	...	...	...	77.2	159.4	...	...	...	...
60 - 70	1	..	5,916	...	142	...	48.2	48.2	68	...	5,774	...	32.4	59.1	2,203	...	187,078	...
70 - 80	..	..	...	...	...	...	61.1	61.1	...	...	...	...	15.7	22.9	...	...	...	...
80 and over	..	..	...	...	...	...	78.1	78.1	...	...	...	...	7.8	7.6	...	...	...	...
Age unknown	..	..	...	...	...	...	48.2	...	...	...	...	...	32.4	...	...	...	...	...
Grand total	38	19	\$256,674	\$126,808	\$1,897	\$888			\$1,107	\$592	\$254,777	\$125,920			\$55,230	\$12,286	\$6,978,385	\$3,382,007

See notes at end of Table 29.

TABLE 28

DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$10,000,000 TO \$20,000,000

Age	Number of Returns		Gross Estate		Insurance Component (0.8) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
	(Thousands of dollars)								(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	16	5	\$216,860	\$76,539	\$1,735	\$612			\$1,203	\$276	\$215,125	\$75,927			\$14,633	\$23,658	\$2,927,560	\$24,816,759
Under 40	..	1	...	14,526	...	116	6.4	6.4	...	7	...	14,410	588.2	1111.1	...	7,777	...	16,010,951
40 - 50	..	1	...	18,038	...	144	18.1	18.1	...	26	...	17,894	238.1	434.8	...	11,305	...	7,780,311
50 - 60	..	..	...	...	...	...	34.2	34.2	...	...	...	...	77.2	159.4	...	...	...	...
60 - 70	3	1	35,362	13,584	283	109	48.2	48.2	136	53	35,079	13,475	32.4	59.1	4,406	3,132	1,136,560	796,373
70 - 80	4	..	49,337	...	395	...	61.1	61.1	241	...	48,942	...	15.7	22.9	3,784	...	768,389	...
80 and over	9	2	132,161	30,391	1,057	243	78.1	78.1	826	190	131,104	30,148	7.8	7.6	6,443	1,444	1,022,611	229,124
Ages unknown	..	..	...	...	...	...	61.1	48.2	...	...	...	...	15.7	59.1	...	...	...	...

See notes at end of Table 29.

TABLE 29
DERIVATION OF GROSS ESTATE OF LIVING TOP WEALTH-HOLDERS FROM ESTATE TAX RETURNS, 1958: GROSS ESTATE SIZE \$20,000,000 OR MORE

Age	Number of Returns		Gross Estate		Insurance Component (0.2) (Gross Estate)		Equity Factor		Insurance Equity Component		Non-Insurance Component Gross Estate minus Insurance Component		Multipliers		Estimated Insurance (Insurance Equity) x (Multipliers)		Estimate of Estate Tax Wealth minus Estimated Insurance (Non-Insurance Component) x (Multipliers)	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)	Male (7)	Female (8)	Male (9)	Female (10)	Male (11)	Female (12)	Male (13)	Female (14)	Male (15)	Female (16)	Male (17)	Female (18)
			(Thousands of dollars)						(Thousands of dollars)		(Thousands of dollars)				(Thousands of dollars)			
Taxable Returns																		
Total	4	3	\$102,732	\$90,901	\$205	\$182			\$113	\$135	\$102,527	\$90,719			\$2,749	\$1,395	\$2,729,630	\$996,153
Under 40	...	...	...	...	...	...	6.4	6.4	...	...	...	...	588.1	1111.1	...	...	...	...
40 - 50	...	...	...	...	...	...	18.1	18.1	...	...	...	...	238.1	434.8	...	...	...	...
50 - 60	...	...	...	...	...	...	34.2	34.2	...	...	...	...	77.2	159.4	...	...	...	...
60 - 70	3	...	78,609	...	157	...	48.2	48.2	76	...	78,452	...	32.4	59.1	2,462	...	2,541,845	...
70 - 80	...	1	...	20,085	...	40	61.1	61.1	...	24	...	20,045	15.7	22.9	...	550	...	459,031
80 and over	1	2	24,123	70,816	48	142	78.1	78.1	37	111	24,075	70,674	7.8	7.6	287	845	187,785	537,122
Age unknown	...	...	...	...	...	...	61.1	48.2	...	...	...	...	...	...	...	...	...	...

Source: Columns 1 through 4, Statistics of Income, Fiduciary Estate and Gift Tax Returns, 1958, pp. 69-70. Factors used to determine insurance components in columns 5 and 6 are from Table 11 *infra*; Equity factors in columns 7 and 8 are from Table 12 *infra*; columns 13 and 14 are from Table 8 *infra*.

TABLE 30

NUMBER OF WEALTH-HOLDERS, VALUE OF LIFE INSURANCE EQUITY,
AND GROSS ESTATE BY SIZE OF GROSS ESTATE: 1958
(Both sexes)

Gross estate size	Number of wealth- holders (1)	Cash surrender value of life insurance (2)	Gross estate less cash surrender value (3)	Gross estate (4)
(Hundreds of thousands of dollars)				
\$60,000 under \$70,000	263,208	\$ 381	\$16,071	\$16,452
\$70,000 under \$80,000	291,920	559	20,177	20,736
\$80,000 under \$90,000	228,816	559	18,051	18,610
\$90,000 under \$100,000	206,268	590	17,788	18,378
\$100,000 under \$120,000	343,646	1,090	34,144	35,234
\$120,000 under \$150,000	338,238	1,411	41,136	42,547
\$150,000 under \$200,000	299,059	1,460	47,401	48,861
\$200,000 under \$300,000	260,856	1,560	58,200	59,760
\$300,000 under \$500,000	146,982	1,357	52,368	53,725
\$500,000 under \$1,000,000	85,259	1,038	55,206	56,244
\$1,000,000 under \$2,000,000	27,399	386	36,547	36,933
\$2,000,000 under \$3,000,000	6,204	97	14,845	14,942
\$3,000,000 under \$5,000,000	2,444	40	9,454	9,494
\$5,000,000 under \$10,000,000	1,614	68	10,360	10,428
\$10,000,000 under \$20,000,000	1,850	38	27,744	27,782
\$20,000,000 and over	143	4	3,726	3,730
Total	2,503,906	\$10,638	\$463,218	\$473,856

Source: Tables 14 through 29 infra.

upper 10 percent of top wealth-holders owned 44 percent of the total wealth of the group. The upper one percent owned 21 percent of the total.

Of the total wealth of top wealth-holders in 1958, \$184.6 billion, or about 39 percent was held by females. On the average female top wealth-holders owned \$208,640 of gross estate compared to \$178,650 for males. Tables 31 and 32 show the wealth of each age-sex-size of gross estate cell. Table 33 combines male and female cells to present total gross estate by age and size of gross estate. About 59 percent of the total gross estate of top wealth-holders was owned by persons under 60 years of age.

Tables 34 to 36 are similar to Tables 31 to 32, but show the number of wealth holders in each cell. By dividing the wealth in the cells of Tables 31 to 32 by the number of top wealth-holders in corresponding cells, of Tables 34 to 36, it is possible to derive average wealth per top wealth-holder in each cell. The results of this operation are shown in Tables 37 to 39.

Test of the Methodology on the 1953 Estate Tax Tabulations

A special tabulation of estate tax returns for 1953 was made available to Lampman by the Internal Revenue Service. The tabulation cross-classified age, sex, and type of asset by size of gross estate. By use of the estate multiplier technique he was able to make estimates not only of the

TABLE 31

GROSS ESTATE OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, FEMALES: 1958

Size of Gross Estate	Age							Total
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
	(Thousands of dollars)							
\$60,000 to \$70,000	\$ 1,002,397	\$ 1,118,306	\$ 1,697,451	\$ 1,604,447	\$ 1,229,111	\$ 489,728	\$ 153,201	\$ 7,294,641
\$70,000 to \$80,000	885,617	1,201,787	2,329,471	1,899,593	1,397,289	493,202	189,994	8,396,953
\$80,000 to \$90,000	413,288	1,206,570	2,017,047	1,698,121	1,064,919	457,284	207,991	7,065,220
\$90,000 to \$100,000	808,606	1,101,783	1,449,425	1,479,923	1,072,224	429,354	312,285	6,653,600
\$100,000 to \$120,000	1,429,819	2,232,264	2,921,483	2,708,199	1,839,993	749,915	239,851	12,121,524
\$120,000 to \$150,000	1,129,480	2,161,391	3,499,627	2,941,585	2,079,069	920,109	249,455	12,980,716
\$150,000 to \$200,000	1,668,550	2,885,333	3,110,053	3,340,628	2,317,892	1,020,436	237,632	14,580,524
\$200,000 to \$300,000	2,665,830	4,172,341	4,576,055	3,707,225	2,817,593	1,297,312	186,452	19,422,808
\$300,000 to \$500,000	2,112,640	4,346,430	3,889,041	3,832,103	2,609,226	1,443,969	203,031	18,436,440
\$500,000 to \$1,000,000	3,189,498	4,790,626	3,064,146	4,714,525	3,302,027	1,676,682	318,286	21,055,790
\$1,000,000 to \$2,000,000	.....	4,182,776	4,298,062	2,540,413	2,538,716	1,389,113	29,700	14,978,780
\$2,000,000 to \$3,000,000	.....	4,100,164	749,339	805,061	1,192,495	515,881	.....	7,362,940
\$3,000,000 to \$5,000,000	.....	1,631,370	596,634	712,805	1,153,793	764,325	157,712	5,016,639
\$5,000,000 to \$10,000,000	.....	.....	957,516	1,100,383	841,254	495,140	.....	3,394,293
\$10,000,000 to \$20,000,000	16,018,728	7,791,616	.....	799,505	.....	230,568	.....	24,840,417
\$20,000,000 and over	.....	.....	.....	.....	459,581	537,967	.....	997,548
Total	\$31,324,453	\$42,922,757	\$35,155,350	\$33,884,516	\$25,915,12	\$12,910,985	\$2,485,590	\$184,598,833

Source: Tables 14 through 29 infra.

TABLE 32

GROSS ESTATE OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, MALES: 1958

Size of Gross Estate	Age							
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	Total
	(Thousands of dollars)							
\$60,000 under \$70,000	\$ 1,420,346	\$ 2,168,615	\$ 2,023,412	\$ 1,828,332	\$ 1,082,750	\$ 435,092	\$ 199,098	\$ 9,157,645
\$70,000 under \$80,000	2,743,047	2,688,625	2,558,871	2,387,944	1,295,674	493,825	171,423	12,339,409
\$80,000 under \$90,000	1,941,333	2,618,624	2,660,466	2,376,961	1,272,580	505,424	169,201	11,544,589
\$90,000 under \$100,000	1,535,336	3,208,636	2,796,107	2,335,544	1,244,242	479,124	125,096	11,724,095
\$100,000 under \$120,000	3,968,747	5,741,068	5,341,314	4,745,401	2,275,590	743,995	295,755	23,111,670
\$120,000 under \$150,000	4,920,142	7,556,103	7,364,881	5,740,471	2,643,849	979,399	361,162	29,566,007
\$150,000 under \$200,000	5,774,534	7,970,636	8,879,544	6,790,359	3,264,657	1,141,070	459,627	34,280,427
\$200,000 under \$300,000	4,766,607	10,354,970	10,891,376	8,107,328	4,139,824	1,601,691	475,308	40,337,104
\$300,000 under \$500,000	3,358,467	7,352,528	9,109,136	9,006,324	4,232,422	1,742,918	486,595	35,288,390
\$500,000 under \$1,000,000	4,507,079	6,051,074	9,075,632	8,313,613	4,838,174	2,248,537	154,550	35,188,659
\$1,000,000 under \$2,000,000	1,869,887	4,586,044	5,009,586	5,789,718	3,067,607	1,586,441	44,870	21,954,153
\$2,000,000 under \$3,000,000	...	1,253,359	2,280,411	1,707,544	1,277,933	979,297	80,604	7,579,148
\$3,000,000 under \$5,000,000	...	...	1,055,169	1,853,151	970,731	597,878	...	4,476,929
\$5,000,000 under \$10,000,000	...	...	3,343,764	1,855,581	1,176,590	657,680	...	7,033,615
\$10,000,000 under \$20,000,000	...	...	...	1,140,966	772,173	1,029,054	...	2,942,193
\$20,000,000 and over	...	...	...	2,544,307	...	188,072	...	2,732,379
Total	\$36,805,525	\$61,550,282	\$72,389,669	\$66,523,554	\$33,554,796	\$15,409,497	\$3,023,289	\$289,256,612

Source: Tables 14 through 29 infra.

TABLE 33

GROSS ESTATE OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, BOTH SEXES: 1958

Size of Gross Estate	Age							Total
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
	(Thousands of dollars)							
\$60,000 under \$70,000	\$ 2,422,743	\$ 3,286,921	\$ 3,720,863	\$ 3,432,779	\$ 2,311,861	\$ 924,820	\$ 352,299	\$ 16,452,286
\$70,000 under \$80,000	3,628,664	3,890,412	4,888,342	4,287,537	2,692,963	987,027	361,417	20,736,362
\$80,000 under \$90,000	2,354,621	3,825,194	4,677,513	4,075,082	2,337,499	962,708	377,192	18,409,809
\$90,000 under \$100,000	2,343,942	4,310,419	4,245,532	3,815,477	2,316,466	908,473	437,381	18,377,695
\$100,000 under \$120,000	5,398,566	7,973,332	8,262,797	7,453,600	4,115,523	1,493,910	535,606	35,233,394
\$120,000 under \$150,000	6,049,622	9,717,494	10,864,508	8,882,055	4,722,918	1,899,508	610,617	42,546,723
\$150,000 under \$200,000	7,443,084	10,855,969	11,989,597	10,130,987	5,582,549	2,161,506	697,259	48,860,951
\$200,000 under \$300,000	7,432,437	14,527,311	15,467,431	11,814,553	6,957,417	2,899,003	661,760	59,759,912
\$300,000 under \$500,000	5,471,107	11,698,958	12,993,177	12,833,427	6,841,648	3,186,887	689,626	53,724,830
\$500,000 under \$1,000,000	7,696,577	10,841,700	12,139,773	13,028,138	8,140,201	3,925,219	472,836	56,244,449
\$1,000,000 under \$2,000,000	1,869,587	8,768,820	9,307,048	8,330,131	5,606,323	2,975,554	74,570	36,932,933
\$2,000,000 under \$3,000,000	...	5,353,523	3,029,750	2,512,605	2,470,428	1,495,178	80,604	14,942,088
\$3,000,000 under \$5,000,000	...	1,631,370	1,651,803	2,565,956	2,124,524	1,362,203	157,712	9,493,568
\$5,000,000 under \$10,000,000	...	...	4,301,280	2,955,964	2,017,844	1,152,820	...	10,427,908
\$10,000,000 under \$20,000,000	16,018,728	7,791,616	...	1,940,471	772,173	1,259,622	...	27,782,610
\$20,000,000 and over	...	...	...	2,544,307	459,581	726,039	...	3,729,927
Total	\$68,129,978	\$104,473,039	\$107,545,019	\$100,408,070	\$59,469,978	\$28,320,482	\$5,508,879	\$473,855,445

Source: Tables 14 through 29 infra.

TABLE 34

NUMBER OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, FEMALES: 1958

Size of Gross Estate	Age							Total
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
\$60,000 under \$70,000	16,685	18,262	27,098	25,413	19,282	7,608	2,405	116,753
\$70,000 under \$80,000	12,834	16,957	32,517	26,181	19,099	6,658	2,625	116,871
\$80,000 under \$90,000	5,134	15,218	25,026	20,626	12,802	5,441	2,556	86,803
\$90,000 under \$100,000	8,984	12,609	16,099	16,135	11,541	4,575	3,369	73,312
\$100,000 under \$120,000	14,118	21,740	28,055	25,649	17,174	6,923	2,297	115,956
\$120,000 under \$150,000	8,984	17,392	27,576	22,990	16,030	6,992	1,908	101,872
\$150,000 under \$200,000	10,268	17,827	18,968	20,153	13,900	6,026	1,442	88,584
\$200,000 under \$300,000	12,836	18,262	19,766	15,839	12,000	5,442	802	84,947
\$300,000 under \$500,000	6,418	11,305	10,361	10,519	6,985	3,845	550	49,983
\$500,000 under \$1,000,000	5,134	7,392	4,782	6,915	4,947	2,455	458	32,083
\$1,000,000 under \$2,000,000	...	3,044	3,188	1,950	1,832	1,026	23	11,063
\$2,000,000 under \$3,000,000	...	1,739	319	296	481	213	...	3,048
\$3,000,000 under \$5,000,000	...	435	159	177	298	205	46	1,320
\$5,000,000 under \$10,000,000	...	...	159	177	137	68	...	541
\$10,000,000 under \$20,000,000	1,111	435	...	59	...	15	...	1,620
\$20,000,000 and over	...	...	...	...	23	15	...	38
Total	102,506	162,617	214,073	193,079	136,531	57,507	18,481	884,794

Source: Tables 14 through 29 infra.

TABLE 35

NUMBER OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, MALE: 1958

Size of Gross Estate	Age							Total
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
\$60,000 under \$70,000	23,126	35,001	32,424	28,965	17,003	6,755	3,181	146,455
\$70,000 under \$80,000	39,829	38,811	36,207	33,371	17,836	6,685	2,310	175,049
\$80,000 under \$90,000	25,054	30,572	33,351	29,452	15,480	6,037	2,067	142,013
\$90,000 under \$100,000	17,987	37,143	31,729	25,984	13,596	5,117	1,400	132,956
\$100,000 under \$120,000	41,113	57,382	52,264	45,684	21,494	6,919	2,834	227,690
\$120,000 under \$150,000	40,471	61,429	58,904	44,907	20,394	7,442	2,819	236,366
\$150,000 under \$200,000	36,617	49,524	54,040	41,245	19,531	6,731	2,787	210,475
\$200,000 under \$300,000	21,199	46,191	47,478	34,732	17,537	6,731	2,041	175,909
\$300,000 under \$500,000	9,636	20,715	24,859	24,527	11,398	4,602	1,262	96,999
\$500,000 under \$1,000,000	7,066	9,286	13,356	12,766	7,112	3,354	236	53,176
\$1,000,000 under \$2,000,000	1,176	3,572	3,783	4,374	2,230	1,170	31	16,336
\$2,000,000 under \$3,000,000	...	476	1,004	713	534	398	31	3,156
\$3,000,000 under \$5,000,000	...	...	231	486	251	156	...	1,124
\$5,000,000 under \$10,000,000	...	...	540	259	188	86	...	1,073
\$10,000,000 under \$20,000,000	...	...	...	97	63	70	...	230
\$20,000,000 and over	...	...	...	97	...	8	...	105
Total	263,274	390,102	390,170	327,659	164,647	62,261	20,999	1,619,112

Source: Tables 14 through 29 infra.

TABLE 36

NUMBER OF TOP WEALTH-HOLDERS BY AGE AND SIZE OF GROSS ESTATE, BOTH SEXES: 1958

Size of Gross Estate	Age							Total
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
\$60,000 under \$70,000	39,811	53,263	59,522	54,378	36,285	14,363	5,586	263,208
\$70,000 under \$80,000	52,663	55,768	68,724	59,552	36,935	13,343	4,935	291,920
\$80,000 under \$90,000	30,188	45,790	58,377	50,078	28,282	11,478	4,623	228,816
\$90,000 under \$100,000	26,971	49,752	47,828	42,119	25,137	9,692	4,769	206,268
\$100,000 under \$120,000	55,231	79,122	80,319	71,333	38,668	13,842	5,131	343,646
\$120,000 under \$150,000	49,455	78,821	86,480	67,897	36,424	14,434	4,727	338,238
\$150,000 under \$200,000	46,885	67,351	73,008	61,398	33,431	12,757	4,229	299,059
\$200,000 under \$300,000	34,035	64,453	67,244	50,571	29,537	12,173	2,843	260,856
\$300,000 under \$500,000	16,054	32,020	35,220	35,046	18,383	8,447	1,812	146,982
\$500,000 under \$1,000,000	12,200	16,678	18,138	19,681	12,059	5,809	694	85,259
\$1,000,000 under \$2,000,000	1,176	6,616	6,971	6,324	4,062	2,196	54	27,399
\$2,000,000 under \$3,000,000	...	2,215	1,323	1,009	1,015	611	31	6,204
\$3,000,000 under \$5,000,000	...	435	390	663	549	361	46	2,444
\$5,000,000 under \$10,000,000	...	...	699	436	325	154	...	1,614
\$10,000,000 under \$20,000,000	1,111	435	...	156	63	85	...	1,850
\$20,000,000 and over	...	...	...	97	23	23	...	143
Total	365,780	552,719	604,243	520,738	301,178	119,768	39,480	2,503,906

Source: Tables 14 through 29 infra.

TABLE 37

AVERAGE GROSS ESTATE BY AGE AND SIZE OF GROSS ESTATE OF TOP WEALTH-HOLDERS, FEMALES: 1958

Size of Gross Estate	Age							
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	All ages
\$60,000 under \$70,000	\$ 60,078	\$ 61,237	\$ 62,641	\$ 63,135	\$ 63,744	\$ 64,370	\$ 63,701	\$ 62,479
\$70,000 under \$80,000	69,006	70,873	71,639	72,556	73,160	74,077	72,379	71,848
\$80,000 under \$90,000	80,500	79,286	80,598	82,329	83,184	84,044	81,374	81,394
\$90,000 under \$100,000	90,005	87,381	90,032	91,721	92,906	93,848	92,694	90,757
\$100,000 under \$120,000	101,276	102,680	104,134	105,587	107,138	108,322	104,419	104,536
\$120,000 under \$150,000	125,721	124,275	126,908	127,951	129,699	131,595	130,742	127,422
\$150,000 under \$200,000	162,500	161,852	163,963	165,763	166,755	169,339	164,793	164,595
\$200,000 under \$300,000	207,684	228,471	231,511	234,057	234,799	238,389	232,484	228,646
\$300,000 under \$500,000	329,174	384,470	375,354	364,303	373,547	375,545	369,147	368,854
\$500,000 under \$1,000,000	621,250	648,083	640,767	681,782	667,481	682,966	694,948	656,291
\$1,000,000 under \$2,000,000		1,374,105	1,348,200	1,302,776	1,385,762	1,353,911	1,291,304	1,353,953
\$2,000,000 under \$3,000,000		2,357,771	2,349,025	2,719,801	2,479,200	2,421,977		2,415,663
\$3,000,000 under \$5,000,000		3,750,276	3,752,415	4,027,147	3,871,789	3,728,415	3,428,522	3,800,484
\$5,000,000 under \$10,000,000			6,022,113	6,216,853	6,140,540	7,281,471		6,274,109
\$10,000,000 under \$20,000,000	14,418,297	17,911,761		13,550,932		15,371,200		15,333,591
\$20,000,000 and over					23,389,870	35,864,467		26,251,263
All gross estate size	\$305,587	\$263,950	\$164,221	\$175,496	\$189,812	\$224,512	\$134,494	\$208,635

Source: Tables 31 and 34 infra.

TABLE 38

AVERAGE GROSS ESTATE BY AGE AND SIZE OF GROSS ESTATE OF TOP WEALTH-HOLDERS, MALES: 1958

Size of Gross Estate	Age							All ages
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
\$60,000 under \$70,000	\$ 61,418	\$ 61,959	\$ 62,405	\$ 63,122	\$ 63,680	\$ 64,410	\$ 62,590	\$ 62,529
\$70,000 under \$80,000	68,871	69,275	70,673	71,557	72,644	73,871	74,209	70,491
\$80,000 under \$90,000	77,486	85,654	79,772	80,706	82,208	83,721	81,858	81,292
\$90,000 under \$100,000	85,358	86,386	88,125	89,884	91,515	93,634	89,354	88,180
\$100,000 under \$120,000	96,533	100,050	102,199	103,874	105,871	107,529	104,360	101,506
\$120,000 under \$150,000	121,572	123,005	125,032	127,830	129,639	131,604	128,117	125,086
\$150,000 under \$200,000	157,701	160,945	164,314	164,635	167,153	169,525	164,918	162,872
\$200,000 under \$300,000	224,851	224,177	229,398	233,425	236,062	237,957	232,880	229,307
\$300,000 under \$500,000	348,533	354,937	366,432	367,200	371,330	378,731	385,574	363,802
\$500,000 under \$1,000,000	637,854	651,634	679,517	651,231	680,283	670,405	654,873	661,739
\$1,000,000 under \$2,000,000	1,590,040	1,283,887	1,324,236	1,323,667	1,375,609	1,355,932	1,447,419	1,343,912
\$2,000,000 under \$3,000,000		2,633,107	2,271,326	2,394,872	2,393,133	2,460,545	2,600,129	2,401,504
\$3,000,000 under \$5,000,000			4,567,831	3,813,068	3,867,454	3,832,551		3,983,033
\$5,000,000 under \$10,000,000			6,192,156	7,164,405	6,258,457	7,647,442		6,555,093
\$10,000,000 under \$20,000,000				11,762,536	12,256,714	14,700,771		12,792,143
\$20,000,000 and over				26,229,969		23,509,000		26,022,657
All gross estate sizes	\$139,799	\$157,780	\$185,534	\$203,027	\$203,798	\$247,498	\$143,973	\$178,651

Source: Tables 32 and 35 infra.

TABLE 39

AVERAGE GROSS ESTATE BY AGE AND SIZE OF GROSS ESTATE OF TOP WEALTH-HOLDERS, BOTH SEXES: 1958

Size of Gross Estate	Age							All ages
	Under 40	40 under 50	50 under 60	60 under 70	70 under 80	80 and over	Age unknown	
\$60,000 under \$70,000	\$ 60,856	\$ 61,711	\$ 62,512	\$ 63,128	\$ 63,714	\$ 64,389	\$ 63,068	\$ 62,507
\$70,000 under \$80,000	68,903	69,761	71,130	71,997	72,911	73,973	73,235	71,034
\$80,000 under \$90,000	77,999	83,538	80,126	81,375	82,650	83,874	81,590	81,331
\$90,000 under \$100,000	86,906	86,638	88,767	90,588	92,154	93,735	91,713	89,096
\$100,000 under \$120,000	97,745	100,773	102,875	104,490	106,434	107,926	104,386	102,528
\$120,000 under \$150,000	122,326	123,286	125,630	127,871	129,665	131,600	129,176	125,789
\$150,000 under \$200,000	158,752	161,185	164,223	165,005	166,987	169,437	164,876	163,382
\$200,000 under \$300,000	218,376	225,394	230,019	233,623	235,549	238,150	232,768	229,092
\$300,000 under \$500,000	340,794	365,364	369,057	366,331	372,173	377,280	380,588	365,520
\$500,000 under \$1,000,000	630,867	650,060	669,301	661,965	675,031	675,713	681,320	659,689
\$1,000,000 under \$2,000,000	1,590,040	1,325,396	1,335,196	1,317,225	1,380,188	1,354,988	1,380,926	1,347,966
\$2,000,000 under \$3,000,000		2,416,940	2,290,060	2,490,193	2,433,919	2,447,100	2,600,129	2,408,460
\$3,000,000 under \$5,000,000		3,750,276	4,235,392	3,870,220	3,869,807	3,773,416	3,428,522	3,884,439
\$5,000,000 under \$10,000,000			6,153,476	6,779,734	6,208,751	7,485,844		6,460,910
\$10,000,000 under \$20,000,000	14,418,297	17,911,761		12,438,917	12,256,714	14,819,082		15,017,627
\$20,000,000 and over				26,229,969	19,981,783	31,566,913		26,083,406
All gross estate sizes	\$186,259	\$189,017	\$177,983	\$192,819	\$197,458	\$236,461	\$139,536	\$189,246

Source: Tables 33 and 36 infra.

aggregate gross estate held by the top wealth-holders, but to estimate the value held in the form of specific assets. The detailed cross-classification also made it possible for him to make adjustments for the excess of face over cash surrender value of life insurance for each age-sex-size-of-gross estate cell.¹ Although life insurance is not a large component, particularly at the upper end of the wealth spectrum, the adjustment is desirable. Such direct adjustment for the excess of face value over cash surrender value is not possible when using published tabulations for 1958. It was necessary, therefore, to use an indirect method of adjustment. The procedure was described in Chapter II.

As with the 1958 estimates, the multiplier for cells in the under 40 years of age, over one million dollars gross estate size class was reduced to account for the absence of persons under 30 years of age.

Since Lampman's basic data were more detailed and his method more refined, comparison of the results of the two estimates for 1953, proceeds on the presumption that when differences occur, Lampman's is the better estimate. To the degree that the estimates for 1953 in this study agree with Lampman's, confidence in the reliability of our estimates in this chapter for 1958 from published data is increased.

¹In practice what Lampman did was to use a lower multiplier for life insurance than for other assets. Lampman, op. cit., p. 55.

Lampman's estimate of total gross estate of top wealth-holders for 1953 is \$309.1 billion dollars. The estimate of this study for the same year is \$305.7, only 1.1 percent lower. Lampman estimated 1.66 million persons held assets of \$60,000 or more; we estimated that 1.69 million were in this group, a difference of 2.2 percent. From these results we conclude the methodology used in this study to estimate the wealth of top wealth-holders is sufficiently reliable at the aggregate level to justify its application to the 1958 returns. Errors in the selection of social class mortality rates plus sampling variability overshadow small difference in methodology.

Although the results of the two estimates are close at the aggregate level, differences become noticeable for some of the minor components. Table 40 shows that for top wealth-holders of known age our estimate of gross estate was 2.9 percent above Lampman's, but for top wealth-holders of unknown age, the difference was 72.6 percent below Lampman's. When the estimates of gross estate for top wealth-holders of known and unknown age are added together, the difference between the two estimates is only 1.1 percent. It appears, however, that an arithmetic error exists in Lampman's estimate of gross estate for top wealth-holders of unknown age. On page 62 Lampman shows \$16.4 billions as the gross estate of top wealth-holders of unknown age, but following his

TABLE 40

GROSS ESTATE OF TOP WEALTH-HOLDERS: 1953
(Billion dollars)

	Lampman ^a	Smith '53	Difference as a percent of Lampman's estimate
	(1)	(2)	(3)
Gross estate of top wealth- holders of known age	\$292.8	\$301.2	2.9
Gross estate of top wealth- holders of unknown age	16.4	4.5	72.6
Total gross estate	\$309.2	\$305.7	1.1

^aLampman, The Share of Top Wealth-holders, p. 62.

procedure on page 55 yields only \$7.6 billion.² If \$7.6 billion is the correct amount, his total estimate would be \$300.4 billion. The difference in our aggregate estimates would then be 1.7 percent of Lampman's estimate; and for our estimates of gross estate for top wealth-holders of unknown age, the difference would be 40.8 percent of Lampman's estimate. This latter is still a sizable difference. It is necessary therefore to question the estimates of wealth of the age unknown group made from the published tabulations.

Comparing Lampman's estimates of gross estate for top wealth-holders by size class, the differences as a percent of Lampman's estimates vary from 0.5 to 7.1 percent. Greater relative differences appear for top wealth-holders with estates of less than \$300,000 than for larger estates. Table 41 shows total gross estate within gross estate size classes as computed by Lampman and by our method, and the differences as a percent of Lampman's estimates. The gross estate of top wealth-holders of unknown age computed by this method is given in Table 42. This table also shows the estimates of insurance equity for the unknown age groups in 1953.

These estimates of cash surrender value owned by decedents of known age, as indicated above, are below Lampman's. This under estimation appears in almost all estate size classes (see Table 43).

²Lampman, op. cit., pp. 55 and 62.

TABLE 41

GROSS ESTATE OF TOP WEALTH-HOLDERS OF KNOWN AGE: 1953

Size of Gross Estate	Gross estate of top wealth-holders of known age		Difference as a percent of Lampman's estimate (3)
	Lampman (1)	Smith '53 (2)	
	(Millions of dollars)		(Percent)
\$60,000 to \$70,000	\$ 10,545	\$ 10,841	2.8
\$70,000 to \$80,000	11,696	12,231	4.6
\$80,000 to \$90,000	12,716	13,624	7.1
\$90,000 to \$100,000	12,531	12,956	3.4
\$100,000 to \$120,000	21,218	22,245	4.8
\$120,000 to \$150,000	24,972	25,697	2.9
\$150,000 to \$200,000	27,771	29,430	6.0
\$200,000 to \$300,000	35,308	37,479	6.1
\$300,000 to \$500,000	34,520	34,848	1.0
\$500,000 to \$1,000,000	32,311	33,074	2.4
\$1,000,000 to \$2,000,000	24,324	23,953	1.5
\$2,000,000 to \$3,000,000	9,712	9,761	0.5
\$3,000,000 to \$5,000,000	8,115	7,899	2.7
\$5,000,000 to \$10,000,000	12,572	12,709	1.1
\$10,000,000 and over	14,410	14,481	0.5
Total	\$292,721	\$301,228	2.9

Source: Column 1 is from Lampman, The Share of Top Wealth-holders; Column 2 is from an estate multiplier blow-up of data published in Statistics of Income, 1953.

TABLE 42

GROSS ESTATE OF TOP WEALTH-HOLDERS OF UNKNOWN AGE: 1953

Size of Gross Estate Size	Lampman (1)	Smith	
		Gross estate (2)	Insurance equity (3)
	(Millions of dollars)		
\$60,000 to \$70,000	\$16,400	\$ 306	\$ 11
\$70,000 to \$80,000		341	15
\$80,000 to \$90,000		263	13
\$90,000 to \$100,000		232	13
\$100,000 to \$120,000		434	23
\$120,000 to \$150,000		475	25
\$150,000 to \$200,000		599	31
\$200,000 to \$300,000		670	30
\$300,000 to \$500,000		369	15
\$500,000 to \$1,000,000		436	28
\$1,000,000 to \$2,000,000		243	3
\$2,000,000 to \$3,000,000		37	1
\$3,000,000 to \$5,000,000		47	..
\$5,000,000 to \$10,000,000		...	..
\$10,000,000 and over	...	..
Total	\$16,400	\$4,452	\$208

Source: Column 1 is from Lampman, The Share of Top Wealth-holders, p. 62; Columns 2 and 3 are from an estate multiplier blow-up of data published in Statistics of Income, 1953, pp. 80-2.

TABLE 43

CASH SURRENDER VALUE OF LIFE INSURANCE OWNED BY TOP
WEALTH-HOLDERS OF UNKNOWN AGE: 1953

Gross estate	Equity value of life insurance		Difference as a percent of Lampman's estimate (3)
	Lampman	Smith	
	(1)	(2)	
	(Millions of dollars)		(Percent)
\$60,000 to \$70,000	\$ 335	\$ 258	23.0
\$70,000 to \$80,000	437	358	18.1
\$80,000 to \$90,000	504	419	16.9
\$90,000 to \$100,000	493	407	17.4
\$100,000 to \$120,000	880	720	18.2
\$120,000 to \$150,000	1,024	859	16.1
\$150,000 to \$200,000	1,293	1,024	20.8
\$200,000 to \$300,000	1,388	1,071	22.8
\$300,000 to \$500,000	1,026	864	15.8
\$500,000 to \$1,000,000	702	616	12.3
\$1,000,000 to \$2,000,000	330	302	8.5
\$2,000,000 to \$3,000,000	95	96	1.1
\$3,000,000 to \$5,000,000	54	51	5.6
\$5,000,000 to \$10,000,000	50	49	2.0
\$10,000,000 and over	22	27	22.7
Total	\$8,633	\$7,121	17.5

Source: Column 1 is from Lampman, The Share of Top Wealth-Holders, p. 52; Column 2 is from an estate multiplier blow-up of the published data in Statistics of Income, 1953, pp. 80-2.

The comparison of our results for 1953 with Lampman's leads us to conclude:

1. That the method used in this study yields reliable estimates of the total number of wealth-holders and their total wealth.
2. The estimates of the number of wealth-holders of known age and their wealth, within gross estate size classes, is reliable.
3. Estimates within age-sex size of gross estate cells should be accepted with caution.
4. The estimates from the published data for wealth-holders of unknown age and for cash surrender value of life insurance as a separate component are open to question.

CHAPTER IV

THE COMPOSITION OF TOP WEALTH- HOLDERS' WEALTH

In this chapter there is an estimate of the composition of wealth of top wealth-holders in 1958. The 1958 composition is compared to Mendershausen's findings for 1944, and Lampman's findings for 1953.

Statistics of Income, 1958, does not provide tabulations of asset types, cross-classified by age and sex of decedent. It is, therefore, not possible to use that source to estimate the composition of top wealth-holders' wealth. The original plan of this study would have estimated composition by extrapolating to 1958 the mean change in composition between Mendershausen's 1944 estimate and Lampman's 1953 estimate. However, in discussing the estimates of aggregate wealth produced in the preceding chapters of this study with Jeannette Fitzwilliams of the Office of Business Economics, Department of Commerce, it was learned that a special tabulation of estate tax returns to which the estate multiplier could be applied has been produced. The Internal Revenue Service had produced the special tabulation of estate tax

returns filed in 1959 for Raymond Goldsmith. Goldsmith had made the tabulation available to Fitzwilliams, who had begun work on a private estate multiplier estimate. Fitzwilliams and Goldsmith generously agreed to make the unfinished estimates available to the writer. Thus, with a relatively small amount of additional work, the estimates of composition shown in this chapter were derived. When the value of assets composing the wealth of top wealth-holders are summed, their total value is \$472.0 billion. This compares satisfactorily with the total value of \$473.9 billion, estimated in Chapter III. The difference is primarily accounted for by the finer detail available in the special tabulation. In the remainder of this study, the slightly lower aggregate derived from the special tabulation will be used.¹

The asset values shown in Table 44 were obtained by applying the appropriate multiplier for each age and for each sex to the value of each asset in the decedents' estate and then summing the results within each gross estate size class. For example, the estimate of \$6.2 billion of real estate held by persons with gross assets of \$60,000 to \$70,000 was obtained by:

1. Multiplying the value of real estate in the estates of male decedents under age 40 with gross estates of \$60,000 to \$70,000 by 642.4 (the multiplier for males in that age

¹The fact that the total wealth estimates produced from the published data was only 0.4 percent above that resulting from the special tabulation supports the validity of the age and sex distribution of wealth in Chapter III.

class), repeating this procedure for male decedents in each of the remaining five age classes, then summing the results and adding to them the stepped-up value of real estate obtained from the estates of decedents of unknown age.

2. Applying the same set of operations on real estate in the estates of female decedents with gross estate of \$60,000 to \$70,000.
3. Finally, the sums obtained in 1 and 2 were added together to yield the value of real estate owned by persons of both sexes with gross assets between \$60,000 and \$70,000.

Particular care must be exercised in using the data in the cells of Table 44. Large sampling variability may be attached to the value shown for any single cell. However, the pattern of values across asset types within a gross estate size class, or across gross estate size classes within an asset type reveals asset holding preferences among top wealth-holders. Such patterns are more easily viewed in Tables 45 and 46 in which the dollar values have been converted to percentage distributions. For instance, in Table 45 a strong preference for real estate holding in the lower gross estate size classes is revealed. However, corporate stock appears to be preferred in gross estate size classes above \$150,000. On the other hand, all assets are concentrated more heavily among the wealthiest of the top wealth-holders, but some are much more concentrated than others (Table 46). Corporate stock, state and local bonds, and other bonds are more concentrated than real estate and Federal bonds. As can be seen by summing up the percents of top wealth-holders in

TABLE 44
COMPOSITION OF GROSS ESTATE BY SIZE OF GROSS ESTATE FOR TOP WEALTH-HOLDERS IN 1958

Size of Gross Estate ¹	Number of top wealth-holders	Type of property										Gross estate		Debts and mortgages	Economic estate ²	
		Real estate	Federal bonds	State and local bonds	Other bonds	Corporate stock	Cash	Notes and mortgages	Life insurance		Annuities	Miscellaneous assets	Using face value of life insurance			Using equity value of life insurance
									Face value	Equity value						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
	(Thousands)	(Billions of dollars)														
\$60,000 under \$70,000	274	6.2	0.8	0.1	0.1	3.6	2.5	0.6	1.9	0.5	0.1	2.0	17.8	16.4	1.2	15.2
\$70,000 under \$80,000	303	7.7	0.9	0.1	0.1	4.6	2.7	0.8	3.1	0.7	0.1	2.6	22.7	20.3	1.7	18.6
\$80,000 under \$90,000	241	7.0	0.8	a	0.1	4.0	2.2	0.7	3.2	0.7	0.1	2.3	20.5	18.0	1.5	16.4
\$90,000 under \$100,000	211	6.5	0.8	a	0.1	4.4	2.0	0.6	3.2	0.8	0.1	2.2	20.1	17.6	1.6	16.0
\$100,000 under \$120,000	357	12.8	1.4	0.1	0.2	8.7	4.1	1.4	5.9	1.4	0.2	4.3	39.0	34.5	3.3	31.2
\$120,000 under \$150,000	350	13.6	1.6	0.1	0.2	11.8	4.5	1.7	7.6	1.8	0.1	5.4	46.9	41.0	4.5	36.5
\$150,000 under \$200,000	310	14.2	1.9	0.2	0.3	14.7	4.6	2.4	8.6	2.0	0.2	6.3	53.4	46.8	5.0	41.8
\$200,000 under \$300,000	269	15.4	2.2	0.6	0.5	21.8	5.2	2.6	8.0	2.1	0.3	8.1	64.6	58.7	6.1	52.7
\$300,000 under \$500,000	151	11.8	1.8	1.0	0.6	24.0	3.9	2.1	5.3	1.5	0.1	6.8	57.4	53.6	5.0	48.6
\$500,000 under \$1,000,000	88	9.8	1.8	2.1	0.6	29.9	3.7	2.1	3.7	1.2	0.2	5.7	59.6	57.2	5.2	51.9
\$1,000,000 under \$2,000,000	28	4.2	1.2	2.3	0.3	21.2	1.7	1.5	1.4	0.5	a	4.7	38.4	37.5	3.4	34.0
\$2,000,000 under \$3,000,000	6	1.4	0.3	1.1	0.1	9.1	0.5	0.4	0.3	0.1	a	2.0	15.3	15.1	1.2	13.9
\$3,000,000 under \$5,000,000	2	1.2	0.2	1.5	0.2	5.3	0.5	0.2	0.1	a	a	0.6	9.7	9.7	0.6	9.1
\$5,000,000 under \$10,000,000	2	0.7	0.3	0.9	0.1	6.1	0.7	0.2	0.1	a	a	1.7	10.6	10.6	0.8	9.7
\$10,000,000 under \$20,000,000	2	1.5	a	0.4	a	9.9	0.3	0.2	a	a	18.4	0.6	31.3	31.3	1.8	29.5
\$20,000,000 or more	b	0.2	0.1	0.4	a	2.9	0.1	0.2	a	a	a	a	3.7	3.7	a	3.6
Total	2,595	114.4	16.2	10.6	3.5	132.1	39.3	17.6	52.4	13.3	19.8	55.2	511.1	472.0	42.9	429.0

Source: Estate data, from which the estimates in this table were derived, were obtained from a special tabulation of estate tax returns filed in 1959.

Detail may not add to total because of rounding.

- a. Rounds to less than \$100,000,000.
b. Rounds to less than 1,000.

¹Gross estate size distribution obtained by using the face value of life insurance,

²Gross estate (using equity value of life insurance) less debts and mortgages, column 14 less column 15.

TABLE 45
DISTRIBUTION OF GROSS ESTATE BY TYPE OF ASSET WITHIN GROSS ESTATE SIZE CLASSES, BOTH SEXES: 1958
(Percent)

Gross estate	Number of wealth- holders	Real estate	Federal bonds	State and local bonds	Other bonds	Corporate stock	Cash	Notes and mortgages	Face value of life insurance	Equity value of life insurance	Miscel- laneous assets	Annuities	Gross estate including face value of life insurance	Gross estate using economic value of life insurance	Debts and mortgages	Net estate using economic value of life insurance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
\$60,000 under \$70,000	-	37.94	4.99	0.44	0.44	21.74	15.32	3.65	-	3.01	12.07	0.39	-	100.00	7.49	92.51
\$70,000 under \$80,000	-	38.03	4.59	0.25	0.51	22.59	13.49	3.93	-	3.46	12.73	0.41	-	100.00	8.27	91.73
\$80,000 under \$90,000	-	38.93	4.36	0.16	0.52	22.29	12.39	4.06	-	4.10	12.74	0.46	-	100.00	8.58	91.42
\$90,000 under \$100,000	-	36.90	5.04	0.11	0.60	24.96	11.62	3.52	-	4.30	12.44	0.52	-	100.00	9.23	90.77
\$100,000 under \$120,000	-	37.21	3.96	0.21	0.54	25.19	11.99	4.13	-	3.99	12.33	0.46	-	100.00	9.45	90.55
\$120,000 under \$150,000	-	33.18	3.96	0.31	0.57	28.83	11.07	4.26	-	4.34	13.12	0.36	-	100.00	11.00	89.00
\$150,000 under \$200,000	-	30.27	4.14	0.44	0.71	31.48	9.84	5.05	-	4.29	13.42	0.36	-	100.00	10.62	89.38
\$200,000 under \$300,000	-	26.22	3.74	0.99	0.82	37.19	8.81	4.50	-	3.52	13.77	0.44	-	100.00	10.32	89.68
\$300,000 under \$500,000	-	22.09	3.33	1.78	1.14	44.70	7.35	3.85	-	2.86	12.62	0.28	-	100.00	9.28	90.72
\$500,000 under \$1,000,000	-	17.15	3.11	3.73	1.11	52.34	6.43	3.67	-	2.08	10.04	0.35	-	100.00	9.12	90.88
\$1,000,000 under \$2,000,000	-	11.20	3.15	6.04	0.88	56.49	4.44	3.89	-	1.23	12.59	0.10	-	100.00	9.14	90.86
\$2,000,000 under \$3,000,000	-	9.56	2.27	7.00	0.42	60.45	3.63	2.41	-	0.74	13.36	0.16	-	100.00	7.90	92.10
\$3,000,000 under \$5,000,000	-	12.70	2.06	15.25	1.56	54.93	4.68	2.30	-	0.40	6.05	0.07	-	100.00	5.88	94.12
\$5,000,000 under \$10,000,000	-	6.38	2.85	8.40	1.19	57.73	6.40	1.80	-	0.32	14.91	0.03	-	100.00	7.87	92.13
\$10,000,000 under \$20,000,000	-	4.95	0.06	1.12	0.04	31.68	0.81	0.69	-	0.08	1.97	58.60	-	100.00	5.68	94.32
\$20,000,000 or more	-	5.87	1.61	9.84	0.09	77.17	2.65	0.45	-	0.16	2.12	0.03	-	100.00	2.42	97.58
Total	-	24.24	3.44	2.26	0.75	38.57	8.33	3.72	-	2.82	11.68	4.20	-	100.00	9.10	90.90

Source: Percentages shown in this table are based on the absolute amounts shown in Table 44.

TABLE 46
DISTRIBUTION OF ASSETS AMONG GROSS ESTATE SIZE CLASSES, BOTH SEXES: 1958
(Percent)

Gross estate	Number of wealth- holders	Real estate	Federal bonds	State and local bonds	Other bonds	Corporate stock	Cash	Notes and mortgages	Face value of life insurance	Equity value of life insurance	Miscel- laneous assets	Annuities	Gross estate including face value of life insurance	Gross estate using economic value of life insurance	Debts and mortgages	Net estate using economic value of life insurance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
\$60,000 under \$70,000	10.54	5.45	5.06	0.67	2.06	1.96	6.40	3.41	3.65	3.72	3.59	0.33	3.49	3.48	2.87	3.54
\$70,000 under \$80,000	11.69	6.75	5.75	0.49	2.90	2.52	6.97	4.54	5.95	5.28	4.69	0.42	4.45	4.30	3.91	4.34
\$80,000 under \$90,000	9.28	6.12	4.84	0.26	2.65	2.20	5.67	4.16	6.13	5.54	4.16	0.42	4.00	3.81	3.60	3.83
\$90,000 under \$100,000	8.14	5.67	5.46	0.18	2.99	2.41	5.20	3.53	6.18	5.68	3.97	0.46	3.93	3.73	3.78	3.72
\$100,000 under \$120,000	13.75	11.21	8.41	0.67	5.25	4.77	10.52	8.12	4.30	10.33	7.71	0.80	7.64	7.31	7.58	7.08
\$120,000 under \$150,000	13.50	11.90	10.03	1.18	6.60	6.50	11.56	9.96	14.54	13.37	9.76	0.74	9.17	8.69	10.50	8.51
\$150,000 under \$200,000	11.94	12.38	11.96	1.95	9.37	8.09	11.72	13.46	16.35	15.07	11.39	0.85	10.44	9.91	11.57	9.75
\$200,000 under \$300,000	10.36	13.46	13.53	5.48	13.62	12.00	13.17	15.07	15.18	15.51	14.66	1.31	12.64	12.44	14.11	12.28
\$300,000 under \$500,000	5.83	10.35	11.01	8.97	17.27	13.17	10.03	11.75	10.05	11.52	12.27	0.75	11.22	11.36	11.58	11.34
\$500,000 under \$1,000,000	3.39	8.57	10.97	19.99	17.92	16.43	9.35	11.95	7.01	8.92	10.41	1.01	11.67	12.11	12.14	12.11
\$1,000,000 under \$2,000,000	1.08	3.67	7.29	21.25	9.27	11.63	4.24	8.30	2.70	3.45	8.55	0.19	7.52	7.94	7.98	7.94
\$2,000,000 under \$3,000,000	0.24	1.26	2.12	9.95	1.79	5.02	1.40	2.07	0.56	0.84	3.67	0.12	3.00	3.21	2.78	3.25
\$3,000,000 under \$5,000,000	0.10	1.07	1.23	13.86	4.26	2.92	1.15	1.27	0.15	0.29	1.06	0.03	1.90	2.05	1.32	2.12
\$5,000,000 under \$10,000,000	0.06	0.59	1.86	8.34	3.55	3.35	1.72	1.08	0.15	0.26	2.86	0.01	2.08	2.24	1.94	2.27
\$10,000,000 under \$20,000,000	0.08	1.35	0.12	3.30	0.37	6.45	0.65	1.23	0.08	0.18	1.12	92.55	6.13	6.62	4.13	6.87
\$20,000,000 or more	0.01	0.19	0.37	3.44	0.09	1.58	0.25	0.10	0.02	0.05	0.14	0.01	0.73	0.79	0.21	0.85
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Percentages shown in this table are based on the absolute amounts shown in Table 44.

column 1 of Table 46, approximately one-half of one percent of all top wealth-holders had gross estates of \$2,000,000 or more. Yet, they accounted for about 20 percent of the corporate stock and 39 percent of the State and local bonds owned by all top wealth-holders.

The most reliable figures for the composition of wealth are the aggregate amounts of each asset owned by top wealth-holders as a group. The dollar value of each asset type is shown in the total line of Table 44. The relative share of gross estate accounted for by each asset type is shown in Table 45. In Table 47 the composition of the wealth of top wealth-holders in 1958 is compared to Mendershausen's (1944) and Lampman's (1953) estimates. The increased importance of real estate in the composition of top wealth-holders wealth from 1944 to 1953 appears to have continued into 1958. Although other bonds (largely corporate bonds) decreased only slightly, U.S. Government bonds and State and local bonds continued to decline in relative importance. The only other asset type which changed its relative importance with respect to Lampman's estimates for 1958 was "miscellaneous." It is doubtful, however, that any real change in the relative share of gross estate accounted for by "miscellaneous" assets took place. Annuities, one of the components of miscellaneous assets, accounted for 4.2 percent of gross estate. In Table 44 it can be seen that of the \$19.8 billion of annuities contained in gross estate \$18.4 billion were

TABLE 47

COMPOSITION OF WEALTH BY ASSET TYPE, FOR TOP
WEALTH-HOLDERS: 1944, 1953, AND 1958

Assets	1944	1953	1958
	(1)	(2)	(3)
	(Percent)		
Real estate	16.5	22.4	24.2
U.S. Government bonds	7.7	5.6	3.4
State and local bonds	4.6	3.5	2.3
Other bonds	3.3	0.9	0.8
Stock	38.8	39.2	38.6
Cash	9.4	9.2	8.3
Mortgages and notes	3.3	3.4	3.7
Life insurance	4.4	2.3	2.8
Unincorporated business	6.5		
Other intangible personal property	4.1	12.7	15.9 ¹
Tangible personal property	1.4		
Gross estate	100.0	100.0	100.0
Debts and mortgages	9.1	8.8	9.1
Economic estate	90.9	91.2	90.9

Source: Column 1 from Horst Mendershausen, "The Pattern of Estate Tax Wealth" in Raymond W. Goldsmith, A Study of Savings in the United States, p.275; column 2 from Lampman, The Share of Top Wealth-Holders, p. 157; column 3 from Table 45 infra.

¹ Annuities which represented 4.2 percent of gross estate, are included.

accounted for in the one gross estate size class \$10,000,000 under \$20,000,000. Looking back to Table 28 on page 101, it will be seen that one female decedent in the age class "under 40" had a gross estate of \$14,526,000. Applying the very high multiplier of 1111.1 for females in that age class resulted in an estimate of \$16.0 billion for the wealth of living females "under 40" with gross estates between \$10,000,000 and \$20,000,000. Although it is submerged in the data published in this study, examination of the detailed Goldsmith tabulation revealed the extraordinary condition that the entire estate of this one female decedent was held in annuities. Thus, the combination of a decedent whose age and sex are associated with a large multiplier, coupled with the condition that the entire estate was held in an asset which normally accounts for only a small portion of a decedent's estate, resulted in an unusually high estimate of the value of annuities held by top wealth-holders. Since the value of annuities was included in miscellaneous assets in Lampman's estimate, it had to be added back to other miscellaneous assets in 1958 to obtain an asset class which would be comparable in the two years. This, however, means that the atypical estate of one female decedent distorts upward the relative importance of "miscellaneous" in gross estate in 1958. If the assets of this one estate were distributed among asset types in a manner typical of estates in the \$10,000,000 under \$20,000,000 size class, no significant difference in the relative

importance of miscellaneous assets between 1953 and 1958 would appear.

Differences in composition of the wealth of top wealth-holders between 1953 and 1958 reflects not only the active shifting of wealth among asset types, but also the effects of differential price movements. Although financial capital is mobile, definitive evidence about the lock-in effect of taxes, the rigidities introduced by limited information about alternative assets, the institutionalization of investment patterns, and the psychological underpinnings of the marginal efficiency of capital is not at hand. All these have a bearing upon the composition of the wealth of top wealth-holders through time, they are, however, beyond the scope of this study.

CHAPTER V

THE SHARE OF TOP WEALTH-HOLDERS IN NATIONAL WEALTH

In Chapter IV, an estimate of the composition of the wealth of top wealth-holders was presented. That estimate is now compared with a national balance sheet derived for individuals for mid-year 1958 and with the findings of Lampman and Mendershausen. The balance sheet for individuals was constructed by modifying Goldsmith's balance sheet for non-farm households to include noncorporate farms and to exclude non-profit institutions. Goldsmith's balance sheet values¹ are for the end of the year. His estimates were converted to mid-1958 by taking the arithmetic mean of his end-of-year 1957 and 1958 values. This was done to achieve correspondence with these wealth estimates which are based on a sample of decedents drawn rather evenly over the entire year.

The method of constructing the balance sheets for individuals differed slightly from that used by Lampman.²

¹Raymond W. Goldsmith, Studies in the National Balance Sheet.

²Lampman, op. cit., pp. 191-195.

Because of this, and also because Lampman worked with preliminary end-of-year data, a new balance sheet for individuals was also constructed for mid-1953 to permit a direct comparison of the share of top wealth-holders in personal wealth based on his findings for 1953 and these for 1958. As will be seen, the revised 1953 balance sheet had slight effect on the share of top wealth-holders reported by Lampman.

The final derivation of our 1953 and 1958 balance sheet is shown in Table 48. In accordance with the concepts adopted by Lampman, an individual sector to show both prime wealth and total wealth has been constructed. Total wealth includes all personal wealth from which one receives "direct" benefits. Thus, it includes pension and trust funds, though their corpus may not be subject to invasion. Prime wealth is total wealth less the value of assets in trust funds, annuities and pension reserves.

Essentially the same procedure was followed to derive the 1953 balance sheet shown in part II of Table 33.

The Share of Top Wealth-Holders in 1958

In 1958 top wealth-holders owned 32.0 percent of the net prime wealth held by individuals. They owned at least 70 percent of the corporate stock and 67 percent State and local bonds, but less than 13 percent of life insurance equity. Estimates of the share of each of nine assets, gross estate, debt, and net estate held by top wealth-holders are presented in Table 49.

TABLE 48, PART 1

DERIVATION OF NATIONAL BALANCE SHEET FOR INDIVIDUALS BY TYPE OF PROPERTY FOR MID-YEAR 1958 AND 1953
MID-YEAR 1958

Type of Property	Nonfarm households	Farm households	Nonfarm noncorporate businesses	Trust funds	Nonprofit institutions	Individuals	
						Total wealth	Prime wealth
						(Billions of dollars)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Real estate, total	452.8	113.5	63.4		30.4	599.3	599.3
Residential structures	338.6	18.1	16.1				
Nonresidential structures	25.3	15.8	24.8		25.3		
Land	88.9	79.6	22.5		5.1		
Federal bonds, total	59.7	4.9		2.7	1.7	62.9	60.2
Short-term	3.9						
Savings bonds	43.5	4.9					
Other Federal bonds	12.3						
State and local bonds	24.1			7.8	0.6	23.5	15.7
Other bonds	11.0			2.9	3.2	7.8	4.9
Corporate stock, total	299.6			33.3	9.0	290.6	257.3
Preferred	10.4			1.5	0.8		
Common	289.2			31.8	8.2		
Cash, total	193.6	8.6	12.9	0.4	5.3	209.8	209.4
Currency and demand deposits	59.9	5.8	12.9	0.4	5.3		
Other deposits	133.7	2.8					
Notes and mortgages, total	28.9		16.1	0.7	0.4	44.6	43.9
Nonfarm mortgages:							
Residential	12.4						
Nonresidential	9.4						
Farm mortgages	4.4						
Consumer credit			4.8				
Trade credit			11.3				
Other loans	2.7						
Life insurance reserves	96.8	6.2				103.0	103.0
Pension and retirement funds:							
Private	25.0					25.0	
Government	65.0	0.4				65.5	
Miscellaneous assets, total	172.5	56.4	43.5	1.9	1.9	270.5	268.6
Equity in mutual financial institutions	7.7						
Producer durables	2.0	17.4	26.7		1.9		
Consumer durables	162.2	13.3					
Inventories		22.2	16.8				
Other intangible assets	0.6	3.5		0.6			
Other tangible assets				1.3			
Gross assets	1,429.1	190.0	135.9	49.7	52.5	1,702.5	1,562.3
Debt	170.2	19.0	39.1		5.5	222.8	222.8
Economic Estate	1,258.9	171.0	96.8	49.7	47.0	1,479.7	1,339.5

TABLE 48, PART 2

DERIVATION OF NATIONAL BALANCE SHEET FOR INDIVIDUALS BY TYPE OF PROPERTY FOR MID-YEAR 1958 AND 1953
MID-YEAR 1953

Type of Property	Nonfarm households	Farm households	Nonfarm noncorporate businesses	Trust funds	Nonprofit institutions	Individuals	
						Total wealth	Prime wealth
	(Billions of dollars)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Real estate, total	330.1	91.5	49.0		20.3	450.3	450.3
Residential structures	254.8	16.0	14.8				
Nonresidential structures	17.0	13.2	16.9		17.0		
Land	58.3	62.3	17.3		3.3		
Federal bonds, total	60.3	4.5		5.5	1.7	63.1	57.6
Short-term	1.8						
Savings bonds	46.4	4.5					
Other Federal bonds	12.1						
State and local bonds	16.4			5.3	0.4	16.0	10.7
Other bonds	6.3			1.9	1.8	4.5	2.6
Corporate stock, total	162.9			19.6	5.1	157.8	138.2
Preferred	9.4			1.6	0.7		
Common	153.5			18.0	4.4		
Cash, total	141.8	8.3	10.4	0.6	3.9	156.6	156.0
Currency and demand deposits	56.7	6.0	10.4	0.6			
Other deposits	85.1	2.3					
Notes and mortgages, total	20.4		12.8	0.8	0.3	32.9	32.1
Nonfarm mortgages:							
Residential	9.4						
Nonresidential	6.2						
Farm mortgages	3.1						
Consumer credit			4.1				
Trade credit			8.7				
Other loans	1.7						
Life insurance reserves	70.4	4.9				75.3	75.3
Pension and retirement funds:							
Private	10.5					10.5	
Government	50.3	0.5				50.8	
Miscellaneous assets, total	123.7	51.6	33.2	1.9	1.0	207.5	205.6
Equity in mutual financial institutions	4.8						
Producer durables	1.0	15.7	18.2		1.0		
Consumer durables	117.3	13.2					
Inventories		20.0	15.0				
Other intangible assets	0.6	2.7		0.6			
Other tangible assets				1.3			
Gross assets	993.1	161.3	105.4	35.6	34.5	1,225.3	1,128.4
Debt	98.3	14.1	24.6		3.2	133.8	133.8
Economic estate	394.8	147.2	80.8	35.6	31.3	1,091.5	994.6

NOTES FOR TABLE 48, PARTS 1 AND 2

Column 1, Nonfarm households, is the average of end-of-year asset values: for 1953, end-of-year, 1952 and 1953; for 1958, end-of-year 1957 and 1958 from Goldsmith, Studies in the National Balance Sheet, Vol. II, pp. 118f. Nonfarm noncorporate business assets of individuals are not included in column 1, but shown as a separate sector, Nonfarm Noncorporate Businesses, in column 3.

Column 2, Farm households, was derived by averaging Goldsmith's year-end values for his agriculture sector, Studies in the National Balance Sheet, Vol. II, pp. 132f: for 1953, end-of-year, 1952 and 1953; for 1958, end-of-year 1957 and 1958. The values obtained were then reduced by five percent to eliminate corporate farms. The basis for this adjustment is Mary M. B. Harmon, A Statistical Summary of Farm Tenure. Agriculture Research Service, U.S.D.A., 1958, p. 2, which shows five percent of farm acreage was owned by corporations in 1954. Discussions with personnel of the Department of Agriculture and the Bureau of the Census who deal with agricultural data cast doubt upon the assumption that only five percent of the value of farm assets is owned by corporations. It is suspected that the five percent of farm acreage owned by corporations is above average in value and that corporate farms are more capital intensive than the average. However, for lack of hard data to support a further reduction in Goldsmith's agriculture sector, assets were reduced by only five percent.

Column 3, Nonfarm noncorporate businesses, is an average of Goldsmith's end-of-year asset values for such businesses from Studies in the National Balance Sheet, Vol. II, pp. 126f.

Column 4, The assets and liabilities of trust funds, all of which are included in the nonfarm household sector, are listed separately here as the trust sector. Trust funds, for 1958 is an average of common trust funds for 1957 and 1958 from Goldsmith, Studies in the National Balance Sheet, Vol. II, pp. 122f, plus the values for personal trust funds from the "Report of National Survey of Personal Trust Accounts," (ABA mimeo., 1959) p. 4. For 1953; trust funds is the average of Goldsmith's year-end values for 1952 and 1953 for personal and common trust funds combined, Studies in the National Balance Sheet, Vol. II, pp. 122f.

Column 5, Nonprofit Institutions, was derived by applying to the mid-year asset values of nonfarm households (column 1) the percent that each asset held by nonprofit institutions in 1949 was of that asset held by households in 1949. See Goldsmith, A Study of Savings in the United States, Vol. III, p. 72. This ratio estimating procedure was made necessary because 1949 is the last year for which Goldsmith estimated a nonprofit sector. Goldsmith points out in the preface page to his 1949 nonprofit sector balance sheet, the estimates are rough approximations: "Whoever reads the notes to the tables--or has worked in the field--will be aware of how precarious the estimates are . . ." (Ibid., p. 449). In spite of the roughness of the 1949 estimate, it is appropriate to use the estimate of the outstanding authority in the field as a basis to adjust downward the assets of the nonfarm household sector, which are known to be too high.

Column 6, To arrive at the total wealth concept for the individual sector, the assets and liabilities of farm households and unincorporated businesses were added to, and those of nonprofit institutions were subtracted from, the nonfarm household sector. (The assets and liabilities of trust funds are already included in the nonfarm household sector.) Thus Individuals total wealth is the sum of columns 1, 2, and 3, minus column 5.

Column 7, To obtain a prime wealth individual sector, assets of trust funds and pension reserves were subtracted from total wealth. Thus Individuals prime wealth is the sum of columns 1, 2, and 3, minus columns 4 and 5 and minus private and government pension and retirement funds.

TABLE 49

THE SHARE OF TOP WEALTH-HOLDERS IN NATIONAL BALANCE
SHEET ACCOUNTS, BASIC VARIANT,^a 1958

	Top wealth- holders (basic variant)	National balance sheet prime wealth	Share of top wealth- holders
	(1)	(2)	(3)
	(Billions of dollars)		(Percent)
Real estate	\$114.4	\$ 599.3	19.1
Federal bonds	16.2	60.2	26.9
State and local bonds	10.6	15.7	67.5
Other bonds	3.5	4.9	71.4
Corporate stock	182.1	257.3	70.8
Cash	39.3	209.4	18.8
Notes and mortgages	17.6	43.9	40.1
Life insurance equity	13.3	103.0	12.9
Miscellaneous assets ^b	70.0	268.6	26.1
Gross estate	\$472.0	\$1,562.3	30.2
Debt	\$ 42.9	\$ 222.8	19.3
Net estate	429.0	1,339.5	32.0

Source: Column 1 is from Table 44 infra; column 2 is from Table 48 infra.

^aBasic variant is the value of all top wealth-holders wealth based upon decedents of known and unknown age with \$60,000 or more gross estate. It is essentially the same concept as that used by Lampman, but he included the value resulting from the blow-up of the wealth of 23 decedents with gross estates of less than \$60,000. The insignificance of this difference will be realized by noting that the total wealth of the living attributable to the 23 decedents with less than \$60,000 gross estate in Lampman's estimate is \$79,000,000 or .02 percent of his \$309,203,000,000 basic variant.

^bThe top wealth-holder sector includes \$19.8 billion of annuities. The National balance sheet entry includes equity in mutual financial institutions, other tangible assets and noncorporate business and farm inventories, consumer durables, and producer durables of private farms.

Because of one extremely unusual case which appeared in the Internal Revenue printouts, some adjustment to the composition of assets of top wealth-holders is called for. As may be noticed in Table 28 one female under 40 years of age was tabulated as having an estate of \$14,526,000. Examination of the detailed Goldsmith tabulation shows that \$13,609,000 of this estate was in annuities. Such an unusually large holding of annuities is considered a "rare event." When this value was blown-up by the high multiplier associated with females under 40, the estimated value of annuities was \$19.8 billion, a very dubious value. The value of annuities held by females with estates of \$10,000,000 but under \$20,000,000 is represented as being more than 13 times the value of annuities held by all other top wealth-holders (Table 44). The occurrence of such a high value may merely reflect the excessive sampling variability attaching to a rare event, or it may have been the result of faulty transcription in processing the returns by the Internal Revenue Service. An attempt to check the Internal Revenue transcriptions was frustrated by the fact that the edit sheets and punch cards used in the tabulation of the 1958 returns had been destroyed. The only remaining method by which the tabulated value for annuities could be checked was to sort through the 55,685 unorganized returns, a task exceeding the IRS's generosity and the writer's purse. Therefore, having presented the data blown-up by the estate multiplier method, the

data are now adjusted to eliminate the impact of this one case.

If it is assumed that the gross estate of this one decedent was distributed among assets in the same manner as assets in the aggregate gross estate of top wealth-holders in the same size of gross estate class, the distribution of assets and their respective share would appear as shown in Table 50.

Adjusting the final distribution for the one female annuitant results in the estimated concentration of State and local bonds, other bonds and corporate stock being considerably increased; and that of "miscellaneous assets" decreased.

In order to place the share of wealth owned by top wealth-holders in perspective, their total number can be compared to the total population. On July 1, 1958, according to the Bureau of the Census, the population of the United States was 174.8 million. Top wealth-holders according to our estimate numbered 2.6 million. Therefore, in 1958 1.5 percent of the population held 32 percent of net prime wealth owned by all individuals in the United States.³

Because estimates of top wealth-holders have been made for other years, it is possible to place our findings in historical perspective. Lampman's estimate by type of asset

³In the original estimate made with the published data, we estimated there were 2.5 million top wealth-holders (see Table 30 *infra*). Estimates based on the detailed Goldsmith tabulations indicate 2.6 million top wealth-holders. Based on the results from the published data top wealth-holders accounted for 1.4 percent of the total population, but 1.5 percent based on the Goldsmith tabulation.

TABLE 50

SHARE OF TOP WEALTH-HOLDERS IN NATIONAL BALANCE
SHEET ACCOUNTS, BASIC VARIANT ADJUSTED
FOR SPECIAL CASE, 1958

	Adjusted basic variant	National balance sheet prime wealth	Share of top wealth- holders
	(1)	(2)	(3)
	(Billions of dollars)		(Percent)
Real estate	\$115.7	\$ 599.3	19.3
Federal bonds	16.3	60.2	27.1
State and local bonds	12.2	15.7	77.7
Other bonds	3.7	4.9	75.5
Corporate stock	195.4	257.3	75.9
Cash	39.5	209.4	18.9
Notes and mortgages	17.9	43.9	40.8
Life insurance equity	13.3	103.0	12.9
Miscellaneous assets ^a	57.9	268.6	21.6
Gross estate	\$472.0	\$1,562.3	30.2
Debt	\$ 42.9	\$ 222.8	19.3
Net estate	\$429.0	\$1,339.5	32.0

Source: Column 1 contains the basic variant values from Table 49 infra adjusted for the special case of the annuitant. (See page 138 of the text) column 2 is from Table 48 infra.

^aIncludes annuities.

for 1953 are shown in Table 51. The share of each type of asset owned based on his balance sheet is also shown. Since Lampman used preliminary 1953 data from the National Bureau of Economic Research and because these balance sheets differed slightly from his, his wealth estimates are also calculated as percentage shares of the 1953 balance sheet entries.⁴

In order to compare the shares of top wealth-holders in 1953 and 1958, Lampman's 1953 estimates as a percent of our mid-1953 balance sheet values along with our 1958 estimates and shares based on the mid-1958 balance sheet are shown in Table 52. The shares of real estate, notes and mortgages, and life insurance equity held by top wealth-holders appear to have increased since 1953. Federal bonds, corporate stock, and miscellaneous assets appear to represent about the same share of their respective totals in 1958 as they did in 1953. State and local bonds, other bonds, and cash represent smaller shares in 1958 than in 1953. The fact that large sampling variability may attach to individuals

⁴The major differences in the 1953 Lampman balance sheet and that constructed for this study are: 1. Lampman used end-of-year values. 2. Lampman apparently allocated assets to trust funds on the basis of the findings reported in Goldsmith and Shapiro "Estimates of Bank-Administered Trust Funds," Journal of Finance, March 1959, pp. 11-17; we used Goldsmith's later estimates shown in Studies in the National Balance Sheet and the "Report of Survey of Personal Trust." 3. Lampman's estimate of \$16.1 billion "equities in mutual financial institutions" held by the household sector appears far too large in comparison with Goldsmith's National Balance Sheet entry of \$4.99 billion; our mid-1958 value, \$4.8 billion.

TABLE 51

THE SHARE OF TOP WEALTH-HOLDERS IN NATIONAL BALANCE SHEET
ACCOUNTS, BASIC VARIANT,^a 1953

	Basic variant	Lampman's national ^b balance sheet prime wealth
	(1)	(2)
	(Billions of dollars)	
Real estate	\$ 70.1	\$ 442.6
Federal bonds	17.4	53.1
State and local bonds	10.8	7.8
Other bonds	2.8	2.8
Corporate stock	105.7	127.2
Cash	44.6	158.4
Notes and mortgages	10.5	30.0
Life insurance equity	7.1 ^d	78.2
Miscellaneous assets ^c	39.6	219.9
Gross estate	\$309.2	\$1,120.0
Debt	\$ 27.7	\$ 132.8
Net estate	\$281.5	\$ 987.2

Source: Columns 1, 2 and 3 are from Lampman, op. cit., pp. 192ff; column 4 is from Table 48 infra.

^aSee note a in Table 49.

^bRobert Lampman, The Share of Top Wealth-Holders, p. 192f.

^cIncludes equity in mutual financial institutions, other tangible assets and noncorporate business and farm inventories, consumer durables and producer durables of private farms.

^dThe value used by Lampman to calculate the share of life insurance equity in Table 26, p. 192f (The Share of Top Wealth-Holders), appears to be wrong. He shows \$8.7 billion in Table 23, p. 52, op. cit., before an addition for the estates of decedents with age unspecified. Because a negative value for insurance equity for the age unspecified group is not possible, we assume this figure to understate by at least \$1.6 billion the basic variant value of life insurance equity of top wealth-holders.

^eComputed on Lampman's rounded figures.

TABLE 51--Continued

Share based on Lampman's ^e national balance sheet prime wealth col. 1 + col. 2	New mid-1953 balance sheet prime wealth	Share based on new mid-1953 balance sheet col. 1 + col. 4
(3)	(4)	(5)
(Percent)	(Billions of dollars)	(Percent)
15.8	\$ 450.3	15.6
32.8	57.6	30.2
138.4	10.7	100.9
100.0	2.6	107.7
83.1	138.2	76.5
28.2	156.0	28.6
35.0	32.1	32.7
9.1	75.3	9.4
18.0	205.6	19.3
27.6	\$1,128.4	27.4
20.9	\$ 133.8	20.7
28.5	\$ 994.6	28.3

TABLE 52

COMPARISON OF THE SHARE OF TOP WEALTH-HOLDERS IN
NATIONAL BALANCE SHEET ACCOUNTS FOR 1953 AND
1958 USING MID-YEAR BALANCE SHEETS AND
ADJUSTED 1958 BASIC VARIANT

Asset	Basic variant held by top wealth- holders		Share of national balance sheet accounts prime wealth	
	1953	1958	1953	1958
	(1)	(2)	(1)	(2)
	(Billions of dollars)		(Percent)	
Real estate	\$ 70.1	\$115.7	15.6	19.3
Federal bonds	17.4	16.3	30.2	27.1
State and local bonds	10.8	12.2	100.9	77.7
Other bonds	2.8	3.7	107.7	75.5
Corporate stock	105.7	195.4	76.5	75.9
Cash	44.6	39.5	28.6	18.9
Notes and mortgages	10.5	17.9	32.7	40.8
Life insurance equity	7.1 ^b	13.3	9.4	12.9
Miscellaneous assets ^a	39.6	57.9	19.3	21.6
Gross estate	\$309.2	\$472.0	27.4	30.2
Debt	\$ 27.7	\$ 42.9	20.7	19.3
Net estate	\$281.5	\$429.0	28.3	32.0

Source: Column 1 is from Lampman, op. cit., pp. 192f; column 2 is from Table 50 infra; columns 3 and 4 are based on the national balance sheet value in Table 48 infra.

^aIncludes equity in mutual financial institutions, other tangible assets, and noncorporate business and farm inventories.

^bThe value of life insurance equity shown by Lampman in Table 90 (Lampman, The Share of Top Wealth-Holders, p. 192f) appears to be incorrect. The correct value is believed to be at least \$8.7 billion. Based on a value of \$8.7 billion the share of top wealth-holders in life insurance equity in 1953 would be 11.6 percent. See notes to Table 51 of this study.

assets, particularly those with small aggregates such as municipal and "other" bonds which tend to be held by a very small number of persons, demands caution in interpretation of share differences between 1953 and 1958. It is unlikely that large swings in the share of particular assets owned by top wealth-holders occurred in a period as short as five years.

The most reliable share figures are those for gross and net estate. Top wealth-holders owned 27.4 percent of the gross and 28.3 of net prime wealth in 1953, but increased their share to 30.2 percent and 32.0 percent respectively in 1958 (Table 52). Disregarding the absolute differences between periods, the data support Lampman's conclusion that the share of top wealth-holders has been increasing since 1949.⁵

The increased share of top wealth-holders in prime wealth between 1953 and 1958 is probably understated. Because of what appears to be an arithmetic error, Lampman has included \$16.4 billion in gross estate as the blow-up of assets of decedents of unknown age.⁶ The correct amount, according to the procedure shown by Lampman, should be \$7.6 billion. If \$7.6 billion is taken as the correct estimate of gross estate for the age unknown group, his estimate of basic variant gross estate for all top wealth-holders would be reduced to \$300.4 billion. On this basis, the share of top wealth-holders in national balance sheet gross prime wealth in 1953

⁵Lampman, op. cit., p. 24.

⁶Lampman, op. cit., Table 29, p. 62.

would have been 26.6 percent, compared to 30.2 percent in 1958.⁷

But the total number of persons, as well as the proportion of the total population, represented by top wealth-holders has been increasing. In 1953 the group consisted of approximately 1.66 million persons, or about 1.04 percent of the total U.S. population. In 1958 the number of persons had risen to 2.6 million, or about 1.5 percent of the total population.

In order to get more directly at the concentration of wealth, Table 53 has been constructed to show the percent of each asset in total prime wealth owned by the top one percent of all wealth-holders. In the aggregate, the wealthiest strata have at least maintained their share position of 1953.

With respect to individual assets, the top one percent of wealth-holders held about the same share of total real estate, corporate stock, notes and mortgages, life insurance equity, and miscellaneous assets in 1958 as in 1953. The share of all types of bonds in the hands of top wealth-holders declined, as did cash holdings. On an over-all basis whether one looks at gross estate or net estate, there appears to have been little change in the concentration of

⁷See Lampman, op. cit., p. 55. In discussion with Lampman he has stated to the writer that he was unable to reconcile the \$16.4 billion shown in his Table 29 with the procedure described on page 55 of The Share of Top Wealth-Holders, but that the procedure should yield the correct estimate for the age unknown group.

TABLE 53

SHARE OF TOP ONE PERCENT OF WEALTH-HOLDERS IN NATIONAL
BALANCE SHEET ACCOUNTS MID-YEAR 1958 AND 1953

Type of Property	Top one percent of wealth-holders	
	1958 ^a	1953
	(1)	(2)
	(Percent)	
Real estate	15.7	15.3
Federal bonds	22.8	30.2
State and local bonds	76.4	100.9
Other bonds	69.4	107.7
Corporate stock	71.0	76.0
Cash	15.2	28.1
Notes and mortgages	35.1	31.5
Life insurance equity	11.0	9.3
Miscellaneous assets	18.8	18.5
Gross assets	26.7	26.1
Debt	17.2	20.5
Economic estate	28.1	27.8

Source: Column 1 was obtained by linear interpolation of the data in Table 44 infra to obtain the number of wealth-holders equal to one percent of the population in 1958; column 2 is derived by adjusting Lampman's data (Lampman, The Share of Top Wealth-Holders, pp. 192ff) to reflect the share held by the top one percent of all persons in 1953.

^aBased on asset holdings after adjustment for special case. See notes to Table 50, infra.

wealth since 1953.

A longer perspective of the concentration of wealth is available if one uses Lampman's data for the top one percent of adults. On the basis of the population of persons over 20 years of age on July 1, 1958, the total value of assets held by the wealthiest one percent has been computed (Table 54). This value was then computed as a percent of the total value of net prime wealth of all individuals in the national balance sheet. This estimate of 23.8 percent is slightly lower than Lampman's estimates for 1953, 1954, and 1956.⁸ When it is remembered that there are differences in the balance sheet used for the 1958 share compared to those for other years, that sampling errors exist in all the estimates, and that the wealth of the age unknown group is overstated in 1953, one is forced to look at the whole series of estimates to assess changes in the concentration of wealth. When this is done, it appears that over the period of these estimates wealth was most highly concentrated in the 1920's, decreased in concentration during the depression and war years, and has been increasing again since 1949. Lampman has already pointed out this movement in the concentration of wealth. The data for the last year in support of his observation has been added.

⁸Lampman, op. cit., p. 204.

TABLE 54

SHARE OF TOP ONE PERCENT OF ADULTS IN NATIONAL
BALANCE SHEET ACCOUNTS, SELECTED YEARS
1922 TO 1958

Year	Share of Top One Percent of Adult Wealth-holders (Percent)
1922	31.6
1929	36.3
1933	28.3
1939	30.6
1945	23.3
1949	20.8
1953	24.3
1954	24.0
1956	26.0
1958	23.8

Source: All figures except that for 1958 are from Lampman, The Share of Top Wealth-Holders, p. 204. The percent of basic variant wealth owned by the top one percent of adult wealth-holders for the years 1922 through 1956 was computed by Lampman on the basis of his balance sheets. The 1958 share is based on the balance sheet in Table 48 infra and interpolation of the number and gross estate of wealth-holders represented in Table 44 infra. No adjustment has been made for Lampman's 1953 estimates which overstated the gross estate of the age unknown group and understated life insurance equities.

CHAPTER VI

THE INCOME OF TOP WEALTH-HOLDERS

In this chapter there is an estimate of the income received by top wealth-holders in 1958. Three broad types of income are separately estimated and summed to arrive at an estimate of total income. The three types of income are: (1) direct returns to capital (interest, rent, dividends, and business income); (2) capital gains (realized and unrealized); and (3) wage and salary income. The estimates of top wealth-holders' income are compared to aggregates for all individuals.

Income from personal trust funds and unsettled estates¹ is not included in our estimates because no satisfactory method is available to distribute it by wealth of recipient. One would suspect that the exclusion of these incomes tends to understate the incomes of top wealth-holders relative to other individuals.

The first and second types of incomes are causally

¹In 1958 trusts and estates had combined incomes of \$5.1 billion (Statistics of Income, Fiduciary, Gift and Estate Tax Returns, 1958), p. 3.

related to the amount and type of property owned by top wealth-holders. Interest, rent, dividend, and business incomes are, therefore, estimated by applying against the value of property presented in Table 50 an average rate of return on such property in 1958. Similarly, capital gains are estimated by applying against the estimates of property values the relative change in a price index for each type of asset.

Wage and salary incomes of top wealth-holders are estimated by use of a set of ratios of labor income to asset holdings for persons with \$60,000 or more of gross assets. The ratios were obtained from a study of high income individuals by the Board of Governors of the Federal Reserve System. The estimate of yield and capital gain on each type of asset held by top wealth-holders in 1958 are shown in Table 55.

Dividends, Rent and Interest

The estimate of dividend income was produced by multiplying the total holdings of corporate stock by the average yield of corporate stock in 1958. The yield factor is based on Standard and Poor's 500 stock index. The factor represents the average 1958 yield on common stock included in the index. Use of the common stock yield factor probably slightly understates dividend incomes of top wealth-holders because the corporate stock classification used in the estate tax tabulations encompasses preferred issues, which had an average yield 12 percent higher than that of common stock.

TABLE 55

ESTIMATE OF PROPERTY INCOME OF TOP WEALTH-HOLDERS, 1958

Asset	Value of asset	Rate of yield	Amount of yield
	(1)	(2)	(3)
	(Billions of dollars)	(Percent)	(Billions of dollars)
Real estate	\$115.7	5.5	\$ 6.4
Federal bonds	16.3	3.4	0.6
State and local bonds	12.2	3.6	0.4
Other bonds	3.7	4.2	0.2
Corporation stock	195.4	4.1	8.0
Cash ^a	25.8	3.0	0.8
Notes and mortgages	17.9	6.0	1.1
Miscellaneous ^b	28.3	6.0	1.6
Gross amounts	\$415.3		\$19.2
Debt	\$ 43.0	6.0	\$ 2.6
Net amounts	\$372.3		\$16.6

Source: Column 1 is from Table 50 infra; column 2, ratios are as follows: real estate, average rate of interest on FHA insured loans in 1958; federal bonds, average yield on federal bond callable in ten years or more; state and local bonds, Moody's average yield on all state and local bonds; other bonds, Moody's average yield on all corporate bonds; corporation stock, yield on stock in Standard and Poor's 500 stock index; cash, maximum rate payable on savings deposits in 1958 by member banks of the Federal Reserve System; notes and mortgages, miscellaneous, and debt, an arbitrary selection. Columns 4 and 5 are from Table 56 infra.

^aCash has been reduced to 65.2 percent of the amount shown in Table 36.

^bOne-half the value miscellaneous assets remaining after excluding \$1.5 billion in annuities.

TABLE 55--Continued

Capital gains		Total	
1958 basis	1956-60 basis	1958 basis col. 4 + col. 5	1956-60 basis col. 4 + col. 6
(4)	(5)	(6)	(7)

(Billions of dollars)

\$ 2.1	\$ 2.0	\$ 8.5	\$ 8.4
-1.1	-0.5	-0.5	0.1
-0.6	-0.1	-0.2	0.3
-0.1	-0.1	0.1	0.1
56.8	17.5	64.8	25.5
-	-	0.8	0.8
-	-	1.1	1.1
0.5	0.5	2.2	2.2
\$57.6	\$19.4	\$76.8	\$38.5
-	-	\$ 2.6	\$ 2.6
\$57.6	\$19.4	\$74.2	\$35.9

Although it is not possible to determine the allocation made by top wealth-holders between common and preferred issues, the fact that preferred issues (including those in trust accounts) held by all individuals in mid-1958 had a market value of only \$9.6 billion compared to the \$281.0 billion common stock holdings, coupled with the estimate of this study that top wealth-holders owned \$195.4 billion of corporate stock, argues strongly against any large understatement caused by ignoring the higher yield on preferred issues. If the portfolio of top wealth-holders earned a yield in excess of that for issues in Standard and Poor's 500 stock index, the estimate would also under value dividend income.

Atkinson found that for Wisconsin individuals, yields on stock decreased with higher income, except for his highest income group, \$50,000 and over. Atkinson's data for Wisconsin individuals shows the highest income group, "\$50,000 and over" in 1949 realized a 7.31 percent yield on traded securities and 5.12 percent on untraded securities.² These yields are 7 and 10 percent above the respective average yields for all Wisconsin shareholders. If one assumes Wisconsin shareholders to be representative of the national population of share-holders with respect to their propensity for high yield, and if one assumes that income and wealth

²Thomas R. Atkinson, The Pattern of Financial Asset Ownership, Wisconsin Individuals, 1949, The National Bureau of Economic Research (Princeton, New Jersey: Princeton University Press, 1956), p. 131.

are closely associated, these estimates understate somewhat the dividend income of top wealth-holders.

In the preceding chapter it was pointed out that in 1958 top wealth-holders owned 75.9 percent of all stock directly held by individuals. Reducing dividend income of persons in the national income accounts for 1958 by the proportion which the value of stockholding of personal trusts and nonprofit institutions represented of the total value of stock held by households, approximates the total dividend income of individuals--the same population for which national balance sheet items were derived in Table 48. Adjusting dividend income in the national income accounts for 1958 by the above procedure, results in a \$10.65 billion dividend flow to individuals. This study's estimate of dividend income of top wealth-holders is \$8.0 billion, or about 75 percent of the total dividend income received by individuals. As noted above, top wealth-holders were estimated to have owned 75.9 percent of all corporate stock.

Rental income of top wealth-holders was estimated by applying against the values of their real estate the average rate of interest (5.5 percent) on FHA insured loans in 1958. In following this procedure, the concept of rental income of persons used in the national income accounts by imputing a rent on owner occupied houses is implicitly accepted. It is estimated that rental income of \$6.4 billion was received by top wealth-holders in 1958. This was 52.5 percent of rental

incomes of persons (\$12.2 billion), in the national income accounts for that year.

Total interest income of top wealth-holders was estimated as the sum of \$0.6 billion on Federal bonds, \$0.4 billion on state and local bonds, \$0.2 billion other bonds, \$0.8 billion on time deposits and \$1.1 billion from notes and mortgages, or a total of \$3.1 billion in 1958.

Interest income was estimated by applying the average rate of yield on each of the three classes of bonds--Federal, State, and local, and other (essentially corporate)--against the estimate of the value of such bonds held; applying an arbitrary rate of 6 percent against the notes and mortgages owned; and a 3 percent rate against a portion of cash holding.

Moody's Investor's Service's average 1958 yields were used for state and local bonds and for "other bonds." The relative difference in average yield is considerable between high and low grade bonds. In the case of state and local bonds, the average yield was 2.92 percent for Aaa bonds and 3.95 percent for Baa bonds, a 35 percent higher return on Baa bonds. The yield in Table 55 is based on Moody's average for all state and local bonds, 3.4 percent. Aaa corporates had an average yield of 3.79 percent and Baa corporates an average of 4.73 percent, a 25 percent yield premium for the lower grades. The yield used in Table 55 was the average for all corporate bonds, 4.2 percent. The yield for Federal bonds (3.4 percent) was the average yield in 1958 on U.S. bonds

callable in ten years or more.

The 6 percent rate applied against notes and mortgages is an arbitrary selection based upon its common statutory use for tax debts and what appears to be an institutionalized rate on contractual debt among persons.

The 3 percent rate applied against a portion of cash holdings was the maximum rate paid in 1958 on time deposits by member banks of the Federal Reserve System. Assuming that the cash of top wealth-holders was allocated among time deposits, demand deposits, and currency in the same proportion as for all individuals (see national balance sheet, Table 48), only 65.2 percent would have been earning a yield. On this basis, the estimate of interest income on cash holdings of top wealth-holders would amount to $(0.03) \times (\$39.5) \times (0.652) = \0.8 billion. This estimate probably understates the interest received by top wealth-holders on their cash holdings. It seems unlikely that the very wealthiest strata of the population would hold as great a portion of their cash in currency and demand deposits as the average for all individuals.

Conceptually, interest, as used in this estimate, is quite close to the Federal income tax definition. However, it is necessary to broaden the Federal income tax concept to include interest from tax exempt bonds to achieve complete

correspondence. Statistics of Income, 1958,³ shows that \$3.7 billion interest income was reported on income tax returns.

It is possible to estimate rather closely the additional amount which would have been reported on individual tax returns were interest from state and local bonds not exempt. In 1958 state and local governments paid out interest of \$1.5 billion to holders of their debt. Goldsmith⁴ has estimated that the total par values of outstanding state and local bonds at the end of 1957 and the end of 1958 were \$55.1 billion and \$61.1 billion respectively. Here it is estimated that the mid-1958 value would have been \$58.1 billion, the arithmetic mean of the end-of-year values. Since individuals directly held \$15.7 billion of state and local bonds in mid-1958 (column 7 of Table 48 of this study), it may be assumed they received 28.1 percent ($15.7/58.1$) of the total interest paid by state and local governments, or \$0.4 billion.⁵ In spite of the conceptual similarity of IRS

³Statistics of Income, 1958, Individual Income Tax Returns, p. 30.

⁴Goldsmith, Studies in the National Balance Sheet, Vol. II, p. 67f.

⁵It will be noticed that the estimate of interest income from state and local bonds of top wealth-holders is equal to the estimated interest received from state and local bonds by individuals, but that top wealth-holders owned only \$12.2 billion of the \$15.7 billion of state and local bonds owned by all individuals. Two factors may account for most of this apparent inconsistency. Most important, the national balance sheet figures are based on par values; the wealth estimates on market value. Secondly, rounding to tenths of

interest to that of this estimate, the apparent extensive under reporting of interest by taxpayers makes it preferable to adjust personal interest income in the national income accounts to fit our concept. The necessary adjustment is the removal of imputed interest income from "personal interest income." In 1958 personal interest amounted to \$21,002 million, of which net imputed interest was \$9,032 million. Personal monetary interest was therefore \$11,970 billion. Because nonprofit institutions and trust funds are included in the personal sector of the national income accounts, the total monetary interest income of "persons," \$11,970 billion, needs further adjustment to attain correspondence with the population of individuals. In mid-1958 interest earning assets of nonprofit institutions and trust funds amounted to \$25.7 billion, or 7.8 percent of the \$330.8 billion interest bearing assets of household and private farms (see Table 48). Reducing interest income in the national income accounts by this percentage achieves the desired correspondence with the population to which top wealth-holders belong. Interest income so adjusted totals \$11.1 billion, of which the top wealth-holders' share of \$3.1 billion accounted for 27.9 percent.

Business income of top wealth-holders was estimated

a billion resulted in both \$360 million interest income to top wealth-holders and \$440 million interest to all individuals being rounded to \$0.4 billion.

by applying a 6 percent rate of return against one-half the value of property included in miscellaneous assets. The Internal Revenue has never made a detailed tabulation of the property included in "miscellaneous" assets. Because this classification includes not only the value of unincorporated businesses and farms, but also the value of transfers in contemplation of death, interests in trust and estates, personal property and assets not fitting into other categories, only one-half of the value is assumed to be of a business nature.

The estimate of business income based on the above procedure is \$1.6 billion. This is about 3.5 percent of the \$46.1 billion proprietors' income in the national income accounts for 1958.

Capital Gains and Losses

It is estimated that top wealth-holders had a net capital gain of \$57.6 billion in 1958. The estimate of capital gains and losses was made by applying against certain of the assets held by top wealth-holders the percentage change over the year 1958 in a price index for each asset. The estimated wealth of top wealth-holders is an average of their wealth over the year, because the sample (estate tax decedents) is drawn not at a point, but rather evenly throughout the year. This estimate of the wealth of top wealth-holders is taken as an estimate of what would have been found by a census on June 30, 1958. Since the rate of change of each price index and the mid-year value of each asset is known, it

is possible to compute the capital gain (G_A) accruing to top wealth-holders during the year on asset A as:

$$G_A = \frac{2 \left(\frac{\text{Price } A_{t+1}}{\text{Price } A_t} - 1 \right) (\text{Mid-year value of A})}{2 + \left(\frac{\text{Price } A_{t+1}}{\text{Price } A_t} - 1 \right)}$$

Implicit in this procedure are the assumptions that (1) top wealth-holders in the aggregate maintained the same constant dollar composition of assets throughout the entire year and (2) that all exchanges of assets held at the beginning of the year were made within the top wealth-holding group. Neither of these assumptions would appear to unduly constrain the estimates of capital gains.

Movements of asset prices in 1958 resulted in capital gains to top wealth-holders on real estate, corporate stock, and "miscellaneous assets"; and capital losses on Federal, State and local, and other bonds (Table 56, column 4). It will be noticed that the estimated capital loss on bonds of all types more than offset the estimated total yield on all bonds. By far the most significant source of capital gain, one that swamped not only the total net capital gain on all other assets, but also the total yield income from all sources, was corporate stock.

The very rapid climb in stock market prices from the end of 1957 to the end of 1958 resulted in significant

TABLE 56

ESTIMATES OF CAPITAL GAINS FOR 1958 BY TYPE OF PROPERTY,
 BASED ON PERCENTAGE CHANGE IN ACTUAL END-OF-YEAR 1957
 AND 1958 INDEX VALUES, AND ON PERCENTAGE CHANGE IN
 COMPUTED REGRESSION LINE INDEX VALUES FOR
 1957 AND 1958

Type of Property	Value of asset mid 1958	Actual price index value		Percentage change
		End-of-year 1958	1957	
	(1)	(2)	(3)	(4)
	(Billions of dollars)			
Real estate	\$115.7	278.0	272.9	+ 1.87
Federal bonds	16.3	88.9	95.6	- 7.01
State & local bonds	12.2	102.3	107.5	- 4.84
Other bonds	3.7	98.7	102.7	- 3.89
Corporate stock	195.4	201.1	150.1	+33.98
Total	\$415.3			

Source: Column 1 is from Table 50 infra; columns 2 and 3 are from Goldsmith, Studies in the National Balance Sheet, pp. 170-3.

^aRegression line value were obtained from a linear regression of end-of-year price index values for each asset for the years 1956 through 1960.

$$\text{Capital Gain or Loss} = \frac{2 \times (\text{Rate of change}) \times (\text{Mid year value})}{2 + \text{Rate of Change}}$$

Detail may not add to totals due to rounding.

TABLE 56--Continued

Price index values from 1956-1960 regression line ^a		Percentage change	Capital Gain or Loss	
End-of-year 1958	1957		Based on actual 1957 and 1958 index values	Based on 1957 and 1958 regression line index values
(5)	(6)	(7)	(8)	(9)
(Billions of dollars)				
278.6	273.7	+ 1.79	+ \$ 2.1	+ \$ 2.1
90.1	92.8	- 2.91	- 1.1	- 0.5
105.0	105.8	- 0.76	- 0.6	- 0.1
98.3	100.9	- 2.58	- 0.1	- 0.1
190.3	174.0	+ 9.39	+ 56.8	+ 17.5
			\$57.1	\$18.9

increases in the wealth of top wealth-holders. Had 1958 been more typical of the period, the capital gain would have been less. For instance, the capital gain which would have been only \$19.4 billion had the actual changes in prices followed a straightline regression of year-end index values for the period 1956 to 1960. Capital gains based on both the actual and on the five year regression line value are shown in Table 56.

Salary and Wage Incomes of
Top Wealth-Holders

An estimate of salary and wage incomes of top wealth-holders was made from data obtained from a field survey of 1,042 high income recipients conducted for the Board of Governors of the Federal Reserve Systems by the Bureau of the Census.⁶

In October 1960 a pilot study preparatory to the full-scale survey of Consumer Financial Characteristics, 1962, was conducted in four major U.S. cities.⁷ The pilot study had two purposes: to obtain detailed information about the financial position of families who account for a substantial amount of savings and investment, and to test procedures

⁶A tape of the data obtained in the survey was made available to the writer through the cooperation of Dorothy Projector of the Board of Governors of the Federal Reserve System and Herman Miller of the Bureau of the Census.

⁷See Dorothy Projector, "Survey of Financial Characteristics of Consumers," Federal Reserve Bulletin, March 1964, p. 285.

to be used in the nationwide survey in 1962.

Three census tracts expected to have a high proportion of high income recipients were selected in each city. One half of the sample in each city was restricted to families who reported incomes of \$15,000 and over in the 1960 decennial census. Eighteen percent of those selected had a net worth of \$200,000 or more.

For purposes of this study a program was written to select those cases in which the head of the family had gross assets of \$60,000 or more--the same lower wealth limitation applicable to the top wealth-holder population.

The computer was asked to arrange family heads by size of asset holdings and to compute within eight asset size classes the ratio of wage and salary income to asset holdings of the head. The income/gross asset ratio for each gross asset size class is shown in Table 57. As one would expect a priori, wage and salary income decrease as a proportion of gross assets as asset holdings increase. The ratios were then applied against the asset holdings of top wealth-holders to estimate their wage and salary income. The total wage and salary estimate using this method is \$31.9 billion. This compares to the \$239.8 billion wage and salary component of personal income in 1958.

In evaluating this estimate, consideration must be given to the fact that the ratios of salary income to gross assets were computed on the basis of the head's income and

TABLE 57

ESTIMATE OF WAGES AND SALARIES RECEIVED BY TOP WEALTH-HOLDERS EXCLUDING MARRIED WOMEN, 1958

	Total assets	Ratios from Federal Reserve Study	Estimates
	(1)	(2)	(3)
	(Billions of dollars)		(Billions of dollars)
\$60,000 under \$70,000	\$ 12.8	.18	\$ 2.3
\$70,000 under \$80,000	16.1	.17	2.7
\$80,000 under \$90,000	14.7	.13	1.9
\$90,000 under \$120,000	41.9	.12	4.9
\$120,000 under \$150,000	34.2	.10	3.4
\$150,000 under \$200,000	38.9	.09	3.5
\$200,000 under \$500,000	91.5	.05	4.6
\$500,000 and over	131.6	.02	2.6
Total	\$381.7		\$25.9

Source: Column 1, assets of top wealth-holders excluding the assets of married female top wealth-holders were obtained from a special tabulation of estate tax returns done by the Internal Revenue Service for Raymond W. Goldsmith; column 2, the ratios are of wages and salaries to gross assets from an unpublished study of high income recipients done for the Board of Governors of the Federal Reserve System by the Bureau of the Census.

holdings. In the case of married couples in the Federal Reserve Board Survey, the male was always considered to be the head; in the case of broken homes and single persons, the head could have been either a male or female. This raises the question: on the average, does a female spouse with gross assets of \$60,000 and over earn less than the average wage and salary income of single males, single females and married males with gross assets of \$60,000 or more? One would presume a priori that she does--the mores of the society, at least, lead us to this conclusion. It is possible from the special IRS tabulation done for Goldsmith to compute the number of married female top wealth-holders and their wealth in each gross estate size class. By assuming that female spouses among top wealth-holders had zero wage and salary incomes, a wage and salary income only for married males and single, divorced, or surviving spouses who are either male or female--the group of persons for which data was used to compute the wage and salary/asset ratios can be computed. The wage and salary income within each gross estate size class derived by applying the ratios to the assets remaining in each class after removing the value of asset holdings of top wealth-holders who were female spouses are shown in Table 42. Although this reduction in the estimate of wage and salary income is not large, the zero wage assumption probably imparts a downward bias to the wage estimate.

Comparing this wage estimate of \$25.9 billion to the wage and salary national income component of personal income in 1958 indicates that the 1.5 percent of all persons received 10.8 percent of the total wage and salary income.

Total Income

The income of top wealth-holders in 1958 is summarized in Table 58. In constructing the table, all transfer payments in the national income accounts have been allocated to persons other than top wealth-holders. On the basis of the concept of income used in this study, top wealth-holders received 24.0 percent of the income of all individuals. In evaluating the share of individuals' income received by top wealth-holders, it must be borne in mind that they are the top 1.5 percent of wealth-holders (based on gross assets) but almost certainly not the top 1.5 percent of income recipients. There is a set of income recipients which constitute the top 1.5 percent of income recipients. Arraying individuals by any classifier other than income can only err on the side of understating the concentration of income. Only in the special case where there is a perfect positive correlation between income and another classifier will the top 1.5 percent of the array contain the set of top income recipients.

About one-fourth of the income of top wealth-holders comes from wages and salaries, a finding gainsaying the popular image of the rich as coupon clippers. The large role of dividends and capital gains in top wealth-holders' income

TABLE 58

SHARE OF TOP WEALTH-HOLDERS IN INDIVIDUALS' INCOME, 1958

	All Persons	Top Wealth- Holders	Share going to Top Wealth- Holders
	(1)	(2)	(3)
	(Billions of dollars)		(Percent)
Wages and salaries	\$239.8	\$ 25.9	10.8
Dividend ^a	10.7	8.0	74.8
Interest	11.1	3.1	27.9
Rent	12.2	6.4	52.5
Proprietors income	46.1	1.6	3.5
Capital gains	80.7	57.6	71.4
Social insurance	8.5	-	-
Unemployment benefits	3.9	-	-
Veterans benefits	4.6	-	-
Other transfers	9.4	-	-
Total	\$427.0	\$102.6	24.0

Source: Column 1, all values except capital gains are based on the personal income entries in the national income accounts for 1958 (see text of Chapter VI for adjustments), capital gains are derived by applying to the value assets in the national balance sheet (Table 48 *infra*) the same procedure that was applied to the corresponding asset values in the hands of top wealth-holders (see Table 56 *infra* and text of Chapter VI); column 2 is from Tables 55 and 57 *infra*.

^aExcludes \$1.7 billion dividends paid to trust funds and non-profit institutions.

would seem to reflect a rational attempt to maximize after-tax income.

Capital gains are considered an income flow because they are accretions to one's command over goods and services. It is true that the existing government income distribution series exclude capital gains, but the reason is not entirely one of conceptual preference. It must be remembered that government income distribution series began as modest attempts to measure the income of lower income groups with some precision and to lump the larger income recipients in the ". . . and over" size class. When one focuses attention on the little fellow, he is quite justified in excluding a flow that is both extremely difficult to estimate and will, in all probability, fall almost entirely into the upper open end size class.

However, when one sets out to measure incomes over an entire Lorenz curve, or to measure income at the upper end of the curve, care must be taken not to confuse that which is difficult to measure with that which is conceptually apart.

There has in recent years been a growing interest in bringing down what Kaldor has called the "iron curtain between capital and income." In their Memorandum of Dissent in the Final Report of the Royal Commission on Taxation (1952-5), Kaldor, Woodcock and Bullock articulated the need for reconceptualizing "income" as used in income distribution studies.

In our view the taxable capacity of an individual consists in his power to satisfy his own material needs, i.e., to attain a particular living standard. We know of no alternative definition that is capable of satisfying society's prevailing sense of fairness and equity. Thus the ruling test to be applied in deciding whether any particular receipt should or should not be reckoned as taxable income is whether it contributes or not, or how far it contributes, to an individual's 'spending power' during a period. When set beside this standard, most of the principles that have been applied, at one time or another, to determine whether particular types of receipt constitute income (whether the receipts are regularly recurrent or casual, or whether they proceed from a separate and identifiable source, or whether they are payments for services rendered, or whether they constitute profit 'on sound accountancy principles', or whether, in the words of the Majority, they fall 'within the limited class of receipts that are identified as income by their own nature') appear to us to be irrelevant. In fact no concept of income can be really equitable that stops short of the comprehensive definition which embraces all receipts which increase an individual's command over the use of society's scarce resources--in other words, his 'net accretion of economic power between two points of time'.⁸

⁸Cited in Robert M. Titmus, Income Distribution and Social Change (Toronto, Canada: University of Toronto Press, 1962), pp. 33f.

CHAPTER VII

SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH

The method by which the wealth estimates of this study were derived is known as the estate multiplier technique. The technique, as used today, was first suggested by Coughlin in 1906. The first use of the method to derive wealth estimates appears to have been made by Knibbs in 1908. It has been used to make private wealth estimates for several countries, and official estimates for New Zealand and Great Britain. Prior to this study, two researchers, Horst Mendershausen and Robert Lampman, had made estate multiplier estimates for the United States.

The estimates of income flows to top wealth-holders were made by imputation. Dividend income was estimated by applying the average yield on the issues in Standard and Poor's 500 stock index against the estimated stock holdings of top wealth-holders in 1958. Bond interest income was imputed as the sum of the yields on corporate, municipal and U.S. government bonds, each yield based on a published yield rate for the respective type bond. In addition to bond

interest, interest was imputed to a portion of cash holdings on the basis of the maximum interest rate paid on savings accounts by member banks of the Federal Reserve System in 1958. And on the basis of an arbitrary 6 percent, an interest flow was imputed on the value of notes and mortgages held by top wealth-holders.

Rental income of top wealth-holders was estimated as the yield resulting from applying the FHA home loan rate, 5 1/2 percent in 1958, against the total value of real estate owned by top wealth-holders. Business profits of top wealth-holders were estimated as 6 percent of a portion of their "miscellaneous" property.

The salary income of top wealth-holders was estimated by a set of ratios of wage and salary income to gross assets for persons with gross assets over \$60,000. Capital gains were estimated by applying the change of asset prices over the year 1958 to the estimated value of assets held by top wealth-holders in mid-1958.

The wealth of top wealth-holders was compared to an individuals' sector of a national balance sheet for mid-1958. The individuals' sector was constructed by modifying Goldsmith's household sector to exclude nonprofit organizations and corporate farms, and to include private farms and non-corporate businesses. The income of top wealth-holders was compared to national totals for each of the estimated types of income.

The estate multiplier estimates of the wealth of top wealth-holders are qualified by the inherent statistical limitations of the methodology, by the definitions of assets used by the Treasury for the collection of estate taxes, and by the structure of the Federal Tax Statutes, which cause certain assets not in the legal possession of the decedent to be included in his estate, and by the operation of the Federal estate tax system.

Since estate tax decedents are a random sample, stratified by age of the living population, sampling variability affects the estimates. However, because the standard error of the estimate is a function of the absolute size of the sample, it need concern us only when we reach down to cells for the younger ages or to cells resulting from cross classifications which reduce the cell count to small numbers. The reduction of mortality rates to take account of what is, on the basis of limited evidence, an apparent social class mortality rate differential, also opens the door to judgmental errors.

For estate tax purposes, the face value of insurance policies on the life of the decedent are included in gross estate though the decedent did not have available to him during his life more than the cash surrender value of the contract--almost always less than face value. However, life insurance proceeds account for only about 11 percent of the gross wealth of decedents, and a reasonably good adjustment

procedure permits estimates of cash surrender value. The IRS classification of postmortem dividends and interest as stock and debt instruments respectively is unfortunate, but cannot seriously distort either the estimate of total wealth of top wealth-holders or the estimates of the composition of their wealth.

Perhaps the most serious deficiency in the estate tax data arises from the operation of the Federal estate law. Estates whose gross values are near the \$60,000 filing threshold may not be filed upon, and little chance exists for their detection. There is little incentive for the Internal Revenue Service to allocate resources to the detection of such nonfilings because in many cases little or no tax liability would exist. Yet, the absence of such filings may result in a serious underestimation of wealth holdings in the sixty to seventy thousand dollar range, and somewhat less serious understatement in the higher ranges. The valuation of sole proprietorships and stock in closely held corporations pose difficult problems which must be resolved by compromise between the heirs and the IRS. Furthermore, Harris has shown that auditing may result in as much as a 10 percent increase in aggregate gross estate of decedents. The estate tax data used in this study, as well as that used by Mendershausen and Lampman, are based on unaudited returns.

Although quantitative measures will have to await further research, it appears that wealth estimates made by

the estate multiplier technique have a tendency to underestimate the wealth of the wealthy. Such estimates, however, appear to be the best source of information about the top of the wealth pyramid.

It is estimated that in 1958, 2.5 million persons had gross assets of over \$60,000. Taken as a group they owned gross assets of \$472 billion dollars and received a total income of \$102.3 billion.

The single most important asset owned by top wealth-holders was corporate stock, valued at \$182.1 billion, or about 39 percent of total gross estate. Real estate was the second largest asset holding of top wealth-holder, amounting to \$114.4 billion. The total debt of top wealth-holders was \$42.9 billion, or about 9 percent of gross estate.

It is estimated that 1.6 million, or about 66 percent of all top wealth-holders were men and 0.9 million, or about 33 percent, were women. The mean gross estate of men was \$179,000 and that of women was \$209,000. Women top wealth-holders were on an average slightly younger than males, the respective mean ages were 58 and 61.

Comparing the wealth of the top wealth-holders to the total wealth in the personal sector in the mid-1958 balance sheet reveals that, taken as a group, they owned 27 percent of the wealth of all persons. Women top wealth-holders owned 39 percent of the wealth of top wealth-holders and 11 percent of the wealth of all persons.

It is estimated that top wealth-holders had an income of \$102 billion in 1958. Income as used here refers to the sum of wages, dividends, rent (including an imputation for owner occupied housing), interest, profit, and the net change in value of owned assets. Aggregating the income of all persons on the above basis yields a total of \$406 billion. Adding to this total the sum of social security benefits, unemployment benefits, veterans benefits and other transfers, results in a national personal income flow of \$427 billion. If it is assumed that top wealth-holders received no income in the form of transfers, their total estimated income represents 24 percent of the total income of all persons in 1958.

Future Applications of the Estate Multiplier
to United States Estate Tax Returns

For future applications of the estate multiplier technique to U.S. data, certain methodological improvements should be introduced. It would be possible to eliminate the need to estimate life insurance cash surrender value indirectly, if the form upon which insurance companies are currently reporting face value, amount of outstanding loans, accumulated dividends, post-mortem dividends and unearned premiums were modified to obtain the cash surrender value of the policy on the date of death. Since these forms (IRS Form 712) are completed by the insurance carrier for each contract in the estate of a decedent for whom an estate tax return is filed, the inclusion of cash surrender value would make it

possible to directly step-up the insurance equity of decedents to estimate the life insurance cash surrender value of living top wealth-holders. Thus, eliminating the rough estimates obtainable by the use of ratios of reserves to insurance in force (by age group) which have been used in the three U.S. studies.

Although evidence exists to indicate that the rich live longer, no systematic large-scale study of differential mortality with respect to size of wealth-holding has been completed. Hopefully, federal statistical data will be expanded to provide the data needed for such a study. At present the most promising work on differential mortality with respect to economic status is that being done by Phillip Hauser at the Population Research Center of the University of Chicago. One portion of Hauser's work will relate age specific mortality rates to family income.

Detailed U.S. estate tax return tabulations have not been available for consecutive years. If the IRS were to tabulate returns for several consecutive years, it would be possible to greatly reduce the sampling variability attaching to wealth estimates--particularly those for younger wealth-holders and those involving cross-classifications, which greatly reduce the size of cells. With such tabulations returns of several years could be combined as was done by Lydal and Tipping in England. Another benefit of producing tabulations for consecutive years would be the ability

of the Internal Revenue Service to group returns by year of decedents' death; rather than by year in which the return was filed, as is now done. Such a grouping would bring the multipliers, which are derived from mortality rates for a specific year, into line with the sample of top wealth-holders drawn by death in a specific year. The Internal Revenue Service plans to make a study of the temporal distribution of dates of death represented by the estate tax returns filed in 1966. The findings of the study will help to qualify the estimates of this study, as well as those of Lampman and Mendershausen, but will not permit any direct adjustment of the estimates.

Before another estate multiplier estimate is made, the IRS should sharpen the classification of assets. "Real estate" should be broken into residential real estate occupied by the decedent and all other real estate. Real estate used in nonfarm, unincorporated business should be classified as a business asset, but business assets should be sub-classified as real estate (including plant, equipment and inventory), corporate stock, state and local bonds, U.S. Government bonds, notes and mortgages, other business assets and business debt. The present corporate stock classification should be split into stock in closely held corporations and traded stock. Hopefully, at least for some decedents, perhaps those with gross estates of over \$1,000,000 the IRS might provide a tabulation of securities by issue.

U.S. Government bonds should be broken into U.S. savings bonds and other U.S. government bonds. "Miscellaneous" assets should be broken out into farms, noncorporate businesses (with sub-classes as indicated above), personal property, and other miscellaneous assets.

Although it is possible to estimate the income of top wealth-holders using the technique of this study, for those types of incomes reported for personal income tax purposes, a direct estate multiplier estimate can be made if decedent's estate tax returns are matched with their last personal income tax returns. Although the estimate of income would be much narrower than that derived in this study, it could be, using the same technique applied here, expanded to include changes in asset values.

Current plans of the Treasury to obtain the social security numbers of the heirs listed on the estate tax return would make possible a study of the inter-generational flow of wealth. The corpus of wealth represented by the estate of the decedent could be first related to the income of the heirs through their personal income tax return, which could be located by the heir's social security number.

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APPENDIX A

STANDARD ERRORS OF MEANS OF ESTIMATED AVERAGE WEALTH

The following table shows the standard error of the mean attaching to each of the age-sex cells for the 1958 estimates. The standard error of the mean for all strata combined is \$2,200.

TABLE 59
STANDARD ERROR OF THE MEAN OF AGE-SEX CELLS: 1958

Age	Sex	
	Male	Female
Under 40	\$7,670	\$185,860
40 under 50	4,790	44,250
50 under 60	5,120	8,660
60 under 70	6,220	7,340
70 under 80	4,690	6,070
80 and over	8,120	8,700