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Volume Author/Editor: Robert J. Lampman

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## CHAPTER 7

### Determinants of Inequality of Wealth-Holding

IN THIS chapter an attempt is made to find the causes of changes in wealth distribution reported in Chapter 6.

#### *List of Determining Factors*

The many factors that determine the degree of inequality of wealth-holding at any one time may be grouped under the following headings: (1) inequality in the previous generation; (2) the transfer of wealth between and within generations; (3) differential rates of accumulation from income; and (4) differential changes in the prices of assets.

TABLE 101  
PERSONAL SECTOR WEALTH IN 1922 PRICES AND IN CURRENT PRICES, 1922-53  
(billion dollars)

<i>End of Year</i>	<i>Gross Estate, Total Wealth Variant</i>	
	1922 Prices	Current Prices
1922	347.8	347.8
1929	460.7	521.5
1939	461.3	426.6
1949	695.5	942.7
1953	821.3	1,237.6

SOURCE: Table 106, gross estate in cols. 1 and 3.

Estimates of personal wealth do not in themselves indicate how inequality is determined but they do give some rough clues to the general size of the last three of these factors. If we consider thirty years as a generation, then the difference in total personal wealth after a thirty-year span would represent the accumulation of a generation. In the period 1922-53, this total rose from \$348 billion to \$821 billion in 1922 prices (Table 101). Roughly two-fifths (that is, 348 divided by 821) of the property owned in 1953 may thus be said to have come into the hands of its current owners by transfer between generations in the form of bequest, gift, insurance proceeds, etc. The remaining three-fifths represents accumulation by the current generation.

However, it is interesting that price change is sufficient to mark out the turning points in the share. That is, the hypothetical share in column 3 shows the prolonged fall from 1929 to 1949 and the rise in share from 1922 to 1929 and again from 1949 to 1953. Applying the price change to the estate composition for each benchmark year (instead of holding to the 1922 composition as in column 3) indicates that the shifts in composition made by the top wealth-holders contributed to a slight fall in share.<sup>5</sup> Comparison of columns 4 and 1 of Table 107 indicates, however, that there is still a considerable fall in the actual share which is not explained by the price and composition changes.

### *Changes in Share of Savings of Top Wealth-Holders*

Could the actual fall in share of wealth be explained by a fall in the top wealth-holders' share of all current saving? On the basis of price and composition change, the share of wealth should have fallen over the 1929-49 period from 37 to 33 per cent. In actual fact, however, the share fell from 38 to 22 per cent. On the family basis, the share fell from 33 to 29 per cent over the longer 1922-53 period (Table 107, col. 2). The importance of the family measure is discussed in the section on transfer of wealth below.

Change in the price of assets, as discussed above, takes account of realized and unrealized capital gains. Some of these gains in turn arise out of corporate saving. Personal saving out of income, as discussed below, excludes the effects of change in the price of assets, but ideally should include saving in the form of consumer durables, since the latter are included in national balance sheets and estate tax wealth.

Aside from price change, the top group can maintain its share of wealth only if its saving is the same percentage of total personal saving as its original wealth was of total wealth. Thus, to maintain the 1922 share of 32 per cent, the top group had to account for at least 32 per cent of the saving. (The reader may wish to refer to Chart 36 in this connection. This is a purely mathematical relationship. There is no reason why this group should account for 32 per cent of the saving.) The particular question here is whether the top 1 per cent of wealth-holders has a smaller share of saving than the shares of wealth indi-

<sup>5</sup> In discussing composition change, it is relevant to note that the top group reduced its debt-to-asset ratio in 1945-53. In doing so, it reduced its share of personal sector liabilities (Table 97). Hence, one reason for the top group's loss of share was its decision to get out of debt, relatively speaking, while the rest of the population was adding to its assets by going into debt.

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cated in column 4 of Table 107. If they do have a smaller share, is it small enough to explain the complete drop in share of wealth over the full period?

*Digression on Relationships Between Wealth Inequality and Income Inequality*

Before estimating the shares of saving of top wealth-holders, let us digress to consider some of the relationships among saving, income inequality, and wealth inequality.

One determinant of inequality in wealth-holding is differential rates of accumulation out of income. If those who inherit no

TABLE 108  
HYPOTHETICAL DISTRIBUTION OF WEALTH AMONG ADULT MALES<sup>a</sup>

Age Group	Adult Male Population, 1953		Average Estate Size (dollars)	Total Aggregate Estate	
	Millions	Per Cent		Billion Dollars	Per Cent
85 and over	.3	0.6	65,000	19.5	1.7
80 to 85	.6	1.2	60,000	36.0	3.1
70 to 80	1.9	3.8	55,000	104.5	8.9
60 to 70	5.6	11.3	45,000	252.0	21.4
50 to 60	8.0	16.1	35,000	280.0	23.7
40 to 50	10.2	20.5	25,000	255.0	21.6
30 to 40	11.6	23.3	15,000	174.0	14.8
20 to 30	11.5	23.1	5,000	57.5	4.9
Total 20 and over	49.7	100.0	23,712	1,178.5	100.0

<sup>a</sup> Assuming that they all accumulate wealth at identical rate of \$1,000 per year (including interest) and that they all start with no estate at age 20.

wealth or small amounts of wealth accumulate wealth at a faster rate than those with large inheritances, accumulation may moderate the degree of inequality over time. The reverse would be the case, of course, if the rate of accumulation is higher for those who inherit relatively large amounts.

If there were no inheritance and the rate of accumulation among all adults were uniform, a moderate degree of inequality would obtain. Suppose that all males aged 0 to 19 had no wealth, but starting at age 20 each one accumulated property at the rate of \$1,000 (including interest) per year. Those reaching the age of 85 would have estates of \$65,000 and so on. Under these assumptions, the top estate owners, who would all be in the older age groups, would have a disproportion-

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By shifting over to current prices, the importance of price change can be seen. In 1922 prices total personal sector wealth changed by \$473 billion (from \$348 billion in 1922 to \$821 billion in 1953), but in current prices it changed by \$890 billion (from \$348 billion to \$1,238 billion). Therefore, \$417 billion of the latter rise was due to price change. Of the \$1,238 billion of personal wealth in 1953, \$348 billion (or 28 per cent) was accumulated by previous generations, \$473 billion (or 38 per cent) was accumulated by the current generation, and \$417 billion (or 34 per cent) arose out of price change during the lifetime of the current generation. This method of estimating overstates the relative importance of accumulation, as opposed to price change, since it does not isolate the effect of price change on the assets acquired out of money saved between 1922 and 1953. As noted before, these data do not give any indication of how the several factors influenced the degree of inequality of wealth-holding.

Relating these data to estate tax wealth estimates provides more insight into the inequality question. National balance sheet estimates and estate tax data are not fully adequate to determine the importance of the factors that contribute to changes in inequality. They do, however, furnish us with the basis for some rough estimates of the general direction of the effect of these factors. Such rough estimates may point up the needs and perhaps offer bases for further research by other methods into the causes of inequality.<sup>1</sup>

We begin with the observed finding of a general decline in inequality of wealth-holding from 1922 to 1953. The share of personal sector wealth of the top 1 per cent of adults fell from 32 to 25 per cent in this period (Table 102). The share of the top 2 per cent of families fell from 32 to 29 per cent in the same period. In order to discover what caused this fall in share, we shall study the effect of the following factors: (1) price change, (2) saving, and (3) changes in transfer of wealth.

<sup>1</sup> Further insight into the determinants of inequality requires a more sophisticated analysis than is employed here. Such an analysis might include representation of the population by a model in which the various types of families and individuals in the real world could be given an explicit role. The assumed behavior and interaction of these units over time could then be studied by simulation techniques. Before such a study can be carried out more data and more knowledge of the interrelationships among the many variables need to be developed. For instance, how does saving differ by age within estate size? How does receipt of a large inheritance alter patterns of saving and investment? What connection is there between wealth-ranking and extraordinary capital gains? What personal characteristics are associated with significant loss of rank in wealth-holding? Are the people who enjoy capital gains also the ones who save most? How much stability is there in the population of the top 1 per cent of wealth-holders?

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TABLE 102  
SELECTED DATA ON TOP ONE PER CENT OF ADULTS, 1922-53

Year	Numbers of Persons in Top 1 Per Cent (thousands) (1)	Percentage Share of Aggregate Gross Estate <sup>a</sup> Held by Top 1 Per Cent (2)	Average Gross Estate <sup>a</sup>	
			All Adults (3)	Top 1 Per Cent of Adults (dollars) (4)
1922	651	32	5,342	172,700
1929	744	38	7,009	264,200
1939	855	33	4,989	163,100
1945	929	26	7,777	200,600
1949	980	22	9,619	215,500
1953	1,030	25	11,968	303,900

<sup>a</sup> Total wealth variant.

*Price Change as a Determinant of Inequality<sup>2</sup>*

Let us think of change in the value of assets owned as a source of wealth distinct from either inheritance or accumulation out of current money income. (It should carefully be noted that we are assigning corporate saving to the "price change" effect rather than to the "saving" effect by this distinction.) Two kinds of change in value may be noted. One is particular or relative change and the other is general price change. Even in the absence of a general inflationary or deflationary movement in which most prices and incomes move in the same direction, there are, of course, many changes in the relative prices of individual pieces of property. Indeed, individual wealth items, other than liquid assets and insurance, are constantly fluctuating in money value. Land, a capital good, a security, a patent right, or other right to income has value only insofar as it has a prospective net yield, and its current value is the result of dividing that prospective net yield by the going rate of interest. Hence, when either the prospective net yield or the going rate of interest is altered, the market value of the wealth item is altered. Yields of property are affected either favorably or unfavorably by new discoveries of natural resources, changes in technique, in consumer preferences, in accessibility to markets, and other changes. Corporate stock may change in price because of corporate saving. Because of these changes, individual owners of property are likely to rise or fall in wealth-holder rank over the years.

<sup>2</sup>In this section, only the effects of price change upon inequality are considered. Some other effects of price change are discussed in Chapter 5 and in Appendix B.

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Change in the general price level as it affects broad types of property (e.g., all stocks) will also affect inequality of wealth-holding. In general, the major drift of price change in the years since the depression has been such as to favor investment in equities and to disadvantage investment in assets of constant dollar value or of fixed yield. If two persons in 1939 had gross estates of \$30,000, and one of them held all equities, such as real estate, stock, and interest in unincorporated business, while the other held liquid assets or debt claims, the one with equities would have been quite likely to rise into the \$60,000 and over class by 1953, while the one with no equities most assuredly would not.

Since the depression stock prices have more than tripled and real estate prices (as indicated by the composite construction cost index)<sup>3</sup> have risen almost as much (Table 67). Over the period since, 1935, the most dramatic short-period change occurred in stock prices from 1949 to 1956, with the greater part of this rise from 1954 to 1956. The real estate index shows a much more gradual rise over the whole period. Bonds show relatively little change. Cash and life insurance do not, of course, change in money value. Mortgages and notes, it may be assumed, move in the same way as bonds. (Lack of an organized market for such assets makes this assumption somewhat unreal.) Miscellaneous property includes a mixture of equity and debt ownership and is here assumed to move with the level of consumer prices.

Looking at the period before 1940, it appears that one of the most important changes among the price-sensitive assets was the long slide in real estate values from the early 1920's to the end of the 1930's. The radical rise and fall of stock prices around 1929 means that the selection of a set of beginning and terminal dates is critical to the result. However, in the period 1922-35 real estate values fell (particularly because of farm land prices) while stock prices rose, which suggests that the price change increased inequality. Also, in the long period of 1922-53 stock prices rose more than real estate prices.

Tables 103 and 104 show, in terms of the 1953 composition of estates, that price changes over most but not all of the period here considered have, in conjunction with typical difference of estate com-

<sup>3</sup> Apparently residential construction costs have risen somewhat more than costs of other types of construction (indexes of S. H. Boeckh and associates in *Construction Review*). Farm land prices show a movement generally parallel to that of construction costs (Alvin S. Tostlebe, *Capital in Agriculture: Its Formation and Financing since 1870*, Princeton for National Bureau of Economic Research, 1957, p. 60).

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position among estate sizes, increased inequality of wealth-holding. That is, the large estates have tended to appreciate more in size than the smaller estates. The same general set of relationships is illustrated in Table 105, which is based upon the 1922 composition of estates.

There is one respect in which the lower estate sizes have tended to gain through inflation at the expense of the higher estate sizes—and that is debt position. By having a larger debt-to-asset ratio—in other words, doing more “trading on the equity”—the former group tends to be better armed against inflation with debts which could be paid off in depreciated dollars. Within the top wealth-holder group there is no important difference in liabilities as a percentage of gross estate (Table 74). However, top wealth-holders have smaller debts, as a

TABLE 103  
PERCENTAGE CHANGES IN MONEY VALUE OF TYPICAL 1953 ESTATES OF SELECTED SIZES,  
1922-56

1953 Estate Size (dollars)	1922-56	1922-29	1929-35	1922-35	1935-56	1935-46	1946-53	1953-56
7,960	+53.5	- 1.9	-12.4	-14.1	+78.7	+33.8	+28.0	+ 3.4
65,000	+73.9	+12.1	-30.4	-22.0	+123.0	+43.3	+30.0	+20.5
250,000	+130.3	+39.1	-33.8	- 7.9	+150.1	+45.7	+29.3	+32.7
1,500,000	+206.7	+82.6	-41.5	+ 6.8	+187.2	+49.5	+25.7	+52.7
Aggregate gross estate of top wealth-holders \$292.8 billion	+146.7	+49.4	-34.6	-2.3	+152.4	+45.7	+27.0	+36.4

SOURCE: Table 104.

proportion of their gross estate, than the rest of the population. For both groups there is a strong association of younger age and high ratios of debt to net worth. While the top wealth-holders' debt-to-asset ratio is 9 per cent, that of the rest of the population is 12 per cent (Table 63). This means that differential gain through decline in value of debts would offset very little the general trend of greater gain for the higher estate sizes.

It is clear from the above discussion that prices moved from 1922 to 1953 in such a way as to increase inequality. One way to quantify the importance of that effect is to deflate, using 1922 as the base year, the holdings of the top 1 per cent of wealth-holders and of the whole personal sector in each succeeding year for which we have share estimates. In this way, we find that the share on a deflated basis is less than on a current dollar basis in each benchmark year after 1922 (Chart 36 and Table 106). At the end of the series in 1953, the share



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## TABLE 104

CHANGES IN MONEY VALUE OF TYPICAL 1953 ESTATES OF SELECTED SIZES  
FROM APPLICATION OF ASSET PRICES OF SELECTED YEARS  
(dollars)

	<i>Asset Prices of Years Shown</i>							
	1922	1925	1929	1935	1940	1946	1953	1956
	\$65,000 ESTATE, 1953 COMPOSITION							
Real estate	12,861	12,091	10,837	8,635	9,784	15,205	23,465	25,222
U.S. bonds	4,614	4,859	5,006	4,210	4,790	4,893	4,485	4,405
State and local bonds	45	54	52	59	67	76	65	63
Other bonds	694	717	723	856	944	1,002	910	886
Stock	4,422	5,861	13,684	5,701	6,059	9,623	13,000	24,500
Other assets	20,402	20,782	20,174	15,665	15,881	19,473	23,075	23,261
<b>Total</b>	<b>45,038</b>	<b>44,364</b>	<b>50,476</b>	<b>35,126</b>	<b>37,525</b>	<b>50,272</b>	<b>65,000</b>	<b>78,337</b>
	\$250,000 ESTATE, 1953 COMPOSITION							
Real estate	36,160	33,984	30,397	24,288	27,522	42,768	66,000	70,943
U.S. bonds	12,345	13,001	13,393	11,264	12,817	13,091	12,000	11,786
State and local bonds	1,223	1,444	1,411	1,588	1,806	2,049	1,750	1,700
Other bonds	2,098	2,167	2,186	2,587	2,853	3,028	2,750	2,677
Stock	29,422	38,999	91,053	37,939	40,318	64,027	86,500	163,018
Other assets	62,832	64,311	61,944	54,990	55,747	68,354	81,000	81,653
<b>Total</b>	<b>144,080</b>	<b>153,906</b>	<b>200,384</b>	<b>132,656</b>	<b>141,063</b>	<b>193,317</b>	<b>250,000</b>	<b>331,777</b>
	\$1,500,000 ESTATE, 1953 COMPOSITION							
Real estate	83,150	78,299	70,021	55,752	63,176	98,172	151,500	162,847
U.S. bonds	44,753	47,129	48,549	40,833	45,462	47,454	43,500	42,726
State and local bonds	72,327	85,396	83,468	93,916	106,812	121,198	103,500	100,530
Other bonds	11,442	11,820	11,924	14,114	15,561	16,520	15,000	14,601
Stock	300,510	398,332	930,000	387,503	411,799	653,967	883,500	1,665,044
Other assets	234,963	240,501	231,638	205,703	208,534	255,696	303,000	305,443
<b>Total</b>	<b>747,145</b>	<b>861,477</b>	<b>1,364,600</b>	<b>797,821</b>	<b>852,344</b>	<b>1,193,007</b>	<b>1,500,000</b>	<b>2,291,191</b>
	AGGREGATE GROSS ESTATE OF TOP WEALTH-HOLDERS, 1953 COMPOSITION (BILLION DOLLARS)							
Real estate	32,693	31,762	29,395	24,149	27,365	42,524	65,623	70,538
U.S. bonds	16,830	17,724	18,258	15,356	17,473	17,846	16,359	16,068
State and local bonds	7,157	8,450	8,260	9,294	10,570	11,993	10,242	9,948
Other bonds	2,172	2,244	2,264	2,680	2,954	3,136	2,848	2,772
Stock	39,031	51,736	120,789	50,329	53,485	84,938	114,750	216,258
Other assets	63,937	65,813	62,776	56,341	57,116	70,034	82,990	83,659
<b>Total</b>	<b>161,820</b>	<b>177,729</b>	<b>241,742</b>	<b>158,149</b>	<b>168,963</b>	<b>230,471</b>	<b>292,803<sup>a</sup></b>	<b>399,243</b>
	AVERAGE OF NON-TOP-WEALTH-HOLDERS (ESTATE SIZE, \$7,960, 1953 COMPOSITION)							
Real estate	1,900	1,771	1,639	1,325	1,502	2,397	3,660	3,716
U.S. bonds	360	379	391	371	400	391	350	347
State and local bonds								
Other bonds								
Stock	71	95	232	90	94	145	210	396
Other assets	3,033	3,091	2,999	2,821	2,841	3,229	3,740	3,773
<b>Total</b>	<b>5,364</b>	<b>5,336</b>	<b>5,261</b>	<b>4,607</b>	<b>4,837</b>	<b>6,162</b>	<b>7,960</b>	<b>8,232</b>

<sup>a</sup> Not adjusted to account for those returns with no age specified.

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TABLE 105  
EFFECTS OF PRICE CHANGE UPON 1922 ESTATES OF TWO SIZES, 1922-53

Year	<i>Average Estate for All Adults in 1922</i>		<i>Average Estate for Top 1 Per Cent of Adults in 1922</i>	
	Dollars	Index	Dollars	Index
1922	5,342	100	172,700	100
1929	6,784	127	284,955	165
1933	4,594	86	160,511	93
1939	5,182	97	224,510	130
1945	6,464	121	267,685	155
1949	7,746	145	295,317	171
1953	8,501	161	376,486	218

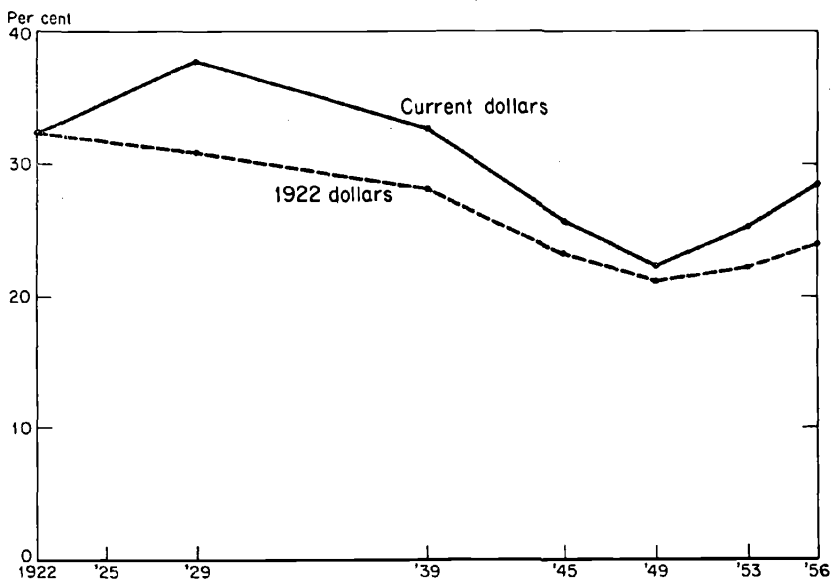
PERCENTAGE CHANGE IN MONEY VALUE OF ESTATE

1922-53	+61	+118
1929-53	+25	+ 32
1933-53	+84	+133
1939-53	+63	+ 67
1945-53	+31	+ 41
1949-53	+10	+ 27
1922-33	-14	- 8
1929-33	-33	- 44
1929-49	+14	+ 3
1933-49	+68	+ 83

SOURCE: Derived from Table 106.

CHART 36

Share of Wealth Held by Top One Per Cent of Adults, in Current Dollars  
and in 1922 Dollars, 1922-56



SOURCE: Table 106, cols. 4 and 6, except for 1956, which was estimated from incomplete data.

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TABLE 106

CALCULATION OF SHARE OF WEALTH<sup>a</sup> HELD BY TOP ONE PER CENT OF ADULTS  
WITH EACH ASSET TYPE REDUCED TO 1922 PRICES

	Personal Sector Wealth (bill. dollars)	Asset Price Indexes (2)	Personal Sector Wealth in 1922 Prices (bill. dollars)	Share of Personal Wealth Held by Top 1 % (per cent)	Wealth of Top 1 % in 1922 Dollars (bill. dollars)	Share of Per- sonal Wealth Held by Top 1 % in 1922 Dollars (per cent)
	(1)	(2)	(3)	(4)	(5)	(6)
1922						
Real estate	143.0	100.0				
Structures	76.5	100.0				
Land <sup>b</sup>	66.5	100.0				
U.S. govt. bonds	11.0	100.0				
State and local bonds	4.8	100.0				
Corporate bonds	14.5	100.0				
Corporate stock	54.5	100.0				
Cash and mortgages	53.4	100.0				
Cash	41.0					
Mortgages	12.4					
Pension funds	.3	100.0				
Insurance	8.7	100.0				
Misc. property	57.7	100.0				
Gross estate	347.8	100.0	347.8	32.3	112.3	32.3
Liabilities	51.2	100.0		23.8		
Economic estate	296.6	100.0		33.9		
1929						
Real estate	184.4					
Structure	108.4	114.03	95.1	17.3	16.45	
Land <sup>b</sup>	76.0	61.04	124.6	17.3	21.56	
U.S. govt. bonds	5.0	108.48	4.6	100.0	4.6	
State and local bonds	7.4	99.58	7.4	100.0	7.4	
Corporate bonds	22.1	104.21	21.2	82.0	13.38	
Corporate stock	136.6	309.37	44.15	65.6	28.96	
Cash and mortgages	67.9			34.0		
Cash	50.1		50.1		17.03	
Mortgages	17.8	104.21	17.1		5.81	
Pension funds	2.0		2.0	.08	.16	
Insurance	17.6		17.6	.27	4.75	
Misc. property	78.6	102.37	76.8	29.0	22.27	
Gross estate	521.5		460.65	37.7	142.37	30.9
Liabilities	79.7			29.0		
Economic estate	441.8			38.8		

(continued)

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TABLE 106 (continued)

	Personal Sector Wealth (bill. dollars) (1)	Asset Price Indexes (2)	Personal Sector Wealth in 1922 Prices (bill. dollars) (3)	Share of Personal Wealth Held by Top 1% (per cent) (4)	Wealth of Top 1% in 1922 Dollars (bill. dollars) (5)	Share of Per- sonal Wealth Held by Top 1% in 1922 Dollars (per cent) (6)
1939						
Real estate	156.2					
Structures	102.6	111.75	91.84	13.7	12.58	
Land	53.6	45.54	117.7	13.7	16.12	
U.S. govt. bonds	8.9	108.9	8.2	91.0	7.5	
State and local bonds	7.9	122.81	6.4	100.0	6.4	
Corporate bonds	14.5	134.15	10.8	75.5	8.15	
Corporate stock	71.4	143.39	49.8	69.0	34.36	
Cash and mortgages	70.5			31.5		
Cash	57.1		57.1		17.99	
Mortgages	13.4	134.15	9.9		3.12	
Pension funds	7.2		7.2	6.0	4.32	
Insurance	29.2		29.2	17.4	5.08	
Misc. property	60.7	82.96	73.2	19.0	13.91	
Gross estate	426.6		461.31	32.7	129.53	28.1
Liabilities	57.9			26.5		
Economic estate	368.7			33.8		
1945						
Real estate	232.5					
Structures	148.8	160.67	92.6	11.1	10.28	
Land	83.7	70.42	118.9	11.1	13.20	
U.S. govt. bonds	62.4	144.22	43.9	32.5	14.27	
State and local bonds	9.5	144.06	6.6	100.0	6.60	
Corporate bonds	9.5	105.58	9.0	78.5	7.07	
Corporate stock	109.0	180.17	60.5	61.7	37.33	
Cash and mortgages						
Cash	116.8		16.8	17.0	19.86	
Mortgages	17.3	105.58	16.39	34.7	6.34	
Pension funds	28.3		28.3	5.9	1.67	
Insurance	44.8		44.8	17.3	7.75	
Misc. property	92.4	107.39	86.04	21.4	21.24	
Gross estate	722.5		623.83	25.8	145.61	23.3
Liabilities	50.7			27.0		
Economic estate	671.8			25.7		

(continued)

INEQUALITY OF WEALTH-HOLDING

TABLE 106 (concluded)

	Personal Sector Wealth (bill. dollars)	Asset Price Indexes	Personal Sector Wealth in 1922 Prices (bill. dollars)	Share of Personal Wealth Held by Top 1% (per cent)	Wealth of Top 1% in 1922 Dollars (bill. dollars)	Share of Personal Wealth Held by Top 1% in 1922 Dollars (per cent)
	(1)	(2)	(3)	(4)	(5)	(6)
1949						
Real estate	336.3					
Structures	241.7	232.46	103.75	10.5	10.89	
Land	94.6	91.08	103.87	10.5	10.91	
U.S. govt. bonds	64.4	141.52	45.51	35.8	16.29	
State and local bonds	11.5	133.02	8.65	77.0	6.66	
Corporate bonds	6.6	106.31	6.20	78.0	4.84	
Corporate stock	106.4	181.08	58.76	64.9	38.4	
Cash and mortgages						
Cash	130.6		130.60	18.9	24.68	
Mortgages	22.9	106.31	21.54	32.0	6.89	
Pension funds	44.4		44.40	5.5	2.44	
Insurance	60.0		60.00	15.0	9.00	
Misc. property	159.6	142.17	112.26	15.0	16.84	
Gross estate	942.7		695.54	22.4	147.58	21.2
Liabilities	87.7			19.0		
Economic estate	855.0			22.8		
1953						
Real estate	444.6					
Structure	324.6	276.18	124.05	17.5	15.51	
Land	120.0	110.34	108.75	12.5	13.59	
U.S. govt. bonds	60.4	131.11	46.07	31.8	14.65	
State and local bonds	16.0	143.10	11.18	100.0	11.18	
Corporate bonds	6.1	97.2	6.28	77.5	4.87	
Corporate stock	155.7	294.03	52.95	76.0	40.24	
Cash and mortgages						
Cash	160.0		160.00	24.5	39.20	
Mortgages	31.2	97.2	32.10	30.5	9.79	
Pension funds	63.5		63.50	5.5	3.49	
Insurance	78.2		78.20	11.5	8.99	
Misc. property	220.8	159.77	138.20	15.5	21.42	
Gross estate	1,237.6		821.28	25.3	182.93	22.3
Liabilities	132.8			20.0		
Economic estate	1,104.8			27.4		

SOURCE: Col. 1: Table 90 and accompanying appendix tables; col. 2: Table 67; col. 3: col. 1 ÷ col. 2; col. 4: Table 97; col. 5: col. 4 times col. 3; col. 6: col. 5 ÷ col. 3.

<sup>a</sup> Total wealth variant.

<sup>b</sup> The index used for all land is that for farm land. This yields an improbable change in the value of land in the personal sector in the period 1922-29. 1922 was a near-peak year in the price of farm land and it is probable that nonfarm land had a different history. Slightly different results in the share of gross estate shown in col. 5 would follow from use of a different price index for land.

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of the top 1 per cent of adults was 22 per cent on a deflated basis and 25 per cent on a current basis. This would suggest that the price effect was operating over the period to increase the share of the top group by 3 percentage points. The converging of the current and constant dollar lines in Chart 36 indicates, however, that for 1929-49 price change was working to moderate inequality.

We gain more insight into the importance of price change by disregarding all other change. We take the actual holdings of all persons

TABLE 107  
ACTUAL AND HYPOTHETICAL SHARES OF TOP WEALTH-HOLDER GROUPS  
IN PERSONAL SECTOR GROSS ESTATE,<sup>a</sup> 1922-53  
(per cent)

<i>Actual Shares of</i>		<i>Hypothetical Shares of Top 1% of Adults</i>				<i>Changes Listed in</i>
Top 1% of Adults (1)	Top 2% of Families (2)	Adding Only Price Change to 1922 Holdings (3)	Varying Price and Composition (4)	Varying Price, Composition, and Share of Saving <sup>b</sup> (5)	Col. 5 plus Changes in Transfer of Wealth <sup>c</sup> (6)	
1922	32	33	32	32	32	
1929	38	—	40	37	38	
1933	30	—	35	—	—	
1939	33	—	37	36	36	
1945	26	—	36	35	30	
1949	22	—	33	33	27	
1953	25	29	38	37	28	

<sup>a</sup> Total wealth variant.

<sup>b</sup> Assuming top group accounted for 44 per cent of all personal saving in 1922-29, 10 per cent in 1930-49, and 15 per cent in 1950-53. These estimates are explained later (see pp. 234 ff).

<sup>c</sup> Derivation is explained later (see pp. 237 ff).

and of the top 1 per cent in 1922 and adjust each type of asset for price change. This method assumes no saving and no change in composition.<sup>4</sup> The results of this calculation are shown in column 3 of Table 107. They indicate that, on the basis of price change alone, it is not possible to explain fully the actual loss of the top wealth-holders.

<sup>4</sup> The reader should be alerted to the gross crudity of this method, which takes the 1922 population forward through time, assuming that nothing changes but the price of their assets. In fact, of course, some people die, others are born, some rise into the top 1 per cent ranking, and others fall out of it over time. This method makes no allowance for the great variations within either the top 1 per cent or the lower 99 per cent in type of assets held. Also the simple assumption is made that a single price index for one asset, e.g., corporate stock, can be applied to that asset for wealth-holders at all wealth levels without regard for any other characteristics. Some alternatives to this general method are mentioned in footnote 1.

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ate share of the wealth. The top 1.8 per cent of adult males would have 4.8 per cent of the wealth (Table 108).

However, people accumulate wealth at very different rates, some saving large amounts each year and some dissaving, or decumulating wealth. The causes for these differences are manifold and include such incalculables as individual attitudes toward saving, and motivation and ability to systematically control household and business accounts

TABLE 109  
COMPARISON OF DISTRIBUTION OF MONEY INCOME AND NET  
WORTH AMONG SPENDING UNITS, 1952-53

Per Cent of Spending Units Ranked by Income	Per Cent of Money Income in 1952 Before Taxes
Lowest 11	1
14	5
16	10
18	15
15	16
17	25
Highest 9	28
100	100

Per Cent of Spending Units Ranked by Net Worth	Per Cent of Net Worth in 1953
Lowest 31	1
23	5
35	34
11	60
100	100

SOURCE: 1953 Survey of Consumer Finances, reprinted from *Federal Reserve Bulletin*, 1953, Supplementary Table 5, p. 11.

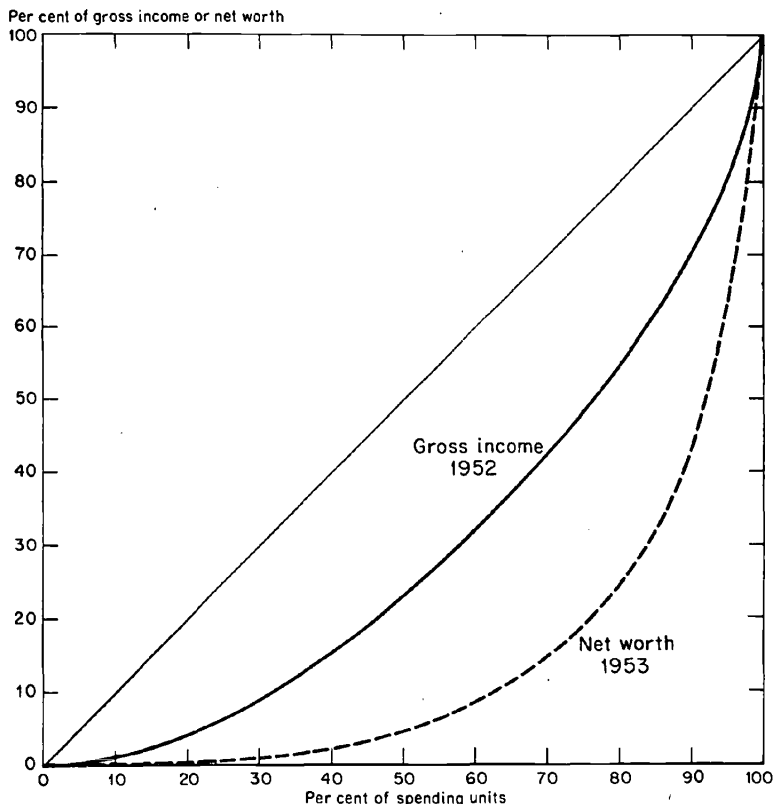
toward the end of estate building. Aside from these individual differences, there are broad socio-economic characteristics which are useful in marking off the groups which have relatively high rates of saving. One such characteristic is income, which is a major determinant of saving rates. In all postwar years the top decile of spending units, ranked by income, has accounted for about three-fourths of the saving and the top four deciles for 100 per cent of the positive saving. (If we assume in Table 108 that throughout their lifetime one-half the males save at the rate of \$2,000 per year and the other half do not save at all, then the degree of inequality would be considerably higher than in the previous example, with the top 0.9 per cent of adult males

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having 4.8 per cent of the wealth and the top 2.8 per cent having 13.7 per cent.)

Hence, it seems that the degree of income inequality is an important factor in differential rates of accumulation and hence in the degree of wealth inequality. All other things remaining the same, one

CHART 37  
Lorenz Curves of Total Money Income and Net Worth Among  
Spending Units Ranked by Income and Net Worth



Source: Table 109.

would expect a lesser inequality of income to lead to a lesser inequality of wealth.

In this connection, it is of interest to compare inequality of wealth-holding with inequality of income. Perhaps the most sensible way to compare the two is to consider wealth distribution by itself and income distribution by itself. When this is done, as in Table 109, it is quite clear that wealth is more unequally distributed than income (Chart 37).



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The selection of the basis for ranking makes a difference. When spending units are ranked by net worth, wealth is more unequally distributed than income. (This particular finding is most relevant to the problem at hand.) The top 11 per cent of spending units ranked by net worth had only 24 per cent of the total income in 1953, but they had 60 per cent of total net worth. When spending units are ranked by income, however, the top 9 per cent are found to receive 28 per

TABLE 110  
DISTRIBUTION OF INCOME AMONG ALL PERSONS, 1951

<i>Total Money Income in 1951</i>	<i>Population</i>		<i>Aggregate Income</i>	
	Thousands (1)	Per Cent (2)	Million Dollars (3)	Per Cent (4)
Loss	287	0.2	—	0.0
No income	79,786	52.7	—	0.0
\$1 to \$500	11,553	7.6	2,888	1.8
\$500 to \$1,000	8,968	5.9	6,726	3.7
\$1,000 to \$1,500	5,955	3.9	7,444	4.1
\$1,500 to \$2,000	6,314	4.2	11,050	6.0
\$2,000 to \$2,500	7,246	4.8	16,304	8.9
\$2,500 to \$3,000	6,385	4.2	17,559	9.6
\$3,000 to \$3,500	6,959	4.6	22,617	12.3
\$3,500 to \$4,000	5,309	3.5	19,909	10.8
\$4,000 to \$4,500	3,946	2.6	16,771	9.1
\$4,500 to \$5,000	2,296	1.5	10,906	5.9
\$5,000 to \$6,000	3,013	2.0	16,572	9.0
\$6,000 to \$7,000	1,363	0.9	8,860	4.8
\$7,000 to \$10,000	1,220	0.8	9,150	5.0
\$10,000 to \$15,000	502	0.3	6,275	3.4
\$15,000 and over	430	0.3	10,750	5.8
Total	151,532	100.0	183,781	100.0

SOURCE: Cols. 1 and 2 from Herman P. Miller, *Income of the American People*, New York, 1955; col. 3 computed by multiplying midpoints of income range times col. 1, \$25,000 assumed to be the average for the top income group.

cent of total money income and to hold 39 per cent of total net worth. It is also interesting to note that on this ranking by income the lowest 25 per cent have only 6 per cent of the income, but hold 14 per cent of the net worth.<sup>6</sup> This means that the Lorenz curves of wealth and income would cross above the middle decile when the two distributions are made with a ranking of spending units by income.

<sup>6</sup> 1953 Survey of Consumer Finances, reprinted from *Federal Reserve Bulletin*, 1953, Supplementary Table 5, p. 11. The cross rankings of income by net worth are not reproduced in the text but may be found in the 1953 Survey of Consumer Finances.

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In the study of top wealth-holders, the unit for ranking is necessarily the individual and, hence, to have a direct basis for comparing our fragmentary data on wealth distribution with the distribution of income, we should have a distribution of income among all the individuals in the population. We have fashioned such a distribution in Table 110, which shows that over half the people in 1951 received no income and the lower three-fourths of the population received only 15.6 per cent of all income, while the top 1.4 per cent received 14.2 per cent of all income. The latter figures may be compared with the finding that the top 1.04 per cent of all persons in 1953 held 28.5 per cent of basic variant wealth. It is apparent, then, that on this basis wealth is more unequally distributed than income.

### *Estimate of Share of Saving of Top Wealth-Holders<sup>7</sup>*

In 1950 the Survey of Consumer Finances indicated that the top 3 per cent of spending units (those with \$60,000 and over of total assets), ranked by total assets, were responsible for about 15 per cent of all saving.<sup>8</sup> The top 3 per cent of spending units is a somewhat larger group than the top 1 per cent of adults referred to in Table 107, but

<sup>7</sup> A review of the literature reveals that understanding of who saves is widely recognized as a major gap in our knowledge. Thus Kuznets writes in *Shares of Upper Income Groups in Income and Savings* (New York, NBER, 1953, p. 173): "The data do not yield adequate annual estimates of even total savings of individuals, let alone savings of upper separately from those of lower income groups." Instead of giving share of savings by top groups, he merely ranked the years, saying, "we used ranks instead of the actual ratios because lack of confidence in the series on individuals' total savings made the ratios suspect" (*ibid.*, p. 178, footnote 1).

Similarly, Goldsmith observes that "one of the most serious gaps in our knowledge of the structural changes in the savings of households is the absence of information extending over long periods about the distribution of saving among saver groups of different income and wealth levels, different occupations, different ages, and other characteristics" (*A Study of Saving in the United States*, I, Princeton, 1956, p. 161). He does suggest that "the time series point to a decline in the share of upper income groups in savings due largely to an increase in the share of saving through consumer durables and through pension and retirement funds, most of which is attributable to the lower income groups, and part of which is voluntary" (*ibid.*, p. 162).

Irwin Friend and Stanley Schor conclude that "given the margin of error in the historical data on saving obtained from consumer surveys, little can be said with any certainty about the trends in the proportion of saving accounted for by the upper income groups. There is some reason to believe that this proportion has declined secularly in view of the evidence of a long-term decline in the income share of upper income groups" ("Who Saves?" in *The Review of Economics and Statistics*, May 1959, pp. 238-239).

<sup>8</sup> Appendix Table A-15.

it would seem to be a fair estimate that the latter group accounted for about 15 per cent of all saving. Unfortunately, there are no similar data available on what this share was for earlier years.

There are some historical data on the share of savings of the top percentiles of income recipients. We have referred in Chapter 6 to the findings of Kuznets that income inequality declined over the period here under study. Kuznets does not make firm estimates of the share of saving of the top 1 per cent of income recipients. He does, however, provide the basis for a rough estimate assuming a constant savings-income ratio. Our estimates derived from this (Table 111) show a countercyclical change in the share of saving of the top income recipients and a long secular decline in that share. It is thus estimated that the share was 44 per cent in 1922-29, 115 per cent in 1930-39, 11 per cent in 1941-45, and 19 per cent in 1946-49.

But what is the connection between the top 1 per cent of income recipients and the top 1 per cent of wealth-holders? It would appear from inspection of Survey of Consumer Finances data that more than one-half of the top 1 per cent of income-receiving units have \$60,000 or more in assets and that about one-half of those units with \$60,000 in assets would have enough income to place them in the top 1 per cent of the income distribution in recent years. Thus we might deduce that the top wealth-holders would account for more than one-half of the saving of the top 1 per cent of income recipients. This assumes not merely a random association but a positive association between income and wealth in the top ranges. The share of saving of the top 3 per cent of spending units (roughly the same as the top 1 per cent of adults) was, we have already noted, 15 per cent in 1950. This checks closely with the estimate for 1946-48, which we get from Table 111. This gives us some basis for switching over to using the whole series of savings estimates in the latter table. However, it is doubtful that the overlap between the top wealth-holders and the top income recipients has always been the same as it was in 1950. This doubt arises from a series that shows what share of all property income has been received by upper income groups. Property income is, of course, a reflection of wealth-holding and hence deserves our interest. In 1948 the top 1 per cent of income recipients got about one-fourth of all property income, and property income was about one-third of the income of this group. The overlap indicated by these data would appear to have declined over the years, with a fall from one-half to one-third in the

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TABLE 111

CALCULATION OF SHARE OF SAVING OF TOP ONE PER CENT OF INCOME RECIPIENTS, 1922-48

Year	Personal Disposable Income (mill. doll.) (1)	Share of Income Going to Top 1% (per cent) (2)	Income of Top 1% of Income Recipients (mill. doll.) (3)	Savings of Top 1% of Income Recipients (mill. doll.) (4)	Total Personal Saving (mill. doll.) (5)	Total Personal Saving Less Consumer Durables Saving (mill. doll.) (6)	Share of	Share of
							Col. 5 Saving of Top 1% of Income Recipients (per cent) (7)	Col. 6 Saving of Top 1% of Income Recipients (per cent) (8)
1922	58,719	12.3	7,220	3,090	6,300	5,400	49	57
1923	68,138	11.6	7,900	3,330	9,880	7,300	34	45
1924	72,737	12.1	8,800	3,740	8,620	6,820	43	55
1925	75,510	12.9	9,700	4,160	10,740	8,110	39	51
1926	75,736	13.1	9,920	4,260	10,100	7,400	42	57
1927	77,474	13.5	10,450	4,510	10,070	8,390	45	53
1928	81,311	13.7	11,140	4,820	6,010	4,350	80	109
1929	81,156	13.6	11,040	4,780	11,490	9,540	42	50
1930	72,275	13.6	9,830	4,210	5,620	6,280	75	66
1931	61,249	13.0	7,960	3,410	+2,470	3,570		94
1932	45,982	12.7	5,840	2,490	-3,270	-1,170		
1933	44,330	11.8	5,230	2,210	-3,800	-2,310		
1934	54,272	11.6	6,290	2,640	-950	-290		
1935	56,807	11.1	6,310	2,640	2,350	1,790		
1936	64,709	11.6	7,510	3,190	5,280	3,510	60	91
1937	70,267	11.5	8,080	3,410	7,320	5,360	46	63
1938	64,905	10.5	6,820	2,820	3,720	3,580	76	78
1939	69,345	10.8	7,490	3,120	6,850	5,500	46	56
1940	74,392	10.4	7,740	3,210	8,540	6,310	38	51
1941	89,408	9.0	8,050	3,320	13,970	10,890	24	30
1942	110,676	7.1	7,860	3,130	33,240	31,930	9	10
1943	128,513	5.5	7,070	2,760	36,170	34,660	8	8
1944	142,878	5.7	8,140	3,090	39,300	37,640	8	8
1945	146,778	5.7	8,360	3,210	34,410	33,660	9	9
1946	158,055	6.0	9,480	3,790	22,530	16,130	17	24
1947	172,623	5.9	10,180	4,070	20,190	11,110	20	37
1948	189,617	6.3	11,950	4,780	26,720	16,190	18	29

SOURCE: Col. 1: Total income receipts (Kuznets, *Shares of Upper Income Groups*, p. 571, Table 114, col. 11) plus imputed rent (*ibid.*, p. 578, Table 115, col. 6) minus federal income taxes (*ibid.*, p. 578, Table 115, col. 7); col. 2: *ibid.*, p. 596, Table 118, col. 4; col. 3: col. 1 times col. 2; col. 4: col. 3 times savings-income ratio (*ibid.*, p. 176, Table 47, col. 2); col. 5: Goldsmith, *Saving in U.S.*, I, p. 353; col. 6: Goldsmith, *Saving in U.S.*, I; col. 7: col. 4 divided by col. 5; col. 8: col. 4 divided by col. 6.

NOTE: There are several difficulties in this table involving the concept of saving. As mentioned in the text, the ideal concept for our purposes is the one that includes consumer durables. However, the estimate of savings done by the top income recipients in col. 4 excludes consumer durables, as does the estimate of total personal savings in col. 6. Hence the percentages in col. 8 exclude consumer durable saving and are doubtless

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latter ratio from the 1920's to the 1950's.<sup>9</sup> One might suspect that the break in the relationship occurred with the depression.

Working from this fragmentary information, we suggest that plausible estimates (and here we are leaning toward the greatest possible drop in share) for the share of saving of the top 1 per cent of wealth-holders would be 44 per cent in the 1920's, 10 per cent in the depression and war periods, and 15 per cent in 1949-53. Applying these estimates to the share of wealth which would be held by the top group on the basis of price and composition changes<sup>10</sup> yields the interesting finding that such a drastic change in assumed savings patterns would not be enough to explain the drop in share of wealth which we found on an individual basis (Table 107, cols. 5 and 1). However, it is enough to explain the fall indicated on the basis of families (Table 107, col. 2). The fact that we do not find a sharp fall in share from 1929 to 1939, even with the most extreme assumption about fall in relative saving, is the principal reason for suspecting that some other factor was at work in that depression decade which must have caused a greater fall to appear in the individual wealth-holder series than in the family series. That factor, we suspect, was changing practice in transfer of wealth. If we can thus account for this divergence between the individual and the family series, it would seem fair to say that the observed fall in the family series is fully explained by price and savings changes.

### *The Process of Transfer of Wealth*

The practices of transfer of wealth and the institutional arrangements restraining and encouraging certain kinds of transfer may increase or moderate the degree of inequality of wealth in the following generation. If those persons with large estates divide them among a larger number of heirs, donees, and beneficiaries than is generally the case for those with smaller estates, the effect will be to moderate in-

<sup>9</sup> See Tables 59 and 60, which show these relationships for 1919-38, and Kuznets, *Shares of Upper Income Groups*, p. 649.

<sup>10</sup> The method used here is the one described on p. 228. Footnote 4 is also relevant here.

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too high on that account, since consumer durable saving is less concentrated among higher income groups than other types of saving. On the other hand, the percentages in col. 7 are probably too low since the estimate of top group saving (col. 4) excludes consumer durables, while the estimate of total saving (col. 5) includes consumer durables. However, it is the direction of change in share of saving that we are interested in here, and both col. 7 and col. 8 indicate similar changes.

equality.<sup>11</sup> The rate schedules of estate, inheritance, and gift taxes are designed to have that effect. These progressive tax rate schedules also tend to divert a larger share of larger estates than of smaller estates to the public sector in the form of taxes.<sup>12</sup> This system of rates also encourages philanthropic gifts, which remove wealth from the personal sector. A principal route of escape from the designed effect of transfer taxes—namely, the splitting up of large estates—is the use of personal trust funds, but this route occasions the loss of a considerable part of the bundle of property rights.

Taxes have two kinds of effect upon inequality: they discourage the accumulation and encourage the splitting up of large estates. The equalizing effect of the whole battery of transfer taxes, including estate, inheritance, and gift taxes, is doubtless quite substantial, although it is beyond the scope of this study to measure this effect quantitatively. Neither is it possible here to appraise in detail the direction of change in equalizing effect over recent decades. However, from examination of tax law changes, it would seem plausible to conclude that the greatest degree of equalizing occurred in the decade of the 1930's and early war years.<sup>13</sup> The postwar period has seen some

<sup>11</sup> In a study of the Wisconsin inheritance tax, Wallace I. Edwards found that estates valued at \$100,000 and over had an average of more than nine beneficiaries per estate. He also found that movement of property is "what might be described as downward by somewhat less than one generation, 63 per cent of the transferees were down one generation, 11 per cent down two or more generations, 24 per cent same generation, 1 per cent up one or two generations ("Wisconsin Inheritance Taxation," unpublished Ph.D. dissertation, University of Wisconsin, 1953, pp. 139 and 313). *Statistics of Income* for 1946 and 1947 (Part I, Tables 7 and 9) show the number of estate tax returns by heirs, devisees, and legatees and also the number of returns by number of children. Of 20,899 returns in 1946, 6,774 report no children; 5,899 report that the recipients of bequests are children only. The data suggest that larger estates tend to have more heirs than smaller estates.

<sup>12</sup> G. Z. Fijalkowski-Bereday, in his paper on "The Equalizing Effects of the Death Duties" (*Oxford Economic Papers*, June 1950, pp. 176-196), concludes that a higher death tax has its main effect on the main bequest. On the other hand, William McKinstry comes to exactly the opposite conclusion in his study of Connecticut inheritance tax data. (See his unpublished Ph.D. dissertation, "An Estimate of the Impact of Increasing Death Tax Rates on Beneficiaries of Federally Taxable Estates," Yale University, 1959.)

<sup>13</sup> In 1932 the exemption was dropped from \$100,000 to \$50,000 and in 1935 to \$40,000. At the same time the maximum rate of tax went from 20 per cent on that portion of the estate over \$10 million to 70 per cent on that portion over \$50 million. Maximum rates on the gift tax were doubled. For a brief summary of tax changes from 1913 to 1940, see Sidney Ratner, *American Taxation*, New York, 1942, Appendix Table 3. A more recent and detailed account is that of Louis Eisenstein, "The Rise and Decline of the Estate Tax," *Federal Tax Policy for Economic Growth and Stability*, U.S. Congress, Joint Committee on the Economic Report, Washington, 1955, pp. 819-847. Also see the special issue of the *California Law Review* (March 1950), which offers a critique of estate and gift taxation.

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relaxing of this effect due to the rise in number of persons with estates subject to tax and to legislative changes designed to reduce the severity of the taxes. Most noteworthy among the latter changes was the introduction of the marital deduction on the estate tax, and the extension to residents of all states of community property rights for both federal income and gift tax purposes in 1948.<sup>14</sup>

The timing of transfers is also an important determinant of inequality. If estates are customarily held in the name of the patriarch or matriarch until his or her death, the effect will be greater inequality than if estates are divided well in advance of the year of death. Gifts and bequests to grandchildren rather than to children also tend to moderate inequality. Laws which permit women and minors to hold property influence this pattern. Community property law is also relevant here. As an increasing percentage of the population is found in states with this law, the degree of inequality among persons should be lessened. Widespread ownership of life insurance would alter the age at which persons appear in the higher estate sizes, to the extent that life insurance beneficiaries include more relatively young people than are found among all heirs.

On the other hand, rising longevity would tend to delay the division of estates and to increase the average age of heirs, thereby increasing inequality. In the period 1922-53 the adult population became markedly older (Table 112). This, in itself, was clearly a factor which increased inequality. In 1922, 54 per cent of the adult population were in the 20 to 40 age bracket and 5 per cent were over 70. In 1953, only 45 per cent were aged 20 to 40 and 7 per cent were 70 or older. By setting the number of top wealth-holders per 100 in the age groups (as found for 1953 in Table 113) and the

<sup>14</sup> For a discussion of this and related matters, see C. Lowell Harriss, "Erosion of the Federal Estate and Gift Tax Bases," *Proceedings of 48th Annual Conference of National Tax Association*, 1955, pp. 350-358. Also of interest is G. S. A. Wheatcroft, "The Anti-Avoidance Provisions of the Law of Estate Duty in the United Kingdom," *National Tax Journal*, March 1957, pp. 46-56. A most ingenious effort to measure the combined effect of personal income, gift, and estate taxes upon the distribution of wealth is that of Charles Stewart, published in 1938. He related income and property classes to each other, projected the accumulation of estate by classes by assuming a consumption function. He then compared the distribution of wealth at the beginning and end of a thirty-year period. He concluded that the top 11 per cent of income recipients (considering only the groups with more than \$5,000 income), who owned 57 per cent of property in 1930, would increase their share of property to 61 per cent in thirty years if no personal taxes upon income or wealth were imposed. However, he concluded, 1936 tax rates would reduce their share of property to 51 per cent. (Gerhard Colm and Fritz Lehmann, *Economic Consequences of Recent American Tax Policy*, Supplement I, New York, 1938, Appendix A.)

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average estate size by age (as found for 1953 in Table 45) against the changing age and sex<sup>15</sup> composition (Table 112), we are able to quantify the effect of aging upon inequality. The hypothetical share of the top 1 per cent of adults rises, due to aging, by 2 percentage points on a base of 20. The rise is slightly higher if we use 1922 estate size by age and number of top wealth-holders per 100 in 1922 relationships; in that case the share of the top 1 per cent rises from 30 to 35 due to aging. It should seem fair to conclude, then, that if there had been no other changes but the aging of the adult population, the share of the top 1 per cent would have risen from 32 per cent in 1922 to about 35 per cent in 1953. That is to say, in order to obtain the observed fall in share of wealth, there had to be factors at work to

TABLE 112  
COMPOSITION OF TOTAL ADULT POPULATION, BY SEX AND AGE GROUP,  
1922 AND 1953  
(millions)

<i>Age Group</i>	<i>1922</i>		<i>1953</i>	
	Male	Female	Male	Female
20 to 40	17.2	16.8	23.1	23.7
40 to 60	10.8	9.6	18.2	18.6
60 to 70	2.7	2.4	5.7	6.0
70 and over	1.4	1.5	3.6	4.4
Total	32.1	30.3	50.6	52.7

more than offset the increasing-inequality effect of aging. (Aging is not here considered to have an effect separate from the saving and price change effects.)

That there were such factors is apparent from the age data on top wealth-holders. While the total adult population was getting older, the top wealth-holders were getting younger. Adjusting the percentage of the population for comparability, it appears that the median age of the top 1 per cent of the population fell from 57 in 1922 to 55 in 1953 (despite the fact that for women the median age rose from 53 to 56). The percentage of each age-sex group who were top wealth-holders in the two years is shown in Table 113. (Top wealth-holders were a smaller part of the total population in 1922 than in 1953.)

It would appear, then, that top wealth has been shifted to younger

<sup>15</sup> The higher percentage of women, in itself, would lead to a prediction of a lower frequency of top wealth-holders.



*INEQUALITY OF WEALTH-HOLDING*

TABLE 113  
TOP WEALTH-HOLDERS AS A PERCENTAGE OF TOTAL ADULT POPULATION,  
BY SEX AND AGE GROUP, 1922 AND 1953

Age Group	1922		1953	
	Male	Female	Male	Female
20 to 40	0.3	0.1	0.8	0.3
40 to 60	1.7	0.6	3.2	1.2
60 to 70	2.7	1.0	3.9	1.7
70 and over	3.5	1.4	4.0	2.6

SOURCE: For 1922, Appendix Table A-5; for 1953, Table 35.

TABLE 114  
ACTUAL AND HYPOTHETICAL (ASSUMING 1922 FREQUENCY RATES) NUMBER OF  
TOP WEALTH-HOLDERS, BY SEX AND AGE GROUP, 1953

Age Group	Number of Top Wealth Holders		Col. 1 Minus Col. 2 (3)	Col. 3 ÷ Col. 1 (4)	Average Gross Estate 1953 (dollars) (5)	Col. 3 Times Col. 5 (billion dollars) (6)
	Actual 1953 (1)	1953, Assuming 1922 Frequency Rates (2)				
<b>MALES</b>						
20 to 40	184,800	69,300	115,500	.63	120,000	13.9
40 to 60	582,400	309,400	273,300	.47	170,000	45.9
60 to 70	222,300	153,900	68,400	.31	180,000	12.6
70 and over	144,000	126,000	18,000	.12	210,000	4.0
Total	1,133,500	658,600	474,900	.42	162,000	76.4
<b>FEMALES</b>						
20 to 40	71,100	23,700	47,700	.66	350,000	17.5
40 to 60	223,200	111,600	111,600	.50	190,000	20.9
60 to 70	102,000	60,000	42,000	.58	180,000	7.6
70 and over	114,400	61,600	42,800	.37	210,000	8.4
Total	510,700	256,900	253,800	.50	220,000	54.4
<b>TOTAL</b>						
Total	1,644,200	915,500	728,700	.45	182,000	130.8

SOURCE: Col. 1, Table 35; Col. 2, Table 113; Col. 5, Table 38.

people and to women. It is possible to measure this effect for 1922-53 by comparing the actual number of top wealth-holders in 1953 with the number there would have been had the frequencies of top wealth-holders which obtained in 1922 held for 1953 (Table 114). This assumes that the total population and age-sex composition of 1953 are constant. Instead of the actual number of 1.6 million, there would have been 0.9 million top wealth-holders, or 0.7 million fewer.

## INEQUALITY OF WEALTH-HOLDING

Columns 3 and 4 of Table 114 make it quite clear that it was women and young people who added relatively great numbers of top wealth-holders to their ranks. Of the 728,700 "additional" wealth-holders, 253,800 are women and 115,500 are men under 40. Only 86,400 of them are men over 60. It would seem hard to explain this differential growth in numbers on any ground other than a change in the method and timing of transfer of wealth. Thus, it would seem unlikely that either price change or savings practices could have been responsible. We would, of course, expect the percentage of the total population with over \$60,000 of wealth to rise over this period because the average wealth of all adults rose from \$5,342 in 1922 to \$11,968 in 1953. However, we would expect the frequencies of top wealth-holders to rise more evenly for all age and sex groups. Increased employment of women and increased frequency of widowhood would lead one to predict a differential rise in the percentage of women top wealth-holders, but it seems doubtful that such a dramatic rise would have occurred on this account alone.

Suppose we assume that the whole difference in number of top wealth-holders is due to changes in transfer practice, that is, more gifts to wives and children, more families living in community property states, and so forth. Following this assumption, what shift in inequality of wealth-holding could be explained by the change in transfer practice? In 1953 1.6 million people actually held \$298 billion of basic variant gross estate (calculated from Table 114). This is compatible with 1 per cent of the adult population holding 19 per cent of the aggregate gross estate. If the \$298 billion had been held by only the 915,500 people shown in column 2 of Table 114, there would be a much more unequal distribution of wealth, with the top 1 per cent holding 24 per cent.

In one respect, this tends to overstate the effect of splitting and earlier transfers, since, as suggested above, there are other factors which have contributed to the higher frequency of top wealth-holders in all age and sex groups. This is offset to some extent by the fact that we do not take account of the splitting which drops people below \$60,000 in 1953. All things considered, it would seem plausible that changes in transfer practices could account for a fall of several percentage points in the share of wealth of the top 1 per cent. It will be recalled that by relating price change and changes in savings to the 1922 share, we were able to explain all but three points of the fall from 32 per cent of total wealth in 1922 to 25 per cent in 1953.

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An alternative way to rationalize the effect of splitting is as follows. Note first that the top 1 per cent of adults held 25 per cent of all wealth (gross estate, total wealth variant), or about \$310 billion. To have held 28 per cent, they would have needed \$347 billion, or \$36 billion more than they actually held. Does it seem reasonable that \$36 billion could be accounted for by attributing family holdings to one person? By 1922 standards, in which year 8.5 per cent of the top wealth-holders were wives, there should have been 85,000 wives in the 1953 top wealth-holder group, but in fact there were 18 per cent, or 180,000.<sup>16</sup> This difference of about 95,000 we can throw out of the top 1 per cent, leaving their wealth with their husbands, and in their place bring in another 95,000 persons from below the cut-off. For the top 1 per cent this cut-off is at about the \$100,000 range. Multiplying 95,000 times \$100,000 gives us \$9.5 billion out of the \$36 billion. In addition to this, it may be assumed that some of the 600,000 married men in the top 1 per cent had wives with less wealth than the \$100,000 and hence who were not in the top 1 per cent. Suppose we say that this number was about 300,000 and that each of them had \$50,000. This would yield a total of \$15 billion. Hence splitting wealth with wives might account for about \$24.5 billion, leaving about \$11 billion to be explained by splits with other family members. Table 114 suggests that a good deal of increase in splitting with younger men may have occurred between 1922 and 1953, so that it would seem reasonable to account for the \$11 billion in this way.

We conclude that there are two alternative ways to account for the discrepancy between the individual and the family series. The fact that the share of wealth held by the top 1 per cent of individuals fell by three percentage points more than the share held by the top 2 per cent of "families" (as defined in Chapter 6) is due, we submit, to changing practices in the transfer of wealth.

<sup>16</sup> It was noted in Chapter 6 that married women form an increasingly important part of the top wealth-holding group. This is presumably due largely to the increasing importance of community property states and to the increasing frequency of overt gifts from husbands to wives and from parents to daughters. One independent check upon the data given in Chapter 6 is the percentage of individual income tax returns filed by married women, i.e., wives filing separate returns. This was 1.9 per cent in 1922 and 3.2 per cent in 1938. These are the best years for such a comparison since the total number of returns were about the same in those two years and legal provisions about filing separate returns were not notably different. A good continuous series on this relationship cannot be developed, unfortunately. Ideally, we would like to have the number of returns by marital status for property income only, by size of income. This series is not available to us.

*Summary Statement on Causes of Changes  
in Wealth Inequality, 1922-53*

Four separate factors are seen to have contributed to the fall in the share of wealth held by the top 1 per cent of adults. This share was 32 per cent in 1922, rose to 38 per cent in 1929, fell to 22 per cent in 1949, and rose to 25 per cent in 1953 (see Table 107, col. 1). Relative change in the price of assets explains the turning points in this share, but does not explain the secular drop. Indeed, if only price changes had occurred, there would have been much greater inequality in 1953 than in 1922 (see Table 107, col. 3). A second change we have noted is the shift in composition of estate. In the boom periods of 1922-29 and 1949-53, the top group reduced its concentration upon price-sensitive assets and this tended to cut its share somewhat (see Table 107, col. 4). A third change—one which cut its share substantially between 1939 and 1949—was a reduction in the share of all saving of the top group (see Table 107, col. 5). Varying price, composition, and share of saving leads to a prediction of a fall in share from 32 per cent in 1922 to 28 per cent in 1953 (Table 107). However, the actual fall was to 25 per cent. This three-point discrepancy is explained by changing practices in the transfer of wealth. These changing practices, which have led to a sharp increase over the thirty-year period in the number of women and younger persons among top wealth-holders, include a larger population in community property states, more gifts by living persons to wives and other family members, and more use of life insurance. The discrepancy between column 5 and column 1 in Table 107 is thus found to be reconcilable with the fact that the share of wealth held by the top 2 per cent of families fell less than the share of the top 1 per cent of adults (see col. 6).

In making predictions of the future share of wealth which will be held by the top group, attention should be given to these four changes. In the future the two most important changes to watch are differential price changes (which have been very important in 1953-60) and changes in the share of saving of the top 1 per cent. As long as the top 1 per cent accounts for as little as 15 per cent of all saving, this will be a heavy drag on their share of all wealth. Recent experience suggests that changes in composition of estate and in transfer practice can be expected to have relatively little influence in determining the share of wealth to be found in the hands of the next generation of top wealth-holders.