Volume Title: The Share of Top Wealth-Holders in National Wealth, 1922-56

Volume Author/Editor: Robert J. Lampman

Volume Publisher: UMI

Volume ISBN: 0-87014-073-6

Volume URL: http://www.nber.org/books/lamp62-1

Publication Date: 1962

Chapter Title: Introduction and Summary

Chapter Author: Robert J. Lampman

Chapter URL: http://www.nber.org/chapters/c2165

Chapter pages in book: (p. 1 - 26)

CHAPTER 1

Introduction and Summary

THIS book is an inquiry into the facts concerning the wealth of persons. It offers new information on the numbers, characteristics, and behavior of wealth-holders. How many people accumulate or hold wealth in sizable amounts? How many people have "large" holdings of specific kinds of property? Are relatively wealthy persons young or old, men or women? What are their incomes, occupations, and places of residence? How does the marital status of persons in the wealthy group vary? How do differences in property law as it relates to marriage affect these people?

It is perhaps unnecessary to point out that answers, sometimes misinformed, to these and similar questions often underlie policy decisions in business and government.[1] They are helpful in analyzing such issues as the following: Who is hurt or helped most by inflation or deflation? What groups are most likely to purchase insurance or tax-exempt bonds or to make large philanthropic contributions? What groups will be most directly affected by a change in tax policy affecting dividends, inheritance, or home ownership? Who will be most benefited by a change in the rate of interest?

We also seek to measure the concentration of wealth-holding and to discover whether this concentration has been increasing or decreasing in recent years. Is it true, as Karl Marx asserted a hundred years ago, that the overriding tendency of capitalism is toward ever-increasing inequality? Or have fiscal policy and institutional change worked to reduce the importance of the relatively rich group in America?

THE MEANING OF WEALTH

In defining the subject of the inquiry, it will be useful here to consider four concepts: capital, assets, wealth, and property. Capital, as

[1] W. I. King, who pioneered in this field, referred to two groups in the 1920's who were particularly interested in wealth and income distribution information as "reformers" and "sales managers." The former, he believed, wanted facts in order to carry out their social programs better. The latter wanted such information to gauge correctly the demand for their products. (Cited by C. L. Merwin, Jr., "American Studies of the Distribution of Wealth and Income by Size," *Studies in Income and Wealth,* Volume Three, New York, National Bureau of Economic Research, 1939, p. 23.)

economists use the term, has two meanings. One is physical goods which are man-made and useful in further production, including such things as buildings, machinery, and improvements to land. Another meaning is a stock of money value resulting from saving or creation of new money. This stock may be held in liquid form (in currency or deposit credit) or converted into title to real or representative capital. A further distinction is sometimes made between producer and consumer capital, the latter being owner-occupied housing and durable consumer goods.

The assets of the individual producer unit, in conventional accounting terms, may include such tangible things as land, buildings, machinery, raw materials, goods in process, and animals, and such intangible things as franchises, patent rights, copyrights, and good will. On the consumer unit's balance sheet assets will include claims against or promises from business and government organizations, and may include consumer capital items. It is not customary to calculate the capital value of the earning power of individuals, nor of outlays made on health or education and designed to increase that earning power.

Wealth is a term which applies to all assets with market value, including both producer and consumer capital goods, intangible as well as tangible assets, and accounted for without regard to the "rights" that may be attached to the holding of the wealth. Net worth, or equity, is the difference between assets and liabilities.

A person's claim to wealth may indicate right to the use of, income from, or control over assets. The meaning of wealth ownership is the subject of property law. In the earliest statements of legal theory a property right was conceived of as absolute control over a tangible object such as land, a building, an animal, or a human being. This absolute control included the right to direct the use of the object, the right to receive any income produced by such use, and the right to sell or otherwise dispose of the object. In general, the assumption was that all these rights were to be held and exercised by the same person. Correlatively, the liability for loss and responsibility for damages resided with the person who held title.

In the course of centuries, the legal concept of property has undergone many changes. By common law, statute, and constitutional amendment, the meaning and content of the term "property" have been under constant revision. Thus, the right to hold certain things as personal property has been withdrawn, as in the case of ownership of a human person. Certain uses of objects owned are forbidden by law, as in the case of zoning laws which limit the uses to which property may be put. At the same time, the opportunity to claim new property rights has been expanded. Thus, the innovation of the business corporation was a startling change in property rights, a change which introduced limited liability and altered the balance between income rights and control of the use and disposition of property. Indeed, the corporation scattered among many persons the rights, duties, and responsibilities of property ownership. Under it, one group may exercise control through minority ownership, a second (e.g., nonvoting stockholders) may enjoy income with no voice in control, and a third (creditors) may share in losses because of the limited liability of the owners. The possibility of disjunction among the holders of property rights and duties is magnified by such devices as corporate holding companies which provide an additional lever for minority control.

The modern capitalist economy has a complicated network of arrangements which relate in diverse ways the functions of (1) supplying capital in both debt and equity forms (often through intermediaries between the supplier of capital and the business organization which makes the actual outlay for capital goods purchase) and (2) directing the use of the capital. The connection between those who perform the first function and those who perform the second is often quite remote. Similarly, there is, in some cases, a separation between the groups who are responsible for managing the capital funds and those who receive the income from the funds.

THE LIMITS OF PERSONAL WEALTH AS STUDIED HERE

Since there is a fractioning of the property rights attached to individual parcels of wealth, it is difficult to apportion or indicate the sharing of those rights by means of a wealth distribution. It is helpful to envision a distribution not only among individuals but also among sectors, including persons, financial intermediaries, business corporations, nonbusiness organizations, and governments. While it is possible to allocate the market value of assets held in full title to each sector and to allocate the market value of intersectoral promises, it is not possible thereby to indicate in all cases the power share of the persons in the several sectors. Power attaches to wealth in a complicated and shifting pattern and depends upon organizational position within one sector as much as or more than it does upon holding personal title to assets. Hence, the power or control aspects of wealth are not fully distributed in a personal wealth distribution. Some residual power stays with the nonpersonal sectors and attaches to persons only as they are active within the individual sectors. A changing relationship between persons and nonpersonal sectors can considerably confound comparisons of personal wealth distributions over time. Consider, for example, the introduction of nonfunded retirement pay plans for corporate executives. Such a plan would keep wealth in the corporate sector while showing increased lifetime income for the employees. In other ways, the organizational sectors may function as wealth-holders "on behalf of" individuals, thereby making a comparison of two personal wealth distributions quite unrealistic. While personally held wealth may not, in some cases, connote any intersectoral power, it is still true, of course, that such wealth is an important means to power within each sector.

An interesting example of the intersectoral problem is trusteed property which relates persons to financial intermediaries. With personal trust funds we are moving into the twilight zone where classical property rights are shadowed. Depending upon the terms of the trust agreement, a beneficiary may have only a contingent interest in only part of the income, he may have no power of direction over the use of the property at any time, and he may have no right to sell the property or even to dispose of it at the time of his death. The rights he does not have in the property are exercised by the trustee under the supervision of the court and subject to the limitations set forth by the creator of the trust. On the other hand, again depending upon the terms of the trust, a beneficiary may enjoy full right to all income of the property, and he may have power at some point to dispose of the principal or to assign his rights to its income.

We proceed still further into the shadows if we consider the assets of nonpersonal trust funds or foundations which have a charitable purpose. It should be recognized that these trust funds are sometimes used as devices for control and magnification of the control possible on other grounds. The founder of such a trust not only may direct the purposes for which income or principal may be spent, but he may also settle on the trustees he names, who in turn have the power to name their successors, the power to manage (that is to say, to vote the stock of) the property in trust. On the other hand, as in the case of the Ford family, the assignment of nonvoting stock to a foundation may make possible continuation of family control of the original corporation. But in some cases these control elements are of minor or no significance. A somewhat similar problem of intersectoral accounting arises about the assets of financial intermediaries. In the case of banks and insurance companies and trusteed pension funds, there is an element of control which attaches to the fiduciary responsibility of the officers who do not themselves own the property they are managing.

Quite arbitrarily, we have restricted the limits of inquiry in this study to what is defined as the personal sector of the economy, including households, farm and nonfarm unincorporated businesses, and personal trust funds.

WEALTH-HOLDING DECISIONS

In this study we are concerned with the behavior of wealth-holders in deciding how much and what kind of property they will hold. Each person makes decisions about borrowing, owning, and lending. More particularly, he decides whether to take direct title to consumer or producer capital goods or land; whether to hold representative capital, i.e., claims, in the form of cash or securities, upon the assets of other persons or corporations or governments; whether to participate in capital markets directly or through financial intermediaries such as banks, insurance companies, or trust funds. He must also make decisions about the ways in which he will transfer his assets or obligations to others. In making these decisions, people are guided by time preference, precautionary, speculative, and power motives to select investments which they believe best meet their needs.

The relative strength of these motives among various socio-economic groupings may be assessed by a cross-sectional analysis of their asset holdings and debts at a moment in time. In some cases, such an analysis makes it possible to predict how decisions of persons will change as their age, income, size of estate, or other characteristics change.

The decisions made by individuals about wealth accumulation and wealth-holding are important, not only for the individual and his family, but for the whole economy. In the aggregate, these decisions have an important influence on the rate of capital accumulation, the price of capital, and the distribution of income, economic welfare, and power among persons. Finally, they determine which institutional arrangements will flourish and which will wither away from disuse.

From the point of view of the individual, wealth accumulation is a substitute for wages or salary or an additional income; it is a way to bridge the gaps in the lifetime flow of labor income due to illness, old age, unemployment, or the premature death of the family breadwinner. It is, then, a way to security and independence. Wealth is also a means of achieving power and influence over the chances of others in business, in government affairs, and in the expression and communication of ideas. It is a way for one person to gain preferment for his heirs or otherwise to lengthen his shadow across generations to come. Interestingly, wealth can be highly specialized to fulfill specific aims. Thus, insurance and annuities will meet certain security aims, and corporate stock acts as a lever on the control of business affairs. Trust agreements may be used to accomplish many specific purposes.

From the point of view of the individual firm, equity in the form of working capital is a practical necessity. Although land and fixed capital could presumably be rented from others, again as a practical matter, money will not ordinarily be available for plant expansion except as it is "led" by equity. From a national point of view, capital accumulation is a necessity to raise living standards. If it is not done privately, it must be done socially.

INEQUALITY OF WEALTH DISTRIBUTION

Presumably, since wealth is a good thing to have, it would be good for all families to have some. Also, it would seem that the wider the distribution of wealth, the broader the political base for capitalism. There is doubtless a maximum degree of concentration of wealth which is tolerable in a democracy and compatible with an ideology of equality of economic opportunity. However, inequality due to differences in wealth-holding by age and family responsibilities may have quite a different political meaning from a similar degree of inequality within either the young or the old age group. Rigid class lines arise from great differences in inherited wealth as well as from different motivation, different opportunity for education, and different choice of occupation. To some extent, the difference between "democratic" and "oligarchic" systems of wealth-holding will be drawn as the body politic considers the individual, on the one hand, or the family of several generations, on the other, as the appropriate wealth-holding unit. To a considerable extent, American social policy has developed out of the belief that each generation of individuals should stand on its own with a minimum "handicapping" by previous generations.

In this connection, it should be emphasized that inequality of wealth-holding is not the only determinant of income inequality. Indeed, to the extent that wealth is held by low-ranking wage or salary earners, it tends to offset income inequality. While capital and land are basic factors in production, and while total wealth is over three times as large as total annual income, the owners of these factors do not receive in the form of property income the greater part of the product in this or any other country. Only about 25 per cent of all income may be characterized as property income.[2]

The size distribution of income is determined by "(a) the rates of pay received by various agents of production and the extent of their utilization, and (b) the distribution among persons of the ownership of these productive agents. Two classes of productive agents must be distinguished: physical property or non-human capital, and human capital representing the productive capacity of individuals. In turn, the latter is divided into 'natural' endowment or 'abilities,' and productive capacity acquired by investment in training."[3] Thinking in these terms, this study is confined to the distribution of nonhuman capital.

There is no particular degree of concentration of wealth which is required for the working of a capitalist system. However, there may be a minimum degree of inequality consistent with a particular set of capitalist institutions, a particular technology, and a particular level of production. Composition of estate data generally show that nonproprietors place consumer capital and security objectives ahead of high yield at high-risk objectives. Only after the first set of objectives is achieved by accumulating property do most nonproprietors move on to the second. This suggests that, particularly as the proportion of the population who are proprietors falls, the availability of equity capital (at existing yields) is a function of the inequality of wealth distribution. If the inequality of wealth-holding were to be sharply reduced, maintenance of the present flow of equity capital could be accomplished only by raising equity yields or by new institutional arrangements for transmuting security-motivated wealth-holding into high-yield-motivated holding.[4] This transmutation is accomplished by

[2] The precise percentage which one selects depends upon what part of "proprietors' income" one assigns to property and what part to service income, how one treats undistributed corporate profits, and whether he imputes an income to consumer capital.

[3] Jacob Mincer, "A Study of Personal Income Distribution," unpublished Ph.D. dissertation, Columbia University, 1957, p. 136. See also Mincer, "Investment in Human Capital and Personal Income Distribution," *Journal of Political Economy*, August 1958, pp. 281–302.

[4] It is worth noting here that there is an important distinction, as emphasized by Veblen, between the equity investor who seeks long-term profit out of self-

insurance company or pension fund purchase of corporate stock. It could also be accomplished by mutualization or provision of capital by patrons, as is indeed done in some cases of corporations' internal financing.

ROLE OF GOVERNMENT

History suggests that public enterprise often follows where equity needs are not privately met. The American people have shown themselves to be pragmatic on the issue of public versus private ownership of capital. About 20 per cent of all wealth in the United States is publicly owned. A vital belief in the efficacy of private enterprise has not precluded a considerable role for government in property regulation, control, and ownership. Indeed, as we have emphasized above, property is a legal concept, and property rights exist only as defined and enforced by government. The meaning of private property increases as governments protect its owners against loss through thievery and embezzlement, as buyers of securities are protected against fraud or misinformation, as orderly markets for sale of assets are maintained, and as wealth-holders are assured against threats of inflation or financial panic and mass liquidation. Government has also affected property values and the security of property by regulation of financial intermediaries, by insuring and even making direct provision for the extension of credit to individuals. By sale of land, as in the Homestead Act, and by social insurance, as in the case of Old Age, Survivors, and Disability Insurance, the federal government has engineered the widespread ownership of property rights. By influencing the transfer of property through gift or bequest and by affecting the possibility for accumulation of large estates, government fiscal policy plays a part in determining the distribution of wealth among persons and among sectors of the economy.

EARLIER STUDIES OF WEALTH DISTRIBUTION

Interest in the facts of wealth distribution is not new, nor is concern with the questions which turn around those facts in any way novel. However, there has been surprisingly little systematic empirical in-

managed business and the speculator who holds or sells on the basis of anticipated profits with no hope or intention of constructively influencing the policy of the business. Certainly the great majority of stockholders in large corporations belong in the latter category of equity investors and view the highly regulated stock market as an escape route from anticipated falls in value due to poor management. Hence, a wide equity market removes some of the "risk" while diluting control.

vestigation of this subject in the United States. Up to the close of World War II, only ten scholars are known to have attempted to estimate the nation-wide size distribution of personally held wealth. Apparently the first efforts along this line were made by G. K. Holmes[5] and C. B. Spahr,[6] both for the year 1890. Holmes worked from a census of tangible wealth, while Spahr started from probate data on estates in selected New York counties. W. R. Ingalls[7] was apparently the first investigator to use federal income tax data to make a wealth distribution by income classes. W. I. King[8] used income tax information, census data on farm wealth, estate data of several kinds, and income data of many kinds to contrive what was undoubtedly, up to that time, the most careful estimate of wealth distribution. His study was for the year 1921.

These early investigators showed great fortitude and imagination in the face of what must have looked like insurmountable obstacles, such as the paucity of data. One catches their spirit in these comments by Frederick R. Macaulay,[9] who was one of the researchers on the first National Bureau of Economic Research project on income estimates:

> Construction of an income frequency distribution for all income recipients in the United States from the existing data . . . necessarily involves an extremely large amount of pure guessing. It is only because of the practical value of even the roughest kind of an estimate that any statistician would think of attacking the problem. . . .
>
> Some hypothetical reasoning is inevitable in such a statistical study as the present one. The investigator must not lose heart. Sir Thomas Browne in his rolling periods sagely remarks that "what song the Syrens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions, are not beyond all conjecture!"

Work on wealth distribution which was carried on in the 1930's and early 1940's included that of Lewis Corey, R. R. Doane, Maxine Yaple, Fritz Lehmann, Charles Stewart, and Mary S. Painter.[10] All of

[5] "The Concentration of Wealth," *Political Science Quarterly*, December 1893, pp. 589–600.

[6] *The Present Distribution of Wealth in the United States*, New York, 1896.

[7] *Current Economic Affairs*, York, Pa., 1924. *Wealth and Income of the American People*, 2nd ed., York, Pa., 1924.

[8] "Wealth Distribution in the Continental United States at the Close of 1921," *Journal of American Statistical Association*, June 1927, pp. 135–153. This article was based on an unpublished book-length manuscript at the National Bureau.

[9] *Income in the United States*, II, New York, National Bureau of Economic Research, 1922, pp. 424–425.

[10] The citations for the relevant works of these authors and the years to which their estimates apply are as follows: Corey, *The Decline of American Capitalism*,

these authors worked with some combination of census, income tax, and estate tax statistics. Most of them produced estimates of wealth by income class in contrast to estimates by wealth class.

Several important steps in the study of wealth distribution taken since World War II were prerequisites for any advance in understanding which is contributed by the present study. One was the first demonstration in this country of the use of the estate-multiplier method. This pioneering work was done by Horst Mendershausen. While earlier investigators had used estate tax data, none of them had used this method to estimate the distribution of wealth among living persons. Mendershausen's study, "The Pattern of Estate Tax Wealth,"[11] is the platform from which this inquiry departs. A second step was the completion of a set of national balance sheet accounts for a limited number of benchmark years. These accounts, as published by Goldsmith,[12] show considerable detail by sectors of the economy and by type of property, and make possible the calculation of the shares of several types of wealth held by the top wealth-holding groups. The preliminary balance sheet for 1953 was prepared for use in this study by the National Bureau of Economic Research.

A third and highly significant postwar contribution to the study of wealth distribution was made by the Survey Research Center of the University of Michigan. In connection with the Survey of Consumer Finances carried out under the sponsorship of the Federal Reserve System's Board of Governors, the Survey Research Center conducted the first nation-wide sample study of assets and net worth held by spending units. This was done for 1950. A second interviewing survey was carried out for 1953.[13] These sample survey studies yield a broad picture of the distributions of the national total of most kinds of property, and it is to be hoped that they will be continued and pub-

---

New York, 1934; estimate for 1928. Doane, *The Measurement of American Wealth,* New York, 1938; estimates for 1929–32. Yaple, "The Burden of Direct Taxes as Paid by Income Classes," *American Economic Review,* December 1936; estimates for 1928–32. Lehmann (with Max Ascoli), *Political and Economic Democracy,* New York, 1937; estimate for 1930. Stewart, "Income Capitalization as a Method of Estimating the Distribution of Wealth by Size Groups," *Studies in Income and Wealth,* Volume Three; estimates for 1922–36. Painter, "Distribution of Wealth in Estates and Estate Tax Yield," unpublished ms., NBER, 1946. W. L. Crum's *The Distribution of Wealth* (Boston, 1935) was limited to a study of the estates of decedents filing estate tax returns in 1916–33.

[11] Part III of Raymond W. Goldsmith's *A Study of Saving in the United States,* III, Princeton, 1956, pp. 277–381.

[12] *Ibid.,* pp. 3–138.

[13] The findings of these studies are published in the *Federal Reserve Bulletin.*

lished at frequent intervals as the basic source of information on wealth distribution.

From the point of view of this study, the Survey of Consumer Finances inquiries have a special usefulness. They provide an independently arrived at set of estimates against which our findings for 1953 can be checked for accuracy and from which additional information of explanatory and analytical value can be drawn.

The Survey studies and ours should be viewed as complementary in two ways. In the first place, the estate tax data make possible an extension of the wealth-holding series back to 1922. Hence, when the conjunction of the two sets of findings for 1953 is established, there is a basis for historical perspective which the Survey cannot provide. In the second place, the Survey, since it is based on a small sample of about 3,500 spending units, is limited in the amount of detail it can supply for the top wealth-holding groups. In general, the Survey's top group is "open-ended" for the "over $25,000 net worth" class, and information on this group is based on a sample of less than 200. In contrast to this, federal estate tax data provide no information at all on the wealth-holdings of persons with less than $60,000 of gross estate, but do provide a large sample of top wealth-holders. In 1953, for example, there were 36,699 estate tax returns. The decedents for whom these returns were filed all ranked within the upper 2 per cent of decedents as ranked by total asset holdings. When the distribution of decedent wealth-holders is converted to a distribution of living wealth-holders by the estate-multiplier method, we find that it describes the holdings of the upper 1.6 per cent of adults, who in turn represent approximately the upper 2.5 per cent of spending units. (It should be noted that a spending unit with two or more wealth-holders will often occupy a quite different rank from any of the individual wealth-holders within the spending unit.)

Thus, federal estate tax data provide an independent route to knowledge about upper wealth groups. In some important respects, this method should be superior to the survey method. In the first place, the tax returns are compulsory reports usually prepared and certified by disinterested parties with access to all records. To duplicate such reliable information by interview for a similar number of cases would be extraordinarily difficult and expensive.[14] Secondly, this

[14] J. K. Butters, L. E. Thompson, and L. L. Bollinger comment on this point as follows in *Effects of Taxation: Investment by Individuals* (Boston, 1953, p. 12):

"The reason that other investigators have never assembled more detailed and extensive information on the top income and wealth classes is not that there has method may be expected to give not only a broad coverage of property types, but also a relatively full valuation of those items which are reported.

In a somewhat different way the findings derived from estate tax data by the estate-multiplier method may be considered complementary to the findings of wealth studies based on the capitalization of income method. The latter type of study can yield results only for those types of property that yield income, and when the source of data is income tax returns, only for those types of property that yield income reported on tax returns. The most recent work to follow the income capitalization method, and one which is drawn upon in this study, is Thomas R. Atkinson's *The Pattern of Financial Asset Ownership: Wisconsin Individuals, 1949*.[15]

SOURCES OF DATA AND METHODS OF ESTIMATION USED IN THIS STUDY

The principal source of data for this study is tabulations of federal estate tax returns. The federal estate tax has been in existence since 1916 and some information on returns filed has been published for most years. The minimum filing requirement, which is currently $60,000, has varied from $40,000 to $100,000 over the period. However, the necessary information on age and sex of decedents, cross-classified by type of property, is presented in such a way that a detailed representation of the distribution of wealth among living persons can be derived for relatively few years. For 1953 the Internal Revenue Service made available to the National Bureau the most complete tabulation of estate tax returns that has ever been prepared. In this tabulation the variables of gross estate size, age, sex, and residence

---

been a general lack of interest in this subject, but rather that the cost and technical difficulties involved have been too great. The difficulties of sampling upper income and wealth classes are much greater than for the population as a whole. The tasks of designing a representative sample, of getting access to the individuals to be interviewed, and of obtaining frank and complete financial information from them, are all much more formidable in tapping the top income and wealth classes than for the general run of the population."

The study by Butters *et al.* was based on interviews with a sample of 746 "active investors" as drawn from the files of investment bankers and security dealers. Most of these were in the upper 5 per cent of income receivers and almost half were in the upper 1 per cent. Butters *et al.* state that "to our knowledge, the sample contains the largest body of financial information yet assembled by interviews with individuals in the upper income and wealth classes" (p. 15).

Also relevant here is L. R. Klein, K. H. Straw, and Peter Vandome, "Savings and Finances of the Upper Income Classes," *Bulletin of the Oxford Institute of Statistics*, November 1956, pp. 293–319.

[15] Princeton for National Bureau of Economic Research, 1956.

(by community property state or non-community property state) of decedents were cross-classified by type of property. For 1944 a similar breakdown by gross estate size, age, and type of property had been prepared by the Internal Revenue Service, which formed the basis for the intensive study by Horst Mendershausen referred to above. For 1948, 1949, and 1950 there is information by age and gross estate size which makes it possible to estimate aggregate gross estate without a breakdown by type of property. Similar, but unpublished, data for 1941 and 1946 were made available to Mendershausen. There are published data on economic estate by net estate size and age for 1922, 1924, 1941, 1944, and 1946. Finally, data on the sex of decedents by age and size of estate are available only for the years 1922, 1923, 1948, 1949, 1950, and 1953.

The method which was followed in dealing with estate tax returns is known as the estate-multiplier method.[16] Bernard Mallett was apparently the first person to apply this method. By use of it in 1908, he developed British wealth estimates.[17] Corrado Gini[18] of Italy and G. H. Knibbs[19] of Australia were among the first to follow Mallett in using this method.

The estate-multiplier method has also been used in the Netherlands[20] and in New Zealand.[21] In the latter case, the method has been used regularly to prepare the official estimates of private wealth. In recent years many scholars have used this method with British data and have contributed to what is probably the most adequate historical series on changes in wealth concentration for any country. Kathleen Langley has correlated these studies and extended them to the postwar period.[22]

The estate-multiplier method, which is described in detail in Chapter 2, calls for multiplying the number and property of decedents in each age-sex group by the inverse of the mortality rate for that age-

[16] These two paragraphs are largely based upon Mendershausen's study (Goldsmith, *Saving in U.S.*, III, pp. 280–283).

[17] "A Method of Estimating Capital Wealth from the Estate Duty Statistics," *Journal of the Royal Statistical Society*, March 1908.

[18] *L'ammontare e la Composizione della Richezza delle Nazioni*, Torino and New York, 1914.

[19] *The Private Wealth of Australia and Its Growth as Ascertained by Various Methods, Together with a Report of the War Census of 1915*, Melbourne, 1918.

[20] J. B. Derksen, "Berekening van Let Nationale vermogen nit de aangiften voor de successie belasting," *De Nederlandiche Conjunctuur*, May 1939.

[21] *New Zealand Official Year-Book*, Wellington, various years.

[22] "The Distribution of Capital in Private Hands in 1936–38 and 1946–47," *Bulletin of the Oxford University Institute of Statistics*, December 1950 and February 1951. Other British studies are cited by Langley.

sex group. This process yields an estimate of the number of living persons and the amount of estate in each age-sex group and in each estate size. A simple hypothetical example will illustrate what is involved. Suppose that out of a population of 1,000 men aged 40 to 50, two men died in one year with estates of $100,000 or more. Suppose further that it is known that 5 per cent of all the 1,000 men aged 40 to 50 died in that year. Then it may be assumed that the two men who died with $100,000 were 5 per cent of all the living men in the group with $100,000. Hence, to estimate the number of living men with $100,000, we should multiply two by twenty (the inverse of 5 per cent) to get the answer of forty living men with $100,000 or more.

The main disadvantage of thus deriving wealth estimates from estate tax returns is that the "sampling" is done by death rather than by a random draw of living persons. This means that a connection between decedent wealth-holders and living wealth-holders can be made only by using a set of mortality rates which are assumed to apply to the upper wealth-holding groups. The selection of mortality rates presents an opportunity for considerable error in the estimation of the number of living persons in each estate size, and, similarly, in the aggregate of wealth held by such persons. Other problems arise in that decedents' reported estates may differ from the "actual" estates of nondecedents in the same age-sex groups.

The transformation of evidence on decedents in a given year into a distribution of wealth among persons who were alive in that year is like the work of an archaeologist who reconstructs the artifacts of an earlier civilization from buried or scattered ruins. It is also similar to the estimation of the plant and animal population of an earlier period from samples collected from volcano, flood, or glacier. The great naturalist Louis Agassiz spent a season in 1861 drawing specimens from a glacier. Of this experience he wrote, "While residing upon this glacier and tracing the connection of the features it now presents with the phenomena of an earlier period, of which it is but a miniature representation, I have often been impressed with the importance for the philosopher of magnifying or reducing the facts which may be within his reach to such an extent that they may become a living representation of another state of things."[23]

The procedure adopted in this study of magnifying the facts within our reach so that they may become "a living representation of another state of things" involves two separate steps. One is the multiplication

[23] On a plaque in the Museum of Comparative Zoology at Cambridge.

of the basic data by inverse mortality rates, whereby the number of persons with basic variant estate tax wealth and the amounts of such wealth are estimated. These are best described as estimates of the number of living persons who would have been liable to report for federal estate tax purposes had they died in that year.

The second step is the adjusting of the basic variant estimates to yield, as nearly as possible, the estimates of top wealth-holders which would be found by an ideal census of the wealth of living persons. Here an effort is made to assess the peculiarities of the method of sampling by federal estate tax law and to make quantitative corrections in those instances in which, by law or practice, the coverage or evaluation of individual wealth items differs from an ideal definition of personal wealth. In the course of this inquiry two ideal definitions were improvised. "Prime wealth" is used to mean the wealth to which a person has full title and over which he has power of disposal. "Total wealth" is a broader concept; it includes prime wealth and also wealth in which a person may have an income interest but over which he may not have any present power of disposal. Examples of the latter are rights to personal trust funds or to equities in pension and retirement funds.

Summary

This study falls into two parts. One deals with sources of data and methods of estimation and the other with presentation and analysis of findings.

The first part, comprising Chapters 2 and 3, is concerned with the procedures, information, and concepts that are required to move from raw data on the estates of decedents, as reported for federal estate tax purposes, to estimates of the wealth held by a measurable fraction of the living population. In general, the multiplication process is discussed in Chapter 2 and all adjustments for deficiencies of the basic data are considered in Chapter 3. The nontechnical reader who is more interested in the results than in how they were derived may skip directly to Chapter 4.

After examining the number of returns by age-sex groups over the years, it is concluded that the estate tax series is usable for the purpose at hand. There are no erratic or unexplainable variations in the total numbers, nor in the age composition of the group. The over-all sample size is sufficiently large to make gross errors due to sampling variation quite unlikely for the over-all estimates. However, the individual cells for some age-sex groups are so small as to yield results with large sampling errors.

The greatest possibility of error in the over-all estimates is not in sampling variation, however, but in the selection of the set of mortality rates to use in multiplying.

The first substantive problem attacked in the book is the estimation of the number of top wealth-holders in 1953, that is, living persons with $60,000 or more. Starting with the number of decedents represented on estate tax returns (36,699), the estimate is made by "blowing up" that number by inverse mortality rates. Using adjusted mortality rates, which are selected to reflect the more favorable mortality

TABLE 1
DIFFERENT ESTIMATES OF TOP WEALTH-HOLDERS, 1953

Definition of Wealth and Mortality Rates	Number of Top Wealth-Holders	Aggregate Gross Estate (billion dollars)
Basic variant		
Adjusted mortality	1,659,000	309.2
White population mortality	1,417,000	257.2
Prime wealth variant		
Adjusted mortality	1,626,000	327.5
Total wealth variant		
Adjusted mortality	1,776,000	381.1

rate of upper economic groups, an estimate of 1,659,000 top wealth-holders is derived (Table 1). Using the mortality rate of the white population without adjustment for class differences yields the considerably lower estimate of 1,417,000. The true number of top wealth-holders for that year probably lies somewhere between these two estimates, but it is believed to be closer to the adjusted mortality estimate than to the white mortality estimate. Hence, throughout the book the greater part of the discussion is in terms of the adjusted mortality estimates.

By the same blowing up process, the 1,659,000 top wealth-holders are estimated to have held $309.2 billion of gross estate. This amount, which is the basic variant estimate, refines the estate tax data in only one respect, namely, in multiplying life insurance amounts by different multipliers from those used for all other assets, so that insurance amounts are reduced from face value to estimates of owner's equity. These basic variant estimates are then examined with some care to see how they compare with those which would be found by a census of living wealth-holders that used ideal definitions of personally held wealth. Our rough estimates lead to the conclusion that the basic variant aggregate estimates are not substantially different from an ideally arrived at estimate of "prime wealth," but are considerably lower than the aggregates of "total wealth." That is, we found that about 1.66 million persons had $309.2 billion of basic variant wealth, 1.63 million persons had $327.5 billion of prime wealth, and 1.78 million persons had $381.1 billion of total wealth.

The adjustments of the basic variant made in estimating the prime wealth variant include subtraction for persons originally counted in the group by virtue of the excess of insurance face value over equity, addition for underreporting by taxpayers, additions for gifts and life insurance proceeds "in float" during the year, and subtractions for trust property, annuities, and pensions originally included in the basic variant. The prime wealth variant is in turn modified to yield the total wealth variant estimates by making additions to the former for personal trust funds, annuities, and private and governmental pensions.

On the basis of the several estimates, it is concluded that for most purposes the basic variant estimates are close enough to prime wealth variant estimates to warrant their use in the discussion of top wealth-holder characteristics and the composition of their estates. However, the difference between the basic variant and total wealth variant estimates is so notable that this distinction is brought up frequently in the book.

CHARACTERISTICS OF TOP WEALTH-HOLDERS

The median age of the 1953 top living wealth-holders was 54 years (Table 2). Over half of the number were between 40 and 60 years of age. While top wealth-holders made up only 1.04 per cent of the total

TABLE 2
SELECTED CHARACTERISTICS OF TOP WEALTH-HOLDERS, 1953

Characteristic	Both Sexes	Men	Women
Number of persons	1,659,000	1,144,000	514,000
Median gross estate size ($)	112,800	116,800	105,200
Average gross estate size ($)	182,000	162,400	220,500
Share of top wealth (per cent)	100	60	40
Median age (years)	54	52	57

population and only 1.6 per cent of the adult population they accounted for 3.5 per cent of the men over 50.

Approximately 1.4 million of the 1.7 million top wealth-holders are heads of households, the 0.3 million being (according to our estimate) the number of married women and dependent children in the group. We find that a minimum of 2.28 per cent of households and 2.35 per cent of married couples have at least one member owning $60,000 of gross estate (Table 3). This compares closely with the

TABLE 3
PERCENTAGE OF TOP WEALTH-HOLDERS IN TOTAL POPULATION AND IN SELECTED GROUPS, 1953

	Top Wealth-Holders		
	Both Sexes	Men	Women
All persons	1.04	1.44	0.64
Adults (20 and over)	1.60	2.26	0.98
Persons (65 and over)	3.00	4.00	2.50
Married persons	1.40	2.30	0.70
Widowers and widows	2.69	3.10	2.60
Households with at least one top wealth-holder	2.28		

TABLE 4
MEDIAN AGE OF MALE TOP WEALTH-HOLDERS IN NON-COMMUNITY PROPERTY STATES, BY GROSS ESTATE SIZE, 1953

Gross Estate Size (thous. dollars)	Median Age (years)
60 to 100	54
100 to 200	53
200 to 500	53
500 to 2,000	56
2,000 and over	67

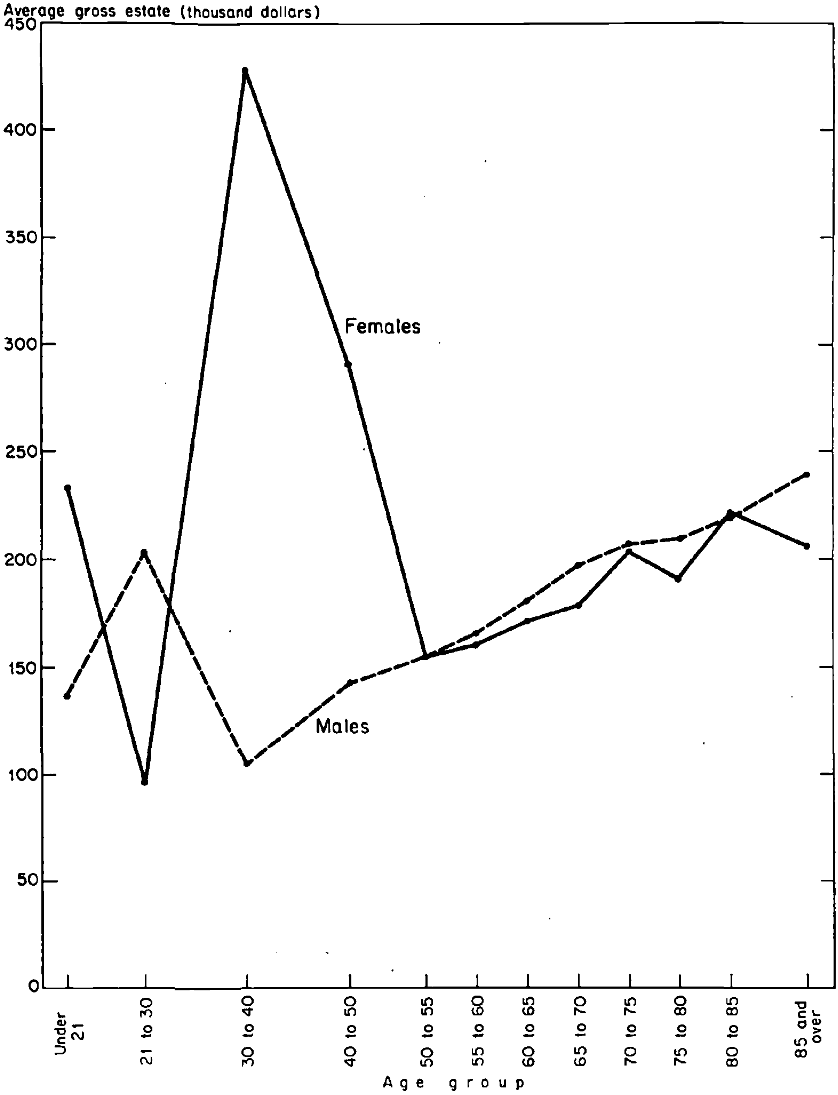
SOURCE: Table 48.

Survey of Consumer Finances finding that 3 per cent of spending units in 1950 had $60,000 or more of total assets.

The association of age and size of estate is quite clear for men; that is, average estate rises with age and median age rises with estate size (Chart 1). (The latter association is remarkably slight, however. See Table 4.) For women, on the other hand, this relationship is much more irregular.

Women top wealth-holders have gradually increased, both in numbers and in wealth, relative to men so that they comprised one-third of

CHART 1
Average Gross Estate of Top Wealth-Holders, by Sex and Age Group, 1953



Source: Table 45.

all top wealth-holders in 1953 (while only one-fourth in 1922) and held 40 per cent of the wealth of the group (Table 2). Women have a larger average estate size than men, although within most age groups there is no clear difference by sex, and although men have a higher median estate size than women.

The information on top wealth-holders furnishes little support for the popular idea that women own the greater part of American wealth. The type of property in the holding of which women come closest to men is corporate stock. While men, it is estimated, held $63 billion worth of stock, women held $54 billion worth. This was the case for the basic variant wealth, but in the total wealth variant, which takes into account personal trust funds, it is probable that women have over half the corporate stock.

One factor that contributes to the increasing importance of women as wealth-holders is the relative population growth in community property states, which now include Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas and Washington. In these eight states ownership is, in many cases, divided by law between husband and wife. Hence, the executor of the estate of the first spouse to die must report for estate tax purposes only half the property acquired after the marriage. Despite this legal provision, this group of eight states has almost exactly the share of top wealth-holders to be expected from its population, that is 18 per cent of the wealth-holders and 18 per cent of the population. They have somewhat less of the estate tax wealth than would be expected from their per capita income rank, however. A disproportionate number of the married female top wealth-holders are in community property states. This finding would suggest that if the family were the wealth-holding unit rather than the individual, considerably more than 18 per cent of the top wealth-holding families would be found in community property states.

Top wealth-holders are not evenly distributed according to population among the states and regions. A good first approximation is that the higher the per capita income of a state or region is, the greater is the number of wealth-holders per thousand people and the higher is the average estate per wealth-holder. A second approximation, using past income ranks, would explain the fact that some states with a declining income rank, like the New England states, Kansas, and Nebraska, have more estate tax wealth than their current income rank would predict. The reverse situation may explain the relatively low share of Utah and Washington. Quite unexplained by this hypothesis is the failure of some central states—notably Michigan, Ohio, and Indiana—to turn up their share of estate tax wealth.

As would be expected, there is considerable overlap between top wealth-holder status and high income rank. Certain occupational groups, particularly the self-employed, professional, and managerial groups, are overrepresented among the top wealth-holders.

COMPOSITION OF ESTATE

Among the top wealth-holders taken as a group, corporate stock is the single most preferred type of asset and accounted for 39 per cent of gross estate in 1953. Real estate, with 22 per cent, is second in importance, and cash (including deposits of all types in financial institutions) is third with 9 per cent. While there have been cyclical swings, there has been remarkably little noncyclical change over the decades in the pattern of top wealth-holders' holdings of the various broad types of assets. The general pattern of investment in current dollars for top estates is virtually the same in the 1920's as in the 1950's even though there have been important changes in prices, incomes, and the structure of the economy. Top wealth-holders have a lower ratio of debt to gross estate in the postwar years than in the 1920's and a far lower ratio than in the depression decade of the 1930's.

Whether there has been any important change in "preference" of top wealth-holders for the several types of assets is a matter of judgment. Reducing each type of asset to constant dollars and comparing changes in constant dollar composition with changes in relative yields furnishes plausible evidence that cyclical changes in such composition are guided by yield changes and hence that there are not cyclical changes in preference. Over the long term it seems more sensible to think in terms of current dollar composition. Changes in current dollar composition are compatible with changes in relative yields and it is, therefore, concluded that there have been no important changes in asset preferences.

The most important variable available to us in explaining differences in composition of estate is estate size, with larger estates having relatively more corporate stock and less real estate, more state and local bonds and less miscellaneous property (the largest component of which is unincorporated business). The percentage of estate held in stock tends to rise with age and the percentage held in miscellaneous property tends to fall. Liabilities decline gradually as a percentage of gross estate after age 40. Estates of women differ from men's estates of the same sizes principally in having a smaller share in insurance and in having smaller liabilities.

By first examining the estates of each sex by age groups within estate sizes and then looking at the estates by estate sizes within age groups (for a tabular version of the latter, in abridged form, see Table 5), we are able to identify real estate as predominantly a smaller-estate asset; U.S. bonds as a smaller-estate, older-age asset; state, local, and "other" bonds as larger-estate assets; stock as a larger-estate, older-age asset; cash as a smaller-estate, older-age asset; mortgages and notes as smaller-estate, older-age assets; life insurance as a lower- and middle-estate, middle-age asset; miscellaneous property as a lower- and middle-estate, younger-age asset; and debts and mortgages as younger-age liabilities.

TABLE 5
PERCENTAGE OF GROSS ESTATE IN SELECTED ASSETS AND LIABILITIES FOR THREE GROSS ESTATE SIZES IN THREE AGE GROUPS OF MALE TOP WEALTH-HOLDERS, 1953

Age Group	Gross Estate Size (thous. dollars) 70 to 80	150 to 200	2,000 to 3,000
	PERCENTAGE IN REAL ESTATE		
30 to 40	45	36	(10)[a]
55 to 60	35	29	16
75 to 80	37	28	4[b]
	PERCENTAGE IN STOCK		
30 to 40	9	17	(67)[a]
55 to 60	20	28	40
75 to 80	22	33	68
	PERCENTAGE IN CASH		
30 to 40	10	7	(3)[a]
55 to 60	13	11	2
75 to 80	17	12	6
	PERCENTAGE IN MISCELLANEOUS PROPERTY		
30 to 40	30	27	(1)[a]
55 to 60	14	14	(9)[c]
75 to 80	6	7	4
	PERCENTAGE IN DEBTS AND MORTGAGES (LIABILITIES)		
30 to 40	16	21	(1)[a]
55 to 60	6	10	28
75 to 80	3	5	3

SOURCE: Table 82.
[a] No cases, age 40–50 substituted.
[b] Adjacent age groups have percentages of 17 and 11.
[c] 60–65 age group substituted as more representative.

From these and related facts of estate composition, this picture of changing preference emerges. As people get richer, they shift from purchase of consumer capital, including real estate and life insurance, to U.S. bonds and mortgages and notes. As they get still richer, they shift over to corporate stock and state, local, and "other" bonds. As people get older, they reduce their liabilities, "cash out" of miscellaneous property (which includes interest in unincorporated business) and life insurance, and convert to larger holdings of cash, U.S. bonds, corporate stock, and mortgages and notes. As wealth moves into the hands of women, liabilities are reduced, life insurance falls as a percentage of estate and, consequently, all other types of property rise in relative importance.

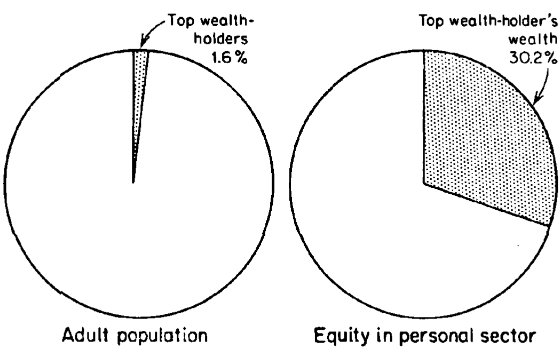
The differences in type of property held by the several estate sizes are associated with different degrees of inequality among top wealth-holders for each type of asset. The most unequally distributed type of property is state and local bonds and the least concentrated is real estate.

SIZE DISTRIBUTION

Over 30 per cent of the assets and equities of the personal sector of the economy in 1953 are assignable to the top wealth-holders who were 1.6 per cent of the total adult population that year (Chart 2). The top group owned at least 80 per cent of the corporate stock, virtually all of the state and local government bonds, and between 10 and 33 per cent of each other type of property in the personal sector

CHART 2

Share of Personal Sector Equity[a] Held by Top Wealth-Holders, 1953



Source: Table 92, cols. 15 and 17.
[a] Prime wealth variant.

in that year. These percentages are quite close to those found by the Survey of Consumer Finances for the same year.

The top wealth-holder group has varied in number and percentage of the total population over the years. Also, its share of total wealth has varied. It appears, however, that the degree of inequality increased from 1922 to 1929, fell to below the pre-1929 level in the 1930's, fell still more during the war and up to 1949, and increased from 1949 to 1956. However, the degree of inequality was considerably lower in 1953 than in either 1929 or 1922.

To make a comparison of degrees of wealth concentration, it is convenient to consider a constant percentage of the total adult population. The top 1 per cent of adults held 24 per cent of personal sector

TABLE 6
SHARE OF PERSONAL SECTOR WEALTH (EQUITY) HELD BY TOP WEALTH-HOLDERS, SELECTED YEARS, 1922–56

Year	Top 1 Per Cent of Adults	Top 0.5 Per Cent of All Persons	Top 2 Per Cent of Families[a]
1922	31.6	29.8	33.0
1929	36.3	32.4	
1933	28.3	25.2	
1939	30.6	28.0	
1945	23.3	20.9	
1949	20.8	19.3	
1953	24.2	22.7	28.5
1956	26.0	25.0	

[a] Families here defined as all adults less married females.

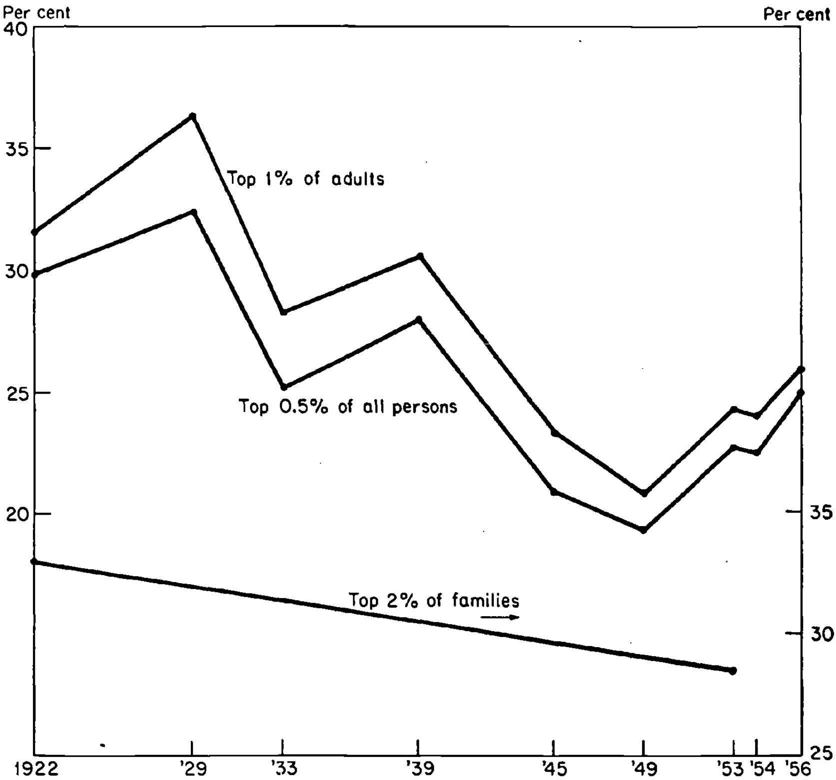
equity in 1953, 31 per cent in 1939, 36 per cent in 1929, and 32 per cent in 1922. It is probable that the decline thus indicated in inequality among individual wealth-holders is greater than would be found if families were considered as the wealth-holding units, since it is apparent from the data that married women are an increasing part of the top wealth-holder group. Converting to a measure of "adults less married women" suggests that half the percentage decline found for individuals between 1922 and 1953 would disappear on a family basis (Table 6 and Chart 3).

Two types of error in estimation are likely to offset each other in some degree. On the one hand, the selection of mortality rates tends to understate the decline in inequality. On the other hand, the differences in completeness of reporting personal sector wealth and estate tax wealth may tend to overstate the decline. It is difficult to imagine any combination of errors which would yield a result of increasing concentration over time.

Interestingly, the conclusions about changes in concentration of wealth over the years are not affected by selection of one or another variant of wealth.

CHART 3

Share of Personal Sector Wealth[a] Held by Top Wealth-Holders, Selected Years, 1922–56



Source: Table 94, bottom line; Table 93, bottom line; and Table 6.

[a] Equity, basic variant.

The leading exception to the general picture of declining concentration is corporate stock. In the total wealth variant the top 1 per cent of adults' share of each type of property declined between the 1920's and the 1950's, except for stock and state and local bonds. For stock, their share ranged from 60 to over 70 per cent.

Inequality of wealth distribution is considerably greater in Great

Britain than in the United States, but a pattern of similar decline in inequality is observable in the two countries.

DETERMINANTS OF CHANGES IN INEQUALITY

The final chapter of the book is devoted to inquiry into the causes for changes in the degree of inequality of wealth-holding. Three processes which may contribute to change are discussed. These are price change, accumulation of wealth out of income, and transfer of wealth. It is concluded that changes in the relative prices of assets held by rich and poor worked toward increasing the inequality of wealth-holding over the long period 1922–53, but that they contributed to lessening inequality during the intervening period of 1929–49. The fall in the share of wealth held by top families is ascribed largely to a failure to maintain a share of saving equal to their share of wealth. The decline of saving inequality is associated in turn with an observed decline in income inequality. The fact that the share of wealth of top individuals fell more than the share of top families is believed to be due to increasing splitting of wealth within families, principally between husbands and wives. One factor which encouraged such splitting was higher rates of income and estate taxation. The main finding about changing inequality—namely, the fall in the share of wealth held by the top 2 per cent of families from 33 per cent in 1922 to 29 per cent in 1953—is held to be compatible with observed price and income changes over this period.