THE CONCENTRATION OF PERSONAL WEALTH IN AMERICA, 1969

BY JAMES D. SMITH

The Urban Institute and The Pennsylvania State University

This essay focuses on the problems of estimating the share of America's personal wealth in the hands of affluent individuals by a technique known as the estate multiplier method. Rather than exploring these problems in an empirical vacuum, we first present some results from the most recent estimates of the distribution of U.S. personal wealth.[1] The estimates—for the year 1969—are then used as a basis for gauging the sensitivity of estate multiplier estimates to variations in approach.

Section I presents new empirical findings dealing with the asset holdings of top wealth-holders and the super rich, and with the shares of specific assets owned by them. Also presented is information about the sex and marital status of the super rich.

Section II discusses various technical aspects of the estate multiplier as applied to federal estate tax returns. The main concern is with the weighting process, but attention is paid to the fact that estate tax returns filed in a given year are not for decedents who died in that year or any single year, and to the problems of adjusting the face value of life insurance to cash surrender value.

SECTION I. EMPIRICAL FINDINGS

Who Are the Wealthy and What Are Their Holdings?

America is a rich nation. In 1969, its people held in their own names gross assets of three and one-half trillion dollars; that is, in the neighborhood of $17,000 for each man, woman and child, had it been distributed evenly. It was not divided evenly, however, raising the interesting question: How was it distributed?

There were 203 million persons in the United States in 1969, but concern here is with, at most, seven million of them: the richest seven million. These seven million are referred to as *top wealth-holders* after Lampman, who first used that term to describe persons with *gross assets over $60,000* in his classic study of the concentration of U.S. wealth in 1953.[2] We are even more interested in a group we nominally call the *super rich*.[3] The super rich are less numerous than top wealth-holders. They numbered only about five million in 1969, and each had a *net worth over $60,000*—that is, gross assets less indebtedness. It should be kept in mind that the $60,000 net worth figure applies to individuals, not families, which may contain two or more individuals, each worth over $60,000. In any event, over 96 percent of all adults had wealth of $60,000 or less once their debts were subtracted.

The reason for using this distinction is that the basic data from which these estimates derive are federal estate tax returns. A return is required of all decedents' estates with gross assets of over $60,000, but a decedent with gross assets of $60,000 may have debts of, say, $20,000, giving him a net worth of $40,000. Another decedent

[1]The Internal Revenue Service is also working on an estate multiplier estimate of personal wealth in the United States for 1969. The work presented here has benefitted from discussions with Vito Natrella, Keith Gilmore and Charles Crossed of the IRS staff.

[2]Robert J. Lampman, *The Share of Top Wealth-Holders in National Wealth*, Princeton University Press, 1962.

[3]The term *super rich* was used by Ferdinand Lundberg, *The Rich and the Super Rich*, New York: L. Stuart, 1968.

might have gross assets of $45,000 and debts of $5,000, and so, also a net worth of $40,000. The estate of the latter decedent would not, however, be required to file a return because his gross assets are less than $60,000, even though by the more meaningful economic concept of net worth the two decedents are equally rich. Thus some persons slip legally through the tax collector's net with greater levels of net worth than those caught.

The gross wealth measure was imposed upon Lampman because, heretofore, the IRS had refused to release microdata on estates, even to government agencies, and the aggregated tabulations with which researchers were provided precluded restructuring the wealth concepts. At the urging of members of Congress, the White House and the academic community, microdata tapes of Federal estate tax returns filed in 1962, 1965 and 1969 were made available for this research. Only one estimate for top wealth-holders is presented in this paper, to serve as a link with past estimates by Mendershausen, Lampman, and Smith.[4] All other estimates presented here are for the super rich.

Wealth-Holders

The 7 million top wealth-holders in 1969 held gross assets of $1,224 billion (see Table 1). Of this, $728 billion was held by men and $498 billion by women, which belies the conventional wisdom that women hold more of the nation's wealth than do men. On the other hand, there were only 2.4 million women top wealth-holders, compared to 4.6 million men, so the mean wealth of these rich women, $203,000, was about one-third higher than the $160,000 mean of men.

The debts of top wealth-holders amounted to $156.5 billion, about 13 percent of their total assets, but the share of total assets represented by debts was twice as high for men (16 percent) as for women (8 percent).

About a third of all wealth held by top wealth-holders was in corporate stock, and another 27 percent was in real estate. Thus, these two assets accounted for 60 percent of the gross wealth of top wealth-holders. The portfolios of men and women, however, were quite different. Women held a larger share of their assets in corporate stock than men; the reverse was true of real estate. Men also had a much larger share of their assets in the form of cash surrender value of life insurance policies than did women, 3.2 percent compared to 0.3 percent.

Looking only at corporate stock and real estate, the two largest components of gross assets, it appears that real estate has increased in importance in the portfolios of rich males since Lampman's 1953 estimates. No pattern of change in real estate is discernable for women nor in corporate stock for either sex (see Table 2). Rich men have consistently held a larger share of their assets in real estate and a lower

[4]Horst Mendershausen, *The Pattern of Estate Tax Wealth* in Raymond W. Goldsmith, *A Study of Saving in the United States*, Vol. III, Princeton University Press, 1956; Robert J. Lampman, *op. cit.*; James D. Smith, "The Income and Wealth of Top Wealth-Holders in the United States, 1958," unpublished doctoral dissertation, University of Oklahoma, Norman, Oklahoma, 1966; James D. Smith and Staunton K. Calvert, "Estimating the Wealth of Top Wealth-Holders from Estate Tax Returns" in *Proceedings of American Statistical Association, Business and Economic Statistics Section, 1965*, Washington, D.C.: American Statistical Association, 1966; see also, *Personal Wealth: Statistics of Income*, supplemental report, Publication No. 482 (7-67), Washington, D.C.: Internal Revenue Service, 1967.

TABLE 1

ASSETS OF TOP WEALTH-HOLDERS, 1969

Asset	All Top Wealth-Holders			Female Top Wealth-Holders			Male Top Wealth-Holders		
	Number	Asset Value	Share of Total	Number	Asset Value	Share of Total	Number	Asset Value	Share of Total
	millions	billions $	%	millions	billions $	%	millions	billions $	%
Real estate	5.77	328.0	26.8	1.86	110.9	22.3	3.91	217.5	29.9
Corporate stock	4.75	415.3	33.9	1.76	185.0	37.2	2.99	232.4	31.9
State and local bonds	0.28	17.7	1.4	0.15	8.8	1.8	0.13	8.9	1.2
Corporate and foreign bonds	0.83	11.6	0.9	0.36	4.8	1.0	0.47	6.8	0.9
U.S. savings bonds	1.30	14.7	1.2	0.54	6.6	1.3	0.76	8.1	1.1
Other federal bonds	0.44	19.5	1.6	0.23	9.9	2.0	0.22	9.6	1.3
Notes and mortgages	1.80	44.4	3.6	0.66	15.9	3.2	1.14	28.5	3.9
Cash	6.16	141.6	11.6	2.19	62.2	12.5	3.97	79.4	10.9
Lifetime transfers	0.53	75.9	6.2	0.24	51.3	10.3	0.30	24.6	3.4
Annuities	0.53	6.5	0.5	0.12	1.4	0.3	0.41	5.1	0.7
Cash surrender value of life insurance	5.13	25.6	2.1	1.05	2.0	0.4	4.08	23.6	3.2
Miscellaneous assets	5.77	125.1	10.2	1.82	40.0	8.0	3.95	85.2	11.7
Total assets	6.98	1,223.8	100.0	2.44	497.6	100.0	4.55	727.5	100.0
Debts	5.16	156.5	12.8	1.63	40.5	8.1	3.54	116.0	15.9
Net worth	6.93	1,067.2	87.2	2.43	457.1	91.9	4.50	611.5	84.1

Top wealth-holders are persons with *gross assets* of more than $60,000.

VU364182–4
JDS10
} Numbers similar to these appearing in tables are to index computer runs and need not concern the reader.

TABLE 2

SHARE OF GROSS ASSETS OF TOP WEALTH-HOLDERS REPRESENTED BY REAL ESTATE AND CORPORATE STOCK BY SEX OF HOLDER, 1953, 1958, 1962 AND 1969

	Real Estate				Corporate Stock			
	1953	1958	1962	1969	1953	1958	1962	1969
				(percentages)				
Male	24.9	27.0	26.9	29.9	35.4	36.0	40.0	31.9
Female	19.5	21.0	18.2	22.3	44.8	48.9	48.0	37.2

Source: 1953, Robert J. Lampman, *The Share of Top Wealth-Holders*; 1958, James D. Smith, "The Share of Top Wealth-Holders in National Income and Wealth, 1958", (unpublished doctoral dissertation, University of Oklahoma, 1966); 1962, *Statistics of Income, Personal Wealth*, (Washington: U.S. Treasury, 1967).

share in corporate stock than have women. Statistical tests of the asset patterns in Tables 1 and 3 show them to be significantly different at the 1 percent level.

The Super Rich

Let us turn now to the super rich, who have been defined as individuals with net worth over $60,000. In 1969, these 5 million wealthy individuals had assets as shown in Table 3, arranged in the same format as the assets of the top wealth-holders in Table 1. Of immediate significance is the difference in the male–female composition of the super rich and of the top wealth-holders. Women represented 34 percent of all top wealth-holders, but 43 percent of the super rich. Two things appear to account for this difference. First, although about 30 percent of all super rich are debt free, only 26 percent of the men have unincumbered wealth, while 35 percent of the women are so situated. Further, on average, the debts of rich women represent a smaller proportion of their total assets than is the case for men. (See Table 7). Secondly, as noted above, men carry a much larger proportion of their gross assets in life insurance than do women.

Insurance enters the estimates in a peculiar manner. The law requires estates to file returns for decedents whose gross assets, including the proceeds of insurance on their lives, exceed $60,000. A person of modest wealth may well have life insurance policies with a face value of $20,000 or more. Indeed, the protective function which insurance is intended to perform is more relevant to persons of modest wealth than to those of great affluence. Consequently, included among top wealth-holders are persons who are estimated to be there because decedents' estates contain insurance proceeds, which have no analog among the living. Said another way: the face value of a life insurance policy may not be counted as an asset to a living person because only a generally much smaller amount—the cash surrender value—is callable. In tallying up the total assets, in the tables, insurance proceeds are reduced to cash surrender value; nevertheless, the estimation procedure used here and by others includes among top wealth-holders persons whose assets exceed $60,000 only by virtue of the face value of life insurance. In the case of the super rich only the cash surrender values of their insurance policies are counted toward the $60,000 net worth figure.

TABLE 3

ASSETS OF THE SUPER RICH, 1969

Asset	All Super Rich			Super Rich Women			Super Rich Men		
	Number	Asset Value	Share of Total	Number	Asset Value	Share of Total	Number	Asset Value	Share of Total
	millions	billions $	%	millions	billions $	%	millions	billions $	%
Real estate	4.14	271.7	24.4	1.65	101.1	21.1	2.49	170.1	26.8
Corporate stock	3.76	403.8	36.2	1.61	182.6	38.1	2.15	223.1	35.1
State and local bonds	0.28	17.7	1.6	0.15	8.8	1.8	0.13	8.9	1.4
Corporate and foreign bonds	0.75	11.3	1.0	0.34	4.7	1.0	0.41	6.6	1.0
U.S. savings bonds	1.07	13.8	1.2	0.49	6.3	1.3	0.57	7.5	1.2
Other federal bonds	0.41	19.3	1.7	0.22	9.8	2.0	0.19	9.5	1.5
Notes and mortgages	1.55	41.5	3.7	0.60	15.0	3.1	0.95	26.5	4.2
Cash	4.63	131.0	11.8	1.98	60.4	12.6	2.66	70.7	11.1
Lifetime transfers	0.48	75.1	6.7	0.22	51.0	10.6	0.26	24.1	3.8
Annuities	0.36	5.2	0.5	0.11	1.3	0.3	0.25	3.9	0.6
Cash surrender value of insurance	3.27	17.4	1.6	0.86	1.6	0.3	2.41	15.8	2.5
Miscellaneous assets	4.12	108.3	9.7	1.63	38.1	7.9	2.50	70.3	11.0
Total assets	5.02	1,114.2	100.0	2.17	479.7	100.0	2.85	635.8	100.0
Debts	3.53	107.0	9.6	1.41	32.2	6.7	2.12	74.8	11.8
Net worth	5.02	1,007.1	90.4	2.17	447.5	93.3	2.85	561.1	88.2

The super rich are defined as persons with *net worth* (gross assets less indebtedness) over $60,000.

VU364178, VU364180–1

There are other differences in the portfolios of the two groups. Real estate is less important and corporate stock more important in the assets of the super rich than in the assets of top wealth-holders.

There is very little difference in the absolute levels of corporate, foreign, state, local and federal bonds (other than savings bonds) between the two groups. This is not surprising in view of the fact that the bulk of these assets are held by the very richest individuals. Of course, these same individuals are in both categories; the 5 million super rich include all except the least affluent 2 million of the top wealth-holders.

In order to place in perspective the magnitude of the substantial assets owned by the super rich, a special national balance sheet has been drawn up to show the holdings of individuals as opposed to "households," the sector most appropriate to individuals in the national balance sheets produced by Raymond Goldsmith.[5] The problem with Goldsmith's "household sector" is that, as in the national income accounts, it includes foundations and nonprofit organizations. The process of extracting an individual sector from a household sector is a tedious business, and we have relegated the details of the process to Table 17 and accompanying notes in the Appendix.

In Table 4 the assets of the super rich are shown as a percent of the personally held wealth of all individuals in mid-year 1969. The super rich accounted for 4 percent of the population age 20 and over, but they owned 33 percent of the net worth of all persons. The share of particular assets held by the super rich varies a great deal, however. For instance, they held virtually all of the personally held value of corporate and foreign bonds and of notes and mortgages. The fact that the estimates exceed 100 percent of some national balance sheet totals is conceptually impossible but statistically plausible. First, there is a sampling error associated with the estimation method. Secondly, assets in the national balance sheets are subject to measurement error. Under these circumstances, it would not be unusual to find estimates which exceed 100 percent for small balance sheet assets which are narrowly held.

The super rich owned 23 percent of the value of all real estate and 52 percent of the value of all personally held corporate stock, according to conservative estimates.

The distribution of assets among the super rich by sex and marital status is worth noting. Seventy-two percent of all super rich were married, 17 percent widowed, 8 percent single, and 3 percent divorced. Marital status differences between the sexes were quite pronounced. Only 52 percent of super rich women were married, compared to 88 percent of the men. Thirty-two percent of the women were widowed, but only 5 percent of the men were so situated (see Table 5). Both of these differences reflect, to some extent, the fact that women tend to outlive their husbands and thus add to their own wealth the assets of their deceased spouses.

[5]Raymond W. Goldsmith, *Studies in the National Balance Sheet of the United States*, Princeton University Press, 1963; Raymond W. Goldsmith, *The National Wealth of the United States in the Postwar Period*, Princeton University Press, 1962. Work toward developing a balance sheet for an *individuals* sector which excludes the assets of trusts and foundations has been pursued from time to time by the author and in a more sophisticated and detailed manner by Helen Stone Tice. A debt to Tice for her assistance in developing the individuals balance sheet used in this essay is acknowledged.

TABLE 4

SHARE OF PERSONAL WEALTH HELD BY THE SUPER RICH, 1969

Asset	Number of Super Rich Holding Assets	Percent of Adult Population[2]	Amount held by Super Rich	Amount held by All Persons	Share of Total Wealth held by Super Rich
	thousands	%	billions $	billions $	%
Real estate	4,142	3.3	271.7	1,187.0	22.9
Corporate stock	3,759	3.0	403.7	781.3	51.7
State and local bonds	282	0.2	17.7	26.4	68.2
Corporate and foreign bonds	757	0.6	11.3	9.3	117.0
Savings bonds	1,065	0.9	13.8	51.1	27.0
Other federal bonds	412	0.3	19.3	31.1	62.1
Notes and mortgages	1,549	1.2	41.5	35.3	116.1
Cash	4,633	3.7	131.0	476.2	27.5
Lifetime transfers	476	0.4	75.1		
Business assets[1]	1,371	1.1	57.8	171.6	33.7
Other assets	4,489	3.6	73.1	745.5	10.0
Total assets	5,024	4.0	1,114.2	3,514.8	31.7
Debts	3,528	2.8	107.0	424.6	25.2
Net worth	5,024	4.0	1,007.1	3,090.2	32.6

[1]Excludes real estate.

[2]The adult population used here includes all persons age 20 and over on July 1, 1969, and totals 124.2 million. The total population on the same date was 202.6 million and the super rich constituted 2.5 percent of that total.

TABLE 5

MARITAL DISTRIBUTION OF THE SUPER RICH, 1969

Sex	Married	Widowed	Divorced	Single
		(percentages)		
Men	88	5	1	6
Women	52	32	5	11
Both sexes	72	17	3	8

Source: Table 7.

Also, older men once widowed have a greater probability of remarrying than do older women in the same situation. Eight percent of the super rich had never been married.

Table 6 provides detailed estimates of the assets of the super rich by marital status and sex. Although portfolios do not differ greatly among marital-sex groups, a few differences stand out. Real estate comprised a much smaller share of the assets of single persons of both sexes than it did for any other marital state, whereas the reverse is true of corporate stock. Lifetime transfers[6] were 22 percent of the wealth of widowed women and 15 percent of that of divorced men, considerably higher than for other groups.

The mean gross assets of divorced men, $256,000, was higher than that of any sex-marital status group, as Table 7 shows. Next in line were female widows at $249,000. But when net worth is considered, the order is reversed: widows had a mean net worth of $240,000, and divorced men had only $213,000. The reversal of rank is accounted for by the high ratio of debt to assets of divorced men, and the low debt ratio of widowed women: the mean debt of divorced men was $56,000, and of widowed women only $13,000.

A case can be made that the high level of gross and net worth held by widows results from the augmentation of their own wealth with that of their former husbands. The case is weakened, however, because the wealth of widowers is not significantly larger than that for males in other marital classes.

The high average debt of divorced men is perhaps explainable by a tendency to reach property settlements in divorce actions which settle predominantly unencumbered assets on women and those bearing debt on men, even though the division by net worth shares is essentially equal. This, however, does not explain the fact that divorced men have the highest average gross estates of all marital classes. The statistics suggest a reverse causal pattern: that men of greater wealth have a higher probability of becoming divorced.

With respect to net worth, except for the very low mean of single men and the very high mean of widowed women, the remaining means were rather similar.

[6]Lifetime transfers included in the estimates are gifts made in contemplation of death or under any circumstances if strings are retained by the grantor. Also included are business transactions which involve the transfer of assets at less than their full worth with the intent of benefitting the recipient. All such assets are held to be in constructive possession of grantors at the point of death for estate tax purposes unless they are *bona fide* gifts and the gift tax has been paid. This class of assets presents some technical problems in the estimates which will be taken up in the methodology section.

TABLE 6

ASSETS OF THE SUPER RICH BY SEX AND MARITAL STATUS, 1969

Asset	Number of Super Rich				Value of Assets			
	Married	Widowed	Divorced[1]	Single	Married	Widowed	Divorced[1]	Single
	Numbers in thousands				Amounts in billions $			
	Both Sexes							
Real estate	3,191	636	96	225	219.0	35.1	6.5	11.3
Corporate stock	2,778	588	105	292	298.2	63.5	11.1	32.5
State and local bonds	186	52	13	30	12.4	3.4	0.6	1.4
Corporate and foreign bonds	529	128	19	70	7.8	2.1	0.3	1.2
U.S. savings bonds	689	229	22	125	8.4	3.4	0.2	1.9
Other U.S. bonds	250	99	14	48	12.5	5.1	0.6	1.2
Notes and mortgages	1,142	278	51	79	30.9	7.2	1.7	1.7
Cash	3,314	818	127	380	84.0	30.5	3.2	13.5
Lifetime transfers	309	117	18	32	30.5	39.7	1.9	3.0
Annuities	264	50	7	37	4.0	0.6	0.1	0.5
Life insurance (CSV)	2,641	362	64	256	15.3	1.4	0.2	0.5
Miscellaneous assets	3,075	647	113	292	84.1	14.1	3.0	7.1
Total assets	3,635	851	135	410	805.4	206.0	29.4	75.8
Debts	2,605	555	110	262	92.6	7.9	3.1	3.5
Net worth	3,635	851	135	410	712.8	198.1	26.3	72.3

TABLE 6 (continued)

ASSETS OF THE SUPER RICH BY SEX AND MARITAL STATUS, 1969

Asset	Number of Super Rich				Value of Assets			
	Married	Widowed	Divorced[1]	Single	Married	Widowed	Divorced[1]	Single
	Numbers in thousands				Amounts in billions $			
				Males				
Real estate	2,256	113	22	103	155.9	6.7	1.9	6.2
Corporate stock	1,909	96	23	126	197.4	10.4	3.1	12.3
State and local bonds	111	8	2	11	7.7	0.5	0.1	0.6
Corporate and foreign bonds	353	21	5	30	5.5	0.3	0.1	0.7
U.S. savings bonds	478	39	5	51	5.9	0.7	0.1	0.8
Other U.S. bonds	165	14	3	11	8.2	0.7	0.2	0.4
Notes and mortgages	852	46	11	40	23.7	1.2	0.5	1.1
Cash	2,323	140	30	168	58.5	5.1	0.9	6.2
Lifetime transfers	225	17	3	13	20.9	1.7	1.2	0.4
Annuities	231	8	3	11	3.6	0.1	—	0.2
Life insurance (CSV)	2,178	97	21	114	14.6	0.8	0.1	0.3
Miscellaneous assets	2,239	113	26	122	65.1	2.2	0.8	2.2
Total assets	2,504	145	32	176	565.8	30.5	8.2	32.1
Debts	1,891	95	25	109	69.1	1.9	1.4	2.4
Net worth	2,504	145	32	176	496.7	28.6	6.8	29.7

				Females				
Real estate	936	523	73	122	63.1	28.4	4.5	5.2
Corporate stock	871	492	82	167	101.3	53.1	8.0	20.3
State and local bonds	75	44	12	20	4.6	2.9	0.5	0.8
Corporate and foreign bonds	176	108	14	40	2.3	1.8	0.2	0.4
U.S. savings bonds	211	190	18	74	2.5	2.7	0.2	1.0
Other U.S. bonds	85	85	11	37	4.3	4.3	0.4	0.8
Notes and mortgages	290	232	40	40	7.2	5.9	1.2	0.6
Cash	993	679	97	213	25.5	25.3	2.3	7.3
Lifetime transfers	84	99	15	19	9.6	38.1	1.6	1.8
Annuities	33	32	4	26	0.3	0.6	—	0.3
Life insurance (CSV)	464	265	44	91	0.8	0.6	0.1	0.2
Miscellaneous assets	837	534	87	171	19.0	11.9	2.2	4.9
Total assets	1,134	706	103	234	240.4	175.6	21.3	43.7
Debts	715	460	84	153	23.5	6.0	1.7	1.1
Net worth	1,134	706	103	234	216.9	169.6	19.5	42.6

[1]Includes separated individuals.

VU368117
JDS10

TABLE 7

MEAN GROSS ASSETS, NET WORTH AND DEBTS OF SUPER RICH BY SEX AND MARITAL STATUS, 1969

Marital Status	Gross Assets	Debt	Net Worth
		thousands $	
Men			
Married	226.0	27.6	198.4
Widowed	210.3	13.1	197.2
Divorced	256.3	43.8	212.5
Single	182.4	13.6	168.8
Women			
Married	212.0	20.7	191.3
Widowed	248.7	8.5	240.2
Divorced	206.8	16.5	189.3
Single	186.8	4.7	182.1
Both Sexes			
Married	221.6	25.5	196.1
Widowed	242.1	9.3	232.8
Divorced	217.8	23.0	194.8
Single	184.9	8.5	176.3

Source: Table 6.

SUMMARY OF EMPIRICAL FINDINGS

The findings presented in this section are the first estimates of the concentration of wealth to be published from our study of the distribution of wealth in 1969. They should be taken as basic estimates, subject to some, generally upward, adjustments due to the conservative assumptions made in the process of their derivation. We shall turn to those adjustments and the underlying assumptions in Section II. Before proceeding, the findings presented above are briefly summarized.

In 1969 there were 7 million "top wealth-holders"—*individuals* with gross assets of $60,000 or more. There were 5 million individuals whose net worth—*gross assets minus debts*—exceeded $60,000. We have nominally defined persons with *net worth* over $60,000 as the super rich. It should be kept in mind that it is individuals' wealth, not the wealth of families, which are composed of two or more individuals, which is under discussion.

It was found that the super rich kept over one-third of their assets in corporate stock and about one-quarter in real estate. Comparing super rich men and women, it was found the latter held a slightly lower proportion of their wealth in stock and a little higher proportion in real estate than did men.

Super rich men were more likely than similar women to be debtors. Seventy-four percent of the men were in debt compared to 65 percent of the women. When rich men went into debt, they, on average, encumbered a larger share of their total wealth than did women—11.8 percent of total assets compared to 6.7 percent among women.

A relatively small number of Americans were super rich in 1969. They accounted for only 4.0 percent of the population age 20 and over. In point of fact, the super rich include a small number of children and even infants who have inherited, or otherwise received, substantial wealth. As referent, the U.S. population

aged 20 and over was chosen to put the number of super rich in perspective. We could have, as well, compared the super rich to the entire U.S. population. They represent 2.5 percent of that total. The strongest argument in favor of using the older population is that persons under age 20 seldom acquired significant amounts of wealth. The brief for using the entire population as a referent is that persons of all ages have some probability of being among the super rich and indeed are. The selection of either population is arbitrary and serves only to provide perspective, but the issue has so often been raised in connection with the interpretation of wealth concentration statistics that it is commented on here in hopes of putting it to rest.

Although super rich represented a very small proportion of the population, they owned substantial shares of the nation's personally held assets. They held 68 percent of all such state and local bonds, 52 percent of the corporate stock and 28 percent of the cash. They held virtually all of the corporate bonds and notes and mortgages. In the case of the latter two assets, the estimates actually exceed 100 percent of the total. (This is statistically plausible as will be seen in the discussion of the technique in Section II.)

Before leaving this section, the reader's attention is once again called to the *caveat* that these estimates are conservative and do not include a number of adjustments discussed in Section II. For the reader who wishes to skip the methodological presentation in Section II, Table 16 will provide a summary of the fully adjusted estimates.

Section II. Methology

Death is an intriguing phenomenon, not only to philosophers and mystics who see it as a door to something beyond, but to scientists as a mirror reflecting life unexaminable in process. Pathologists can trace backward the events that led to a human system's demise. Anthropologists enter the graves of the dead and emerge into another culture, comfortable in their ability to grasp the ritualistic, artistic, physical, and intellectual characteristics of a long-dead society from the bones and artifacts of its interred members.

Economists were slow to grasp the uses of death, though some, like Malthus, were not indifferent to its role in equilibrating the proclivity of man to reproduce with the growth of his food supply. About the turn of this century, a number of American economists began to realize that the transfer of property at death might provide a means of estimating the distribution of wealth. They were correct in believing they were on to something, but it took nearly a century before they found the statistical key to the door between the estates of the dead and the wealth of the living, despite the fact that the estate multiplier had been used in Great Britain and Australia.[7]

The *estate multiplier method* rests on weighting characteristics of decedents to produce unbiased estimates of population parameters. The sampling rates associated with death are, of course, mortality rates. Each individual in the population

[7]Bernard Mallet, "A Method of Estimating Capital Wealth from Estate Duty Statistics," *Journal of the Royal Statistical Society*, March, 1908; G. H. Knibbs, *The Private Wealth of Australia and Its Growth*, Melbourne: McCarron, Bird and Company, 1918.

has a probability of being selected by death per unit time, usually stated in one-year intervals. The mean probability of death for all individuals in industralized nations is around 0.01 per year. That is to say, there is available a 1 percent sample of the population each year, want it or not (and most of us prefer not). However that may be, the sample is there, and the important question is: What uses can be made of it? The use reported on here is the estimation of the distribution of U.S. personal wealth. The estimates were made by weighting federal estate tax return data by sets of mortality rates. The weighting process, though not the first step in the procedure, is by far the most important, and will be taken up first. Attention will then be focused on a number of other estimation problems.

The Selection of Appropriate Mortality Rates

The weighted estimate of any population characteristic, C_j, is

$$C_j = \sum_i^n C_{ji} \frac{1}{M_i},$$

where C_{ji} is the value of the jth characteristic of the ith decedent and M_i is the mortality rate appropriate to the ith decedent.

The estimates are particularly sensitive to the mortality rates which form the basis of the weights, or multipliers, by which the sample of decedents is adjusted up to population totals.

Age and sex are well-known determinants of mortality rates. Mortality also depends upon marital and socio-economic status, although there is considerable uncertainty about the underlying causes of the association of these variables with death. Fortunately, the absence of a full understanding of the causal links between death and these variables is not a serious impediment so long as their joint probabilities can be statistically estimated.

Because the federal estate tax returns used for these estimates are required only for decedents whose estates have gross assets over $60,000,[8] the mortality rates utilized should reflect whatever bias affluence exerts on the likelihood of death.

There is a growing literature to support the existence of social class differentials in mortality.[9] Despite the volume of such literature, however, there is not an easily acceptable set of mortality rates which one can assume applies to wealthy

[8]A federal estate tax return (Form 706) is required for the estate of every resident decedent with gross assets over $60,000. The return runs to 36 pages and requires quite detailed descriptions of the estate's assets as well as limited information about the decedent's personal characteristics. Marital status, length of last illness and place of residence are examples. The executor has the option of valuing the estate's assets at the market value as of the date of death or at their market value exactly one year after death. If the latter valuation point is selected, any assets disposed of between date of death and the subsequent valuation date are valued at the price for which they were sold.

An estate has fifteen months after the death of its creator to file a return and extensions are granted for cases where the statutory filing deadline would impose hardships upon beneficiaries.

[9]See, for instance, J. Paric, "Mortality by Occupation and Socio-Economic Status," in *Vital Statistics Special Reports*, Vol. 33, No. 10, Washington, D.C.: Department of Health, Education and Welfare, 1951; J. Mayer and P. Hauser, "Class Differentials in Expectation of Life at Birth," in *Class Status and Power*, Glencoe, Ill., Glencoe Press, 1953; I. M. Moriyama and L. Guralnick, "Occupational and Social Class Difference in Mortality," in *Trends and Differentials in Mortality*, New York: Proceedings of the Annual Meeting, Milbank Memorial, 1955; Evelyn M. Kitagawa and Philip Hauser, *Differential Mortality in the United States*, Cambridge: Harvard University Press, 1973.

individuals. Part of the problem rests on the fuzziness of the concept "social class." Although its meaning is intuitively clear, it has no generally agreed upon dimensions which lend themselves to a quantitative index. Recent work in this area by Kitagawa and Hauser finds differentials by occupation, income and education, all in some respect measures of social class.[10] Their findings are consistent with the earlier work of Moriyama and Guralnick with respect to occupational differentials.[11]

In short, it was necessary to construct a set of mortality rates appropriate to the estate tax population. First, white rates for 1969 were adjusted to reflect occupational mortality differentials. Second, the experience of the Metropolitan Life Insurance Company with a life insurance policy sold predominantly to affluent individuals was relied on as the basis for further adjustments.

Mortality rates for the white population by age and sex are shown in columns 1 and 2 of Table 8. In column 3 is a set of rates based on the experience of the Metropolitan Insurance Company with a preferred risk whole life policy issued before 1960, in force a minimum of six years. The policy was sold in minimum amounts of $5,000 (later $10,000). Column 4 of the table shows 1969 white male rates adjusted for high occupational status, using the work by Moriyama and Guralnick.[12]

TABLE 8

WHITE, METROPOLITAN PREFERRED RISK, HIGH OCCUPATIONAL STATUS, AND COMPOSITE SOCIAL-CLASS MORTALITY RATES BY AGE AND SEX, 1969

Age	White		Metropolitan Preferred Risk	High Status Occupations	Composite Social Class Rates	
	Male	Female	Male	Male	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
			deaths per 1,000 population			
<15	0.5	0.3			0.50	0.30
15–19	1.5	0.6			1.50	0.60
20–24	2.0	0.7	1.06	1.42	1.24	0.43
25–29	1.7	0.7	1.06	1.16	1.11	0.46
30–34	1.8	1.0	1.31	1.37	1.34	0.75
35–44	3.5	2.0	2.25	2.84	2.55	1.45
45–54	8.9	4.5	4.89	8.54	6.72	3.40
55–59	17.8	8.2	12.13	17.80	14.97	6.89
60–64	27.6	12.3	19.65	28.15	23.90	10.76
65–69	40.1	19.7	30.34		35.22	17.26
70–74	61.1	32.8	47.14		54.12	29.22
75–79	85.6	53.0	75.74		80.67	50.02
80–84	121.9	90.0	111.65		116.78	86.42
85+	208.9	198.0	155.22		182.06	172.96

Source: White rates, *Monthly Vital Statistics Reports* Vol. 21, No. 4, Table 7, p. 11; Metropolitan male rates, special tabulation provided by the Metropolitan Life Insurance Co. based on the company's experience with a preferred risk whole life $5,000 (later $10,000) policy issued prior to 1960 and in force for six or more years; high status occupation rates, derived using the work of Moriyama and Guralnick; "Occupational and Social Class Difference in Mortality" in *Trends and Differentials in Mortality*, 1955 Annual Conference, Milbank Memorial Fund, pp. 61–73. The method of deriving the composite social class rates is explained in the text.

[10]Kitagawa and Hauser, *op. cit.*

[11]Moriyama and Guralnick, *op. cit.*

[12]*Ibid.*

The procedure used to obtain the male composite social class rates shown in column 5 was to split the difference between the male Metropolitan rates and the high occupational status rates (columns 3 and 4) up to age 64. The Moriyama and Guralnick data do not provide rates for ages over 64, and in any event, occupational class mortality rates converge with white rates as age 64 is approached. Above age 64, therefore, the male composite rates were derived by splitting the difference between the Metropolitan and white male rates. For ages under 20, neither occupational differentials nor the experience of the Metropolitan Life Insurance preferred risk policy was available. For the few cases under age 20, it was assumed white rates apply.

The next step was to assign female composite social class rates (column 6) on the assumption that the relative male-female difference within age classes (columns 1 and 2) would prevail for the social class rates.

In order to take explicit account of marital status differentials, the findings of Klebba, shown in the upper portion of Table 9, were used to further differentiate the social class rates.[13]

The adjustment was made by computing the percent by which marital status rates (by age and sex) differed from the age-sex-specific rate in 1959–61, the period to which Klebba's work relates, on the assumption that the same relative difference held for 1969. It is found that these marital status differentials are substantial, as the lower portion of Table 9 shows. For instance, at age 25–34, married women have a rate 87 percent that of all women of that age; but single women the same age have a mortality rate 179 percent higher than for all women and more than twice the rate for married women. The rates in columns 5 and 6 of Table 8 were then multiplied by the percent by which each marital status varied from the age-sex-specific rate in the 1959–61 period, to obtain the 1969 marital status rates shown in Table 10.

With the exception of the marital status differentials, the mortality rates developed here are similar to those used by Lampman.[14] The reciprocals of these mortality rates were used to weight the decedents for whom federal estate tax returns were filed in 1969, in essence, reconstructing from the death statistics the size and characteristics of that portion of the living population in 1969 defined as the super rich. This was the basis for the estimates in the first section of this paper. In addition to these mortality rates, nine other sets of rates were compiled by the author to test the sensitivity of the estimates to the rates. Five of these rates were marital-status-specific, and five were not.

Ten Multipliers

In Table 11 the results of weighting the file by the ten different multipliers are presented.

1. The low estimates are based on white mortality rates undifferentiated by marital status. White mortality rates are believed to be too high—and thus the estimates based on them are too low—for persons with net worth over $60,000, but these rates serve as a lower bound.

[13]A. Joan Klebba, "Mortality from Selected Causes by Marital Status," in *Vital and Health Statistics*, Series 20, Nos. 8a and 8b, Washington: National Center for Health Statistics, 1970.

[14]Lampman, *op. cit.*, pp. 42–53.

TABLE 9

MORTALITY RATES BY AGE, SEX AND MARITAL STATUS AND MARITAL-STATUS-SPECIFIC RATE AS A PERCENT OF AGE-SEX-SPECIFIC RATES, WHITE POPULATION, 1959–61

Age	White Females					White Males				
	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced
	Deaths per 100,000 population									
15–19	49.7	48.0	53.5	283.2	117.0	123.3	121.5	122.7	390.6	189.1
20–24	60.2	77.4	50.3	213.4	137.2	169.0	205.6	115.8	626.1	359.5
25–34	85.8	153.9	74.3	188.6	196.0	162.9	276.4	128.7	498.9	516.0
35–44	188.2	312.1	167.0	318.7	355.5	332.6	614.7	276.6	797.0	1,110.2
45–54	454.5	571.8	412.1	625.4	652.0	922.0	1,419.0	793.2	1,741.5	2,473.1
55–59	806.3	839.0	744.0	959.6	1,053.8	1,759.5	2,315.2	1,545.6	2,742.0	3,948.6
60–64	1,346.4	1,379.3	1,228.7	1,538.8	1,627.6	2,771.0	3,653.5	2,445.1	3,907.5	5,436.4
65–69	2,165.7	2,072.5	1.967.0	2,405.0	2,450.8	4,113.7	5,303.5	3,623.5	5,529.6	7,256.3
70–74	3,609.2	3,429.9	3,252.0	3,857.5	3,970.2	5,968.2	7,509.0	5,245.0	7,311.7	9,315.9
75+	10,066.0	10,247.8	6,891.2	10,920.0	9,574.4	12,537.2	13,889.8	10,133.2	15,670.1	16,031.6
	Marital status deaths as a percent of age-sex deaths									
15–19	100	97	108	507	235	100	99	100	317	153
20–24	100	129	84	354	228	100	122	69	370	213
25–34	100	179	87	220	228	100	170	79	306	317
35–44	100	166	89	169	189	100	185	83	240	334
45–54	100	126	91	138	143	100	154	86	189	268
55–59	100	104	92	119	131	100	132	88	156	224
60–64	100	102	91	114	121	100	132	88	141	196
65–69	100	96	91	111	113	100	129	88	134	176
70–74	100	95	90	107	110	100	126	88	123	156
75+	100	102	68	108	95	100	111	81	125	128

Sources: A. Joan Klebba, *Vital and Health Statistics*, Series 20, No. 8a, Washington, National Center for Health Statistics, 1970, pp. 4–6 and 17–19; and U.S. Bureau of the Census, *United States Census of Population, 1960. General Social and Economic Characteristics, United States Summary*. Final Report PC(1)-lC. Table 65, p. 199. U.S. Government Printing Office, Washington, 1962.

TABLE 10

SOCIAL CLASS MORTALITY RATES BY AGE, SEX AND MARITAL STATUS, WHITE POPULATION, 1969

Age	White Males				White Females			
	Single	Married	Widower	Divorced	Single	Married	Widow	Divorced
	Deaths per 1,000 population							
<15	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
15–19	1.49	1.50	4.76	2.30	0.58	0.65	3.42	1.41
20–24	1.51	0.86	4.59	2.64	0.56	0.36	1.52	0.98
25–29	1.89	0.88	3.40	2.53	0.82	0.40	1.01	1.05
30–34	2.28	1.06	4.10	4.25	1.34	0.65	1.65	1.71
35–44	4.72	2.12	6.12	8.52	2.41	1.29	2.45	2.74
45–54	10.35	5.78	12.70	18.01	4.28	3.09	4.69	4.86
55–59	19.76	13.17	23.35	33.53	7.17	6.34	8.20	9.03
60–64	31.55	21.03	33.70	46.84	10.98	9.79	12.27	13.02
65–69	45.43	30.99	47.20	61.99	16.57	15.71	19.16	19.50
70–74	68.19	47.63	66.57	84.43	27.76	26.30	31.27	32.14
75–79	89.54	65.34	100.84	103.26	51.02	34.01	54.02	47.52
80–84	129.63	94.59	145.98	149.48	88.15	58.77	93.33	82.10
85+	202.09	147.47	227.58	233.04	176.42	117.61	186.80	164.31

Source: Entries are the products of the age-sex-specific rates of columns 5 and 6 of Table 8 and the percentages of Table 9.

2. The next estimate was made with rates provided by the Metropolitan Life Insurance Company for holders of a preferred risk policy which the company issued in minimum amounts of $5,000 (later $10,000). The holders of the policy are known to be predominantly male and to have above-average economic status. Only those policies issued before 1960 and in force for at least six years were included in the mortality experience, to minimize bias due to medical screening by the company. The rates provided by Metropolitan are age-specific. Because the rates are based on predominantly male insured, female rates were generated by assuming that the same male-female mortality differential prevailed in the population represented by the policy holders as in the total white population.

In terms of socioeconomic status, it is believed that insureds covered by this Metropolitan policy are representative of persons with gross assets over $60,000. However, the mortality experience of Metropolitan is believed to be lower than can be expected for top wealth-holders or the super rich for the following reasons:

(a) Married persons are more likely to be holders of life insurance policies (not provided as a job perquisite) than are persons in the population at large. By including policies of at least six years maturity, changes in marital status will occur which offset the presumed initial bias; but it is suspected that the bias is not entirely eliminated. Because mortality rates for married persons are substantially lower than for single, widowed, or divorced persons, any residual bias in favor of married insureds overstates the estimates of wealth.

(b) It is the feeling of some actuaries that the medical selection bias does not wash out in six years. If they are correct, the Metropolitan experience is with a healthier population than that of top wealth-holders and super rich generally.

(c) Insurance underwriting takes into account not only applicants' medical conditions, but also their life styles. Persons who because of occupational risk,

TABLE 11

SENSITIVITY OF ESTIMATES OF NET WORTH OF THE SUPER RICH TO MORTALITY RATES, 1969

Mortality Rate	Number of Super Rich	Percent of Adult Population[a]	Net Worth	Share of Total Wealth
	(1) millions	(2) %	(3) trillions $	(4) %
Not martial-status-specific				
1. White, age-sex-specific	4.0	3.2	0.81	26
2. Metropolitan $5,000 policy	5.9	4.6	1.18	38
3. Metropolitan $25,000 policy	6.6	5.3	1.32	43
4. Modified Metropolitan $5,000 policy	4.9	3.9	0.98	32
5. Modified Metropolitan $25,000 policy	5.7	4.6	1.14	37
Martial-status-specific				
6. White, age-sex-specific	4.2	3.4	0.84	27
7. Metropolitan $5,000 policy	6.1	4.9	1.21	39
8. Metropolitan $25,000 policy	6.8	5.5	1.36	44
9. Modified Metropolitan $5,000 policy	5.0	4.0	1.01	33
10. Modified Metropolitan $25,000 policy	5.8	4.7	1.17	38

[a]The total number of adults in 1969 includes all persons age 20 and over and amounted to 124.2 million.

Notes to Table 11

1. White age-sex-specific mortality rates for 1969, *Monthly Vital Statistics Reports*, Vol. 20, No. 13, p. 5 and Vol. 21, No. 4, p. 11.
2. Age-sex-specific mortality rates based on the experience of the Metropolitan Life Insurance Company with preferred risk whole life policies. The policy was issued in minimum amounts of $5,000 (later $10,000). The experience over the period 1964 to 1969 was used, but only policies issued before 1960 and which had been in force a minimum of six years were considered. Because insureds were predominantly male, rates for females were calculated by assuming that the same ratio of male to female mortality existed as in the white population in 1969.
3. Age-sex-specific mortality rates based on the Metropolitan Life Insurance Company's experience with the broader preferred risk category issued since 1960. The policy is issued in a minimum amount of $25,000. Because insured rates were for males, female rates were estimated in the same manner as in 2.
4. Age-sex-specific rates for 1969 were calculated by splitting the difference between the Metropolitan Insurance Company rates in 2 above and a set of occupational status rates based on the work of Moriyama and Guralnick, ("Occupational and Social Class Difference in Mortality" in *Trends and Differentials in Mortality*, Milbank Memorial Fund, 1955) for ages 20 to 65, and by splitting the difference between the Metropolitan and white rates for ages 65 and over. See text.
5. Age-sex-specific rates for 1969 were calculated by splitting the difference between the Metropolitan Insurance Company rates in 3 above and a set of occupational status rates based on the work of Moriyama and Guralnick for ages 20 to 65, and between the Metropolitan rates and white rates for ages 65 and over.

6–10. Age-sex-marital status-specific rates for 1969. These rates are identical to rates 1 through 5 above, except that they are marital status specific. Each of the above five rates was made marital status specific by adjusting them in accordance with marital status differentials calculated by A. Joan Klebba for the period 1959–61. See Klebba, "Mortality from Selected Causes by Marital Status," *Vital and Health Statistics*, Series 20, Nos. 8a and 8b, 1970.

avocational hazards, or other reasons are believed to have higher risk than permitted by the underwriting standards for preferred risk policies are excluded from the reported experience, but could easily be wealthy.

(d) Although the experience is based on a predominantly male insured population, some female insureds are included, thus biasing the rates downward because of the lower female mortality rates.

(e) The experience reported by the Metropolitan is weighted by the number of dollars at risk. It seems reasonable to assume that very large policies relative to others within the $5,000 preferred whole life population are underwritten more carefully. If this is so, and if policy size and economic status are positively correlated, a further downward bias is introduced.

3. The third rate is also based on the experience of the Metropolitan Life Insurance Company, but with a preferred risk policy sold in minimum amounts of $25,000 or more. The higher minimum insurance level suggests tighter underwriting and more affluent insureds. That the underwriting is tighter is supported by the lower mortality rates (higher multipliers) reflected in the 12 percent higher estimates of net worth of the super rich, $1.32 trillion, compared to the $1.18 trillion estimate based on the $5,000 policy.

The reasons for doubting the appropriateness of the $5,000 preferred whole life policy experience as the basis for mortality rates for all top wealth-holders apply even more strongly to the $25,000 policy experience.

4. The fourth set of rates splits the difference between the Metropolitan $5,000 preferred whole life policy and a set of mortality rates based on high occupational status developed from work done by Moriyama and Guralnick. The construction of this set of rates is described in detail at the beginning of this section, with the only difference being that the fourth set of rates does not include the marital status adjustments described in the text.

These rates result in an estimate that the super rich have a net worth of $0.98 trillion. This is higher than the estimate based on the white mortality rates ($0.81 trillion) but lower than both estimates based on the Metropolitan data—$1.32 trillion in connection with the holders of the $25,000 policy, $1.18 trillion for holders of the $5,000 policy.

The rationale for modifying the Metropolitan mortality experience upward has been noted. However, the only rates immediately available were those by occupation, education and income. None of these control variables was available for decedents in the tax files. Income and education are not reported on the estate tax return, and occupation was not coded by the Internal Revenue Service. Even had occupation been coded, it would have been of dubious value because the tax return calls for occupation at time of death, which results in a plethora of "retired" entries. Also, the entry "housewife" dominates occupation entries for women. Work on estate multiplier estimates for the city of Washington, D.C., based on data considerably superior to the federal estate tax files used here, shows, not surprisingly, that the employment of affluent persons is almost always of a professional, managerial or entrepreneural nature.

The absence of income and education data in the files and the known concentration of affluent persons in high status occupations suggested the use of occupational mortality differentials. Within occupational groups, however, there is considerable variance of wealth and well-being: the professions include both school teachers and brain surgeons; within the performing arts one finds the very rich and the nearly indigent. For decedents up to age 64 it was decided, therefore, to split the difference between the experience of the Metropolitan Life Insurance Company and a set of mortality rates based on high status occupations. For ages 65 and over, a value midway between the Metropolitan experience

and white rates was used. (Occupational mortality differentials disappear at ages over 65.)

5. The fifth set of rates modified the Metropolitan $25,000 preferred whole life experience in the same manner as the $5,000 policy experience was modified to obtain the fourth set of rates.

6–10. The sixth through tenth rates are identical to the first through fifth, respectively, except that they are marital-status-specific. The recognition of marital status as a determinant of the probability of death increases the estimates by amounts varying from $30 to 50 billion. This is not a large change overall, but as will be seen below, the effect is considerable on estimates of the way wealth is distributed among particular sex and marital categories.

It is apparent from Table 11 that the estimates are very sensitive to the rates used. The obvious question is: Which are the right rates? Unfortunately we have no direct test to determine the correct rates. The best we can do is to narrow the range of confidence. In light of the demographic literature on social class mortality differentials, the white rates appear much too high. At the other extreme, the experience of the Metropolitan Life Insurance Company with $5,000 and $25,000 preferred risk policies is so selective of persons with superior health and low-risk life styles as to appear too low. From work in progress and consultation with actuaries at the Metropolitan Life Insurance Company, it appears that the correct rates fall within the limits set by the rates numbered 9 and 10 in Table 11. It is our judgement that the rates numbered 9 constitute the most appropriate set of rates presently available, and the estimates of Section I, therefore, were made using those rates. It is hoped that further work with the Metropolitan will provide a basis for mortality rates with a more precise fit to the top wealth-holders and the super rich so we will not have to rely on so many adjustments, modifications, and interpolations.

A Refinement: Marital-Status-Specific Rates

It will be recalled that estimates of wealth by marital status and sex were presented in Table 6. The estimates were made using the age-sex-marital-status-specific rates based on the modified experience of the Metropolitan Life Insurance Company with their $5,000 preferred whole life policy. To the writer's knowledge this is the first time that marital-status-specific rates have been used in a national estate multiplier. Lampman clearly recognized the importance of marital status in determining mortality rates, but he had available only aggregated data undifferentiated by marital status and was unable to apply weights directly to individual observations, as we have done here.

There are two consequences of using marital-status-specific rates. First, they result in slightly higher estimates of the total super rich population due to the marital status mix. Much more importantly, they alter the marital mix of the estimated population and the distribution of assets by marital status and sex. The change in the asset distribution by sex comes about because of the higher mortality associated with nonmarried status, a status more common to women than to men.

In order to demonstrate the impact of marital status differentials, Table 6 was replicated using mortality rates which were not marital status specific, but

were otherwise identical to those used in the original table. To facilitate examination of the effects, Table 12 shows the signed differences between the two tables. The replicated table is Table 18 of the Appendix.

It will be noted in Table 12 that there are positive changes in the estimated numbers of married persons holding each asset and in total value of each asset regardless of sex. On the other hand, there are negative changes in the estimated number of holders and the value of each type of wealth held by nearly every class of nonmarried person regardless of sex. Table 13 provides a summary of the changes, considering all super rich as a group and their asset holdings. The estimated number of super rich owning specific classes of assets increased in all categories except for state and local bonds. The total estimated value of the holdings themselves also increased in all categories except for a $5.7 billion decrease in lifetime transfers. In total the estimated number of super rich was increased by 155,000, and their gross assets increased by $33 billion, when marital-status-specific mortality rates were applied.

Valuation of Assets

All assets are valued on the estate tax return at "market," but the law permits executors to select either the date of death, or one year from the date of death, as the valuation point. All assets in a particular estate must be valued at the same point except that, if the post-death valuation point is selected, assets disposed of prior to that point are valued at the price for which they are sold. This provision permits executors to prevent excessive shrinkage of assets in the period between the death of a bequestor and receipt of assets by heirs in times of declining markets. This provision of the statutes was widely recognized by executors carrying out their responsibilities during the stock market decline of 1969. The significance of this is that it biases downward the estimates of wealth. In fact, a larger proportion of estates used the post-death valuation date in 1969 than in any prior filing year. A little over one-third of our sample of about 44,000 estate tax returns used post-death valuation.

The tax file with which we worked had the value of the gross estate at date of death as an addendum item whenever post-death valuation was used. It was therefore possible to compare estimates of gross estate as actually valued by the executor with estimates based on date of death valuation points. Had all estates filed at date of death, gross estate would have been $45 billion higher than shown in the estimates of Section I.

The $45 billion shift in value attributable to the selection of post-death valuation may appear smaller than expected. One reason for this is that executors of estates, if they are rational, will try not to minimize the estate tax, but rather to maximize the value of assets ultimately vesting with heirs. The logic of this derives from the capital gains tax: an investment held until death permits the owner to escape capital gains taxation; the heir acquires the investment (for tax purposes) not at original purchase price but at the ascribed value at the time of inheritance; this latter value becomes the basis for determining whether and to what extent the heir becomes liable for capital gains taxation when he sells the asset. Because heirs often do wish to liquidate bequests, executors should weigh the marginal estate tax rates against the marginal capital gains rates which the heirs would pay.

TABLE 12

NET DIFFERENCE IN ESTIMATES USING MARITAL-STATUS-SPECIFIC AND NON-MARITAL-STATUS-SPECIFIC MORTALITY RATES, THE SUPER RICH, 1969

Asset	Number of Super Rich[1]				Value of Assets[1]			
	Married	Widowed	Divorced	Single	Married	Widowed	Divorced	Single
	Numbers in thousands				Amounts in billions $			
	Both Sexes							
Real estate	+425	−123	−59	−55	+29.0	−6.8	−4.5	−3.0
Corporate stock	+369	−109	−65	−63	+39.6	−10.9	−7.3	−7.9
State and local bonds	+23	−11	−6	−8	+1.7	−0.6	−0.2	−0.2
Corporate and foreign bonds	+69	−24	−12	−16	+1.1	−0.4	−0.2	−0.3
U.S. savings bonds	+87	−40	−11	−24	+1.1	−0.6	−0.2	−0.3
Other U.S. bonds	+33	−18	−8	−6	+1.6	−0.7	−0.4	−0.1
Notes and mortgages	+152	−55	−33	−24	+4.0	−1.5	−1.3	−0.5
Cash	+530	−153	−74	−83	+11.1	−5.5	−1.8	−2.3
Lifetime transfers	+41	−20	−10	−5	+3.9	−5.3	−1.2	−0·7
Annuities	+34	−11	−5	−9	+0.5	−0.2	0.0	−0.1
Life insurance (CSV)	+357	−84	−45	−11	+2.0	−0.3	−0.1	−0.2
Miscellaneous assets	+411	−127	−71	−70	+11.5	−3.8	−2.0	−1.4
Total assets	+482	−160	−81	−86	+107.5	−36.7	−21.2	−17.0
Debts	+350	−110	−70	−62	+12.7	−2.0	−3.2	−1.2
Net worth	+482	−160	−81	−86	+94.7	−34.6	−15.9	−15.8

TABLE 12 (continued)

NET DIFFERENCE IN ESTIMATES USING MARTIAL-STATUS-SPECIFIC AND NON-MARTIAL-STATUS-SPECFIC MORTALITY RATES, THE SUPER RICH, 1969

Asset	Number of Super Rich[1]				Value of Assets[1]			
	Married	Widowed	Divorced	Single	Married	Widowed	Divorced	Single
	Numbers in thousands				Amounts in billions $			
	Males							
Real estate	+315	−42	−30	−44	+21.7	−2.5	−2.8	−2.6
Corporate stock	+267	−35	−31	−48	+27.7	−3.6	−4.1	−4.3
State and local bonds	+14	−3	−2	−3	+1.0	−0.2	−0.1	−0.2
Corporate and foreign bonds	+48	−6	−8	−11	+0.8	−0.1	−0.1	−0.3
U.S. savings bonds	+62	−14	−4	−22	+0.8	−0.2	−0.1	−0.3
Other U.S. bonds	+23	−5	−4	−4	+1.1	−0.3	−0.2	−0.1
Notes and mortgages	+118	−16	−15	−16	+3.2	−0.4	−0.7	−0.4
Cash	+323	−50	−37	−67	+7.9	−1.8	−1.1	−2.0
Lifetime transfers	+32	−6	−5	−5	+2.8	−0.5	−0.3	−1.2
Annuities	+30	−3	−4	−6	+0.4	0.0	0.0	0.0
Life insurance (CSV)	+305	−37	−27	−52	+2.0	+0.3	−0.1	−0.2
Miscellaneous assets	+313	−42	−36	−54	+9.4	−1.1	−1.1	−1.1
Total assets	+349	−53	−41	−70	+78.9	−11.0	−10.9	−12.2
Debts	+267	−37	−36	−47	+10.0	−0.9	−2.4	−1.1
Net worth	+349	−53	−41	−70	+68.8	−10.1	−8.5	−11.2

				Females				
Real estate	+110	−81	−30	−10	+7.3	−4.3	−1.8	−0.3
Corporate stock	+102	−74	−33	−14	+12.4	−7.3	−3.2	−3.5
State and local bonds	+9	−8	−4	−4	+0.5	−0.4	−0.1	−0.1
Corporate and foreign bonds	+21	−37	−4	−5	+0.3	−0.2	−0.1	−0.1
U.S. savings bonds	+25	−27	−6	−2	+0.3	−0.3	0.0	0.0
Other U.S. bonds	+11	−13	−4	−2	+0.5	−0.5	−0.2	0.0
Notes and mortgages	+34	−39	−18	−7	+0.8	−1.2	−0.6	−0.1
Cash	+117	−101	−37	−15	+3.1	−3.7	−0.7	−0.3
Lifetime transfers	+10	−15	−6	0	+1.1	−4.7	−0.6	−0.1
Annuities	+4	−8	−2	−2	0.0	−0.1	0.0	−0.1
Life insurance (CSV)	+53	−47	−17	−10	+0.1	−0.1	0.0	0.0
Miscellaneous assets	+97	−85	−35	−14	+2.1	−2.7	−0.9	−0.3
Total assets	+134	−107	−39	−16	+28.6	−39.2	−8.1	−4.7
Debts	+83	−73	−35	−14	+2.5	−1.1	−0.8	−0.1
Net worth	+134	−107	−39	−16	+26.2	−24.4	−7.4	−4.6

[1]Sign indicates direction of change from estimates based on weights undifferentiated by marital status.

TABLE 13

SUMMARY OF NET DIFFERENCE IN ESTIMATES USING MARITAL-STATUS-SPECIFIC AND NON-MARITAL-STATUS-SPECIFIC MORTALITY RATES, THE SUPER RICH, 1969

Asset	Changes in Number of Super Rich[1]	Changes in Asset Values[1]
	thousands	billions $
Real estate	188	14.7
Corporate stock	132	13.5
State and local bonds	−2	0.7
Corporate and foreign bonds	17	0.2
U.S. savings bonds	12	0.0
Other U.S. bonds	1	0.4
Notes and mortgages	40	0.7
Cash	220	1.5
Lifetime transfers	6	−5.7
Annuities	9	0.2
Life insurance (CSV)	217	1.4
Miscellaneous assets	114	4.3
Total assets	155	32.6
Debts	108	6.3
Net worth	155	28.4

[1]Sign indicates direction of change from estimates based on weights undifferentiated by marital status.

Source: Table 12.

Since the estate tax rates may be considerably below the capital gains rate (depending upon the heirs' other income), it may well be advantageous to have assets valued higher for estate tax purposes. The higher value used for estate tax purposes becomes the basis for computing the capital gain when heirs sell the assets and so reduces the taxable gain. This poses an interesting tax problem. If IRS agents are differentially more sensitive to understatements of tax base than to overstatements (and it is assumed they are), tax fraud paradoxically could be achieved by paying excessive estate taxes. We have no evidence available on the extent to which executors act to increase the taxable value of estates to minimize subsequent capital gains taxes. The one study on estate tax return audits which is referred to later in this text suggests that on average understatement is a more common practice.

There were, in fact, 486 estates in 1969 which chose the post-death valuation point, even though it resulted in a higher tax liability than the date-of-death valuation. There is no suggestion that fraud was involved in these cases, but it helps to explain why the difference in estate value from the two methods of computation was not greater.

Insurance

Life insurance, unlike other assets reported on estate tax returns, has a much different value in the estate of a decedent than it did the instant before death. Before death, the value of a life insurance contract to its owner is its cash surrender

value. The value of the same contract in a decedent's estate is its face value. Because our concern is with estimating the value of the assets of *living persons*, a procedure was needed to estimate cash surrender value from reported face value. Such a procedure was worked out with the Institute of Life Insurance while the author was working on the 1962 IRS estimates. Estates are required to file a form (712), completed by the carrier, for each insurance contract on the life of a decedent. The form attests to the face value of the insurance contract, indebtedness of the owner to the carrier (policy loans), unearned premiums due the estate, accumulated dividends and interest, proceeds paid to beneficiaries, and the age of the decedent. The Institute of Life Insurance agreed to arrange with a number of large insurance companies to have them send to the Institute copies of the forms 712 to which they appended the cash surrender value of the policy in question on the day before death. The Institute then was able to compute ratios of cash surrender value to reported proceeds for decedents for whom estate tax returns were filed. The Institute repeated the arrangements for 1969 and provided the ratios used to adjust insurance in the estimates presented here. Although life insurance cash surrender value does not loom large in the assets of the super rich, face value ranges between six and seven times cash surrender, and its inclusion can seriously distort the estimates.

Year of Death

The files from which all estate multiplier estimates in the United States have been made are the same files the IRS uses for its standard publication series, *Statistics of Income, Fiduciary, Gift, and Estate Tax Returns*. The IRS samples estate tax returns not in year of death but in year of filing. It has been standard practice since the first estate multiplier estimate for the U.S., by Mendershausen, to infer that the date of death was the year immediately prior to the year of filing. Thus the data with which these estimates were made are from returns filed in 1970, and it was assumed that estimates presented in Section I were based on assets of persons dying in 1969.

In fact, however, the data from which the estimates are made are from returns of persons who died as long ago as 1954. The distribution of dates of death is shown in Table 14.

The hypothesis had been advanced by the author that estates are filed late because they are larger than average and consequently more complex than average. With the microdata at hand, it became possible for the first time to test the hypothesis and it was found that the pattern was more complex. Table 14 shows returns filed in 1970 by the year in which decedents died. One-third of the returns are for decedents who died in years other than 1969 (the year for which wealth was estimated): 9,476 or 22 percent died in 1968, and 4,209 or 10 percent died in 1970. The remaining 2 percent died in years prior to 1968. The returns of 1968 decedents had a mean value *significantly higher* than those for 1969 decedents, $467,000 compared to $389,100, but returns for decedents in years prior to 1968 were substantially *smaller* than returns for 1969 decedents. These patterns persist even when the values of the earlier returns are adjusted to constant 1969 dollars using the Consumer Price Index. What this suggests is that (a) returns for persons dying two years before the IRS filing year tend to be larger than the returns for persons

TABLE 14

NUMBER OF ESTATE TAX RETURNS FILED IN 1970 BY DATE OF DEATH AND VALUE OF NET WORTH

Year of Death	Number of Returns	Value of Net Worth	Mean Net Worth	Mean Net Worth in Constant 1969 Dollars	Mean Weight[1]
			thousands $		
1954	1	55	55.0	75.0	175
1955	0	0	0.0	0.0	0
1956	1	205	205.0	276.7	14
1957	2	142	71.0	92.5	19
1958	3	1,200	400.0	507.0	49
1959	5	739	147.8	185.9	154
1960	6	833	138.8	171.8	49
1961	7	922	131.7	161.4	93
1962	11	1.041	94.6	114.7	170
1963	16	3,359	209.9	251.4	62
1964	41	5,409	131.9	155.9	112
1965	64	6,413	100.2	116.4	104
1966	132	14,753	111.8	126.3	89
1967	350	50,700	144.9	159.1	83
1968	9,476	4,429,968	467.5	492.6	54
1969	28,873	11,233,123	389.1	389.1	47
1970	4,209	509,851	121.2	114.6	43
Total	43,196	$16,258,709			

[1]The figures shown here are the mean of the weights assigned when the wealth estimates were made.

dying in the year immediately preceding the filing year, i.e., the time period for which this and all prior U.S. estate multiplier estimates have been made; and (b) returns for persons dying more than two years before the filing year are not delayed by any complexity due to size, and, in fact, are smaller estates.

In order to verify whether there were any peculiarities in late-filed estates which would affect the weighting, mean weights were computed for each death year (last column, Table 14). They provided no disturbing signs.

There is another complication; about 10 percent of the returns filed in 1970 were for persons who died in 1970, one year *after* the estimation year. These returns tend to be considerably smaller than the returns for 1969 decedents, which indicates thay they may have been simpler estates to settle.

Although the diffusion of dates of death around the date of estimation is apparently less serious than once thought, this diffusion still exerts a bias toward understatement because of price level changes. A $100,000 estate in 1955, for instance, was worth more in real terms than a $100,000 estate in 1969.

In order to correct for changes in asset prices, a set of price indices was used to adjust assets of decedents dying in years other than 1969 to their 1969 value. This was a two-stage adjustment. The values were first set to point of death for estates using the post death valuation provision, and then these were adjusted to 1969 values. The results of this adjustment are shown in Table 15. The price indices are shown in the Appendix, Table 19.

TABLE 15

ASSETS OF THE SUPER RICH BEFORE AND AFTER ADJUSTMENTS FOR POST DEATH VALUATION AND YEAR OF FILING, 1969

Asset	Before Adjustment	After Adjustment	Change
		billions $	
Real estate	271.7	284.9	13.2
Corporate stock	403.7	434.0	30.3
State and local bonds	17.7	18.3	0.6
Corporate and foreign bonds	11.3	11.6	0.3
Savings bonds	13.8	14.0	0.2
Other federal bonds	19.3	20.3	1.0
Notes and mortgages	41.5	43.2	1.7
Cash	131.0	136.3	5.3
Lifetime transfers	75.1	78.7	3.6
Business assets	57.8	59.5	1.7
Other assets	73.1	75.8	2.7
Total assets	1,114.2	1,176.5	62.3
Debts	107.0	108.2	1.2
Net worth	1,007.1	1,068.3	61.2

VU478205.1

Underreporting

Data used in these estimates are from unaudited returns. The only evidence we have about the effect of audit on estate tax returns is by Harris.[15] He found that there was about a 10 percent upward adjustment of estate tax liability resulting from audit. To whatever extent returns understate the assets of filers, estimates of the living made from them will also be understated. It is quite possible that underreporting is not proportional to size of estate, and probably also varies with respect to asset type. It is hoped that further information about the influence of audit on asset values reported in tax returns can be developed. In the meantime Harris' early work is the only guide available, and it has been used as a final adjustment. (See Table 16.)

Lifetime Transfers

It will have been noted in the tables presented throughout this essay that an asset termed "lifetime transfers" frequently appears. This asset includes gifts in contemplation of death—any outright gift within three years of death is presumed to be in contemplation of death, but the presumption is subject to refutation by the estate. This asset also includes transfers made at any time without full compensation, or to which the decedent retained strings of ownership. In the case of outright gifts, the logic of the tax statute cannot be extended to conclude that the beneficiary of the gift does not have full legal claim to it. The law seeks only to tax the transfer at the estate tax rate rather than the gift tax rate. In the case of transfers which are not complete, i.e., with strings attached, the situation is

[15]C. Lowell Harris, "Wealth Estimates as Affected by Audit of Estate Tax Returns," *National Tax Journal*, December, 1949.

different. Here the tax statue appeals to property law to set aside the apparent ownership of an asset by a grantee, and to constructively revest it in the name of the grantor to the extent of the economic value of rights he has retained.

In the case of both a gift and an incomplete transfer, there is a probability that the recipient will predecease the grantor. Should this occur the outright gift would be taxed in the estate of the grantee, but that part of the value of a transfer represented by a restriction to the grantor would not be treated as a part of the grantee's estate. It would appear then that gifts should be removed from estimated wealth of the super rich because they have a probability of coming into the estimates in the estates of grantees. At this time we have no basis for a judgement as to the proportion of the total value of lifetime transfers which should be excluded, so one-half the value has been left in the estimates with the recognition that it is a crude adjustment.

Finally Adjusted Estimates—Profile of the Super Rich and Their Assets

In Table 16 we present our fully adjusted estimates of the wealth of the super rich and their share of the net worth of all persons in 1969. The estimates in Table 16 were made by starting with the "after adjustment assets" of the super rich shown in Table 15; then the following additional adjustments were made:

1. One-half the value of lifetime transfers was removed, on the assumption that the assets represented *complete* transfers which were listed in estates solely on tax grounds. The other half of the value of lifetime transfers,

TABLE 16

FINAL ADJUSTMENT: SHARES OF THE SUPER RICH IN NATIONAL WEALTH, 1969

Asset	The Super Rich	All Persons	Share Held by Super Rich
	billions $	billions $	%
Real estate	324.7	1,187,0	27.4
Corporate stock	494.8	781.3	63.3
State and local bonds	20.7	26.4	78.4
Corporate and foreign bonds	13.2	9.4	140.4
Savings bonds	15.8	51.1	30.9
Other federal bonds	23.1	31.1	74.3
Notes and mortgages	49.2	35.3	139.4
Cash	155.3	476.2	32.6
Business assets	67.8	171.6	39.5
Other assets	86.4	745.5	11.6
Total assets	1,251.0	3,514.8	35.6
Debts	107.5	424.6	25.2
Net worth	1,144.0	3,090.2	37.0

Notes: Starting with "After Adjustment" figures from Table 15, the following final adjustments were made here:

1. One-half of lifetime transfers have been excluded. The remaining lifetime transfers have been distributed proportionately by asset type.
2. All assets have been adjusted upward by 10 percent to correct for the bias induced by use of unaudited returns.

arbitrarily assumed to be constructively in the hands of the super rich, was distributed among the assets of the super rich. This distribution was made in the same proportion which the value of each transferred asset bore to total assets of the super rich (after one-half the value of lifetime transfers had been deducted from that total).

2. The value of each asset was increased by 10 percent to compensate for the negative bias induced by the use of unaudited returns, as explained earlier.
3. The new asset estimates were then compared to national balance sheet estimates for all persons to determine the share of the nation's personal wealth in the hands of the super rich.

On the basis of all the adjustments it is concluded that the super rich constituted 4 percent of the adult population in 1969. They owned over a quarter of the nation's real estate, three-fifths of all privately held corporate stock, four-fifths of the state and local bonds, two-fifths of the business assets (excluding business real estate), a third of the cash, and virtually all of the notes, mortgages and foreign and corporate bonds. Only in the case of miscellaneous assets—which include consumer durables—and the cash surrender value of annuities and life insurance contracts, was their share (12 percent) even close to the proportion of the adult population they represented. They owned 36 percent of private gross assets and 37 percent of the net worth of all persons.

After subtracting their debts, the super rich were worth over a trillion dollars, enough to have purchased the entire national output of the United States plus the combined output of Switzerland, Denmark, Norway, and Sweden in 1969.

APPENDIX

TABLE 17

NATIONAL BALANCE SHEET FOR INDIVIDUALS, ENDS OF YEARS 1968 AND 1969 AND MID-YEAR 1969[a]

Asset	End of year 1968	End of year 1969	Mid-year 1969
	billions $	billions $	billions $
Real Estate	1,141.1	1,232.9	1,187.0
Residential structures[b]	652.2	716.1	
Nonfarm	624.3	685.1	
1–4 units	567.9	620.0	
5 or more units	56.4	65.1	
Farm	21.6	23.0	
Mobile homes	6.3	8.0	
Nonresidential structures[c]	56.6	63.3	
Farm	17.4	18.3	
Noncorporate business structures	39.2	45.0	
Land	432.3	453.5	
Households	250.9	265.2	
Nonfarm, noncorporate business	29.0	30.5	
Farm, noncorporate	152.4	157.8	
Demand deposits and currency[d] } Cash	109.4	115.2	112.3
Savings accounts } Cash	356.9	370.8	363.9
Investment company shares[e]	68.6	62.9	65.8
Corporate stock[f]	757.0	674.0	715.5
Mortgages and notes[g]	34.3	36.2	35.3
State and local bonds[h]	24.3	28.5	26.4
Corporate and foreign bonds[i]	8.4	10.4	9.4
Life insurance reserves	120.0	125.0	122.5
Pension fund reserves	204.9	215.0	210.0
U.S. Government securities	76.4	87.9	82.2
Policy reserves of fraternal insurance companies	4.5	4.7	4.6
Security credit	3.5	2.6	3.1
Proprietor's equity less land—nonfarm business	137.9	121.9	129.9
Proprietor's equity less land—farm business	40.4	42.0	41.7
Miscellaneous assets	21.6	23.8	22.7
Consumer durables	235.7	258.0	246.9
Interests in personal trusts	138.4	132.7	135.6
Gross assets			3,514.8
Debts	410.0	439.1	424.6
Net worth			3,090.2

Source: See notes to this table.

Notes to Table 17

[a]The basic source of the data used in this balance sheet is a special tabulation provided by Helen Stone Tice of the Board of Governors of the Federal Reserve System. The entries shown in the table, unless otherwise noted, follow the designations used by the Federal Reserve Board and the National Bureau of Economic Research in Balance Sheets they have published. (See Raymond W. Goldsmith, *Studies in the National Balance Sheet of the United States*, Princeton University Press, 1963, for detailed descriptions of entries.)

[b]Values for residential structures are from Allen H. Young, John C. Musgrave and Claudia Harkins, "Residential Capital in thd United States, 1925–70," *Survey of Current Business*, November 1971.

[c]Helen Stone Tice, "Special Tabulation of Flow of Funds." Extension of work by Grace Milgram in Institutional Investors Study Report of the Securities Exchange Commission, Supplementary Volume I, Appendix II, House Document No. 92–64, Part 6, 92nd Cong., 1st Session, March 1971.

[d]The value of $115.2 billion in demand deposits shown for 1969 is an estimated value based upon incomplete data. The data available for 1969 and the methods of derivation are as follows:

	1968	1969
	billions $	
Demand deposits and currency of households based on flow of funds concepts	112.66	118.65
Less: Foundations	0.23	0.20
Colleges and universities	0.43	0.60
Labor unions	0.83	NA
Investment companies	0.23	NA
Fraternal insurance	0.03	0.27
Personal trusts	1.56	1.75
	109.35	115.16 (est.)

The two entries not available in 1969 amounted to less than 1 percent of the total of demand deposits and currency in 1968. In view of the minor importance of the missing pieces, we have estimated the 1969 holdings of individuals to be in the same proportion (97 percent) as the household sector was in 1968.

[e]Investment company shares were estimated from incomplete information. For 1968 the following was known:

	billions $
Investment company shares of households	
Plus: Additional investment company shares	15.9
Individual holdings	68.6

For 1969 only the investment company shares held by household sector, $48.3 billion, was known. It was assumed that the additional investment company shares would bear the same ratio to the household value in 1969 as in 1968. On this basis the additional investment company shares were estimated to be $14.6 billion.

[f]Corporate stock holdings for individuals for 1968 were as follows:

	1968
	billions $
Flow of funds shares of households	818.5
Plus: Additional corporate stock	74.5
Less: Foundations	17.5
Colleges and universities	8.1
Labor unions	0.5
Investment company shares	13.8
Fraternal insurance	0.3
Personal trusts	95.9
Individual holdings	757.0

For 1969 the values of the National Bureau of Economic Research series for other investment company shares and fraternal insurance company holdings were not available. The value of individually held corporate stock was estimated to be the same proportion of the flow-of-funds value for 1969 as it was of the flow-of-funds household estimates in 1968, that is, 93 percent.

[g]The mortgage asset data available for 1968 and 1969 was as follows:

	1968	1969
	billions $	
Flow of funds mortgage investment of households	38.5	40.6
Less: Colleges	0.3	0.3
Labor unions	0.2	NA
Additional investment companies	0.3	NA
Fraternal insurance	1.1	1.1
Personal trusts	2.1	2.2
Foundations	0.1	0.1
	34.3	36.2 (est)

The two entries missing in 1969 were for labor unions and additional investment companies. Together these entries accounted for only $0.5 billion of the $38.5 billion total mortgage investment in 1968. To estimate this asset in 1969, the ratio of individual to household holdings in 1968 (89 percent) was applied to the household holdings in 1969.

[h]Complete information on the distribution of state and local bonds within the household sector was unavailable for 1969. The balance sheet estimate for individuals was made by assuming the 1968 ratio of state and local bond holdings of individuals to holdings of households held for 1969. The data available at this time is as follows:

	1968	1969
	billions $	
Flow of funds household investment in state and local bonds	38.4	39.7
Less: Foundations	0.1	0.1
Additional investment companies	0.4	NA
Fraternal insurance companies	0.2	0.2
Personal trusts	13.4	11.0
	24.3	28.5 (est.)

[i]Balance sheet information for corporate and foreign bonds was incomplete for 1969, so estimates were constructed on the assumption that individuals in 1969 held the same proportion of the value of such securities in the household sector as in 1968. The 1968 and 1969 data are shown below:

	1968	1969
	billions $	
Flow of funds corporate and foreign bonds held by households	22.6	27.9
Plus: Additional corporate bonds	1.3	NA
Less: Foundations	2.1	1.8
Colleges and universities	1.7	1.8
Additional investment companies	0.9	NA
Personal trusts	8.7	8.7
Fraternal insurance	2.2	2.3
Individual holdings	8.4	10.4 (est.)

On this basis individual holdings of foreign and corporate bonds are estimated at $10.4 billion for 1969.

TABLE 18

ASSETS OF THE SUPER RICH BY SEX AND MARITAL STATUS, 1969, BASED ON WEIGHTS UNDIFFERENTIATED BY MARITAL STATUS

Asset	Number of Super Rich				Value of Assets			
	Married	Widowed	Divorced[a]	Single	Married	Widowed	Divorced[a]	Single
	Numbers in thousands				Amounts in billions $			
	Both Sexes							
Real estate	2,766	759	155	280	190.0	41.9	11.0	14.3
Corporate stock	2,409	697	170	355	258.6	74.4	18.4	40.4
State and local bonds	163	63	19	38	10.7	4.0	0.8	1.6
Corporate and foreign bonds	460	152	31	86	6.7	2·5	0.5	1.5
U.S. savings bonds	602	269	33	149	7.3	4.0	0.4	2.2
Other U.S. bonds	217	117	22	54	10.9	5.8	1.0	1.3
Notes and mortgages	990	333	84	103	26.9	8.7	3.0	2.2
Cash	2,874	971	201	463	72.9	36.0	5.0	15.8
Lifetime transfers	268	137	28	37	26.6	45.0	3.1	3.7
Annuities	230	61	12	46	3.5	0.8	0.1	0.6
Life insurance (CSV)	2,284	446	109	267	13.3	1.7	0.3	0.7
Miscellaneous assets	2,664	774	184	362	72.6	17.9	5.0	8.5
Total assets	3,153	1,011	216	496	697.9	242.7	48.5	92.8
Debts	2,255	665	180	324	79.9	9.9	6.3	4.7
Net worth	3,153	1,011	216	496	618.1	232.7	42.2	88.1

TABLE 18 (continued)

ASSETS OF THE SUPER RICH BY SEX AND MARITAL STATUS, 1969 BASED ON WEIGHTS UNDIFFERENTIATED BY MARTIAL STATUS

Asset	Number of Super Rich				Value of Assets			
	Married	Widowed	Divorced[a]	Single	Married	Widowed	Divorced[a]	Single
	Numbers in thousands				Amounts in billions $			
	Males							
Real estate	1,941	155	52	147	134.2	9.2	4.7	8.8
Corporate stock	1,642	131	54	174	169.7	14.0	7.2	16.6
State and local bonds	97	11	4	14	6.7	0.7	0.2	0.8
Corporate and foreign bonds	305	27	13	41	4.7	0.4	0.2	1.0
U.S. savings bonds	416	53	9	73	5.1	0.9	0.2	1.1
Other U.S. bonds	142	19	7	15	7.1	1.0	0.4	0.5
Notes and mortgages	734	62	26	56	20.5	1.6	1.2	1.5
Cash	2,000	190	67	235	50.6	6.9	2.0	8.2
Lifetime transfers	193	23	8	18	18.1	2.2	0.9	1.8
Annuities	201	11	7	17	3.2	0.1	0.1	0.2
Life insurance (CSV)	1,873	134	48	166	12.6	1.1	0.2	0.5
Miscellaneous assets	1,926	155	62	176	55.7	3.3	1.9	3.3
Total assets	2,155	198	73	246	486.9	41.5	19.1	44.3
Debts	1,624	132	61	156	59.1	2.8	3.8	3.5
Net worth	2,155	198	73	246	427.9	38.7	15.3	40.9

				Females				
Real estate	826	604	103	132	55.8	32.7	6.3	5.5
Corporate stock	769	566	115	181	88.9	60.4	11.2	23.8
State and local bonds	66	52	16	24	4.1	3.3	0.6	0.9
Corporate and foreign bonds	155	145	18	45	2.0	2.0	0.3	0.5
U.S. savings bonds	186	217	24	76	2.2	3.0	0.2	1.0
Other U.S. bonds	74	98	15	39	3.8	4.8	0.6	0.8
Notes and mortgages	256	271	58	47	6.4	7.1	1.8	0.7
Cash	876	780	134	228	22.4	29.0	3.0	7.6
Lifetime transfers	74	114	21	19	8.5	42.8	2.2	1.9
Annuities	29	50	6	28	0.3	0.7	0.1	0.4
Life insurance (CSV)	411	312	61	101	0.7	0.7	0.1	0.2
Miscellaneous assets	740	619	122	185	16.9	14.6	3.1	5.2
Total assets	1,000	813	142	250	211.8	201.2	29.4	48.4
Debts	632	533	119	167	20.8	7.1	2.5	1.2
Net worth	1,000	813	142	250	190.9	194.0	26.9	47.2

[a]Includes separated individuals.

VU368630, VU365100
JDS4

TABLE 19

PRICE INDICES USED TO ADJUST ASSETS IN ESTATES OF PERSONS DYING IN YEARS OTHER THAN 1969

1969 = 100

	Corporate Stock	Federal Bonds	Corporate Bonds	State and Local Bonds	Real Estate	Consumer Price Index[a]
1970	85.06	93.84	89.9	91.5	110.8	105.9
1969	100.00	100.00	100.0	100.0	100.0	100.0
1968	100.88	112.16	111.5	118.4	91.1	94.9
1967	93.69	118.70	119.4	127.2	86.2	91.1
1966	87.14	121.93	125.7	129.9	83.0	88.5
1965	90.12	129.88	137.1	140.0	79.9	86.1
1964	83.12	130.97	138.8	141.1	78.3	84.6
1963	71.41	133.84	141.3	140.9	76.7	83.5
1962	63.76	134.81	140.4	141.8	75.8	82.5
1961	67.73	132.56	139.0	136.5	74.9	81.6
1960	57.08	133.70	138.2	131.5	74.4	80.8
1959	58.65	132.56	138.7	127.5	72.8	79.5
1958	47.26	145.79	150.2	134.7	72.4	78.9
1957	45.36	144.58	147.9	133.9	70.4	76.8
1956	47.65	153.37	159.3	147.2	67.5	74.1
1955	41.38	158.78	167.0	155.8	66.5	73.0
1954	30.35	163.07	171.1	159.2	64.5	73.3
1953	25.28	153.88	163.7	151.5	63.5	72.9

[a]The Consumer Price Index was used to adjust the following assets: cash and other assets for which a specific price index is not shown in the above table.