Very Preliminary - Comments Welcome

Top Wealth Shares in the United States, 1916-2000: Evidence from Estate Tax Returns

Wojciech Kopczuk, Columbia University and NBER

and

Emmanuel Saez, UC Berkeley and NBER[1]

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[1]Wojciech Kopczuk, Department of Economics and SIPA, Columbia University, 420 West 118th Street, Rm. 1022 IAB MC 3308, New York, NY 10027, wkopczuk@nber.org. Emmanuel Saez, University of California, Department of Economics, 549 Evans Hall #3880, Berkeley, CA 94720, saez@econ.berkeley.edu.
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Abstract

This paper presents new homogeneous series on top wealth shares from 1916 to 2000 in the United States using estate tax return data. Top wealth shares were very high at the beginning of the period but have been hit sharply by the Great Depression, the New Deal, and World War II shocks. Those shocks have had permanent effects. Following a decline in the 1970s, top wealth shares recovered in the early 1980s, but they are still much lower in 2000 than in the early decades of the century. Most of the changes we document are concentrated among the very top wealth holders with much smaller movements for groups below the top 0.1%. Consistent with the Survey of Consumer Finances results, top wealth shares estimated from Estate Tax Returns display no significant increase since 1995. Evidence from the Forbes 400 richest Americans suggests that only the super-rich have experienced significant gains relative to the average over the last decade. Our results are consistent with the top income shares series constructed by Piketty and Saez (2003), and suggests that the rentier class of the early century is not yet reconstituted. The most plausible explanations for the facts have been the development of progressive income and estate taxation which has dramatically impaired the ability of large wealth holders to maintain their fortunes, and the democratization of stock ownership which now spreads stock market gains and losses much more widely than in the past.

1 Introduction

The pattern of wealth and income inequality during the process of development of modern economies has attracted enormous attention since Kuznets (1955) formulated his famous inverted U-curve hypothesis. Wealth tends to be much more concentrated than income because of life cycle savings and because it can be transmitted from generation to generation. For conservatives, concentration of wealth is considered as a natural and necessary outcome to provide incentives for entrepreneurship and wealth accumulation, key elements of macro-economic success. Liberals have blamed wealth concentration for equity reasons and in particular for tilting the political process in the favor of the wealthy. They have proposed progressive taxation as a worthy counter-force against wealth concentration.[1] Therefore, it is of great importance to understand the forces driving wealth concentration over time and whether government interventions through taxation or other regulations are effective and/or harmful to curb wealth inequality. However, before being in a position to tackle those questions, it is necessary to construct long and homogeneous series of income or wealth concentration, in general a daunting task due to lack of good data. In this paper, we use the extra-ordinary micro dataset of estate tax returns that has been recently compiled by the Statistics of Income Division of the Internal Revenue Service (IRS) in order to construct homogeneous series of wealth shares accruing to the upper groups of the wealth distribution since 1916, the beginning of the modern federal estate tax in the United States.

The IRS dataset includes detailed micro-information for *all* estate tax returns filed during the 1916-1945 period; and we supplement this data with both published tabulations and other IRS micro-data for the second half of the century. We use the estate multiplier technique to estimate the wealth distribution of the living adult population from estate data. First, we have constructed quasi-annual series of shares of total wealth accruing to various upper groups within the 2% of the wealth distribution.[2] Although small in size, these top groups hold a substantial fraction of total net-worth in the economy. Second, for each of these groups, we decompose wealth into various sources such as real estate, fixed claims assets (bonds, cash, mortgages, etc.), corporate stock, and debts. We also display the composition by gender, age, and marital

[1] In the early 1930s, President Roosevelt justified the implementation of drastic increases in the burden and progressivity of federal income and estate taxation in large part on those grounds.

[2] For the period 1916-1945, the largest group we can consider is the top 1%.

characteristics. Lampman (1962) produced top wealth share estimates for a few years between 1922 and 1956, but he did not analyze groups smaller than the top .5% and our analysis shows that, even within the top percentile, there is dramatic heterogeneity in the shares of wealth patterns. Most importantly, nobody has attempted to estimate, as we do here, homogeneous series covering the entire century.[3]

Our series show that there has been a sharp reduction in wealth concentration over the 20th century: the top 1% wealth share was close to 40% in the early decades of the century but has fluctuated between 20 and 25% over the last three decades. This dramatic decline took place at a very specific time period, from the onset of Great Depression to the end of World War II, and was concentrated in the very top groups within the top percentile, namely groups within the top 0.1%. Changes in the top percentile below the top 0.1% have been much more modest. It is fairly easy to understand why the shocks of the Great Depression, the New Deal policies, and World War II, could have had such a dramatic impact on wealth concentration. However, top wealth shares did not recover in the following decades, a period of rapid growth and great economic prosperity. In the early 1980s, top wealth shares have increased, and this increase has also been very concentrated. However, this increase is small relative to the losses from the first part of the twentieth century and the top wealth shares increased only to the levels prevailing prior to the recessions of the 1970s. Furthermore, this increase took place in the early 1980s and top shares were stable during the 1990s. This evidence is consistent with the dramatic decline in top capital incomes documented in Piketty and Saez (2003) using income tax return data. As they do, we tentatively suggest that steep progressive income and estate taxation, by reducing the rate of wealth accumulation of the rich, may have been the most important factor preventing large fortunes to be reconstituted after the shocks of the 1929-1945 period.

Perhaps surprisingly, our top wealth shares series do not increase during the 1990s, the time of the internet revolution, extra-ordinary stock price growth, and of great increase in income concentration (Piketty and Saez, 2003). Our results are nevertheless consistent with findings from the Survey of Consumer Finances (Kennickell (2003) and Scholz (2003)) which also displays

[3]Smith (1984) provides estimates for some years between 1958 and 1976 but his series are not fully consistent with Lampman (1962). Wolff (1994) has patched series from those authors and non-estate data sources to produce long-term series. We explain in detail in Section 5.3 why such a patching methodology can produce misleading results.

hardly any significant growth in wealth concentration since 1995. This absence of growth in top wealth shares are also broadly consistent with the top income shares results from Piketty and Saez (2003) because the dramatic growth in top income shares since the 1980s has been primarily due to a surge in top labor incomes, with little growth of top capital incomes. This suggest that the new high income earners have not had time to accumulate yet substantial fortunes, either because the pay surge at the top is a too recent phenomenon or because their savings rates are very low. We show that, probably because of the democratization of stock ownership in America, the top 1% individuals do not hold today a significantly larger fraction of their wealth in the form of stocks than the average person in the U.S. economy, explaining in part why the bull stock market of the late 1990s has not benefited disproportionately the rich.[4]

Although our proposed interpretation for the observed trends seems plausible to us, we stress that we cannot prove that progressive taxation and stock market democratization have indeed played the role we attribute to them. In our view, the primary contribution of this paper is to provide new and homogeneous series on wealth concentration using the very rich estate tax statistics. We are aware that the assumptions needed to obtain unbiased estimates using the estate multiplier method may not be met and, drawing on previous studies, we try to discuss as carefully as possible how potential sources of bias, such as estate tax evasion and tax avoidance, can affect our estimates. Much work is still needed to compare systematically the estate tax estimates with other sources such as capital income from income tax returns, the Survey of Consumer Finances, and the Forbes 400 list.

The paper is organized as follows. Section 2 describes our data sources and outlines our estimation methods. Section 3 presents our estimation results. We present and analyze the trends in top wealth shares and the evolution of the composition of these top wealth holdings. Section 4 proposes explanations to account for the facts and relates the evolution of top wealth shares to the evolution of top income shares. Section 5 discusses potential sources of bias, and compares our wealth share results with previous estimates and estimates from other sources such as the Survey of Consumer Finances, and the Forbes top richest 400 list. Finally, Section 6 offers

[4]We also examine carefully the evidence from the Forbes 400 richest Americans survey. This evidence shows sizeable gains but those gains are concentrated among the top individuals in the list and the few years of the stock market "bubble" of the late 1990s, followed by a sharp decline from 2000 to 2002.

a brief conclusion and compares the U.S. results with similar estimates recently constructed for the United Kingdom and for France. All series and complete technical details about our methodology are gathered in appendices of the paper.

2 Data, Methodology, and Macro-Series

In this section, we describe briefly the data we use and the broad steps of our estimation methodology. Readers interested in the complete details of our methods are referred to the extensive appendices at the end of the paper. Our estimates are from estate tax return data compiled by the Internal Revenue Service (IRS) since the beginning of the modern estate tax in the United States in 1916. In the 1980s, the Statistics division of the IRS has built electronic micro-files of *all* estate tax returns for the period 1916 to 1945. Stratified and large electronic micro-files are also available for 1965, 1969, 1972, 1976, and every year since 1982. For a number of years between 1945 and 1965 (when no micro-files are available), the IRS has published detailed tabulations of estate tax returns in U.S. Treasury Department, Internal Revenue Service (various years). This paper uses both the micro-files and the published tabulated data to construct top wealth shares and composition series for as many years as possible.

In the United States, because of large exemption levels, only a small fraction of decedents has been required to file estate tax returns. Therefore, by necessity, we must restrict our analysis to the top 2% of the wealth distribution. Before 1946, we can only analyze the top 1%. As the analysis will show, the top 1%, although a small fraction of the total population, holds a substantial fraction of total wealth. Further, there is substantial heterogeneity between the bottom of the top 1% and the very top groups within the top 1%. Therefore, we also analyze in detail smaller groups within the top 1%: the top .5%, top .25%, the top .1%, the top .05%, and the top .01%. We also analyze the intermediate groups: top 1-.5% denotes the bottom half of the top 1%, top .5-.25% denoted the bottom half of the top .5%, etc. Estates represent wealth at the individual level and not the family or household level. Therefore, our top wealth shares are based on individuals and not families. More precisely, each of our top groups is defined relative to the total number of adult individuals (aged 20 and above) in the U.S. population, estimated from census data. Column (1) in Table A reports the number of adult individuals in the United

States from 1916 to 2002. The adult population has more than tripled from about 60 million in 1916 to over 200 million in 2000. In 2000, there were 201.9 million adults and thus the top 1% is defined as the top 2.019 million wealth holders, etc.

We adopt the well-known estate multiplier method to estimate the top wealth shares for the living population from estate data. The method consists in inflating each estate observation by a multiplier equal to the inverse probability of death. The probability of death is estimated from mortality tables by age and gender for each year for the U.S. population multiplied by a social differential mortality factor to reflect the fact that the wealthy (those who file estate tax returns) have lower mortality rates than average. The social differential mortality rates are taken from the Brown et al. (2002) differentials between college educated whites relative to the average population and are assumed constant over the whole period (see Appendix B for a discussion). The estate multiplier methodology will provide unbiased estimates if our multipliers are correct on average and if death is an event independent of wealth within each age and gender group for estate tax return filers. This assumption might not be correct for three main reasons. First, extraordinary expenses such as medical expenses and loss of labor income may occur and reduce wealth in the years preceding death. Second, even within the set of estate tax filers, it might be the case that the most able and successful individuals have lower mortality rates, or inversely that the stress associated with building a fortune, increases the mortality rate. Last and most importantly, individuals may start to give away their wealth to relatives as they feel that their health deteriorates for estate tax avoidance reasons. We will come back in much detail to these very important issues.

The wealth definition we use is equal to all assets (gross estate) less all liabilities (mortgages, and other debts) as they appear on estate tax returns. Assets are defined as the sum of tangible assets (real estate and consumer durables), fixed claim assets (cash, deposits, bonds, mortgages, etc.), corporate equities, equity in unincorporated businesses (farms, small businesses), and various miscellaneous assets. It is important to note that estates only include the cash surrender value of pensions. Therefore, future pension wealth in the form of defined benefits plans, and annuitized wealth with no cash surrender value is excluded. Vested defined contributions accounts (and in particular 401(k) plans) are included in the wealth definition. Social Security wealth

as well as all future labor income and human wealth is obviously not included in gross estate.[5] Therefore, we focus on a relatively narrow definition wealth, which includes only the marketable or accumulated wealth that would remain should the owner die. This point is particularly important for closely held business owners: in many instances, a large part of the value of their business reflects their personal human capital and future labor which vanishes at their death. Both the narrow definition of wealth (on which we focus by necessity because of our estate data source), and broader wealth definitions including future human wealth are interesting and important to study. The narrow definition is better to tackle problems of wealth accumulation and transmission, while the broader definition is better to study the distribution of welfare.[6]

For the years for which no micro data is available, we use the tabulations by gross estate, age and gender and apply the estate multiplier method within each cell in order to obtain a distribution of gross wealth for the living. We then use a simple Pareto interpolation technique and the composition tables to estimate the thresholds and average wealth levels for each of our top groups.[7] For illustration purposes, Table 1 displays the thresholds, the average wealth level in each group, along with the number of individuals in each group all for 2000, the latest year available.

We then estimate shares of wealth by dividing the wealth amounts accruing to each group by total net-worth of the household sector in the United States. The total net-worth denominator has been estimated from the Flow of Funds Accounts for the post-war period and from Goldsmith et al. (1956) and Wolff (1989) for the earlier period.[8] The total net-worth denominator includes all assets less liabilities corresponding to the items reported on estate tax returns. Thus, it only includes defined contribution pension reverses, and excludes defined benefits pension reserves and life insurance reserves [TO BE INCLUDED WHEN WE ADD LIFE INSURANCE]. The

[5]We also exclude life insurance from our wealth definition because, for the living, the value of life insurance is much smaller than life insurance proceeds included in the estate. WE WILL INCORPORATE ONLY EXPECTED LIFE INSURANCE PROCEEDS IN THE NEXT REVISION. LIFE INSURANCE IS SMALL AT THE TOP

[6]The analysis of income distribution captures both labor and capital income and is thus closer to an analysis of distribution of the broader wealth concept.

[7]We also use Pareto interpolations to impute values at the bottom of 1% or 2% of the wealth distribution for years where the coverage of our micro data is not broad enough.

[8]Unfortunately, no annual series exist before 1945. Therefore, we have built upon previous incomplete series to construct complete annual series for the 1916-1944 period.

total wealth and average wealth (per adult) series are reported in real 2000 dollars in Columns (3) and (4) of Table A. The CPI deflator used to convert current incomes to real incomes is reported in Column (10). The average real wealth series per adult along with the CPI deflator is plotted in Figure 1. Average real wealth per adult has increased by a factor of three from 1916 to 2000. There has been virtually no growth in average real wealth from 1916 to the onset of World War II. Average wealth then grew steadily from World War II to the late 1960s. Since then, wealth gross has been slower, except in the 1994-2000 period.

After we have analyzed the top share data, we will also analyze the composition of wealth and the age, gender, and marital status of top wealth holders, for all years where this data is available. We divide wealth into six categories: 1) real estate, 2) bonds (federal and local, corporate and foreign) 3) corporate stock, 4) deposits and saving accounts, cash, mortgages, and notes, 5) other assets (including equity in non-corporate businesses), 6) all debts and liabilities. In order to compare the composition of wealth in the top groups with the composition of total net-worth in the U.S. economy, we display in columns (5) to (9) of Table A, the fractions of real estate, fixed claim assets, corporate equity, unincorporated equity, and debts in total net-worth of the household sector in the United States. We also present on Figure 1, the average real value of corporate equity and the average net worth excluding corporate equity. Those figures show that the sharp downturns and upturns in average net-worth are primarily due to the dramatic changes in the stock market prices, and that the pattern of net-worth excluding corporate equity has been much smoother.

3 The Evolution of Top Wealth Shares

3.1 Trends

The basic series of top wealth shares are presented in Table B1. Figure 2 displays the wealth share of the top 1% from 1916 to 2000. The top 1% was holding a very large fraction of total wealth, close to 40%, up to the onset of the Great Depression. From 1930 to 1932, the top 1% share fell by more than 10 percentage points, and continued to decline during the New Deal, World War II, and the late 1940s. By 1949, the top 1% share is around 23.5% and has lost more that 40% relative to its peak. The top 1% share increases slightly to around 26% in

the mid-1960s, and then falls to less than 20% in 1976 and 1982. The top 1% share increases significantly in the early 1980s (from 19% to 23%) and then stays remarkably stable around 22-23% in the 1990s. This evidence shows that the United States has experienced a very large de-concentration of wealth over the course of the twentieth century with close to one fifth of total net-worth being redistributed away from the top 1% toward the rest of the population. This phenomenon is illustrated on Figure 3 which displays the average real wealth of those in the top 1% (left-hand-side scale) and those in the bottom 99% (right-hand-side scale). In 1916, the top 1% wealth holders were more than 60 times richer on average than the bottom 99%. The Figure shows the sharp closing of the gap between the Great Depression and the post World War II years, as well as the subsequent parallel growth for the two groups (except for the 1970s). In 2000, the top 1% individuals are about 25 times richer than the rest of the population.

Therefore, the evidence suggests that the twentieth century decline in wealth concentration took place in a very specific and brief time interval, namely the Great Depression, the New Deal, and World War II. This suggests that the main factors influencing the concentration of wealth might be short-term events with long lasting effects rather than slow changes such as technological progress and economic development or demographic transitions.

In order to understand the overall pattern of top income shares, it is useful to decompose the top percentile into smaller groups. Figure 4 displays the wealth shares of the top 1-.5% (the bottom half of the top 1%), and the top .5-.1% (the next .4 percentile of the distribution). Figure 4 also displays the share of the second percentile (Top 2-1%) for the 1946-2000 period. The Figure shows that those groups of high but not super high wealth holders experienced much smaller movements than the top 1% as a whole. The top 1-.5% has fluctuated between 5 and 6% except for a short-lived dip during the Great Depression. The top .5-.1% has experienced a more substantial and long-lasting drop from 12 to 8% but this 4 percentage point drop is small relative to the 20 point loss of the top 1%. All three groups have been remarkably stable over the last 25 years.

Examination of the very top groups in Figure 5 (the top .1% in Panel A and the top .01% in Panel B) provides a striking contrast to Figure 4. The top .1% declines dramatically from more than 20% to less than 10% after World War II. For the top .01%, the fall is even more dramatic from 10% to 4%: those wealthiest individuals, a group of 20,000 persons in 2000, had on average

1000 times the average wealth in 1916, and have about 400 times the average wealth in 2000. It is interesting to note that, in contrast to the groups below the very top on Figure 4, the fall for the very top groups continues during World War II. Since the end of World War II, those top groups have remained fairly stable up to the late 1960s. They experience an additional drop in the 1970s, and a very significant increase in the early 1980s: from 1982 to 1985, the top .01% increases from 2.6% to 4.2%, a 60% increase. However, as all other groups, those top groups remain stable in the 1990s. Therefore, the evidence shows that the dramatic movements of the top 1% share are primarily due to changes taking place within the upper fractiles of the top 1%. The higher the group, the larger the decline. It is thus important to analyze separately each of the groups within the top 1% in order to understand the difference in the patterns. To make progress in our understanding, we now turn to the analysis of the composition of incomes reported by the top groups.

3.2 Composition

Because of the step-up basis of assets at death for capital gains taxation, there is a significant tax advantage not to sell assets shortly before death, creating the so-called "lock-in" effect.[9] As a result, and given that any transfers shortly before death have to be included in the gross estate, it is likely that composition of wealth is relatively stable in the years preceding death and thus, that composition of wealth estimated using the multiplier method provides an accurate picture of the composition of wealth for the full U.S. population. Detailed composition series are reported in Table B3.

Figure 6 displays the composition of wealth within the top 1% for various years. Wealth is divided into three components: real estate, corporate stock (including both publicly traded and closely held stock), fixed claims assets (all bonds, cash and deposits, mortgages and notes, etc.).[10] Panel A displays the composition for year 2000, the latest year available, and shows that the share of corporate stock is increasing with wealth while the share of real estate is decreasing with wealth, the share of fixed claims assets being slightly decreasing (the share of bonds is

[9]Inheritors take as the new basis, for subsequent realized capital gains taxation, the value at the time they receive the bequest. Hence, any capital gains on assets passed on at death escape the tax on realized gains. See for example Gravelle (1994) for a detailed analysis.

[10]Other assets and debts have been excluded from the figure but they are reported in Table B3.

slightly increasing and the share of cash and deposits slightly decreasing). In the bottom half of the top 1%, each component represents about one third of total wealth. At the very top, stocks represent about two thirds of total wealth and real estate only about 15%. This broad pattern is evident for all the years of the 1916-2000 period for which we have data:[11] the share of stocks increases with wealth and the share of real estate decreases. The levels, however, may vary overtime due mainly to the sharp movements in the stock market. The pattern for 1929 displayed on Panel B, which, as 2000, was a year of very high stock market prices (as we have seen on Figure 1), looks very similar to 2000. The share of stocks is even slightly higher than in 2000. In contrast, year 1948 (displayed on Panels C) was a year of very low stock prices (see Figure 1). For this year, although the pattern is the same, the fraction of corporate stocks is significantly lower. Finally, 1986, a year of medium stock market prices, the normal pattern of these shares is again displayed on Panel D of Figure 6.

This is further illustrated on Figure 7 which displays the fraction of corporate stock over the period 1916-2000 for the top .25%, and for total net-worth in the U.S. economy (from Tables B3 and A respectively). Consistent with Figure 6, the fraction of stock is much higher for the top .25% (around 50% on average) than for total net-worth (around 20% on average). Both series are closely parallel from the 1920s to the mid 1980s: they peak just before the Great Depression, plunge during the depression, stay low during the New Deal, World War II, up to the early 1950s, and peak again in the mid-1960s before plummeting in the early 1980s.

This parallel pattern can explain why the top shares dropped so much during the Great Depression. Real corporate equity held by households fell by 70% from 1929 to 1933 (Figure 1) and the top groups hold a much greater fraction of their wealth in the form of corporate stock (Figure 7). Those two facts mechanically lead to a dramatic decrease in the share of wealth accruing to the top groups. The same phenomenon took place in the 1970s when stock prices plummeted and the shares of top groups declined substantially (the real price of corporate stock fell by 60% and the top 1% fell by about 20% from 1965 to 1982).

Corporate profits increased dramatically during World War II, but in order to finance the war, corporate tax rates increased sharply from about 10% before the war to over 50% during the war and the corporate tax rates stayed at high levels after the war. This fiscal shock in the

[11] All these statistics are reported in Table B3.

corporate sector reduced substantially the share of profits which can be distributed to stock-holders and explains why average real corporate equity per adult increased by less than 4% from 1941 to 1949 while the average net worth increased by about 23% (see Figure 1). Thus, top wealth holders, owning mostly stock, lost relative to the average during the 1940s, and the top shares declined significantly.

The central puzzle to understand is why top wealth shares did not increase significantly from 1949 to 1965 and from 1986 to 2000 when the stock market prices soared, and the fraction of corporate equity in total net-worth of the household sector increased from just around 12% (in 1949 and 1986) to almost 30% in 1965 and almost 40% in 2000.

The series on wealth composition of top groups might explain the absence of growth in top wealth shares during the 1986-2000 episode. The fraction of corporate stock in the top groups did not increase significantly during the period (as can be seen on Figure 7, it actually drops significantly up to 1990 and then recovers during the 1990s). Therefore, although the fraction of corporate equity in total net-worth triples (from 13% to 39%), the fraction of corporate equity is virtually the same in 1986 and 2000 (as displayed on Panels A and D of Figure 6 and Figure 7). Thus, the data imply that the share of all corporate stock from the household sector held by the top wealth holders fell sharply from 1986 to 2000. Several factors may explain those striking results. First, the development of Defined Contribution pensions plans, and in particular 401(k) plans, and mutual funds certainly increased the number of stock-holders in the American population,[12] and thus contributed to the democratization of stock ownership among American families. The Survey of Consumer Finances shows that the fraction of families holding stock (directly or indirectly through mutual funds and pension plans) has increased significantly in the last two decades, and was just above 50% in 2001.[13]

Second, the wealthy may have re-balanced their portfolios as gains from the stock-market were accruing in the late 1980s and the 1990s, and thus reduced their holdings of equity relative to more modest families.

In any case, the data suggests that top wealth holders did not benefit disproportionately from

[12]The Flow of Funds Accounts show that the fraction of corporate stock held indirectly through Defined Contribution plans and Mutual Funds doubled from 17% to 33% from 1986 to 2000.

[13]In 1989, only 31.7% of American Households owned stock while 48.9% and 51.9% did in 1998 and 2001 respectively. See Kennickell et al. (1997) and Aizcobe et al. (2003).

the bull stock market, and this might explain in part why top wealth shares did not increase in that period when top income shares were dramatically increasing (see Section 5 below). By the year 2000, the fraction of wealth held in stock by the top 1% is just slightly above the fraction of wealth held in stock by the U.S. household sector (41% versus 39%). Therefore, in the current period, sharp movements of the stock market are no longer expected to produce sharp movements in top wealth shares as was the case in the past.[14]

WILL LOOK INTO THE CLOSELY HELD STOCK SERIES AND SAY SOMETHING ABOUT THEM

3.3 Age, Gender, and Marital Status

Table B4 reports the average age, the gender and marital status composition series for each of the top wealth groups. Figure 7B displays the average age and the percent female within the top .5% group since 1916. The average age displays a remarkable stability overtime fluctuating between 55 and 60. Since the early 1980s, the average age has declined very slightly from 60 to around 57. Thus, the evidence suggests that there have been no dramatic changes in the age composition of top wealth holders overtime. In contrast, the fraction of females among top wealth holders has almost doubled from around 25% in the early part of the century to around 45% in the 1990s. The increase started during the Great Depression and continued throughout the 1950s and 1960s, and has been fairly stable since the 1970s. Therefore, there has been a substantial gender equalization in the holding of wealth over the century in the United States, and today, almost 50% of top wealth holders are female.

The marital status of top wealth holders has experienced relatively modest secular changes. For males, the fraction of married men has always been high (around 75%), the fraction widowed has declined slightly (from 10 to 5%) and the fraction single has increased (from 10 to 15%). For females, the fraction widowed is much higher, although it has declined over the period from about 40% to 30%. The fraction married has increased from about 40% to 50% for females and

[14]It should be emphasized, though, that the wealthy may not hold the same stocks as the general population. In particular, the wealthy hold a disproportionate share of closely held stock, while the general population holds in general only publicly traded stocks through mutual and pension funds. Estate tax returns statistics separate closely held from publicly traded stock only since 1986.

thus the fraction single has been stable around 10%.

4 Understanding the Patterns

4.1 Are the Results Consistent with Income Inequality Series?

One of the most striking and debated findings of the literature on inequality has been the sharp increase in income and wage inequality over the last 25 years in the United States. As evidenced from income tax returns, changes have been especially dramatic at the top end, with large gains accruing to the top income groups (Feenberg and Poterba (1993, 2000); Piketty and Saez (2003)). For example, Piketty and Saez (2003) show that the top 1% income share doubled from 8% in the 1970s to over 16% in 2000.[15] How can we reconcile the dramatic surge in top income shares with the stability of top wealth shares estimated from Estate Tax Data?

Figure 8 casts light on this issue. It displays the top .01% *income* share from Piketty and Saez (2003), along with the composition of these top incomes[16] into capital income (dividends, rents, interest income, but excluding capital gains), realized capital gains, business income, and wages and salaries. Up to the 1980s (and except during World War II), capital income and capital gains formed the vast majority of the top .01% incomes. Very consistently with the top .01% wealth share series that we presented on Figure 5B, the top .01% income share was very high in the late 1920s, and dropped precipitously during the Great Depression and World War II, and remained low until the late 1970s. Thus both the income and the estate tax data suggests the top wealth holders were hit by the inter-war shocks and that those shocks persisted until a long time after the war.

Over the last two decades, as can be seen on Figure 8, the top .01% income share has indeed increased dramatically from 0.9% in 1980 to 3.6% in 2000. However, the important point to note is that this recent surge is primarily a wage income phenomenon and to a lesser extent a business income phenomenon. Figure 8 shows that capital income earned by the top .01% relative to total personal income is not higher in 2000 than it was in the 1970s (around 0.4%). Adding realized capital gains does not alter this broad picture: capital income including capital

[15] See the series of Piketty and Saez (2003) updated to year 2000.

[16] This group represents the top 13,400 taxpayers in 2000, ranked by income excluding realized capital gains. Capital gains are added back to compute income shares.

gains earned by the top .01% represents about 1% of total personal income in 2000 versus about 0.75% in the late 1960s, a modest increase relative to the quadrupling of the top .01% income share during the same period.

Therefore, the income tax data shows that the dramatic increase in top incomes is a labor income phenomenon that has not translated yet into an increased concentration of capital income. Therefore, in the recent period as well, the income tax data paints a story consistent with our estate tax data findings of stability of the top wealth shares since the mid-1980s. Again, on Figure 8, the pattern of capital income including realized capital gains is strikingly parallel to the pattern of the top .01% wealth share of Figure 5B: a mild peak in the late 1960s, a decline during the bear stock market of the 1970s, a recovery in the early 1980s, and no growth from 1990 to 2000.

Three elements might explain why the surge in top wages did not lead to a significant increase in top wealth holdings. First, it takes time to accumulate a large fortune, even with very high incomes. The top .01% average income in the late 1990s is around 10 million dollars while the top .01% wealth holding is around 60 million dollars. Thus, even with substantial saving rates, it would take at least decade to the average top .01% income holder to become an average top .01% wealth holder. Second, it is possible that the savings rates of the recent "working rich" who now form the majority of top income earners, are substantially lower than the savings rates of the "coupon-clippers" of the early part of the century. Finally, certain groups of individuals experience high incomes only temporarily (e.g., executives who exercise stock-options irregularly,[17] careers of sport or show-business stars usually last for just a few years). To the extent that such cases became more prevalent in recent years (as seems possible based on popular accounts), the sharp increase in the concentration of annual incomes documented by Piketty and Saez (2003) may translate into a smaller increase in the concentration of lifetime incomes.

The very rough comparison between income and estate data that we have presented suggests that it would be interesting to try and estimate wealth concentration from income tax return data using the capitalization of income method. In spite of the existence of extremely detailed and consistent income tax return annual data in the United States since 1913, this method has

[17]Stock-options exercises are reported as wage income on income tax returns.

very rarely been used, and the only existing studies have applied the method for isolated years.[18] An explanation for the lack of systematic studies is that the methodology faces serious challenges: income data provides information only on assets yielding reported income (for example, owner-occupied real estate or Defined Contribution pension plans could not be observed), and there is substantial and unobservable heterogeneity in the returns of many assets, especially corporate stock (for example, some corporations rarely pay dividends and capital gains are only observed when realized on income tax returns).[19] Nevertheless, it would certainly be interesting to use income tax return data to provide a tighter comparison with our wealth concentration results from estates. We leave this important and ambitious project for future research.

4.2 Why Have Top Wealth Shares Fallen?

We have described in the previous section the dramatic fall in the top wealth shares (concentrated within the very top groups) that has taken place from the onset of the Great Depression to the late 1940s. Our previous analysis has shown that stock market effects might explain the sharp drop in top wealth shares during the Great Depression, the New Deal, and World War II but cannot explain the absence of recovery in top wealth shares in the 1950s and 1960s because stock prices were very high again by the end of the 1960s. At that time, the wealth composition in top groups was again very similar to what it had been in the late 1920s, and yet top wealth shares hardly recovered in the 1950s and 1960s and were still much lower in the 1960s than before the Great Depression. As we saw before, this sustained drop is fully consistent with the evidence on very top income shares from Piketty and Saez (2003), although the lack of sustained recovery in the recent years is at odds with findings based on income shares.

The most natural and realistic candidate for an explanation seems to be the creation and the development of the progressive income and estate tax. The very large fortunes (such as the top .01%) observed at the beginning of the 20th century were accumulated during the 19th century, at a time where progressive taxes hardly existed and capitalists could dispose of almost 100% of

[18] King (1927) and Stewart (1939) used this method for years 1921 and 1922-1936 respectively. More recently, Greenwood (1983) has constructed wealth distributions for 1973 using simultaneously income tax return data and other sources.

[19] See Atkinson and Harrison (1978) for a detailed comparison of the income capitalization and the estate multiplier methods for the United Kingdom.

their income to consume, accumulate and transmit wealth across generations. The conditions faced by 20th century fortunes to recover from the shocks incurred during the 1929-1945 period were substantially different. Starting in 1933 with the New Roosevelt administration, and continuously until the Reagan administrations of 1980s, top tax rates on both income and estates have been set at very high levels.

These very high marginal rates applied only to a very small fraction of taxpayers and estates, but the point is that they were to a large extent designed to hit the incomes and estates of the top 0.1% and 0.01% of the distribution. Neo-classical models of capital accumulation indeed predict that capital income taxation has a negative impact on wealth concentration. In the presence of progressive capital income taxation, individuals with large wealth levels need to increase their savings rates much more than lower wealth holders to maintain their relative wealth position. Moreover, savings rates for high wealth holders are likely to decrease due to a reduced after-tax rate of return. This behavioral response will exacerbate the decrease in wealth inequality. In the case of estate taxation, wealthy individuals have also incentives to give more to charities (see e.g., Joulfaian (2000)), or give away their fortunes during their lifetime before their death, which will also produce a reduction in top wealth shares.[20]

Although we cannot observe the counterfactual world where progressive taxation would not have taken place, we note that economic growth (both for net worth and incomes) has been much stronger starting with World War II, than in the earlier period. Thus, the direct evidence does not suggest that progressive taxation prevented the American capital stock from recovering from the shock of the Great Depression. As strikingly shown by Piketty (2003) in the purest neo-classical model without any uncertainty, a progressive capital income tax hitting only the rich does not affect negatively the capital stock in the long-run. If credit constraints due to asymmetric information are present in the business sector of the economy, it is even conceivable that redistribution of wealth from large and passive wealth holders to entrepreneurs with little capital can actually improve economic performance (see e.g., Aghion and Bolton (2003) for such a theoretical analysis). Gordon (1998) argues that high personal income tax rates can result in a tax advantage to entrepreneurial activity, thereby leading to economic growth. A more thorough

[20]Lampman (1962) also favored progressive taxation as one important factor explaining the reduction in top wealth shares in his seminal study (see below).

investigation of the effects of income and estate taxation on the concentration of wealth in the United States over the 20th century would require a carefully calibrated analysis within the standard macro-dynamic model. We leave such an analysis for future work.

5 Are Estimates from Estates Reliable?

In this section, we explore the issue of the reliability of our estimates. Our top wealth share estimates depend crucially on the validity of the estate multiplier method that we use. Thus we first discuss the potential sources of bias and how they can potentially affect the results we have described. Second, we compare our results with previous findings using estate data but also other data sources such as the Survey of Consumer Finances (SCF), and the Forbes 400 Wealthiest Americans lists. We will be especially careful to assess whether biases can affect our two central results: the dramatic drop in top shares since 1929 and the absence of increase in top shares since the mid-1980s.

5.1 Potential Sources of Bias

The most obvious source of bias would be estate tax evasion or under-reporting of the true value of assets during the estate taxation process. Three studies, Harris (1949), McCubbin (1994), and Eller et al. (2001) have used results from Internal Revenue Service audits of estate tax returns for years 1940-41, 1982, and 1992 (respectively). Harris (1949) reports under-reporting of net-worth of about 10% on average with no definite variation by size of estate, while McCubbin (1994) and Eller et al. (2001) report smaller under-reporting of about 2-4% for audited returns. Those numbers are small relative to the size of the changes we have presented. Thus, it sounds unlikely that direct tax evasion or under-reporting can have any substantial effects on the trends we have documented and can certainly not explain the dramatic drop in top wealth shares. It seems also quite unlikely that under-reporting could have hidden a substantial growth in top wealth shares in the recent period. From 1982 to 2000 in particular, the estate tax law has changed very little and hence the extent of under-reporting should have remained stable over time as well.

A closely related problem is undervaluation of assets reported on estate tax returns. Since 1976, the so-called "special-use" rules allowed estates consisting primarily of a closely held

business or family farm to be significantly undervalued. We adjust our data to reflect the fair market value of assets granted such a treatment; the quantitative importance of this adjustment is very minor (it is always less than 1% of net worth). Since 1935, the executor of an estate has had an option of using the "alternate valuation", whereby assets can be valued one year (later reduced to half-a-year) after death instead of being valued at the time of death. Due to limitations of our data, we were unable to construct a date-of-death series for 1935-1945 and the alternate valuation was not an option before 1935. We always use valuation elected on the tax return. Post-1945, we can compare the results to the date-of-death valuations and the difference is minor.[21] As discussed by e.g., Schmalbeck (2001) and Johnson et al. (2001), certain types of assets are routinely allowed by the courts to be valued at a discount. This applies in particular to situations where estate holds a significant amount of a certain kind of property (e.g., corporate stock) so that its sale would likely result in a significant reduction in price (so called non-marketability discounts). Discounts are also granted to minority interests and certain difficult to sell assets (such as works of art). Johnson et al. (2001) found that only approximately 6% of returns claimed minority or lack-of-marketability discounts and that their average size was about 10% of gross estate (for those who claimed the discounts). Poterba and Weisbenner (2003) pursue this direction further and find that assets that can benefit from the discounts appear to be understated on the tax returns. It is possible that the bias resulting from these kinds of discounts might have increased over time, because many of these approaches are relatively new and driven by court cases rather than legislative activity. The extent of this problem is unclear but these adjustments appear too small to have a significant effect on wealth shares.

As we have discussed briefly in Section 2, the estate multiplier method requires precise assumptions in order to generate unbiased estimates of the wealth distribution for the living. We use the same multiplier within age, gender, and year cells for all estate tax filers, independent of wealth. The key assumption required to obtain unbiased wealth shares is that, within cells, mortality is not correlated with wealth. A negative correlation would generate a downward bias

[21] Beginning with 1976, the difference between net worth computed using alternate and date of death valuations is less than 1% of the total net worth in all of our income categories. In 1962, 1965 and 1972 that difference is of the order of 1-2%. The difference is larger in 1969 probably due to a data problem.

in top wealth shares as our multiplier would be too low for the richest decedents.

There are two direct reasons why such a negative correlation might arise. First, extraordinary expenses such as medical expenses and loss of labor income or of the ability to manage assets efficiently may occur and reduce wealth in the years preceding death, producing a negative correlation between death probability and wealth. Smith (1999) argues that health expenses are moderate and therefore are not a major factor driving the correlation of wealth and mortality, his evidence is based however on expenditures of the living and it is the end-of-life health expenditures that are most significant. It seems unlikely, though, that health-related expenses create a significant dent in the fortunes of the super-rich but we were unable to assess the importance of lost earnings.[22]

Second, even within the small group of estate tax filers, the top 1 or 2% wealth holders, it might be the case that the most able and successful individuals have lower mortality rates. It would be surprising though, that the mortality gains could still be significant above a certain level of wealth. Although we cannot measure with any precision the quantitative bias introduced by those effects, there is no reason to believe that such biases could have changed dramatically over the period we study. In particular, they cannot have evolved so quickly in the recent period so as to mask a significant increase in top wealth shares and, for the same reason, they are unlikely to explain the sharp decrease in top wealth shares following the onset of the Great Depression.

More importantly, however, individuals may start to give away their wealth to relatives and heirs as they feel that their health deteriorates for estate tax avoidance reasons. Indeed, all estate tax planners recommend giving away wealth before death as the best strategy to reduce

[22]For some years, our dataset contains information about the length of terminal illness. A simple regression of net worth on the dummy variable indicating a prolonged illness and demographic controls produced a significant coefficient, suggesting that this effect may play a role. One of the items reported on tax returns are "medical debts." We can observe their value starting in 1989. These kinds of debts are less than 0.5% of the total net worth in all income categories and of the order of 0.1% at the top. One might expect that medical expenses toward the end of life should be partly debt-financed to avoid quick sales of illiquid assets or to avoid unnecessary taxation of capital gains shortly before the possibility of a step-up. Small magnitude of such debts suggests that medical expenses toward the end of life are probably not significant enough to have an important effect on our wealth measures.

transfer tax liability. Gifts, however, create a downward bias only to the extent that they are made by individuals with higher mortality probability within their age and gender cell. If gifts are unrelated to mortality within age and gender cells, then they certainly affect the wealth distribution of the living but the estate multiplier will take into account this effect without bias.[23] Three important reasons suggest that gifts may not bias our results. First and since the beginning of the estate tax, gifts made in contemplation of death (within 2-3 years of death, see Appendix C for details) must be included in gross estate and thus are not considered as having been given in our wealth estimates. We expect that a large fraction of gifts correlated with mortality to fall into this category. Second, a well known advice of estate tax planners is to start giving as early as possible. Thus, those most interested in tax avoidance will start giving much before contemplation of death and in that case gifts and mortality have no reason to be correlated. Last, since 1976, the estate and gift tax have been unified and the published IRS tabulations show that taxable gifts (all gifts above the annual exemption of $10,000 per donee) represents only about 2-3% of gross estate. Thus, lifetime gifts are clearly not large enough to produce a significant bias in our estimates.

A more subtle possibility of bias comes from a related tax avoidance practice which consists in giving assets to heirs without relinquishing control of those assets. This is mostly realized through trusts whose remainder is given to the heir but whose income stream is in full control of the creator while he is alive. Like an annuity, the value of such a trust for the creator disappears at death and thus does not appear on estate tax returns. This type of device falls in between the category of tax avoidance through gifts and under-valuation of the assets effectively transferred. The popular literature (see e.g., Cooper (1979)) has suggested that many such devices can be used to effectively avoid the estate tax but careful interviews of practitioners (Schmalbeck, 2001) suggest that this is a clear exaggeration and that reducing significantly the estate tax payments requires actually giving away (either to charities or heirs) a substantial fraction of wealth. Again, such a source of reduction in wealth holdings reflects a real deconcentration of wealth (though, not necessarily welfare) and does not constitute a problem for our estimates.

[23]Similarly, increased bequests to spouses following the more favorable treatment of spousal bequests in 1948 and 1982 may change the wealth distribution but this change is and ought to be taken into account by the estate multiplier method.

5.2 Changes in Bias Over Time

It is important to emphasize that *real* responses to estate taxation, such as potential reductions in entrepreneurship incentives, savings, or increases in gifts to charities or relatives, do not bias our estimates in general because they do have real effects on the distribution of wealth. Only outright evasion or avoidance of the type we just described can bias our results; and those effects need to evolve over time in order to counter-act the trends we have described. We would expect that changes in the levels of estate taxation would be the main element affecting avoidance or evasion incentives overtime.

It is therefore important to have in mind the main changes in the level of estate taxation over the period (see Appendix C and Luckey (1995) for further details). Since the beginning of the estate taxation, the rate schedule was progressive and subject to an initial exemption. The 1916 marginal estate tax rates ranged from 0 to 10%. The top rate increased to 40% by 1924, a change that was repealed by the 1926 Act that reduced top rates to 20%. Starting in 1932, a sequence of tax schedule changes increased the top rates to 77% by 1942, subject to a $60,000 nominal exemption. The marginal tax rate schedule remained unchanged until 1976, resulting in a fairly continuous increase of the estate tax burden due to bracket-creep. Following the 1976 tax reform, the exemption was increased every year. The top marginal tax rates were reduced to 70% in 1977 and 55% by 1984. There were no major changes until 2001 (the nominal filing threshold stayed constant at $600,000 between 1988 and 1997). Figure 9 reports the average marginal tax rate in the top 0.1% group[24] and the statutory marginal tax rate applying to the largest estates[25] (left y-axis), along with the top 0.1% wealth share (right y-axis). It is evident from this picture that the burden of estate taxation increased significantly over time. Somewhat surprisingly, the most significant increases in the estate tax burden were brought about by holding brackets constant in nominal terms rather than by tax schedule changes.

There are very few papers that attempted to measure the response of wealth to estate

[24]These tax rates are computed by first evaluating the marginal tax rates at the mean net worth in Top .01%, .05-.01 and .1-.05 and then weighting the results by net worth in each category. These are "first-dollar" marginal tax rates that do not take into account deductions but just the initial exemption.

[25]After 1987, there is an interval of a 5% surtax intended to phase out the initial exemption in which the marginal tax rate (60%) exceeds the marginal tax rate at the top (55%).

taxation.[26] Kopczuk and Slemrod (2001) used the same micro-data than we do to estimate the impact of the marginal estate tax rates on net worth. They relied on both time-series variation and cross-sectional age variation that corresponds to having lived through different estate tax regimes. They found some evidence of an effect, with tax rates at age of 45 or 10 years before death more strongly correlated with estates than the actual realized marginal tax rates. Because the source of their data are tax returns, they were unable to distinguish between tax avoidance and the real response. Holtz-Eakin and Marples (2001) relied on the cross-sectional variation in state estate and inheritance taxes to estimate the effect on wealth of the living. They found that estate taxation has a significant effect on wealth accumulation. It should be pointed out though that their dataset contained very few wealthy individuals. None of these studies is fully convincing in terms of its identification strategy. Taken at face value, both of these studies find very similar magnitudes of response (see the discussion in Holtz-Eakin and Marples, 2001) suggesting little role for outright tax evasion: the Holtz-Eakin and Marples (2001) data is not skewed by tax evasion and avoidance while the effect estimated by Kopczuk and Slemrod (2001) reflects such potential responses. This would imply that trends in concentration due to tax evasion and avoidance are not a major issue.

Regardless of these findings, given that between 1982 and 2000 the estate tax system has changed very little, we would expect that the extent of tax avoidance and evasion has also remained fairly stable. As a result, the absence of increase in top shares since in the 1990s is probably not due to a sudden increase in estate tax evasion or avoidance.

5.3 Comparison with Previous Studies and Other Sources

Another important way to check the validity of our estimates from estates is to compare them to findings from other sources. We have presented a brief comparison above with findings from income tax returns. After reviewing previous estate tax studies, we turn to comparisons with wealth concentration estimations using other data sources.

[26]There is a larger literature that concentrates on gifts. See for example, McGarry (1997); Bernheim et al. (2001); Poterba (1998); Joulfaian (2003).

5.3.1 Previous Estate Studies

Lampman (1962) was the first to use in a comprehensive way the U.S. estate tax statistics published by the IRS to construct top wealth shares. He reported the top 1% wealth shares for the adult population for a number of years between 1922 and 1956.[27] His estimates are reproduced on Figure 10, along with our series for the top 1%. Although the method, adjustments, and total net-worth denominators are different (see appendix), the two series are comparable and display the same downward trend after 1929.

Smith (1984) produced additional estimates for the top 0.5% and top 1% wealth shares for some years in the 1958-1976 period using estate tax data. In contrast to Lampman (1962) and our series, the top 1% is defined relative to the full population (not only adults) and individuals are ranked by gross worth (instead of net-worth).[28] We reproduce his top 1% wealth share, which looks broadly similar to our estimates and displays a downward trend which accelerates in the 1970s. Perhaps surprisingly, no study has used post 1976 estate data to compute top wealth shares series for the recent period. A number of studies by the Statistical Division of the IRS have estimated wealth distributions from estate tax data for various years but those studies only produce distributions, and composition by brackets and do not try in general to estimate top shares.[29] An exception is Johnson and Schreiber (2002-03) who present graphically the top 1% and .5% wealth share for 1989, 1992, 1995, and 1998. Their estimates are very close to ours and display very little variation over the period.

5.3.2 Survey of Consumer Finances

The Survey of Consumer Finances (SCF) is the only other data that can be used to estimate adequately top wealth shares in the United States because it over-samples the wealthy and asks detailed questions about wealth owning. However, the survey covers only years 1962, 1983, 1989, 1992, 1995, 1998, 2001 and cannot be used to compute top shares for groups smaller than the top

[27] Lampman (1962) does not analyze smaller groups within the top 1% adults.

[28] See Smith and Franklin (1974) for an attempt to patch the Lampman series with estimates for 1958, 1962, 1965, and 1969.

[29] See Schwartz (1994) for year 1982, Schwartz and Johnson (1994) for year 1986 and Johnson and Schwartz (1994) for year 1989, Johnson (1997-98) for years 1992 and 1995, and Johnson and Schreiber (2002-03) for year 1998.

0.5% because of small sample size. It should also be noted that all the information in the SCF is at the family level and not the individual level. Kennickell (2003) provides detailed shares and composition results for the 1989-2001 period, and Scholz (2003) provides top share estimates for all the years available. Kennickell and Scholz results are very close. We reproduce the top 1% wealth share from Scholz (2003) on Figure 10. It is important to note that, in contrast to estate data, the SCF is based on families and not individuals.

The SCF produces estimates larger in levels than estates: the top 1% share from estates is between 20 and 25% while to the top 1% share from the SCF is slightly above 30%. We discuss below the reasons that have been put forward to explain this difference by various studies. However, the important point to note is that, as our estate estimates, the SCF does not display a significant increase in top wealth shares. There is an increase from 1992 to 1995, but this increase has in large part disappeared by 2001. As a result, the top 1% shares from the SCF in 1983 and 2001 are almost identical.[30] In particular, it is striking to note that the top 1% share did not experience any gain during the bull stock market in the second half of the 1990s. Therefore, two independent sources, the estate tax returns and the SCF, arguably the best data sources available to study wealth concentration in the United States, suggest that wealth concentration did not increase significantly since the mid 1980s, in spite of the surge in stock market prices.

A few studies have compared estate tax data with the SCF in order to check the validity of each dataset and potentially estimate the extent of tax avoidance. Scheuren and McCubbin (1994) and Johnson and Woodburn (1994) present such a comparison for years 1983 and 1989 respectively. They find a substantial gap between the two datasets, of similar magnitude than the one between our estimates and Scholz (2003) estimates.[31] One important source of discrepancy comes from the fact that the SCF is based on families while estate estimates are individually based. Johnson and Woodburn (1994) tries to correct for this and finds a reduced gap, although, in absence of good information on the distribution of wealth within rich families, the correction method might be very sensitive to assumptions (see below).

[30] Kennickell (2003) reports standard errors of around 1.5 percentage points around the top 1% share estimates. Thus, the small movements in the SCF top 1% share might be due in large part to sampling variation.

[31] The statistics they report do not allow a precise comparison of the gap in the top 1% wealth share.

Scheuren and McCubbin (1994) describes other potential sources creating biases. In addition to the tax avoidance and under-valuation issues that we describe above, they show that SCF wealth might be higher than estate wealth because the value of closely held businesses might drop substantially when the owner-manager dies. Thus, the SCF wealth measure of businesses incorporates human wealth that is by definition excluded from estates. Therefore, the SCF and estates may not measure the same wealth and both measures are interesting. The estate represents wealth that can be transferred while the SCF includes in part human wealth that is destroyed at death. Further comparisons, asset by asset, of the SCF and estate tax returns would be useful to understand better the quantitative importance of each of the sources we have mentioned.

More recently, Wolff (1996) uses the SCF 1992 data to estimate how much estate tax should be collected by applying average mortality rates to the SCF population. He finds that expected collections estimated from the SCF should be about 4 times larger than actual estate tax collections for those who died in 1992. Poterba (2000), however, repeats Wolff study for 1995 and finds that estate taxes estimated from the SCF are just 10% higher than what was actually collected. Eller et al. (2001) show that the results are quite sensitive to assumptions made about mortality rates, and marital and charitable bequests but find a range of estimates much closer to Poterba than to Wolff. Our top wealth share estimates are about 25% lower than the SCF top wealth shares, suggesting that there is some under-reporting of estates, but that the extent of under-reporting is actually much closer to the small gap found by Poterba (2000) than the very large gap found by Wolff (1996).

Finally, Wolff (1994) has produced series of top 1% wealth shares by pasting together the earlier estate series by Lampman (1962) and Smith (1984) and the modern SCF estimates.[32] These series represent the top 1% households (not individuals) and are reproduced on Figure 10. They show that patching together data from difference sources is a perilous exercise. The Wolff series suggest that there has been a tremendous decline in wealth concentration in the 1960s and 1970s from 34% to 20%, followed by an equally large surge in concentration to above 35% in 1989. Our series based on an homogeneous estate tax data show that the evolution of

[32]These series are a revised and extended version of the earlier Wolff-Marley series constructed in the same way and presented in Wolff and Marley (1989).

concentration has actually been much less dramatic during that period.

5.3.3 Forbes 400 Richest Americans

The popular view is that the personal computer revolution of the 1980s, and the development of internet in the 1990s, created many new business opportunities and the extremely quick creation of new fortunes (the so called dot-comers). Therefore, although we document a clear increase in concentration in the early 1980s, the absence of an increase in wealth concentration during the 1990s seems like a very surprising result. Another valuable source to examine the creation of new fortunes and the evolution of the wealth of the super-rich is the Forbes annual survey of the top 400 richest Americans, available since 1982. This systematic source has certainly been highly influential in creating the feeling that the last two decades had been extraordinary favorable to the creation of new fortunes.

The Forbes 400 represent an extremely small fraction of the U.S. adult population, about the top .0002% in 2000, that is, a group 50 times smaller than our top .01% group. We have used the Forbes 400 survey to estimate the top .0002% (corresponding almost exactly to the top 400 individuals in 2000) wealth share. This share is displayed on Figure 11. It shows that the fraction of wealth controlled by the top fortunes tripled from just above 1% in the early 1980s to above 3.5% at the peak in 2000. From 2000 to 2002, the share has come down to just below 3% in 2002. Thus the Forbes data is indeed consistent with the popular view that the richest individuals in the United States control a sizeable share of total wealth and, more importantly, that this share has increased significantly over the last two decades. The top .01% share we estimated was around 4% since the mid-1980s. This is compatible with a top .0002% share slightly above 1% as in the early 1980s but not with a top .0002% share equal to 3.5% as in the peak of 2000.[33] Therefore, it appears that our top wealth share series from estates have failed to capture the increase due to the surge in the Forbes 400 top fortunes.[34]

[33]More precisely, if the wealth is Pareto distributed with parameter a, then the ratio of the top .01% wealth share to the top .0002% wealth share is $(.01/.0002)^{1-1/a} = 3.7$ for $a = 1.5$, which is about the Pareto parameter we obtain for our wealth distributions.

[34]Scheuren (1994) suggested that the very largest estates may never get into the IRS statistics because auditors are reluctant to give them up. There are, however, very few returns in our dataset that are filed more than two years after death of the decedent, with virtually no such cases at the very top. Therefore, it is unlikely that we

For the early 1980s, McCubbin (1994) analyzed estate tax returns of Forbes 400 decedents and found that wealth reported on estate tax returns was on average 35% lower than on the Forbes list. The discrepancy was attributed mostly to the fact that the estate tax returns include only the assets and property owned by the individual decedent while the Forbes survey also includes wealth distributed to the spouse, and the full value of trusts set-up to distribute wealth to family relatives but whose creator retains control. It would be extremely useful to repeat this study for the full period 1982-2002 in order to understand the reasons for the growing discrepancy that has taken place since the mid-1980s between top estates and the Forbes 400.

It is interesting to divide further the group of the Forbes 400 into the top 100 and the next 300 richest (for year 2000). Those top groups correspond to the top .00005% and top .0002-.00005% using our usual notation. The share of wealth accruing to those two groups is reported on Figure 11. It displays a striking contrast: the share of wealth of the top 100 have been multiplied by a factor 4.3 from 1983 to 2000 while the share of wealth of the next 300 richest individuals has only been multiplied by a factor 2.1 during the same period.[35] It is also important to note that the share of the two groups is closely parallel during the 1980s, a decade of relatively modest growth for the Forbes shares, and that the bulk of the divergence between the two Forbes groups, is concentrated in just 3 years, 1996 to 1999, which are the years of fastest growth of the stock market (see Figure 1). It would be interesting to use the Forbes data to analyze to what extent the new technology stock market "bubble" can account for this phenomenon. In sum, three quarters of all the gains to the Forbes 400 from 1983 to 2000 have actually accrued to the top quarter of the list, and most of those gains happened in the second half of the 1990s. Therefore, taken at face value, the Forbes data, combined with the absence of a significant increase in top wealth shares in the Estate tax data and the SCF, suggest that

could have missed the trend visible in the Forbes 400 data throughout the 1990s simply because of the late filing issue. It is also possible that we simply missed the dot-com millionaires: if just a few of them are responsible for the surge, it is possible that they were simply not sampled (by death). Given that these types of fortunes accrued to relatively young individuals and that death probability (adjusted by the socioeconomic status) does not even reach 1% by the age of 60, it seems possible that a few-year long surge of wealth of a few individuals can remain unnoticed.

[35]The threshold corresponding to the bottom of the top 400 has actually increased "only" by 75% from 1983 to 2000.

among the rich, only the top few hundred richest individuals in the country have experienced sizeable gains since the mid-1980s, while the vast majority of the rich actually did not experience much gains relative to the average wealth holder in the U.S. population.

The number of fortunes created by the development and expansion of new technology sector is certainly more than a few hundred. This fact can be consistent with our findings only if, at the same time those new fortunes were created, fortunes of similar magnitude were being destroyed. Analyzing in more detail the rise and fall of the new technology companies over the last two decades could be an interesting way to cast light on this issue, and understand why the results from estate tax returns or the SCF seem so much at odds with the popular perception of the 1990s decade.

Our top wealth shares series from estates show a sharp drop in very top wealth shares from 1916 to 2000; although the Forbes data suggest that our estimates have missed the surge in wealth of the very wealthiest richest Americans. How do the very richest Americans of today compare with the richest individuals from the beginning of the twentieth century? Forbes proposed a list in 1918 of the top 30 richest Americans. The richest person at the time was John Rockefeller, who held an estimated fortune of $1.2 billion (current dollars), and thus held 0.54% of total net-worth. How does this compare with the wealth of the richest Americans in 2000, the very peak of the stock-market? As population has grown by a factor 3.33 from 1918 to 2000, to provide a meaningful comparison, we need to add the fortunes of Bill Gates, Lawrence Ellison, Paul Allen, and one third of Warren Buffet, the richest Americans in 2000. They total $166.33 billion, which 0.52% of total net-worth, almost exactly the same as John Rockefeller in 1918. Thus, even the peak of the stock market bubble did not produce top fortunes larger than the one accumulated by John Rockefeller by 1918, and our top shares results suggest that there were many more wealthy individuals below him than today below Bill Gates.

6 Conclusion

This paper has presented new homogeneous series on top wealth shares from 1916 to 2000 using estate tax return data. Although many studies have analyzed wealth inequality in the United States, none had presented consistent concentration estimates over such a long period on a

quasi-annual basis. We have found that the shocks of the Great Depression, the New Deal, and World War II, have produced a dramatic decrease in the top wealth shares. This decrease has been concentrated within the upper part of the top percentile, the top .1% of the wealth distribution, with much more modest changes for lower wealth groups within the top 1%. This evidence is consistent with the dramatic decline in top capital incomes documented in Piketty and Saez (2003). The large shocks that large wealth holders experienced in the first part of the century seem to have had a permanent effect: top wealth shares increased very modestly during the stock market booms of the 1960s and 1990s, and are much lower today than in the pre-Great Depression era. We have tentatively suggested that steep progressive income and estate taxation, by reducing the rate of wealth accumulation, may have been the most important factor preventing large fortunes from being reconstituted.

Surprisingly, our top wealth shares series do not increase during the 1990s, a time of extraordinary stock price growth and perceived as having been extremely favorable to the creation of new fortunes. Our results are consistent with findings from the Survey of Consumer Finances (Kennickell (2003) and Scholz (2003)) which also display hardly any significant growth in wealth concentration since 1995. This absence of growth in top wealth shares are also consistent with the top income shares results from Piketty and Saez (2003) because the recent dramatic growth in top income shares has been primarily due to a surge in top labor incomes, with little growth of top capital incomes. Examination of the widely known Forbes 400 richest Americans survey shows a dramatic gain for those wealthy individuals but most of the gains are concentrated within the top 100 and in the few years of the stock market "bubble" of the late 1990s. Our composition series suggest that by 2000, the top 1% wealth holders do not hold a significantly larger fraction of their wealth in the form of stocks than the average person in the U.S. economy, explaining in part why the bull stock market of the late 1990s has not benefited disproportionately the rich.

To what extent is the U.S. experience representative of other developed countries' long run wealth concentration dynamics? Existing wealth concentration series are unfortunately very scarce and incomplete for most countries, and it is therefore very difficult to provide a fully satisfactory answer to this question. However, it is interesting to compare the U.S. top wealth series with comparable series constructed for the United Kingdom by Atkinson and Harrison (1978) and the Inland Revenue, and for France by Piketty et al. (2003). There are important

similarities between the American, French, and British pattern of the top 1% wealth share displayed on Figure 12. In all three countries, top income shares fell considerably during the 1913 to 1950 period, and they were never able to come back to the very high levels observed in the early decades of the century. By the end of the century, the top 1% wealth shares are remarkably close around 22% is all three countries. It is plausible to think that in all three countries, top capital incomes have been hit by the depression and wars shocks of the first part of the century and could not recover because of the dynamic effects of progressive taxation on capital.

Some important differences need however to be emphasized. First, in the early decades of the century, top wealth shares were much higher in France, and especially the United Kingdom, than in the United States. Just before the Great Depression, the top 1% share is about 40% in the United States, 50% in France, and 60% in the United Kingdom. Thus, the dramatic fall of top wealth shares that we described for the United States pales in comparison to the French and British decline. Unsurprisingly, the decline in France is much steeper during World War II, which destroyed a large fraction of the capital stock in the country. Second, in contrast to France and the United States where the top 1% wealth share has been relatively stable since the late 1940s, the top 1% wealth share continues to fall in the United Kingdom from over 45% in the 1950s to about 20% in the late 1970s.[36] Finally, the increase in the top 1% wealth share in the last decades in the United States and the United Kingdom has been of similar and modest magnitude (from less than 20% to 22-23%) but the timing has been different.[37] All of the gains occurred in the early 1980s in the United States, while all the gains happened in the late 1990s in the United Kingdom. A detailed analysis of the U.K. very top shares (such as the top .1%) and composition would be useful to understand whether this difference is driven from differences in concentration of stock ownership in the two countries.

It is striking that, in both the United States and the United Kingdom, top wealth shares have increased so little in spite of a surge in top income shares. Atkinson (2002) shows that the top 1% income share increased from less than 5% in the late 1970s to over 10% in 1999 in the United Kingdom. The increase for the United States has been from less than 8% to about

[36] Analyzing the evolution of top income and wealth taxation in the three countries more carefully could be useful to test whether taxation is the main factor driving top wealth shares.

[37] The French top wealth share does not seem to have increased at all since the early 1980s.

16% during the same period (Piketty and Saez, 2003). Such a pattern might not last for very long because our proposed interpretation also suggests that the decline of progressive taxation observed since the early 1980s in the United States[38] and in the United Kingdom could very well spur a revival of high wealth concentration during the next few decades.

[38]Top income tax rates have gone down dramatically from 70% to 35% since 1981 and the U.S. estate tax is scheduled to be phased-out by 2011.

Appendix A Multiplier Method

The estate multiplier method relies on the assumption that decedents represent a random draw from the living population. Consequently, denoting the probability of dying by m_i, a single estate observation stands for $\frac{1}{m_i}$ observations, so that the observed estate of E_i stands for the wealth of $\frac{1}{m_i}E_i$. An exception here is life insurance. The expected value of life insurance paying L_i to a living individual is $m_i L_i$ and thus realized decedent's value of life insurance of L_i stands for the population wealth of $\frac{1}{m_i}m_i L_i = L_i$.[39] Consequently, a single observation of terminal estate E_i that can be divided into life insurance of L_i and (not conditional on death) net worth of W_i corresponds to $\frac{1}{m_i}$ individuals with the total wealth of $\frac{1}{m_i}W_i + L_i$. Our measures of W_i and L_i are described in Appendix C and our mortality measures are presented in Appendix B.

An implementation of the multiplier technique requires that wealth and mortality rates are appropriately measured. There are problems with both that we will discuss in what follows. It also requires the assumption of a random draw from the population. There are at least two reasons why this assumption is non-trivial.

First, individuals may decumulate in anticipation of death, thereby making decedents a non-representative sample from the population. For example, some individuals who died had experienced a prolonged terminal illness. This is important because of accompanying expenses and the potential tax planning activities in anticipation of death. The effect may simply be due to higher out of pocket health expenses of the individuals who died compared to survivors. Smith (1999) argues that such expenses are moderate and therefore do not have major impact on wealth. However, his evidence is based on expenditures of the living, while there is some evidence that it is the end-of-life health expenditures that are most significant. Alternatively, when dealing with the tax data as we do here, there is also a possibility that observed estates are skewed by tax avoidance and therefore do not accurately reflect wealth of a typical individual.[40]

Second, to the extent that *a priori* mortality risk varies in the population and people have

[39]The alternative would be to use market prices to determine the cash value of life insurance. While such an approach would be more appropriate from the point of view of evaluating individual well-being, it would not reflect the amount of financial resources that is ultimately controlled by the wealthy. Our approach consistently estimates the share of national wealth that is effectively owned by the top wealth share rather than estimating any notion of welfare.

[40]This type of tax avoidance may be more prevalent among individuals who died compared to those who survived, because increased likelihood of death may motivate taxpayers to undertake planning. The importance of such an effect is mitigated by the fact that some avoidance strategies (such as gift giving) that are performed in anticipation of death are explicitly disallowed by the tax code. Note also that there is a qualitative difference between tax avoidance and real behavioral response to taxation in this context. To the extent that taxpayers truly adjust their behavior in response to taxation, it represents an economically meaningful impact on the wealth distribution. Tax avoidance that allows to reduce the size of taxable estate without effectively relinquishing control (see Wojciech Kopczuk and Joel Slemrod (2003) and especially the comment by Ray Madoff (2003) for a related discussion) will bias our results toward finding lower share of wealth at the top without a real effect. Such response is likely to vary with changes in the tax rates and therefore the bias might have changed over time. There is some evidence that the size of estates responds to tax incentives (Kopczuk and Slemrod, 2001; Holtz-Eakin and Marples, 2001). It is unclear whether the effect, if any, would be due to a real reduction in wealth or else due to tax avoidance. Some authors suggest that tax avoidance is rampant (Cooper, 1979), others disagree (Schmalbeck, 2001). Poterba (1998) and McGarry (1997) find that easy avoidance strategies that rely on gifts are not taken advantage of. On the other hand, Joulfaian (2003) finds using aggregate data that gift tax revenue is highly sensitive to expected marginal tax rates, while Poterba and Weisbenner (2003) find some evidence of the quantitative importance of an abusive use of minority discount provisions.

private information about their own frailty,[41] their wealth accumulation patterns might well be different. Alternatively, under one of the theories explaining the relationship of health and income or wealth, healthier people may simply be more productive and therefore wealthier. A correlation of the error between actual and assumed mortality rates with wealth will tend to bias the results even in the absence of any other measurement issues.

Appendix B Population and Mortality

Mortality differential — its presence and its size One of the key issues in implementing the estate multiplier technique to estimate wealth shares of the wealthy is the choice of appropriate mortality rates. The ideal mortality tables would apply specifically to the wealthy and would be broken down by age and demographic characteristics. Our baseline mortality tables were obtained from the Human Mortality Database (www.mortality.org) and rely on the life tables constructed by the Office of the Actuary of the Social Security Administration (see Bell et al., 1992, for a full description of the methodology). The mortality tables by age and gender are available at annual frequency between 1900 and 1995. Between 1996 and 2000, we are using mortality projections available from the same source. These mortality tables are representative of the whole population.

It is well-known that health and mortality rates are negatively associated with higher socioeconomic status measured by education, income (Deaton and Paxson, 1999, show that the effect is still present when education is controlled for), wealth (Attanasio and Hoynes, 2000) and wealth ranking (Attanasio and Emmerson, 2001). Deaton (2002, 2003) and Smith (1999) are recent surveys of the literature on this topic. In their pioneering study, Kitagawa and Hauser (1973) documented the importance of the socioeconomic differences in mortality rates in the United States using 1960 Census data, but there is also some evidence of differences by social classes that goes back much further (see Deaton, 2002, for references). The presence of such differences is also affirmed in more recent data. The U.S. National Longitudinal Mortality Study was specifically designed to study socioeconomic differentials. The sample consists of 1.3 million (approximately half of that in the public release data) individuals primarily drawn from the 12 CPS studies between March 1973 and March 1985 and matched with the National Death Index between 1979 and 1985 to identify deaths (see Rogot et al., 1992, for the details of the design). Extensive tabulations in Rogot et al. (1992) document substantial mortality differentials by race, education and income categories. The study has its limitations: income is poorly measured and the sample does not include institutionalized individuals. Figure A1 is based on the tabulations in Rogot et al. (1992). It shows the ratio of mortality rates of white individuals with the highest family incomes to the population average. Income categories are defined in terms of 1980 dollars. The whites in $25,000 and over group constitute approximately 25% of the population while the whites in $50,000 and over groups constitute approximately 5%. There is considerable noise in the estimates for the top income category due to limited number of observations: for example, the category of 25 to 35 years old women with income above $50,000 includes a bit more than 3000 individuals but just 11 deaths. Nevertheless, the figure illustrates that mortality rates for the higher income categories are usually significantly below the population ones and that the

[41] Hurd et al. (1999) find that subjective survival probabilities predict mortality even when socio-economic characteristics and health conditions are controlled for.

gap gets smaller for the elderly.[42] Brown et al. (2002) use the NLMS data to estimate the size of socioeconomic differentials by education and gender. As discussed in what follows, we rely on their estimates in making adjustments to the mortality rates.

There is by now a considerable literature devoted to analyzing causal paths from income to health.[43] The direction of causality is not directly relevant for our study, although, to the extent that health affects wealth, it suggests that the bias discussed earlier may be relevant.

Mortality differential — changes over time The major data problem from our point of view is that no consistent mortality tables for the wealthy for the whole century are available. It is certainly possible that the magnitude of the mortality differential between wealthy and the rest changed over time. Duleep (1989) compared the mortality differentials in 1970s by income and education classes based on the Social Security records to the results of Kitagawa and Hauser (1973) that were based on 1960 Census and found no significant changes. By its design, however, that study does not directly address the mortality experience of the wealthy (who are above the Social Security limit). Pappas et al. (1993) replicated the analysis of Kitagawa and Hauser (1973) using 1986 National Mortality Followback Survey and 1986 National Health Interview Survey and concluded that differentials increased between 1960 and 1986. Hattersley (1999) relies on the UK Longitudinal Study (a panel study) and reports changes in life expectancy and survival probabilities by social classes (based on the initial occupation) between 1972 and 1996. For both men and women, the results show proportionally bigger increases in the survival rates for professionals than for unskilled workers (who had lower survival rates to begin with). Converting her results to mortality rates, they indicate a significant widening of the mortality differential.[44]

We can shed some additional light on the mortality differential over time using insurance data. It is well-known that both annuitants and purchasers of life insurance are wealthier than the average. The Society of Actuaries made available on its web page (www.soa.org) a collection of more than 300 mortality tables for different countries and different periods, including some tables based on the experience of insurance companies. Alas, variation in the definitions and approaches used in their construction make them non-comparable and thus make it difficult to credibly trace the evolution of the mortality differential over time. Furthermore, to the extent that penetration of the insurance markets varied over time, this induces an additional source of compositional changes. We present the numbers from the George B. Buck Consultants Inc. U.S. mortality tables that are based on the experience of employees of large industrial clients pension plans and are dated at 1963, 1974 and 1979. Additionally, the Buck table based on the experience of employees in State Teacher Retirement Systems is available for 1982. In each case, these mortality tables cover a few preceding years. Figure A2 compares these mortality rates to population averages in 1960, 1971, 1975 and 1978 — years that fall in the middle of the experience periods corresponding to the different tables.[45] All of these figures include as a

[42] Using AHEAD data, Hurd et al. (1999) also find that the mortality gap falls with age.

[43] See Deaton (2002) for a survey and discussion and Adams et al. (2003) for a recent study.

[44] For example, according to these results, the estimated probability of survival to at least age 65 for a 25-29 year old male professional changed from 72% to 84%, while the respective probabilities for a male unskilled worker changed from 61% to 64%. Taking these numbers at face value would suggest an enormous increase in the ratio of mortality rates from 72% to 45%.

[45] There is no information about the period covered by the 1963 study so that the value of 1960 was selected

reference the arithmetic average of the differential over the four series. One thing to note here is that the 1960 mortality differentials are smallest (the ratios are closest to one) and the 1978 values appear to indicate a bigger differential than the earlier years. As mentioned, however, the 1978 data is based on a different sample and therefore is likely not comparable to other series. The education gradient is known to be significant and, arguably, more important than the income one. The pattern of the earlier data is certainly consistent with mortality differential increasing over time but it is hardly conclusive.

Given difficulties involved in studying the size of the gradient in the second part of the 20^{th} century, it is hardly surprising that the task is even more daunting if one is concerned with the whole century. Scattered mortality tables based on annuity providers experience and relied upon in valuation of annuities are available for many different years and they underlie Figure A3. It has to be stressed that these tables have different sources and are not necessarily directly comparable.[46] No obvious trends in the evolution of mortality differentials are detectable.

Approach. We assume that the differential between mortality rates of the wealthy and those of the general population stayed constant over time. The evidence regarding changes in the size of this differential over time is very sketchy. It is somewhat reassuring that mortality tables based on the experience of pension plans do not contradict our assumption. Even under this simplifying assumption, we still need to measure the size of these constant differentials. We rely on estimates from Brown et al. (2002) kindly provided by the authors. Relying on the NLMS data, they estimated mortality differentials by educational status, sex and gender. We use in our work the mortality differential for white college graduates (by gender). It would be preferable from our point of view to use differentials by wealth or at least income classes. Such data is alas not available. The NLMS has only a poor measure of income and, despite its large size (more than 1 million observations) the top income category is very thin. We modify the Brown et al. (2002) factors slightly: their mortality ratios exceed 1 for ages close to 100, in such cases we set them to equal 1 (and we set them to 1 for all higher ages).[47]

Mortality-related sources of a potential bias. The mortality adjustments that we rely on are crude. There are at least two issues that are of importance. First, the mortality rates may be systematically biased. It is certainly possible that our assumption of the mortality differential not changing over time is not correct, so that in any given year the mortality rates are in fact biased. One would expect that the bias from this source, if any, evolves slowly over time, so that short-term changes in wealth shares cannot be explained by it. The long-term implications of such a bias are, however, possible.

Second, our assumption that the mortality rates are constant within year×gender×age cluster may be in fact incorrect. The latter assumption matters to the extent that the personal

arbitrarily. The mortality rates are weighted by the sizes of policies.

[46] We selected tables that were subsequently relied upon in valuation of annuities. These are tables numbered 803, 806, 888, 809, 810 and 814 (in chronological order). In some cases, they involve some interpolations (especially for younger ages). The full methodology is not always clear.

[47] As Brown et al. (2002) point out, there must be a cross-over of mortality rates if groups have the same maximum age. Effectively then, our assumption implies that the maximum age for the two groups is different. There are naturally relatively few individuals of such advanced age, even among estate filers. Since mortality rates by the age of 100 are of the order of .4 even in the most recent data and because our age variables are truncated at 97, 98 or 99 (depending on the year) anyway, it is unlikely that this has any significant effect.

mortality rate has behavioral consequences. The direction of the bias will depend on the sign of the covariance between the mortality error and its effect on wealth accumulation. In a given cluster, we estimate the average wealth as $\overline{\frac{1}{m}} \cdot \overline{W}$ where "bar" stands for the mean. If the mortality rates are in fact varying, the correct estimate should be $\overline{\frac{1}{T} \cdot W} = \overline{\frac{1}{m}} \cdot \overline{W} + \text{cov}(\frac{1}{m}, W)$. Standard arguments would suggest that higher mortality rates lead to lower wealth due to increased consumption, higher health expenditures, increased tax avoidance and planning, or lower productivity. If so, then the multiplier and wealth are positively correlated, so that the covariance effect tends to bias our wealth shares estimates downward. This problem is further magnified by the selection effect: by construction, our top percentiles have to include individuals with the mortality rates leading to higher wealth. The mortality rates over any threshold will tend to be overestimated due to the attrition of high-mortality individuals below the threshold. This effect will lead us to underestimating the multipliers resulting in the underestimation of wealth assigned to any top wealth category. Both of these effects act in the same direction, so that this source of a bias will lead to us to systematically underestimate the top wealth shares.

Appendix C An Overview of Estate Taxation and the Net Worth Measure

An excellent overview of the history of changes in the estate tax can be found in the CRS report by Luckey (1995). Gale and Slemrod (2001) discuss the economic literature on estate taxation. The modern estate tax was introduced in 1916. The original tax applied to net estates above $50,000 dollars with the top rate of 10%. Between 1916 and 1945, there were 11 tax reforms changing marginal tax rates and/or exemptions. By the end of this period, the top marginal tax rate was 77% and the exemption was $60,000. Both the rate schedule and the nominal exemption remained unchanged until 1976. Major revisions of the gift and estate taxation were introduced by the Tax Reform Act of 1976 and the Economic Recovery Tax Act of 1981. A number of smaller changes throughout the 1980s and 1990s were followed by major increases in the exemption levels and the scheduled repeal of the tax enacted in 2001. In what follows, we briefly review the history of provisions that are of major importance to this paper.

Filing Threshold. The coverage of our data naturally depends on the filing threshold. The tax applies to net estate (gross estate minus deductions). Beginning with the Revenue Act of 1918 (effective February 24, 1919), a tax return had to be filed for all gross estates exceeding the exemption, regardless of whether net estate was above or below the threshold. Prior to that change, the return had to be filed if estate was subject to the tax or where gross estate at death exceeded $60,000 (while the exemption was $50,000). Subsequent changes in the nominal filing threshold were as follows: February 26, 1926 — $100,000, June 6, 1932 — $50,000, August 31, 1935 — $40,000, October 21, 1942 — $60,000. Between 1977 and 1988, the exemption changed every year (on January 1st) beginning with $120,667 and increasing to $600,000. It was further increased to $625,000 in 1998, $650,000 in 1999 and $675,000 in 2000. The location of this threshold determines what fraction of population our data represents.

Gross Estate. The 1916 definition of gross estate included all property, gifts made within two years of death and all assets held jointly excluding those that may be shown to have originally

belonged to the other persons and never belonged to decedent. The Revenue Act of 1918 expanded the definition of estate to include dower, power of appointment and life insurance. Many aspects of this definition evolved over time since. Major changes involved the treatment of jointly owned property, gifts, life insurance and relatively recent legislative and court activity regarding valuation of certain kinds of assets.

- Community property/jointly owned property/marital deduction.[48] There are nine community property states[49] where half of all assets acquired while married is the property of each spouse — such assets are called community property. Jointly held property is different from the legal point of view — this is anything jointly owned (not necessarily with the spouse) *except* for the community property. The original definition of a gross estate called for inclusion of all jointly owned property in the gross estate. As a consequence, residents of the community property states were treated differently than others. A half of any community property was to be reported, while residents of other states had to report and were subject to the tax on the full value of jointly held assets. This situation was perceived as an important source of the (horizontal) inequity, and the 1942 Act attempted to address this issue by requiring that community property be included in the gross estate unless the surviving spouse could be shown to have contributed to the acquisition cost. This solution was replaced in 1948 by the marital deduction: up to 50% of estate of the first-to-die could be deducted from gross estate. In 1976, this rule was modified to allow for a deduction of the greater of 50% or $250,000, and in 1981 the unlimited marital deduction was allowed for. Until 1976, all of the joint property was included in gross estate.[50] After 1976, under some conditions, only 50% must be included.[51] After 1981, only 50% of joint property (without any restrictions) must be included.

  From the point of view of maintaining a consistent definition of gross estate, the 1943-1948 period is different than the rest, because the definition of gross estate in community property states is broader than in other years. Our data does not allow for a fully consistent definition over time and across states.[52] In Appendix D.4 we do though perform limited sensitivity checks by comparing individuals in the community property states to the others to see whether their relative shares between 1943-1948 appear unusual. We also discuss there the quantitative relevance of changes in the treatment of joint property.

- Life insurance (receivable either by the executor of the estate or by others under policies taken out by the decedent) was to be included in gross estate beginning with the Tax Reform Act of 1918. Before 1942, up to $40,000 of life insurance could be excluded from

[48] We are grateful to Jon Bakija and Barry Johnson for their help in clarifying these issues.

[49] Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington. Wisconsin effectively became a community property state in 1986.

[50] Unless it could be shown that it have originally belonged to the other persons and never belonged to decedent.

[51] However, with unlimited marital deduction available, there is a counteracting an incentive to report all unrealized capital gains as jointly owned property, in which case they are subject to a step-up in basis. The 1976 Act introduced a "carryover basis" for unrealized capital gains, however this provision never became effective and was repealed by the Crude Oil Windfall Profits Tax Act (!) of 1980.

[52] We have no information about community property before 1976 and we have no information about jointly owned property in 1965 and 1969. We investigated adjusting the definition of gross estate to always include half of jointly owned property (imputing 1965 and 1969 values), but it had negligible quantitative consequences and still does not address the community property problem.

the estates. In 1954, rules governing taxation of life insurance were further extended to include policies that were given away by the decedent within three years of death or in contemplation of death. We can account for changes in the exemption, but not for the 1954 change in the definition. As discussed earlier, because the value of life insurance depends on mortality risk, we exclude life insurance from our measure of net worth and account for it separately.

- Gifts. The gift tax was introduced in 1924. There was a lifetime exclusion of $50,000 and an annual exclusion of $500 per donee. The gift tax, as well as the 1924 estate tax schedule were *retroactively* repealed in 1926. In 1932, the gift tax was reintroduced and the marginal gift tax rates were set at three-quarters of the estate tax rates and the annual exclusion was set at $5000. The next major modification of the gift taxation was introduced in 1976 when the estate and gift taxation were "unified". The 1976 Act introduced the single unified exemption for combined gifts and estate transferred by the deceased. The marginal estate and gift tax rates are set nominally at the same level, However the estate tax liability is computed using a tax-inclusive basis while the gift tax liability is obtained on a tax-exclusive basis, resulting in a significant tax advantage of gifts.[53]

  We exclude regular lifetime gifts from our definition of net worth, consistently with our objective of computing the total wealth that is effectively controlled by the very wealthy. The exception here are gifts in "contemplation of death" that were included in the estate since the introduction of the tax in 1916. Some of specific rules changed over time to address certain avoidance loopholes (e.g., the 1954 change in the treatment of life insurance that was discussed earlier). The gross estate is now supposed to include regular gifts within 3 years of death[54] (the original limit was two years, increased to three in 1950), any transfers with retained life estate (i.e., if decedent retained an interest), transfers taking effect at death, revocable transfers and transfers by the decedent with respect to a life insurance policy within 3 years before death. To the extent that such gifts are indeed made in contemplation of death (as the tax law assumes), their inclusion potentially reduces the "moral hazard" bias discussed earlier by eliminating one source of the difference between decedents and survivors.

- Valuation. Many types of assets are inherently difficult to value. As discussed by e.g., Schmalbeck (2001) and Johnson et al. (2001), certain types of assets are routinely allowed by the courts to further be valued at a discount. This applies in particular to the situations where estate holds a significant amount of a certain kind of property (e.g., corporate stock) so that its sale would likely result in a significant reduction in price (so called non-marketability discounts). Discounts are also granted to minority interests, even in the case when the family owns a majority stake in the company. Certain difficult to sell assets (such as works of art) are also occasionally granted such a treatment. Our data does not allow for identifying the extent of such activity. Johnson et al. (2001) found that approximately 6% of returns claimed minority or lack-of-marketability discounts and that their average size was about 10% of gross estate (for those who claimed the discounts). Poterba and Weisbenner (2003) pursue this direction further. It is quite possible that the bias resulting from these

[53] On the other hand, gifts including any unrealized capital gains do not benefit from the step-up of their basis.
[54] Even those for which a gift tax return was filed

kinds of discounts did not stay constant over time, because many of these approaches are relatively new. The extent of this problem is unclear.

Changes in the approach to valuation are often driven by court cases rather than legislative activity. Two provisions were, however, directly enacted by the legislature. Since 1976, the so-called "special-use" rules allowed estates consisting primarily of a closely held business or family farm to be significantly undervalued.[55] Because tax returns (and our data) contain both the information about the fair market value and the adjusted value of such assets, we are able to account for the full (i.e., fair market) value of these assets and, therefore, maintain the consistent definition of estate over time. The special-use adjustment is of minor quantitative importance.[56] Since 1935, the executor of an estate has had an option of using the so-called "alternate valuation", whereas assets can be valued one year after death instead of being valued at the time of death. Later, the alternate valuation delay was reduced to half a year. Our dataset contains both alternate and date-of-death valuations starting in 1962, but we only have the actual for-tax-purposes value between 1935-1945. As a result, we are unable to have a fully consistent date-of-death definition for our whole sample, but we can measure the size of the difference starting in 1962.

Deductions Many deductions for tax purpose from the gross estate are possible (charitable deduction since 1918, marital deduction since 1948, deductions for funeral and administrative expenses and so on). Although all of them have tax consequences, they are not relevant for the purpose of estimating wealth shares. We subtract from the estate only personal debts and mortgages of the decedents. In particular, funeral expenses, executor's commissions, attorneys' fees and other administrative expense of the estate are not subtracted. Some of these debts (e.g., medical debts) may not be representative of debts of surviving individuals, our data does not allow however for any systematic and consistent over time accounting for different kinds of debts.

Definition of net worth. Net worth is defined as the total gross estate adjusted for the special use valuation provisions and reduced by life insurance and debts.[57] The gross estate is (temporarily?) measured at the value for tax purposes which reflects the selection of the date of death vs. alternative valuation. This approach s motivated by the fact that for the period of 1935-1945 we are not able to measure the date of death valuation. Following 1962, we can observe both date-of-death and alternate valuation, we discuss the extent of a difference between the two in what follows.

[55] Specifically, under certain circumstances, these kinds of assets can be valued at their present rather than best use.

[56] With the exception of 1983 tabulations in brackets below 99.75% that are based on a very small number of observations (see tables A2-A and B, and the further discussion of the estate composition data), in no other bracket the special use adjustment exceeds the order of 1% of our final figure assigned to net worth. In some of the thin brackets in 1983, this adjustment is approximately 4%. The special-use adjustment was originally capped at $500,000. The 2000 (the last year of our data) limit was $780,000. By definition then, this rule can only play a minor role at the very top.

[57] Individuals are ordered according to this definition of net worth, regardless of whether we include life insurance in our measure of wealth. To the extent that inclusion of life insurance lead to rank reversal, the share of wealth held by the top percentile is underestimated.

Appendix D Top Wealth Shares

Appendix D.1 Aggregate Net Worth Series

In order to obtain a denominator for our top wealth shares computations, we need to obtain estimates of total net-worth of the household sector in the United States. Net-worth will be defined as the sum of all tangible assets (owner occupied residential land and housing[58] and consumer durables), financial assets (deposits, bonds, equity in corporate and non-corporate businesses, etc.), net of all liabilities (consumer debt, mortgages, etc.). Our wealth measure does not include pension fund reserves because they do not appear in estate wealth (the cash surrender value of pensions is estimated at less than 5% as most pensions are annuitized). It does not include life insurance reserves either as we have decided to exclude life insurance from our wealth definition. It also excludes social security wealth, and all forms of human wealth (expected value of future labor earnings). Our wealth definition corresponds roughly to the definition of wealth W2 in Wolff and Marley (1989).

Unfortunately, the United States has not developed a consistent set of estimates of household wealth since 1916. As a result, aggregate net worth series have been computed using various sources.

Period 1945-2002

For the period since 1945, detailed official Flow of Funds Accounts (FFA) have been produced for each sector of the U.S. economy (see Boards of Governors, 2000 CITATION?). The FFA presents the detailed balance sheets of Households and Nonprofit Organizations. They report the amounts outstanding (on December 31st of each year) for a large category of assets and liability. Net worth is broken down into Tangible Assets, Financial Assets, and Liabilities. The main difficulty with the FFA is that they separate the household from the non-profit sector only imperfectly before 1988.

As we have excluded life insurance from our estates, we also exclude life insurance reserves from the denominator [IN FUTURE VERSION, WE WILL ADD BACK AVERAGE LIFE INSURANCE FOR EACH FRACTILE RANKED EXCLUDING LIFE INSURANCE, AND WE WILL ADD LIFE INSURANCE IN THE DENOMINATOR]. As only the Cash Surrender Value (CSV) of pensions enters estates, we include only the CSV of pension fund reverses in our total net worth series. According to Smith (1984) and Wolff (1989), the CSV of pensions has been traditionally very small in the United States (estimated around 5%). However, over the last three decades, the development of Defined Contribution (DC) pension plans, and in particular 401(k) plans since the 1980s, has substantially increased the CSV of pensions. In general, DC plans vest after a short period of employment (401(k) employee contributions vest immediately in general) with the same employer and are portable when an employee shifts to another employer. Therefore, we assume that all DC pension reserves have 100% CSV. The DC pension plans assets are obtained from the FFA, Table L119c (Row 1, total financial assets) since 1985. Before 1985, the FFA does not report the DC plans assets but report the equity shares held by households through DC plans (Table B100e, Row 13). We assume that the fraction of

[58] Rented residential land and housing is included in the business assets category in the Flow of Funds Accounts and we have followed their methodology although rented land and housing would appear in large part as real estate on tax returns. This discrepancy, however, has no effect on our top share and composition estimates.

equity shares in DC plans before 1985 is equal to 40% (which is the fraction in 1985). Before 1955, DC plan assets is less than 5% of pension reserves. Therefore for the period before 1955, we adopt the Smith-Wolff assumption and we estimate the CSV of pensions as 5% of total pension fund reserves. This approximation is of little consequence as pension fund reserves are less than 5% of total net worth (and hence the CSV of pensions is a negligible component of total net worth).

Pension funds assets are invested in corporate equities and fixed claims assets. We compute the total amount invested in corporate equities from Table B100e, Row 13 (see above); the amount of fixed claims assets is then obtained by substraction.

For the period since 1988, we defined our wealth measure as net worth of households and nonprofit organizations less the net worth of nonprofit organizations. For the period before 1988, the category tangible assets allows the separation between the household and the nonprofit sector. The category financial asset does not provide the breakdown and therefore, we have assumed that the fraction of financial assets in the nonprofit sector has stayed constant and equal to the fraction for 1988 (the earliest year this estimate is provided). This assumption seems reasonable because the share of nonprofit for the tangible asset category does not display a trend and stay around 10% between 1945 and 1988. It is important to note that, in the FFA, tenant occupied real estate is not included in the real estate category but included in equity in non-corporate business. We follow the same rule although it should be noted that tenant occupied real estate will most likely appear in the real estate category in the estate of the owner.

The category liabilities is partially broken down for the period 1945 to 1987 in the sense that three separate sub-categories (municipal securities, commercial mortgages, and trade payables) are liabilities of the nonprofit sector exclusively. In the period 1988 to 2002, those three categories represent about 70% of all nonprofit liabilities. Therefore, for the period 1945 to 1987, we have assumed that the total liabilities of the nonprofit sector is equal to 1/0.7 times the sum of the three sub-categories.

In any case, the fraction nonprofit in the FFA of households and nonprofits is between 5% and 10%, and closer to 5% for the liability and financial assets categories for which we need to do imputations. Therefore, we expect that errors in our imputations will lead to a very modest bias in our net-worth estimates (no more than 1-2%) for the period 1945-1987.

Period 1916-1944

Estimating total household net worth in the prewar period is complicated, because there is no single official sources and most sources provide estimates only for some years during the period. An earlier attempt to compute household wealth from various sources is Wolff (1989). However, he provides estimates only for years 1900, 1912, 1921, 1922, 1929, 1933, and 1939 for the pre-1945 period. Our estimates are very close to his W2 series for those years; an we build upon his methodology and the same sources he did to extent our estimates to every year from 1916 to 1944.

Tangible assets are estimated as follows. For 1925 to 1945, consumer durables are taken from the FFA series reported in Herman (2000), Table 1, Consumer durable goods column. For 1916 to 1924, we have used Goldsmith et al. (1956), Table W1, p. 14, column 12, Consumer Durables. The earlier Goldsmith series has been pasted to coincide with the most recent and

official FFA series in 1925 (in 1925, Goldsmith series about 10% higher than the FFA series).

Residential land series is from Goldsmith et al. (1956), Table W1, p. 15, column (21), nonfarm residential land. Owner occupied residential structures is from the Bureau of Economic Analysis at http://www.bea.doc.gov/bea/dn/faweb/, Table 5.1, col. 14, for the period 1925 to 1945. For 1916 to 1924, we have usedGoldsmith et al. (1956), Table W1, p. 14, column 4, nonfarm residential structure. The earlier Goldsmith series has been pasted to coincide with the most recent and official BEA series in 1925 (in 1925, Goldsmith series about 20% higher than the BEA series because they include tenant occupied housing as well).

Tangible assets are defined as the sum of those three series: consumer durables, non-farm residential land, and owner occupied residential structures. This series is about 8% higher in 1945 than the tangible assets series from the FFA (see above). Thus, we have reduced uniformly our tangible assets series by about 8% before 1945 so that they match exactly in 1945.

Unlike Tangible Assets, there is no annual source available for each of the categories forming the financial assets and liabilities of the household sector. Goldsmith et al. (1956) provide detailed estimates of the financial assets, and liabilities of the household sector only for years 1900, 1912, 1922, 1929, 1933, 1939, 1945, and 1949. Wolff (1989) uses the Goldsmith estimates and reconciles them with the FFA estimates in order to cover the period 1900-1984. We therefore use the Wolff (1989) estimates available for the years 1912, 1922, 1929, 1933, 1939, and 1945,[59]

Financial assets are divided into fixed claimed assets (deposits and currency, federal bonds, state and local bonds, corporate and foreign bonds) and equity (corporate stock, equity in farm businesses, equity in non-farm unincorporated businesses, trust equity). The Wolff (1989) estimates for each of these categories are reported in Table 5, "Final National Balance Sheet Estimates for the Household Sector For W2, by Detailed Component, 1900-1983", in the electronic data appendix to the paper that Edward Wolff kindly made available to us.

We start from the Wolff (1989) estimates and we interpolate in between the years as follows.

For deposits and currency, state and local bonds, corporate and foreign bonds, and liabilities, we have done a straight extrapolation between each consecutive pair of years for which Wolff (1989) provides estimates. Each of these items is relatively small and was trending upward relatively smoothly over the period.

For federal bonds, we interpolate between the years using the total outstanding Federal Debt series from *Historical Statistics of the United States* (Series Y493).[60] The interpolation proceeds as follows: we compute the ratio of federal bonds in household wealth to outstanding federal debt for the years available. In between those years, we assume that this ratio evolves linearly, and this allows us to estimate the amount of federal bonds in household wealth for each year.

We proceed in the same fashion for corporate equity using the S&P500 index end of year series compiled on line by Robert Shiller at http://aida.econ.yale.edu/ shiller/data.htm. We also interpolate trust equity and unincorporated nonfarm business equity using the same S&P500 index. Finally, we interpolate unincorporated farm business equity using an estimate of the value of farms from Goldsmith et al. (1956), Table W1, the sum of columns (7) farm structures, (14) livestock inventories, (15) crops inventories, and (20) agricultural land. Contrary to the FFA series,

[59]Wolff (1989) also provides estimates for year 1921 based on King (1927). King (1927) computes estimates only for year 1921 and is difficult to reconcile with the laterGoldsmith et al. (1956). Therefore, we do not use the King (1927) and Wolff (1989) estimate for 1921.

[60]Those series give the amount of debt on June 30th of each year. We estimate end of year amounts of debt in year t as the average of year t and t+1 from the original series.

Goldsmith and Wolff series do not include tenant occupied real estate in the unincorporated business category. Therefore, in order to be consistent with FFA, we add tenant occupied residential structures from the Bureau of Economic Analysis at http://www.bea.doc.gov/bea/dn/faweb/, Table 5.1, col. 15 to the category equity in unincorporated businesses.[61]

Those interpolated series extend Wolff (1989) series for financial assets and liabilities for each year from 1912 to 1945. In order to paste those series to the series for the 1945-2002 period, we adjust by a proportional factor each the early series (1912-1945) for fixed claim assets (deposits and all bonds), corporate equity, non-corporate equity and trusts, and liabilities. For fixed claim assets, the adjustment is up by about 5%. For corporate equity, the adjustment is up by 10%, and for unincorporated equity (including tenant occupied housing), the adjustment is down by about 10%. For liabilities, the adjustment is about 2% up.

Overall, our series are within 5% of the Wolff (1989) W2 series, and often within 2-3%, with no trend over the period.[62]

From end-of-year to average-of-year estimates

All wealth series from FFA, Goldsmith et al. (1956), and Wolff (1989) are end-of-year estimates (for December 31st of each year). Estates represent wealth of decedents at time of death and hence are distributed over the year. Therefore, for our denominator series, the best would be to obtain estimates of average aggregate wealth over the year. A simple approximation consists in estimating the average for year t as the half-sum of our end-of-year $t-1$ and end-of-year t series. Smith (1984) adopted this method to obtain top wealth shares for the 1958-1976 period. This approximation will be accurate when wealth is smoothly increasing or decreasing in between the two end-of-year snapshots.

The only adjustments we made to this simple method were for corporate stocks for years 1929, 1932, and 1933. This is because the annual average value of stock prices (estimated as the monthly average of the S&P 500 series) was substantially different than the end-of-year averages for the corresponding two consecutive years. Thus for those three years, we replaced the simple end-of-year average by the monthly average over the year.[63]

Appendix D.2 Estimates Based on Micro-Data: 1916-1945, 1962, 1965, 1969, 1972, 1976, 1982-2000

We take advantage of an extraordinary dataset available through the Statistics of Income Division of the IRS.[64] The dataset includes information from all of the estate tax returns filed for deaths occurring between 1916 and 1945,[65] all returns filed in 1963, samples of returns filed in 1966, 1970, 1973, 1977 and samples of returns corresponding to years of death between 1982-

[61] The BEA series are only available since 1925, we extrapolate the series from 1916 to 1925 using Goldsmith et al. (1956) non-farm residential structures as we did for owner occupied residential structures (see above).

[62] The only exception is 1972 for which our series derived from FFA are 7% higher than Wolff estimate.

[63] For all other years, the end-of-year average and the monthly average are very close and we did not do any adjustment.

[64] The dataset is confidential and is not released in its raw form. We are extremely grateful to Barry Johnson of the SOI for his help and patience in explaining the data and facilitating our access to it by running our SAS programs at the SOI.

[65] Returns filed after 1945 are also included.

2000. A more detailed description of the 1916-1945 dataset can be found in McCubbin (1990), while the post-1945 studies are described in Johnson (1994).

We rely on the relevant year-of-death datasets to characterize wealth distributions for 1916-1945 and 1982-1999. We use returns filed in 1963, 1966, 1970, 1973, 1977, 2001 to construct wealth percentiles for 1962, 1965, 1969, 1972, 1976 and 2000 respectively, regardless of the actual year of death. For 1962-1976, this decision is motivated by the sample design: in the absence of regular sampling, no other approach is feasible. Conveniently, this period does not involve any significant legislative activity. In case of 2000, we decided to pursue this approach, because many of the returns for decedents who died in 2000 are not filed until 2002 or even 2003. 49% of 2001 filers died in 2001, 42% in 2000 and 8% in 1999. Less than 1% died in years prior to 1999, what gives us confidence that there is no serious undercount bias present in the 1999 estimates: very few returns for those dying in 1999 should be filed in 2002 or later. This approach involves some observations performing the double-duty of contributing to estimates for both 2000 and one of the prior years: for example, an observation for an individual who died in 1999 but filed in 2001 is used to estimate wealth shares in both 1999 and 2000. *Describe filing requirements and when the returns are actually filed.* We always ignore observations whose *net worth* falls below the filing threshold.[66]

We impute estate multipliers when age is missing. Age of the decedent was present on the tax return beginning with the August 1919 revision of the tax form. As a result, we don't have age information for most of the decedents dying between 1916 and 1918. We also don't know age for any of the 1965 observations. We do have age data for 77% of the 1919 decedents, 88% of the 1920 decedents and we have age information for over 90% of our sample in each of the remaining years (between 1982 and 1995, we have age information for everyone). In years when age information is available for most observations, imputations are performed by setting the multiplier to the average of multipliers of the 50 individuals directly succeeding in the wealth distribution the one with missing age information. In order to impute multipliers between 1916 and 1918, we proceed in the identical fashion, but we place each observation in the 1919 distribution (adjusted for inflation) and base our imputations on the surrounding 1919 observations. Imputations in 1965 are performed similarly by using the joint distribution of 1962 and 1969 returns as the reference distribution.

Age is coded in the dataset using two digits. Except for 1982-1983, the age variable is top-coded at 98, in 1982 the value of 96 stands for "96 or above", while in 1983 the value of 97 stands for "97 or above". Using the top-coded value would lead to overestimation of the corresponding multiplier, since some of the individuals are in fact older and therefore faced higher mortality risk than the top-coded value would indicate. To correct this problem, we compute the average multiplier of individuals at the top-coded age or older, assuming that the survival rates from the top-coded age to any given one measure the relative group sizes.[67]

As discussed earlier, the filing threshold and therefore the coverage of our data changed many times over the years.[68] Post-1945, all tax changes went into effect as of midnight December 31st,

[66] We do so even though the threshold is defined in terms of gross estate. However, any extension of our tabulations below the filing threshold would lead to underestimate the size of the relevant group due to ignoring individuals who have both net worth and gross estate below the filing levels.

[67] Effectively, this is the assumption of a stationary distribution. For the purpose of this imputation, if the survival rate from the top-coded value of X until age Y is p, we assume that the living cohort of age Y consist of p times the number of alive individuals in the cohort of age X.

[68] We ignore the issue of inflation effects within a year that make individuals with the same real estate more

but the earlier reforms generally did not take place on any special dates. There were four changes in the filing threshold that became effective in the middle of a year: on 2/26/1926, 6/6/1932, 8/30/1935 and 10/21/1942. The 1926 and 1942 changes increased the threshold, the other two decreased it. Furthermore, the estate tax was adopted starting Septemberth 1916, so that we do not have the full coverage of 1916. We proceed by scaling weights of the observations with net worth between the two thresholds with deaths occurring under the low threshold regime by the inverse of the fraction of the year that the low threshold was in effect.[69] This amounts to assuming that decedents dying during the part of the year when the low threshold was effective constitute a representative sample of the whole population,

Where relevant, we rely on the sample weights provided by the SOI. Post-1945 samples are stratified samples of returns actually filed. Generally, all returns above a certain high level of wealth are included in the dataset ($5 million in most years), while returns below that level are sampled using a complex design (Woodburn and Johnson, 1994). Certain rare types of returns (e.g., individuals aged 45 or younger) are included with certainty. In the 1980s, returns were sampled every year but samples for certain years (1982, 1986, 1989) are significantly larger, with samples for intermediate years treated as supplementary. This design reflects the fact that at the time of the studies, one of the main SOI objective was to be able to produce wealth estimates every three years. Beginning with 1991, the sampling strategy is essentially consistent over time.

We assign observations to the categories as follows. We define the corresponding population count of an observation as the product of the sampling weight and the multiplier. Using these weights we compute the rank of an individual in the distribution of net worth. We compute the boundaries of percentiles of interest using the U.S. population over 20 in a given year. Individuals who are located on the boundaries of two categories contribute to both of them in proportion to their overlap with each. All reported tabulation are performed using categories defined in this way.

For 1916-45, data is not equally detailed for all observations. As mentioned, all returns that were filed are included in the dataset and they are all subject to the so called "basic edit," while only selected observations are subject to the "complete edit." The former includes basic information from the tax return such as age, sex, marital status, date of death, state of residence, gross estate, debts, life insurance and a few other variables. The latter adds to the list values of various kinds of assets. Subsamples of returns for decedents who died in 1916-1920, 1928-1930, 1938-1940 and 1944 were subject to the complete edit. Additionally, gross estates above ... of current dollars were always subject to the complete edit. As the result, for 1916-45 we are able to construct the complete estate composition series for the top 0.01% based on the complete coverage of decedents, while the composition for lower percentiles is available only for selected years and is usually based on a sample of returns.

Column 2 of Table A lists the shares of population that we estimate are covered by our data in each year. Table D contains basic information about the size and information contained in our sample, by percentile category. Its first panel lists the number of observations in each percentile category. When no figure is shown, it indicates that filling out this category would require

likely to be subject to the tax if they die later in the year

[69] For example, on June 6, 1935 the filing threshold was decreased from $100000 to $50000. As a result, we use only deaths occurring after June 6 to estimate wealth between $50000 and $100000 and scale them by 366/208 (208 is the number of days between June 6th and the end of the year). We scale all observations in 1916 by 366/114.

including individuals with net worth below the threshold level. The second panel presents average sample weights in various percentile categories, by year.[70] In practical terms, our estimates of the top 0.01% wealth are based on returns sampled with certainty, while estimates in lower percentiles are for many years based on samples. It is clear from this table that the data for 1983-1985 and for 1987-1988 is based on the much sparser sampling than those in other years. The last part of Table D shows the fraction of observations in each category that contain detailed information about asset holdings.

For years 1946, 1947, 1948, 1949, 1950, 1953, 1954, 1956, 1958, and 1960, the IRS has not constructed micro-data files but has published a set of detailed tabulations in *Statistics of Income*, U.S. Treasury Department (SOI). We have used those SOI tabulations to estimate top wealth shares and composition for those years as well.

SOI tabulations are always presented by year of filing: as most estates are filed within 9 months of death, we assume that year of filing t corresponds to year of death $t-1$.[71]. The SOI publication contains cross-tabulations by size of gross estate and age groups (for each of the two genders) for years 1948, 1949, 1950, 1953, and 1958. For all years but 1958, the age groups are quite detailed and defined as 0-20, 21-29, 30-39, 40-49, 50-54, 55-59, 60-64, 64-69, 70-74, 75-79, 80-84, and 85+.[72]

For each age group and gender cell, we compute the estate multiplier as the product of the average mortality for the cell[73] and the social differential mortality factor from Brown et al. (2002) (see above). We multiply the number of decedents and the amount of gross estate they report by the estate multiplier in order to obtain a distribution by gross estate brackets for the living population. Because, the number of observations in the very top brackets is small, the corresponding multipliers tend to be noisy and vary from bracket to bracket and year to year. Therefore, for each gender group, we average multipliers for all estates above one million nominal dollars for years before 1950 and above two million nominal dollars for 1953 and after. Such estates are very large and always represent less than the top 0.01% which is the smallest group we analyze in this study.

We then estimate the thresholds and amounts corresponding to each fractile using the well known empirical regularity that the top tail of the wealth distribution is very closely approximated by a Pareto distribution.

The first step consists then in estimating the income thresholds corresponding to each of the percentiles Top 2%, Top 1%, ,..., Top 0.01% thresholds, that define our top wealth groups. For each percentile p, we look first for the wealth bracket $[s,t]$ containing the percentile p. We then assume that the distribution of wealth is Pareto distributed within the bracket $[s,t]$. A Pareto distribution has a cumulative distribution function of the form $F(y) = 1-(k/y)^a$ where k and a are constants, a is the Pareto parameter of the distribution. We estimate then the parameters a and k of the Pareto distribution for the wealth bracket $[s,t]$ by solving the two equations:

[70]The weight can be lower than 1 for observations that span two different categories. By construction, it applies to at most two observation in a category.

[71]Micro-files from the IRS show that this assumption is reasonable although not completely accurate because many returns are filed late. The overwhelming majority of returns filed in year t are composed by returns for date of death $t-1$ (about 2/3) and date of death $t-2$ (about 1/3).

[72]For year 1958, the age groups are less detailed: 30-39, 40-49, 50-59, 60-69, 70-79, and 80+.

[73]This average mortality is computed using the mortality tables for the U.S. population by 5 year age and gender groups available at http://www.demog.berkeley.edu/wilmoth/mortality/states.html

$k = s \cdot p^{1/a}$ and $k = t \cdot q^{1/a}$ where p is the fraction of tax returns above s and q the fraction of tax returns above t. Note that the Pareto parameters k and a may vary from bracket to bracket.[74] Once the density distribution on $[s, t]$ is estimated, it is straightforward to estimate the income threshold, say y_p, corresponding to percentile p.

The second step consists of estimating the amounts of wealth reported above wealth threshold y_p. We estimate the amount reported between wealth y_p and t (the upper bound of the wealth bracket $[s, t]$ containing y_p) using the estimated Pareto density with parameters a and k. We then add to that amount the amounts in all the brackets above t. Using the micro-data, we have checked that this method provide very close estimates of the thresholds and amounts.

Gross estate is defined as the sum of all assets (including life insurance) before deducting debts and liabilities, and all other deductions. Therefore, to obtain net worth estimates, we need to deduct life insurance and liabilities from our gross worth estimates. For each fractile, we compute the fraction of life insurance and the fraction of debts relative to gross worth using the method to estimate composition of wealth described below. We then subtract from the amounts and thresholds corresponding to each bracket the fraction of debt and life insurance.[75] This method provides accurate results when the ranking according to gross estate and the ranking according to net worth (gross estate less life insurance and debts) are close. Using the micro-data, we can check that those rankings are close and that our method provides results very close to the exact computations (both can be computed with the micro-data).[76]

Once the corrected amounts and thresholds are obtained, we obtain directly the mean income above percentile p by dividing the amount by the number of individuals above percentile p. Finally, the share of income accruing to individuals above percentile p is obtained by dividing the total amount above y_p by our aggregate wealth series (Table A, col. (4)). Average wealth and wealth shares for intermediate groups (Top 2-1%, Top 1-0.5%, etc.) are obtained by subtraction. The shares are reported in Table B1, and the thresholds and average wealth levels are reported in Table B2.

For years 1946, 1947, 1954, 1956 and 1960, the IRS has not published tabulations by brackets of gross estate, by age and gender. Therefore, for those years, we apply the multipliers by brackets obtained above using the closest year. For 1947 and 1947, we use the multipliers from 1948. For year 1954, we use year 1953. For years 1956, we use the average of 1953 and 1958. For 1960, we use year 1958. This method is acceptable because multipliers by wealth brackets vary very little from year to year.

For years 1946, 1947, 1948, 1949, 1953, 1954, 1958, and 1960, composition tables published by brackets of gross estates have been used to estimate the fraction of net-worth for each fractile falling into each of the categories: real estate, bonds, stocks, cash and mortgages, other assets, and debts. The composition of wealth within each group was estimated from these tables using a simple linear interpolation method. As those composition tables are not published by age or gender, we assumed that the composition by brackets for the same for the living population

[74] If the threshold falls in the top bracket, we estimate the Pareto parameter a for the top bracket using the fact that the average wealth in the top bracket is equal to $a/(a-1)$ times the top bracket threshold.

[75] For each threshold, we subtract the average fraction of debt and life insurance from the bracket above and the bracket below.

[76] For years 1950 and 1956, no composition tables have been published. Therefore, we assume the same average insurance and debt as the average of 1954 and 1958 by bracket for 1956 and years 1949 and 1951 for year 1950.

and for decedents. This assumption does not seem to bias our results significantly as we see no evidence of discontinuity with the years where we can use the micro-data and hence relax this assumption. The composition estimates are also reported on Table B3.

As we discussed above, for a number of years during the period 1916-1945, the micro estate tax data does not provide composition information for returns with gross estate less than $xxx for years 1921-1927, 1931-1937, 1941-1943, and 1945. For all these years, except 1926 and 1945, we have used the published composition tabulations by size of estate from U.S. Treasury Department, Internal Revenue Service (various years) to estimate the composition of net-worth for our top groups using the same methodology as above.

Appendix D.3 Pareto Extrapolations when Coverage is too Low

As can be seen on Table A, column (3), for a number of years and especially in the 1916-1945 period, the estate tax data does not cover the top 1% of the population (or even the top .5% for some years). In order to produce top 1% shares for all years, we have used a simple Pareto extrapolation technique to estimate those shares. We assume that the Pareto coefficient for the groups for which we do not have enough data is the same as the one for the lowest group fully covered by our data. For example, in 1918, as the data covers the top 0.571%, the lowest group covered is the top .5-.25%, and we assume that the Pareto parameter for group 1-.5% is the same of the Pareto parameter we estimated for the group .5-.25%. This method is acceptable because the variations in the Pareto parameters are relatively small from one group to the next.

Appendix D.4 Sensitivity to certain data inconsistencies

As discussed earlier, between 1942 and 1948 the gross estate was supposed to include the full value of community property. This change took place in October 1942. By definition, this rule affected directly only married individuals, although an effect (with a lag) on widows is also possible. Its mechanical consequence is a temporary increase in the reported assets of the subject individuals. As the result, if this change had a significant effect, it should affect the values of estates of married residents of the community property states relative to the rest. Figure 16 shows fractions of the top .05% and Top .25-.05% accounted for by residents of the community property states, by marital status. The mechanical effect should lead to an increase in the share of CP residents among married individuals in the top group but not necessarily in the other groups. The evidence of such a change is weak. The share of married CP residents in the top group indeed increased in 1943 but then fell back to the usual level. The trend is much stronger for single individuals (who are not affected by the change). In the lower bracket, it appears that the share of CP residents among the married was indeed increasing relative to other groups, but the effect is the strongest some two years after the change went into effect. Overall, we conclude that there is no evidence that this source of data inconsistency plays an important role.

The tax treatment of jointly owned property changed in 1976 and 1981 by allowing to include only 50% of jointly held assets in the estate of the decedents. Our dataset includes the value of the includible portion of jointly owned assets as reported on Schedule E for 1962, 1972, 1976 and from 1982 on. Starting with 1992, we can observe both total and the includible part of assets jointly held with the spouse. Indeed, approximately 50% of the total is included. Assets held jointly with the spouse constitute more than 80% of all jointly held assets in all wealth

categories. Generally, the importance of jointly owned assets falls with wealth. There is little evidence of a significant decrease of the value of jointly held assets included in the estate after 1976. In the top .1%, the includible part of jointly held assets was approximately 2.3% of the total net worth in 1972, 1.1% in 1976 and it oscilated between .7 and 4% (with the mean of 2.2%) since, with no discernible trend. At lower percentiles, there is similarly no evidence of a major decrease in the included jointly owned assets (although the importance of jointly owned assets is much larger: they steadily increase as net worth falls and, e.g., they are more than 10% of net worth around the .5% percentile). Speculating somewhat, because the change in tax law should have had a mechanical effect of halving the jointly owned property, it suggests that additional outside assets might have been reported as jointly owned, presumably to benefit from a step-up while escaping taxation via marital deduction. If so, doubling jointly owned property after 1976 would lead to a significant overestimation of net worth relative to the pre-1977 period. In any case, at least at the very top, how jointly owned assets are accounted for would have no major impact on our shares. Either doubling of the post-1976 jointly owned property or including a fraction of the pre-1977 would change the shares only in a minor way (in the top .1%, net worth would change by approximately 2%). Such a change would lead to showing a slightly stronger recovery in the early 1980s without an effect on trends pre- or post-1976.

Appendix E Earlier Estimates and Estimates from other Sources

Table C1 reports top 1% wealth share estimates in the United States from previous studies.

Appendix E.1 Lampman Estimates

Lampman (1962) was the first to use in a comprehensive way the U.S. estate tax data to construct top wealth shares. He focused his analysis on years 1922, 1929, 1933, 1939, 1945, 1949, 1953, 1954, and 1956, for which the IRS published detailed tables by age and gender groups. However, for all these years, Lampman's analysis is always focused on all estate tax returns filers as a whole representing the living population of wealth holders with gross wealth above the filing threshold. Because of inflation, economic growth and downturns, and changes in the nominal filing threshold, the adult population represented by estate tax filers has changed dramatically from less than 0.5% in 1929 to almost 2% in 1956. Lampman's provides consistent top wealth 1% shares for the adult population (aged 20 and above)[77] from those estimates using a simple graphical Pareto interpolation method (Table 94 and Chart 32 on pp. 204-205). He assumed that the Pareto parameter for all years was equal to the one estimated for 1953 (for which he provided much detail in the first part of the book).

Therefore, although Lampman's study was very detailed and careful in the analysis of the group represented by all estate tax filers, his derivation of consistent top shares, the most influential piece in his study, was very rough. Our own estimation method shows that the Pareto parameters do vary substantially from year to year. The Pareto parameter for year 1953 in the range Top 1-0.5% (which Lampman used for the other years) is equal to about 1.6 but is lower for pre-war years (around 1.3). Therefore, Lampman's graphical method might have

[77] Lampman also provides estimates of the top 0.5% share of the total population (adults and minors) using the same method. As a result, the top 1% and top 0.5% Lampman series are not comparable.

introduced non-negligible errors, especially for the years for which the fraction of the population represented by tax returns is far from 1%. It is also important to note that there are many other reasons why our estimates might differ from Lampman's, as his definition of net-worth is not identical to ours, and the social differential mortality rates are also different.

Nevertheless, overall, Lampman's estimates (reproduced in Table C1 and graphically displayed on Figure 6) are comparable to ours. The downward trend is of similar magnitude. The main difference is for 1939. Our series suggest than there was a continuous decline in the top 1% from 1933 to 1945, while Lampman's series displays a rebound in 1939. This discrepancy is in part explained by differences in our denominator series. Lampman denominator is relatively low in 1939 (less than 10% increase from 1933) whereas our denominator increases by about 20% (in nominal terms). Both Wolff (1989) and Goldsmith et al. (1956) display a similar 20% increase in nominal terms from 1933 to 1939.

Appendix E.2 Smith Estimates

Smith (1984) constructs top 0.5% and 1% net worth shares for years 1958, 1962, 1965, 1969, 1972, and 1976 using micro estate tax data. He also estimates the composition of wealth for those two groups. Smith defines the top groups relative to the total population instead of adults (as we do). Moreover, because of data issues, the top groups are defined by ranking individuals by gross worth instead of net worth (although shares are computed for the net-worth concept). Those two features make Smith's data not directly comparable with our results and with the previous estimates by Lampman.[78]

Appendix E.3 SCF and Combined Estimates

Kennickell (2003) and Scholz (2003) have used the Survey of Consumer Finances to construct top net-worth shares. Kennickell (2003) estimates shares and composition of wealth for 5 groups: the bottom 50% (percentiles 0-50), the next 40% (percentiles 50-90), the bottom half of the top decile (percentiles 90-95), the next 4% (percentiles 95-99), and the top 1%. Those estimates are provided for years 1989, 1992, 1995, 1998, and 2001.[79]

Scholz (2003) provides wealth shares for the top 10%, 5%, 2%, 1%, and 0.5% for all survey years available: 1962, 1983, 1989, 1992, 1995, 1998, and 2001.

Wolff and Marley (1989) and Wolff (1994) provides top 1% household wealth shares based on the previous estimates by Lampman and Smith from estate tax data and more recent estimates from the SCF.

Appendix E.4 Computations Based on Forbes 400 Richest

Every late September since 1982, *Forbes* magazine has constructed a list of the richest 400 Americans, along with estimates of their net-worth, age, and the main source of their wealth. It is important to keep in mind that those wealth estimates are not exact measures of net-worth as some of those richest may not be willing to cooperate with Forbes and reveal precisely their

[78] The top .5% Smith series, however, can be compared more easily with the top .5% Lampman series for the total population. See footnote above.

[79] According to Kennickell, earlier surveys, 1962 and 1983 are not directly comparable due to substantial changes in the surveying and weighting methodology.

net-worth. It is also possible that some of the wealthiest (and discrete) Americans have not been discovered and listed by Forbes. This problem was more acute in the early years of the survey (especially the first year 1982).[80] With the years and the incredible success and publicity of the Forbes 400, most wealthy individuals provide voluntarily information to Forbes and it is quite unlikely that a significant fraction of the wealthiest Americans has been able or willing to escape the attention of Forbes magazine.

We report in columns (1) and (2) of Table C2, the total net-worth of the Forbes 400 and the average wealth of the Forbes 400 in 2000 dollars.

Because the total adult population has increased by almost 30% over the period, measuring the share of total net-worth of the Forbes 400, might be misleading. In order to provide estimates robust to population growth, we have constructed series for the top .0002% and top .00005% wealth shares from 1982 to 2002. We also provide the share of top .0002-.00005% which is simply the difference of the two former shares. The top .0002% corresponds almost exactly to the top 400 richest individuals, and the top .00005% to the top 100 richest individuals in 2000 (as there are 201.9 million adults in the population in 2000, see Table A). The top .0002-.00005% corresponds to individuals ranked 101 to 400 in 2000. The shares are computed simply by summing the net-worth levels of the corresponding individuals on the Forbes list.[81] For the final years (2000, 2001, and 2002), the top .00005% corresponds a few more individuals than the top 400. In that case, we assume the complementary list of near misses (those individuals who almost made it to the Forbes 400) to compute our estimates.

The shares of those three groups are reported in columns (3), (4), (5), and the ratio of the average wealth to the average wealth in the adult population is reported on columns (6), (7), and (8) for each of these three groups. Finally, and for comparison purposes, the share of the top .01% (top 20,000 individuals in 2000) estimated from estate tax returns is reported in column (9).

[80] This is why we do not reproduce very top wealth shares from the Forbes 400 for year 1982 on Figure 11.

[81] For example, if the top .00005% corresponds to the top 100.5 individuals, we sum the top 100 wealth levels plus one-half of the wealth of the 101st individual.

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Table 1

Thresholds and Average Wealth in Top Groups within the Top 2% in 2000

Percentiles (1)	Wealth Threshold (2)	Upper Groups (3)	Number of individuals (4)	Average Wealth (5)
		Full Population	201,865,000	$159,190
2.00%	$705,000	Top 2-1%	2,018,650	$896,809
1.00%	$1,146,000	Top 1-0.5%	1,009,325	$1,443,215
0.50%	$1,848,000	Top 0.5-0.25%	504,663	$2,293,158
0.25%	$3,067,000	Top 0.25-0.1%	302,798	$4,040,680
0.10%	$5,687,000	Top 0.1-0.05%	100,933	$7,049,359
0.05%	$9,210,000	Top 0.05-0.01%	80,746	$13,261,732
0.01%	$24,515,000	Top 0.01%	20,187	$62,194,865

Notes: Computations based on estate tax return statistics (see Appendix Section A).

Wealth defined as total assets less liabilities. It excludes life insurance, annuitized wealth, future pensions with no cash surrender value, future labor income and social security benefits. Amounts are expressed in 2000 dollars.

Source: Table A and Table B3, row 2000.

Table A: Reference Totals for Population, Wealth, and Inflation, 1916-2002

	Adult population		Personal Wealth		Wealth Composition (in percent)					Inflation
	(1) Population (aged 20+) ('000s)	(2) Population covered by estate tax returns	(3) Total Wealth (billions 2000 $)	(4) Average Wealth (2000 $)	(5) Real Estate and Durables	(6) Fixed Claim Assets	(7) Corporate Equity	(8) Non-Corp. Equity	(9) Liabilities	(10) CPI (2000 base)
1916	60,063	1.115%	2,930	48,781	24.8	20.0	21.6	39.4	-5.9	6.324
1917	60,914	1.209%	2,696	44,259	27.2	20.9	18.3	39.5	-5.9	7.425
1918	60,477	1.400%	2,553	42,220	29.2	21.8	15.7	39.1	-5.7	8.716
1919	61,758	1.719%	2,646	42,842	29.9	21.0	16.0	38.2	-5.1	10.015
1920	63,117	1.835%	2,436	38,598	31.9	21.4	14.7	37.1	-5.1	11.598
1921	64,360	0.016%	2,597	40,356	32.2	23.7	14.7	35.1	-5.7	10.357
1922	65,237	0.021%	2,817	43,176	30.2	24.6	17.4	33.8	-6.0	9.704
1923	66,498	0.022%	2,915	43,837	30.6	24.4	18.2	33.1	-6.4	9.879
1924	67,945	0.021%	3,040	44,737	31.6	24.3	18.9	32.3	-7.2	9.899
1925	69,137	0.022%	3,193	46,186	31.1	23.6	21.4	31.6	-7.7	10.146
1926	70,348	0.023%	3,355	47,698	30.9	23.2	23.3	30.9	-8.2	10.248
1927	71,615	0.029%	3,667	51,199	29.9	22.5	26.0	30.1	-8.6	10.053
1928	72,882	0.672%	4,171	57,232	27.7	20.9	30.6	29.2	-8.4	9.922
1929	74,112	0.716%	4,618	62,317	26.0	19.7	35.7	27.0	-8.3	9.922
1930	75,505	0.638%	4,113	54,472	29.5	22.8	28.7	28.6	-9.6	9.674
1931	76,620	0.020%	3,699	48,272	32.8	27.1	21.9	29.0	-10.8	8.823
1932	77,683	0.010%	3,323	42,781	35.7	32.8	14.3	29.4	-12.2	7.914
1933	78,764	0.015%	3,538	44,919	33.6	31.8	15.9	29.6	-10.9	7.510
1934	79,915	0.011%	3,665	45,866	32.1	29.3	18.0	30.3	-9.6	7.766
1935	81,064	0.012%	3,792	46,778	30.7	27.5	19.7	31.2	-9.1	7.960
1936	82,156	0.018%	4,260	51,858	28.3	24.1	23.4	32.3	-8.1	8.040
1937	83,216	0.015%	4,136	49,705	30.2	23.8	21.7	32.4	-8.1	8.329
1938	84,344	2.142%	4,064	48,178	32.6	24.4	19.0	32.4	-8.4	8.171
1939	85,486	1.186%	4,248	49,696	32.5	23.5	19.5	32.7	-8.2	8.056
1940	86,832	2.355%	4,287	49,371	33.8	24.4	17.6	32.2	-8.1	8.137
1941	88,173	0.011%	4,261	48,326	35.6	26.5	14.5	31.3	-7.8	8.544
1942	89,560	0.013%	4,211	47,024	35.7	27.9	12.7	30.8	-7.1	9.458
1943	90,999	0.012%	4,526	49,742	33.8	28.9	13.0	30.6	-6.3	10.035
1944	92,376	2.477%	5,052	54,688	31.9	29.8	13.6	30.2	-5.6	10.205
1945	93,697	0.018%	5,656	60,368	29.5	30.2	15.4	29.9	-4.9	10.440
1946	94,933	1.176%	5,855	61,674	29.0	29.7	15.4	30.8	-4.9	11.328
1947	96,183	1.303%	5,571	57,920	31.2	28.3	13.5	32.6	-5.6	12.959
1948	97,552	1.341%	5,541	56,801	33.7	26.9	12.3	33.4	-6.3	13.969
1949	98,941	1.410%	5,866	59,284	35.7	25.9	12.2	33.2	-7.1	13.830
1950	100,224	1.494%	6,184	61,699	37.5	24.8	13.3	32.2	-7.8	13.968
1951	101,452		6,264	61,743	38.7	23.4	14.7	31.5	-8.3	15.072
1952	102,626		6,543	63,759	39.7	23.2	14.9	31.0	-8.8	15.403
1953	103,611	1.884%	6,701	64,676	41.3	23.9	14.3	30.2	-9.7	15.526
1954	104,623	1.861%	7,016	67,057	41.8	23.8	15.8	28.9	-10.3	15.604
1955	105,603		7,601	71,978	41.5	23.4	18.8	27.3	-11.0	15.542
1956	106,687	2.266%	8,033	75,295	41.7	23.3	20.3	26.3	-11.6	15.775
1957	107,748		8,068	74,882	42.8	23.7	19.4	26.3	-12.2	16.343
1958	108,710	2.611%	8,303	76,375	42.5	23.7	20.3	25.9	-12.4	16.784
1959	110,223		8,828	80,095	41.5	23.4	22.8	24.8	-12.6	16.918

1960	111,314	2.950%	9,040	81,210	41.8	24.0	23.2	24.3	-13.4	17.189
1961	112,450		9,478	84,282	41.2	24.0	24.7	23.8	-13.7	17.361
1962	113,754	2.700%	9,866	86,735	40.8	24.2	25.5	23.6	-14.1	17.552
1963	115,096		10,082	87,593	41.1	25.1	25.5	23.4	-15.0	17.762
1964	116,796		10,558	90,400	40.5	25.4	27.1	22.7	-15.6	17.993
1965	118,275	2.923%	11,171	94,449	39.4	25.5	28.9	22.1	-15.9	18.299
1966	119,724		11,388	95,116	40.0	26.2	27.7	22.5	-16.4	18.830
1967	121,143		11,841	97,746	40.0	26.6	27.5	22.3	-16.3	19.376
1968	123,507		12,759	103,308	39.0	25.7	29.8	21.1	-15.6	20.190
1969	125,543	4.069%	12,869	102,510	40.3	26.1	28.1	21.3	-15.8	21.280
1970	127,674		12,458	97,577	42.1	27.4	24.8	21.9	-16.2	22.535
1971	130,774		12,851	98,267	41.9	27.6	24.6	21.9	-16.0	23.527
1972	133,502	5.343%	14,028	105,076	41.3	26.8	26.1	21.6	-15.8	24.280
1973	136,006		14,313	105,237	43.1	27.1	23.3	22.8	-16.3	25.785
1974	138,444		13,033	94,140	46.2	29.4	16.3	25.8	-17.7	28.621
1975	141,055		12,709	90,097	47.0	30.3	13.9	26.8	-18.0	31.226
1976	143,609	6.517%	13,612	94,783	46.2	29.4	15.8	26.1	-17.5	33.037
1977	146,305		14,166	96,827	47.6	29.1	14.7	26.4	-17.9	35.185
1978	149,142		14,614	97,984	49.9	29.0	12.5	27.3	-18.7	37.859
1979	152,105		15,032	98,826	50.6	28.4	12.2	27.7	-18.9	42.137
1980	155,268		15,250	98,220	50.2	27.6	13.2	27.5	-18.4	47.825
1981	158,033		15,312	96,891	50.6	27.6	12.7	27.2	-18.1	52.751
1982	160,665	1.966%	15,385	95,759	50.9	28.6	11.8	26.6	-17.9	56.022
1983	163,135	1.800%	15,856	97,197	50.1	29.9	12.5	25.6	-18.0	57.814
1984	165,650	1.480%	16,323	98,540	50.7	31.5	12.1	24.1	-18.5	60.300
1985	168,205	1.177%	17,286	102,770	51.9	32.8	12.2	22.3	-19.2	62.471
1986	170,556	1.147%	18,770	110,051	51.9	33.5	13.5	20.9	-19.7	63.658
1987	172,552	1.125%	19,638	113,807	52.1	34.1	13.7	20.2	-20.0	65.950
1988	174,344	1.046%	20,432	117,195	52.0	34.4	13.8	19.6	-19.9	68.654
1989	176,060	1.192%	21,249	120,693	51.7	33.9	15.2	18.9	-19.8	71.949
1990	178,365	1.305%	21,089	118,236	51.9	34.4	15.5	18.8	-20.5	75.834
1991	180,978	1.312%	21,118	116,686	51.1	34.6	17.0	18.1	-20.9	79.019
1992	183,443	1.371%	21,654	118,041	50.2	33.6	20.0	17.0	-20.8	81.390
1993	185,685	1.502%	21,922	118,058	50.0	32.7	21.9	16.5	-21.1	83.832
1994	187,757	1.541%	22,035	117,360	50.0	32.5	22.6	16.7	-21.8	86.011
1995	189,911	1.599%	22,792	120,016	49.1	31.6	24.8	16.6	-22.0	88.419
1996	192,043	1.843%	24,261	126,333	46.9	30.0	28.7	16.0	-21.6	91.072
1997	194,426	1.953%	26,162	134,561	44.5	28.4	32.7	15.4	-20.9	93.167
1998	196,795	2.048%	28,575	145,203	42.6	26.9	36.0	14.7	-20.3	94.657
1999	199,255	2.198%	31,407	157,622	41.0	25.6	39.2	13.9	-19.7	96.740
2000	201,865	2.108%	32,135	159,190	42.2	25.5	38.8	13.8	-20.3	100.000
2001	204,323		30,684	150,175	46.8	27.2	33.9	14.5	-22.4	102.846
2002	206,811		29,314	141,745	52.3	29.6	27.7	15.4	-25.0	104.472

Notes: Population estimates based on census data from Historical Statistics of the United States and the U.S. Statistical Abstract.
Population covered by tax returns is defined by the population represented, using the multiplier technique, by estate tax returns with net worth above the filing threshold.
Total wealth is defined as net worth of the personal sector excluding life insurance, all future social security benefits and human wealth.
Only the cash surrender value of pension reserves is included (such as vested defined contribution and 401(k) accounts).
The series is estimated from the Flow of Funds Accounts since 1945 and from several other sources before 1945. The series estimate average wealth during the corresponding year (and not end of year estimates). Wealth composition column reports the percent shares of tangible assets (owner occupied real estate, consumer durables) , fixed claim assets (cash and saving deposits, all bonds, mortgages), corporate equity, non-corporate equity (which includes tenant occupied net real estate).
Liabilities include all debts (mortgages and consumer credit). Columns (5) to (9) add up to 100%.
The Consumer Price Index (CPI) series is used to express all nominal values into real 2000 dollars.

Table B1: Top Wealth Shares in the United States, 1916-2000

	Top groups							Intermediate Groups					
	2%	1%	0.50%	0.25%	0.10%	0.05%	0.01%	2-1%	1-.5%	.5-.25%	.25-.1%	.1-.05%	.05-.01%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)	(8)	(9)	(10)		(11)
1916		39.00	33.46	28.11	21.55	17.34	9.94		5.55	5.35	6.56	4.22	7.39
1917		36.43	30.90	25.76	19.78	15.86	9.07		5.53	5.14	5.98	3.92	6.78
1918		37.54	31.84	26.55	20.49	16.50	9.73		5.71	5.28	6.06	3.99	6.78
1923		40.43	34.29	28.86	22.77	18.71	11.56		6.13	5.44	6.09	4.05	7.15
1920		37.95	31.98	26.62	20.68	16.90	10.27		5.96	5.36	5.94	3.77	6.63
1921		35.60	29.47	24.04	17.86	13.95	7.65		6.12	5.43	6.18	3.91	6.30
1922		36.32	30.12	24.44	17.85	13.62	6.50		6.20	5.68	6.58	4.23	7.12
1923		35.59	29.85	24.49	18.10	13.92	6.99		5.74	5.36	6.38	4.18	6.94
1924		37.25	31.40	25.91	19.43	15.33	8.46		5.85	5.49	6.48	4.10	6.88
1925		36.62	30.66	25.30	18.91	14.93	8.01		5.96	5.36	6.39	3.98	6.92
1926		35.71	30.24	24.98	18.87	14.98	8.51		5.46	5.26	6.11	3.89	6.47
1927		39.66	33.71	28.31	21.82	17.68	10.48		5.95	5.40	6.49	4.15	7.19
1928		36.78	31.40	26.39	20.12	15.97	9.09		5.38	5.02	6.26	4.15	6.88
1929		37.22	32.36	27.45	21.29	17.08	9.42		4.86	4.91	6.16	4.21	7.66
1930		41.12	35.29	29.97	23.57	19.32	11.16		5.83	5.32	6.41	4.25	8.16
1931		35.76	30.41	25.46	19.49	15.47	8.65		5.35	4.95	5.97	4.02	6.82
1932		29.31	24.93	20.62	15.41	12.12	6.40		4.37	4.31	5.21	3.29	5.72
1933		31.31	26.77	22.35	17.04	13.57	7.33		4.55	4.41	5.31	3.47	6.24
1934		29.06	24.77	20.65	15.67	12.52	6.95		4.29	4.13	4.98	3.15	5.57
1935		28.76	24.73	20.61	15.75	12.53	6.95		4.03	4.12	4.86	3.23	5.58
1936		30.63	26.41	22.36	17.43	13.98	7.65		4.21	4.05	4.94	3.44	6.34
1937		27.86	23.50	19.55	14.92	11.96	6.52		4.36	3.95	4.63	2.96	5.44
1938		28.05	23.66	19.60	14.89	11.85	6.51		4.39	4.07	4.71	3.04	5.34
1939		26.92	22.48	18.47	13.89	11.01	5.92		4.44	4.01	4.57	2.88	5.09
1940		26.23	21.77	17.74	13.16	10.27	5.30		4.46	4.03	4.59	2.88	4.97
1941		26.31	21.72	17.61	13.08	10.30	5.38		4.60	4.10	4.53	2.78	4.92
1942		24.67	20.21	16.29	11.98	9.24	4.42		4.46	3.93	4.31	2.73	4.82
1943		25.11	20.23	16.05	11.52	8.81	4.48		4.88	4.18	4.53	2.72	4.33
1944		26.33	21.10	16.67	11.94	9.10	4.56		5.23	4.43	4.73	2.83	4.54
1945		25.36	20.05	15.64	11.01	8.29	3.89		5.31	4.41	4.63	2.72	4.40
1946	32.05	25.43	19.82	15.33	10.77	8.00	4.05	6.62	5.60	4.49	4.56	2.77	3.95
1947	32.19	25.20	19.58	15.22	10.76	8.16	4.29	6.99	5.62	4.37	4.45	2.60	3.86
1948	30.69	23.87	18.38	14.12	9.90	7.40	3.85	6.82	5.49	4.26	4.22	2.50	3.55
1949	30.46	23.43	17.93	13.64	9.46	7.03	3.51	7.03	5.50	4.29	4.18	2.44	3.51
1950	30.59	23.61	18.17	13.90	9.67	7.31	3.68	6.99	5.43	4.27	4.23	2.36	3.63
1953	32.03	24.68	19.01	14.57	10.20	7.69	3.80	7.36	5.67	4.44	4.37	2.51	3.89
1954	31.09	24.06	18.61	14.30	10.05	7.66	3.95	7.03	5.46	4.31	4.25	2.38	3.72
1956	32.59	25.66	20.02	15.54	10.97	8.32	4.20	6.93	5.64	4.49	4.57	2.65	4.11
1958	32.30	25.10	19.39	14.97	10.53	8.06	4.36	7.20	5.70	4.42	4.44	2.47	3.70
1960	33.61	26.20	20.29	15.67	11.01	8.37	4.35	7.40	5.92	4.62	4.66	2.64	4.03
1962	31.79	25.14	19.73	15.31	10.80	8.23	4.22	6.64	5.42	4.41	4.51	2.57	4.01
1965	31.91	25.69	20.42	16.02	11.35	8.66	4.62	6.22	5.27	4.40	4.68	2.69	4.04
1969	29.77	23.49	18.41	14.33	10.24	7.94	4.53	6.28	5.08	4.08	4.09	2.29	3.42
1972	30.15	23.73	18.58	14.48	10.24	7.74	4.14	6.43	5.15	4.10	4.25	2.50	3.60
1976	26.06	19.71	14.87	11.20	7.68	5.81	3.01	6.34	4.85	3.66	3.53	1.87	2.80
1982	25.27	19.18	14.49	10.93	7.44	5.48	2.58	6.09	4.69	3.57	3.49	1.95	2.90
1983	26.91	21.13	16.04	12.24	8.55	6.52	3.27	5.78	5.09	3.80	3.69	2.03	3.25
1984	26.66	21.05	16.37	12.40	8.74	6.73	3.59	5.61	4.69	3.97	3.66	2.00	3.14
1985	28.38	22.37	17.54	13.62	9.58	7.37	4.17	6.01	4.84	3.92	4.04	2.21	3.20
1986	28.76	22.73	17.75	13.75	9.73	7.49	3.99	6.03	4.98	3.99	4.03	2.24	3.50
1987	27.74	21.56	16.70	12.88	9.08	6.83	3.51	6.18	4.86	3.82	3.79	2.26	3.32
1988	27.61	21.60	16.79	12.92	8.96	6.79	3.65	6.01	4.80	3.88	3.96	2.16	3.14
1989	28.01	21.99	17.10	13.24	9.42	7.22	3.86	6.02	4.89	3.86	3.82	2.20	3.36
1990	27.38	20.92	16.07	12.35	8.85	6.88	3.71	6.46	4.85	3.72	3.50	1.96	3.18
1991	27.72	21.59	16.67	12.86	9.06	6.89	3.62	6.13	4.92	3.81	3.79	2.17	3.27
1992	27.23	21.25	16.46	12.80	9.12	7.00	3.79	5.98	4.79	3.66	3.68	2.13	3.21
1993	27.59	21.38	16.44	12.55	8.80	6.82	3.83	6.21	4.94	3.89	3.75	1.99	2.99
1994	28.11	21.68	16.79	12.99	9.13	7.08	3.94	6.43	4.89	3.80	3.86	2.05	3.14
1995	27.85	21.71	16.87	13.12	9.48	7.39	4.09	6.14	4.84	3.75	3.64	2.09	3.30
1996	27.97	21.76	16.81	12.95	9.27	7.15	3.95	6.21	4.95	3.86	3.68	2.12	3.20
1997	27.61	21.59	16.74	12.85	9.16	7.11	3.89	6.03	4.85	3.88	3.69	2.05	3.22
1998	27.79	21.87	17.03	13.25	9.49	7.37	3.95	5.93	4.83	3.79	3.76	2.12	3.42
1999	27.86	21.97	17.15	13.44	9.62	7.45	3.99	5.89	4.82	3.71	3.81	2.17	3.46
2000	27.03	21.40	16.86	13.26	9.45	7.24	3.91	5.63	4.53	3.60	3.81	2.21	3.33

Notes: Computations by authors based on estate tax return statistics. See Appendix Section D for details.
Series display the top of total net-worth accruing to each upper wealth group. Life insurance is excluded.
Series for Top 2-1% are estimated only for the 1946-2000 period because the tax return population does not cover that group in the pre-war period.

Table B2: Top Groups Wealth Levels in the United States, 1916-2000 (in thousands of 2000 dollars)

	Top groups							Intermediate Groups						Thresholds						
	2%	1%	0.50%	0.25%	0.10%	0.05%	0.01%	2-1%	1-.5%	.5-.25%	.25-.1%	.1-.05%	.05-.01%	2%	1%	0.50%	0.25%	0.10%	0.05%	0.01%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1916		1,903	3,264	5,485	10,514	16,913	48,502		541	1,043	2,132	4,115	9,016		398	765	1,467	3,252	5,393	17,480
1917		1,612	2,735	4,560	8,753	14,035	40,151		490	910	1,765	3,470	7,506		366	681	1,265	2,660	4,564	14,207
1918		1,585	2,688	4,485	8,652	13,935	41,068		482	892	1,706	3,369	7,152		359	673	1,215	2,563	4,482	13,381
1923		1,732	2,938	4,945	9,753	16,035	49,523		526	932	1,739	3,471	7,663		403	713	1,253	2,632	4,604	13,515
1920		1,465	2,469	4,110	7,980	13,047	39,647		460	828	1,529	2,913	6,397		340	647	1,098	2,275	3,860	12,811
1921		1,437	2,379	3,881	7,209	11,260	30,886		494	877	1,662	3,157	6,354		378	672	1,180	2,466	4,191	11,863
1922		1,568	2,601	4,220	7,708	11,764	28,083		535	981	1,895	3,653	7,684		402	742	1,340	2,833	4,895	13,894
1923		1,560	2,617	4,293	7,936	12,207	30,622		503	940	1,865	3,664	7,603		375	702	1,292	2,851	4,834	13,840
1924		1,666	2,809	4,636	8,693	13,720	37,840		523	983	1,931	3,665	7,691		386	738	1,348	2,958	4,687	15,708
1925		1,691	2,832	4,673	8,733	13,794	37,001		550	991	1,967	3,673	7,992		419	752	1,384	2,873	4,952	15,473
1926		1,703	2,885	4,766	8,999	14,288	40,568		521	1,004	1,944	3,711	7,718		373	751	1,372	2,838	4,913	14,398
1927		2,031	3,452	5,798	11,173	18,099	53,671		609	1,105	2,215	4,247	9,206		461	837	1,518	3,336	5,421	19,498
1928		2,105	3,595	6,040	11,517	18,283	52,045		616	1,149	2,389	4,750	9,843		460	858	1,601	3,653	6,425	18,406
1929		2,319	4,033	6,842	13,268	21,286	58,694		605	1,224	2,558	5,250	11,935		436	873	1,748	3,974	7,201	25,018
1930		2,240	3,845	6,531	12,837	21,047	60,774		635	1,159	2,326	4,627	11,115		479	875	1,596	3,535	6,345	24,564
1931		1,726	2,936	4,916	9,407	14,931	41,743		516	956	1,921	3,884	8,228		387	716	1,326	2,992	5,116	16,327
1932		1,254	2,133	3,529	6,594	10,371	27,364		374	737	1,486	2,816	6,123		272	535	1,051	2,261	3,748	10,993
1933		1,407	2,405	4,016	7,656	12,192	32,921		409	793	1,590	3,120	7,010		300	578	1,113	2,415	4,023	13,965
1934		1,333	2,273	3,788	7,187	11,484	31,885		393	757	1,523	2,889	6,384		289	556	1,068	2,251	3,773	12,096
1935		1,346	2,314	3,856	7,368	11,719	32,501		377	771	1,515	3,017	6,524		265	559	1,073	2,292	4,088	12,431
1936		1,588	2,740	4,639	9,037	14,505	39,664		437	840	1,706	3,570	8,215		319	623	1,174	2,632	4,898	16,591
1937		1,385	2,336	3,886	7,414	11,890	32,387		433	786	1,534	2,939	6,766		328	594	1,074	2,314	3,902	13,049
1938		1,351	2,280	3,776	7,172	11,417	31,347		423	784	1,513	2,927	6,434		315	591	1,066	2,265	4,032	12,927
1939		1,338	2,234	3,671	6,904	10,941	29,410		441	798	1,516	2,866	6,324		332	609	1,085	2,264	3,736	13,600
1940		1,295	2,150	3,504	6,495	10,143	26,168		440	796	1,510	2,847	6,137		334	603	1,082	2,229	3,807	11,551
1941		1,271	2,099	3,404	6,322	9,954	26,007		444	793	1,459	2,691	5,941		338	607	1,068	2,145	3,554	11,187
1942		1,160	1,901	3,063	5,632	8,693	20,796		419	739	1,351	2,571	5,667		322	568	984	1,965	3,415	10,674
1943		1,249	2,013	3,194	5,732	8,761	22,281		485	833	1,501	2,704	5,381		376	651	1,086	2,180	3,461	9,678
1944		1,440	2,308	3,645	6,528	9,956	24,963		572	970	1,724	3,099	6,205		445	765	1,272	2,485	4,023	11,383
1945		1,531	2,421	3,777	6,648	10,015	23,510		641	1,065	1,864	3,281	6,641		504	844	1,387	2,639	4,309	10,910
1946	966	1,565	2,440	3,770	6,613	9,806	24,974	408	691	1,109	1,875	3,420	6,086	319	544	907	1,417	2,643	4,196	10,866
1947	911	1,464	2,276	3,541	6,271	9,528	24,870	405	651	1,012	1,720	3,015	5,595	325	522	839	1,291	2,403	3,789	10,318
1948	856	1,368	2,113	3,257	5,745	8,650	21,872	388	624	968	1,599	2,839	5,035	310	502	793	1,242	2,221	3,504	8,847
1949	870	1,370	2,087	3,158	5,418	7,946	20,826	417	652	1,016	1,650	2,891	5,206	339	532	830	1,283	2,289	3,563	9,128
1950	926	1,461	2,252	3,450	6,016	9,114	22,697	431	670	1,055	1,740	2,918	5,596	351	548	851	1,337	2,394	3,700	9,834
1953	1,023	1,597	2,460	3,772	6,606	9,959	24,552	476	733	1,148	1,883	3,253	6,289	390	600	931	1,450	2,589	4,136	10,975
1954	1,023	1,602	2,473	3,791	6,625	10,053	26,465	471	732	1,155	1,901	3,197	6,233	385	597	936	1,460	2,601	4,112	10,986
1956	1,241	1,961	3,072	4,793	8,541	13,090	31,641	522	850	1,351	2,294	3,992	7,742	394	691	1,103	1,728	3,213	5,164	13,808
1958	1,210	1,870	2,870	4,388	7,579	11,387	33,337	550	871	1,351	2,261	3,772	7,060	424	709	1,102	1,705	3,094	4,766	12,208
1960	1,391	2,180	3,399	5,298	9,464	14,643	35,290	601	961	1,500	2,521	4,285	8,178	468	778	1,213	1,920	3,476	5,436	14,805
1962	1,378	2,181	3,422	5,313	9,370	14,283	36,638	576	939	1,531	2,609	4,457	8,695	451	751	1,229	1,997	3,605	5,689	16,092
1965	1,507	2,427	3,858	6,053	10,717	16,354	43,630	587	996	1,662	2,944	5,081	9,534	460	781	1,319	2,190	4,153	6,370	17,191
1969	1,526	2,408	3,774	5,874	10,494	16,288	46,416	644	1,041	1,674	2,794	4,699	8,756	512	832	1,349	2,133	3,835	5,846	15,461
1972	1,584	2,493	3,905	6,087	10,755	16,263	43,527	675	1,081	1,723	2,975	5,247	9,446	535	875	1,391	2,209	4,241	6,572	16,980
1976	1,235	1,869	2,818	4,248	7,277	11,005	28,528	601	919	1,389	2,229	3,549	6,624	491	767	1,135	1,749	2,986	4,353	11,483
1982	1,210	1,837	2,776	4,185	7,121	10,505	24,720	583	898	1,366	2,228	3,737	6,951	477	737	1,126	1,712	3,059	4,710	12,284
1983	1,308	2,054	3,117	4,757	8,307	12,669	31,771	562	990	1,477	2,390	3,946	7,893	428	768	1,236	1,796	3,398	4,402	13,978
1984	1,313	2,074	3,225	4,888	8,610	13,271	35,384	553	923	1,563	2,406	3,949	7,743	441	718	1,266	1,934	3,285	4,770	13,584
1985	1,458	2,299	3,605	5,598	9,847	15,143	42,856	618	994	1,611	2,766	4,551	8,215	494	800	1,269	2,097	3,783	5,188	14,059
1986	1,583	2,501	3,906	6,054	10,703	16,480	43,927	664	1,097	1,758	2,954	4,926	9,619	524	872	1,409	2,259	4,022	6,335	17,233
1987	1,578	2,454	3,801	5,863	10,338	15,541	39,903	703	1,107	1,738	2,879	5,135	9,450	572	895	1,430	2,154	4,163	6,449	16,758
1988	1,618	2,531	3,936	6,055	10,495	15,925	42,823	704	1,126	1,818	3,094	5,065	9,201	568	905	1,459	2,353	4,273	6,102	16,165
1989	1,690	2,654	4,128	6,391	11,369	17,429	46,605	726	1,180	1,865	3,072	5,310	10,134	580	943	1,536	2,357	4,223	6,818	19,025
1990	1,618	2,474	3,800	5,839	10,463	16,281	43,824	763	1,147	1,760	2,757	4,645	9,395	633	952	1,439	2,187	3,729	5,895	18,600
1991	1,617	2,519	3,890	6,001	10,576	16,081	42,233	715	1,148	1,778	2,951	5,072	9,543	573	925	1,452	2,293	4,158	6,490	17,557
1992	1,607	2,509	3,887	6,045	10,769	16,516	44,699	705	1,131	1,729	2,895	5,023	9,470	566	912	1,426	2,214	4,038	6,287	17,110
1993	1,629	2,524	3,882	5,926	10,391	16,092	45,169	733	1,166	1,838	2,950	4,690	8,823	590	945	1,496	2,319	4,029	5,763	17,029
1994	1,650	2,544	3,940	6,097	10,714	16,626	46,223	755	1,149	1,783	3,020	4,803	9,226	624	944	1,449	2,260	4,114	5,827	17,195
1995	1,671	2,606	4,050	6,299	11,379	17,742	49,122	737	1,161	1,802	2,912	5,016	9,897	598	941	1,479	2,263	4,026	6,424	17,182
1996	1,767	2,749	4,247	6,546	11,717	18,072	49,902	784	1,251	1,949	3,099	5,362	10,114	631	1,010	1,607	2,355	4,273	6,700	17,939
1997	1,858	2,905	4,504	6,918	12,325	19,146	52,376	811	1,305	2,091	3,313	5,504	10,838	651	1,048	1,698	2,631	4,496	6,926	20,039
1998	2,018	3,175	4,947	7,693	13,776	21,403	57,292	861	1,403	2,201	3,638	6,149	12,431	672	1,122	1,786	2,801	5,053	7,760	25,287
1999	2,196	3,463	5,406	8,471	15,168	23,495	62,890	929	1,519	2,341	4,006	6,841	13,646	724	1,229	1,921	2,979	5,698	9,176	25,357
2000	2,151	3,406	5,369	8,444	15,049	23,048	62,195	897	1,443	2,293	4,041	7,049	13,262	705	1,146	1,848	3,067	5,687	9,210	24,515

Notes: All amounts are reported in thousands 2000 dollars.

Computations by authors based on income tax return statistics. All details in Appendix Section B.

Series report the thresholds, and average wealth corresponding to each of the upper groups.

Table B3: Composition by Sources of Wealth and by Fractiles of Total Wealth in the United States, 1916-2000

	Top 2%						Top 1%						Top 0.5%						Top 0.25%						Top 0.1%					
	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts
1916													28.2	18.9	36.5	16.7	7.8	-8.2	23.7	21.1	39.2	15.5	7.3	-6.8	19.8	24.4	41.5	13.2	7.4	-6.3
1917													29.6	14.5	40.1	18.0	6.2	-8.3	24.8	15.7	44.1	16.8	5.9	-7.4	20.0	16.4	49.6	14.8	5.8	-6.5
1918													27.9	17.3	40.3	16.2	8.3	-10.0	24.0	18.8	43.7	14.9	8.1	-9.5	19.8	20.4	47.5	13.0	7.7	-8.5
1919													25.3	16.8	45.7	13.4	9.2	-10.5	21.1	18.0	49.3	12.3	9.0	-9.7	17.3	19.3	52.5	11.2	9.2	-9.5
1920													24.5	15.5	50.0	13.0	8.9	-11.9	20.4	16.5	54.3	11.2	8.5	-10.9	16.4	17.5	59.3	9.0	7.8	-10.0
1921													28.9	18.7	41.2	14.7	6.5	-10.0	25.4	19.8	44.4	13.6	6.5	-9.7	21.5	21.1	48.0	12.3	6.3	-9.2
1922													27.0	19.5	41.3	15.2	7.5	-10.4	23.6	20.7	45.0	13.4	7.5	-10.1	20.0	22.1	49.0	10.9	7.6	-9.7
1923													25.9	17.7	42.7	15.7	7.2	-9.2	22.3	18.6	46.7	14.1	6.9	-8.7	18.1	19.5	51.3	12.5	6.5	-7.8
1924													22.9	18.7	45.0	15.4	7.3	-9.3	19.6	19.5	48.5	14.0	7.1	-8.7	15.5	20.2	52.2	12.7	6.9	-7.5
1925													22.5	18.1	44.9	14.6	8.5	-8.7	19.5	18.7	48.3	13.0	8.6	-8.2	16.4	19.4	52.2	11.3	8.2	-7.6
1926																														
1927													19.2	16.9	53.8	13.4	6.2	-9.6	16.5	17.3	57.4	11.9	6.1	-9.2	13.3	17.6	62.3	9.9	5.7	-8.9
1928													17.7	13.2	59.4	11.5	8.1	-9.9	14.1	13.9	63.3	10.0	7.9	-9.3	10.9	13.8	67.3	8.1	7.8	-7.9
1929													15.8	15.6	59.9	11.4	8.2	-10.9	12.9	16.5	62.9	10.1	8.0	-10.3	10.3	17.2	65.7	8.1	8.2	-9.5
1930													16.3	16.6	59.1	12.1	6.8	-10.9	14.2	16.7	62.3	10.5	6.9	-10.6	11.7	17.4	65.5	8.5	6.7	-9.8
1931													18.1	20.4	47.6	16.9	7.0	-10.1	16.3	21.2	49.5	15.4	7.2	-9.6	13.5	22.4	52.2	13.2	7.5	-8.8
1932													20.2	25.2	38.6	21.0	7.1	-12.1	18.5	26.1	40.6	19.2	7.5	-11.8	15.5	28.0	42.7	16.6	8.1	-10.9
1933													18.3	25.3	41.9	17.2	7.5	-10.3	15.9	26.8	44.0	15.1	7.7	-9.5	13.0	28.8	46.8	12.1	8.1	-8.8
1934													17.2	24.1	43.1	18.1	6.2	-8.7	15.1	25.0	45.6	16.4	6.0	-8.1	12.2	26.2	49.2	13.9	5.9	-7.4
1935													16.5	23.1	43.8	17.2	7.5	-8.2	14.3	23.8	46.4	15.3	7.7	-7.5	11.1	24.6	50.4	12.4	8.0	-6.6
1936													15.1	22.0	48.7	15.7	6.1	-7.6	12.3	23.2	51.7	13.8	6.0	-7.0	9.4	24.6	55.1	11.6	5.7	-6.3
1937													15.6	21.3	47.5	16.9	7.3	-8.6	12.9	22.6	50.4	15.1	7.3	-8.3	10.3	24.0	53.1	13.3	7.4	-8.1
1938													15.7	19.7	47.1	16.9	9.3	-8.6	12.8	21.2	50.0	14.7	9.3	-8.0	9.2	23.4	51.6	12.1	9.6	-5.9
1939													15.4	18.3	50.9	16.9	7.4	-9.0	12.7	19.9	54.1	14.9	6.6	-8.2	9.4	21.8	57.5	12.9	5.8	-7.3
1940													17.2	16.9	46.5	18.6	9.6	-8.8	14.2	18.5	49.3	16.9	9.3	-8.2	11.7	20.2	52.7	15.0	8.2	-7.8
1941													20.5	19.8	44.7	19.4	6.3	-10.7	17.3	21.4	47.9	17.5	6.2	-10.3	13.3	23.4	50.8	15.5	5.6	-8.6
1942													21.2	20.2	43.9	18.9	6.8	-10.9	18.1	21.8	46.9	17.3	6.8	-10.9	14.9	23.8	49.5	15.6	6.5	-10.2
1943													18.5	20.1	46.0	17.2	7.0	-8.8	15.2	21.6	49.7	15.6	6.6	-8.7	11.3	23.6	53.6	13.9	5.6	-8.0
1944													15.7	18.8	47.9	14.2	10.1	-6.5	12.9	19.9	51.2	12.8	9.2	-5.9	10.8	21.0	54.8	11.1	7.3	-5.0
1945																														
1946	25.6	16.1	39.5	17.4	7.5	-6.1	22.6	17.2	43.1	15.9	7.5	-6.4	19.1	18.6	47.4	14.4	7.1	-6.5	16.1	20.0	50.8	12.9	6.6	-6.3	13.3	21.6	53.8	11.4	5.8	-6.0
1947	26.4	15.4	38.2	18.2	8.1	-6.4	23.2	16.4	42.3	16.9	8.2	-6.8	19.5	17.5	46.5	15.6	7.7	-6.9	16.2	18.7	49.9	14.6	7.1	-6.5	13.0	20.1	53.0	13.6	6.3	-6.0
1948	27.2	15.4	37.7	18.3	8.0	-6.6	23.7	16.3	42.2	16.6	8.2	-6.9	20.0	17.4	46.4	15.4	8.0	-7.1	16.6	18.6	50.1	14.1	7.4	-6.8	13.3	19.9	53.6	12.9	6.7	-6.4
1949	27.6	14.7	38.1	17.9	8.3	-6.6	24.2	15.4	42.7	16.5	8.5	-7.2	20.6	16.2	47.1	15.2	8.2	-7.3	17.6	17.1	50.8	14.0	7.9	-7.4	14.7	18.4	54.4	12.6	7.3	-7.4
1950	27.3	14.8	38.8	17.7	8.3	-6.9	23.9	15.5	43.4	16.2	8.5	-7.5	20.4	16.3	47.8	14.9	8.3	-7.7	17.7	17.2	51.3	13.8	7.9	-8.0	15.0	18.4	54.9	12.4	7.4	-8.2
1953	25.6	12.1	43.4	16.0	9.1	-6.1	21.5	12.7	48.7	14.4	9.0	-6.4	17.9	13.6	53.3	13.0	8.5	-6.4	14.5	14.6	57.4	11.7	7.9	-6.1	10.9	16.0	61.4	10.0	7.2	-5.6
1954	25.3	10.9	44.2	16.2	9.2	-5.8	21.2	11.4	49.6	14.6	9.2	-6.0	17.4	12.1	54.3	13.3	9.0	-6.0	14.4	12.7	58.1	12.0	8.6	-5.7	11.2	13.4	62.1	10.4	8.2	-5.4
1956	23.7	10.5	47.4	15.2	9.0	-5.8	19.7	11.2	52.5	13.7	8.9	-6.0	16.3	11.9	57.0	12.2	8.6	-5.9	13.3	12.7	60.6	10.9	8.2	-5.7	10.7	13.8	63.9	9.4	7.8	-5.5
1958	23.9	9.7	48.5	14.9	9.0	-5.9	20.0	10.3	53.5	13.3	8.9	-6.1	16.7	11.1	57.9	11.8	8.6	-6.0	13.8	11.9	61.5	10.4	8.3	-5.9	11.3	13.2	64.6	9.0	7.8	-5.9
1960	21.6	9.6	52.0	14.4	7.9	-5.5	18.0	10.4	56.9	12.6	7.7	-5.5	14.8	11.2	60.9	10.9	7.5	-5.3	12.1	12.1	64.1	9.4	7.4	-5.1	9.3	13.3	67.1	7.8	7.3	-4.8
1962	24.0	7.8	53.1	14.5	9.9	-9.3	20.0	8.4	58.5	12.5	9.4	-8.8	16.6	9.1	62.9	10.9	8.9	-8.5	13.5	9.9	66.8	9.5	8.2	-7.8	10.6	11.1	71.1	8.1	7.0	-7.8
1965	20.6	8.7	54.2	16.7	4.8	-4.9	17.2	9.3	59.5	14.3	4.5	-4.9	14.6	10.2	63.9	12.1	4.1	-5.0	12.5	11.2	67.3	10.3	3.8	-5.0	10.4	12.4	70.4	8.5	3.5	-5.1
1969	24.1	7.8	49.8	16.4	12.7	-10.8	20.3	8.5	54.5	14.2	12.9	-10.4	17.3	9.4	58.8	12.0	12.7	-10.3	14.6	10.2	62.2	10.2	13.3	-10.5	10.9	11.2	66.2	7.8	13.9	-9.9
1972	25.2	8.5	47.3	17.8	10.8	-9.6	21.6	9.3	52.2	15.4	10.7	-9.2	19.0	10.1	57.2	12.0	10.5	-8.8	16.3	10.8	60.9	9.9	10.5	-8.4	13.7	11.6	64.6	7.6	10.4	-7.9
1976	32.4	10.0	36.6	19.1	12.5	-10.7	28.8	11.5	41.1	16.3	12.7	-10.5	24.8	13.4	45.2	14.4	12.5	-10.2	20.2	15.2	48.8	12.5	12.9	-9.6	16.3	16.7	53.3	10.2	13.2	-9.7
1982							35.1	8.2	32.8	16.0	19.2	-11.2	31.8	9.0	35.9	13.9	19.7	-10.2	28.9	9.4	38.9	12.0	20.6	-9.8	25.3	10.0	42.2	10.1	21.5	-9.2
1983							32.6	7.4	34.4	15.5	20.4	-10.2	28.9	7.4	37.5	14.4	21.3	-9.6	25.0	7.9	42.7	12.9	20.9	-9.5	23.1	7.5	47.0	9.2	24.2	-11.0
1984							35.9	8.1	31.4	17.6	19.4	-12.4	34.9	8.2	34.6	16.1	19.0	-12.8	31.5	7.7	36.4	16.3	20.0	-11.9	27.2	8.7	40.8	13.3	22.0	-11.9
1985							27.8	10.0	38.1	15.4	18.3	-9.6	26.0	10.6	41.3	13.4	18.0	-9.3	23.7	10.7	44.8	12.1	17.5	-8.8	18.4	10.8	50.9	10.5	16.9	-7.6
1986							27.6	10.8	38.3	13.7	19.3	-9.8	24.8	11.1	42.2	12.0	19.3	-9.4	22.9	10.9	46.2	10.0	19.6	-9.5	19.4	10.1	52.6	8.9	18.5	-9.5
1987							28.5	10.6	34.2	14.8	21.0	-9.1	25.8	11.0	37.2	12.9	21.8	-8.8	23.4	10.7	40.9	11.5	22.6	-9.0	21.2	10.8	43.2	10.3	23.8	-9.3
1988							31.1	11.9	32.8	15.3	17.9	-9.0	28.8	12.2	36.3	13.4	18.1	-8.7	25.8	12.2	39.6	12.9	17.7	-8.3	23.6	11.4	43.6	11.9	17.6	-8.1
1989							30.9	11.9	29.6	13.7	22.6	-8.7	28.6	12.2	32.3	11.9	23.4	-8.5	26.6	12.1	34.6	10.4	24.3	-8.0	22.4	12.2	37.0	9.2	25.9	-6.7
1990							29.1	14.7	28.4	14.8	21.5	-8.5	26.6	15.6	30.7	13.1	22.2	-8.3	24.8	15.9	33.2	12.3	22.1	-8.2	20.9	16.7	35.8	10.7	23.9	-8.0
1991							26.3	13.7	32.4	15.5	20.5	-8.4	24.4	14.3	35.8	13.6	20.1	-8.3	22.0	14.6	39.2	12.3	20.1	-8.2	18.6	15.0	43.9	9.8	20.6	-7.9
1992							26.3	15.2	33.5	14.0	19.1	-8.1	24.5	15.9	37.1	12.4	18.3	-8.1	22.2	16.3	40.3	11.1	17.8	-7.6	18.8	16.9	44.7	9.5	16.4	-6.4
1993							22.4	17.1	35.3	12.9	19.1	-6.8	20.0	18.0	39.2	11.5	17.9	-6.5	18.0	18.6	42.2	10.8	16.6	-6.1	16.3	16.3	47.9	9.7	15.7	-5.9
1994							24.1	15.8	34.5	14.0	18.7	-7.1	21.5	16.5	37.8	13.3	17.9	-6.9	19.4	17.2	41.1	11.9	17.0	-6.6	17.1	17.2	46.2	11.1	15.1	-6.7
1995							25.8	13.5	36.0	12.3	19.0	-6.7	24.0	13.8	39.6	11.2	17.9	-6.5	22.8	13.5	43.3	9.7	16.9	-6.2	21.3	12.6	47.1	8.9	15.8	-5.7
1996	24.4	13.3	35.9	12.5	21.0	-7.1	22.1	14.0	39.8	11.1	19.6	-6.6	20.0	14.3	43.8	10.2	18.3	-6.6	18.4	13.7	47.2	9.7	17.4	-6.4	16.8	12.8	52.3	8.8	15.9	-6.6
1997	23.3	11.3	38.0	13.8	20.5	-6.8	20.9	11.7	41.7	12.8	19.4	-6.4	18.9	11.9	45.6	11.8	17.9	-6.1	17.5	11.8	48.8	11.2	16.7	-5.8	16.2	11.1	53.3	9.9	15.5	-6.0
1998	22.6	11.8	41.8	14.0	16.3	-6.5	20.2	12.1	45.7	13.2	15.0	-6.2	18.2	12.0	49.4	12.3	14.1	-6.0	16.4	12.0	52.3	11.3	13.9	-5.9	14.5	11.1	57.0	10.6	12.8	-5.9
1999	22.3	11.1	38.9	12.9	21.0	-6.2	20.1	11.7	42.5	11.7	19.9	-6.0	18.3	12.1	45.4	11.1	18.7	-5.5	17.1	12.5	48.2	10.6	17.0	-5.4	14.9	13.0	52.3	9.7	15.6	-5.5
2000	24.3	9.8	37.4	12.3	23.1	-6.9	22.8	10.1	40.5	11.2	22.3	-6.9	20.8	10.2	44.2	10.1	21.4	-6.6	19.5	10.6	45.8	9.8	20.8	-6.5	17.5	10.1	48.1	9.9	21.1	-6.8

Notes: Wealth is defined as all sources of (non-human) wealth net of debts and liabilities but excludes life insurance, annuities, and claims on future pensions.
Real is defined as real estate. Bonds is the sum of federal, local, foreign, and corporate bonds. Stock is corporate stock
Cash is currency, mortages, and notes. Other is equity in unincorporated business, and miscellaneous assets
The sums of all sources less debts add up to 100%.

Table B3: Composition by Sources of Wealth and by Fractiles of Total Wealth in the United States, 1916-2000 (continued)

	Top 0.05%						Top 0.01%							Top 2-1%							Top 1-0.5%						
	Real	Bonds	Stock	Cash	Other	Debts		Real	Bonds	Stock	Cash	Other	Debts		Real	Bonds	Stock	Cash	Other	Debts		Real	Bonds	Stock	Cash	Other	Debts
1916	17.2	28.1	41.4	11.3	7.2	-5.2	1916	16.4	35.4	38.4	6.9	8.1	-5.2	1916							1916						
1917	17.7	17.2	52.5	13.5	5.4	-6.3	1917	13.1	17.8	58.9	10.4	5.6	-5.8	1917							1917						
1918	17.9	21.2	49.5	11.9	7.3	-7.9	1918	15.3	23.4	53.0	9.7	5.4	-6.9	1918							1918						
1919	14.9	19.8	54.9	10.4	8.7	-8.7	1919	10.8	20.7	60.4	8.9	8.7	-9.6	1919							1919						
1920	14.0	18.0	61.6	7.5	7.5	-8.5	1920	8.1	18.3	67.9	5.2	6.3	-5.8	1920							1920						
1921	19.5	21.8	49.6	11.7	6.0	-8.7	1921	15.4	25.2	51.2	11.1	5.5	-8.3	1921							1921						
1922	18.1	22.9	50.6	9.8	8.0	-9.3	1922	15.4	24.3	51.5	8.3	9.2	-8.7	1922							1922						
1923	15.5	19.5	54.7	11.1	6.3	-7.2	1923	9.9	18.0	64.7	8.1	5.5	-6.2	1923							1923						
1924	13.0	20.1	54.8	12.1	6.8	-6.9	1924	8.5	18.4	59.1	12.8	7.0	-5.9	1924							1924						
1925	14.8	19.4	54.2	10.3	8.6	-7.2	1925	11.3	18.1	58.4	8.9	9.4	-6.1	1925							1925						
1926							1926	11.4	18.2	63.3	9.6	8.5	-10.9	1926							1926						
1927	11.5	17.9	65.2	8.6	5.3	-8.5	1927	7.8	15.6	73.8	6.4	5.1	-8.7	1927							1927						
1928	9.3	13.8	69.6	6.6	7.3	-6.6	1928	6.2	11.6	75.2	4.9	7.6	-5.5	1928							1928						
1929	8.9	17.8	65.8	7.2	8.5	-8.2	1929	6.4	19.3	65.6	5.6	9.4	-6.2	1929							1929						
1930	10.1	17.5	67.1	7.7	7.0	-9.3	1930	7.4	19.2	69.6	5.6	5.8	-7.7	1930							1930						
1931	11.8	23.1	53.4	11.9	7.9	-8.1	1931	9.5	22.9	56.1	9.8	9.0	-7.2	1931							1931						
1932	13.7	29.4	44.2	14.8	8.4	-10.4	1932	9.9	32.6	45.2	12.4	9.4	-9.5	1932							1932						
1933	11.7	30.2	48.1	10.0	8.5	-8.6	1933	8.1	32.5	48.7	7.1	10.7	-7.0	1933							1933						
1934	10.7	26.4	51.4	12.8	5.7	-6.9	1934	8.5	24.7	55.8	11.4	5.8	-6.2	1934							1934						
1935	9.1	24.5	53.0	10.8	8.4	-5.9	1935	5.9	21.3	58.6	8.0	10.6	-4.3	1935							1935						
1936	7.7	25.0	57.0	10.4	5.6	-5.7	1936	5.1	25.6	60.2	9.1	5.8	-5.8	1936							1936						
1937	8.8	24.6	55.0	12.3	7.6	-8.3	1937	6.5	26.1	56.7	11.8	8.4	-9.5	1937							1937						
1938	7.7	25.2	51.4	10.9	9.8	-5.1	1938	4.6	28.8	50.1	8.7	12.2	-4.3	1938							1938						
1939	7.6	23.0	58.9	11.7	5.4	-6.6	1939	4.6	25.6	61.3	9.5	4.2	-5.2	1939							1939						
1940	10.2	20.9	54.2	13.9	8.4	-7.5	1940	6.4	23.7	54.5	12.3	9.5	-6.5	1940							1940						
1941	11.3	24.8	52.0	14.5	5.4	-8.0	1941	7.2	26.7	53.6	13.0	5.1	-5.7	1941							1941						
1942	13.4	25.2	50.7	14.4	6.2	-10.0	1942	10.8	26.6	54.3	11.0	6.6	-9.3	1942							1942						
1943	8.9	24.9	56.0	12.7	5.0	-7.4	1943	4.6	26.3	60.3	10.6	3.7	-5.5	1943							1943						
1944	9.6	22.6	56.0	10.3	6.3	-4.8	1944	6.8	24.8	58.1	9.4	4.8	-4.0	1944							1944						
1945	10.8	23.3	50.5	12.9	9.9	-7.5	1945	6.5	30.3	54.1	9.6	4.3	-4.8	1945							1945						
1946	11.5	22.8	55.5	10.4	5.3	-5.5	1946	8.4	26.3	56.1	8.5	4.7	-4.0	1946	36.9	11.5	25.7	23.0	7.4	-4.6	1946	35.4	12.4	28.2	21.4	8.8	-6.2
1947	11.0	21.0	54.6	13.1	5.9	-5.5	1947	7.9	21.7	55.3	13.6	5.7	-4.2	1947	38.2	12.0	23.4	23.3	8.1	-4.9	1947	35.9	12.4	27.6	21.1	9.7	-6.7
1948	11.2	21.3	55.1	12.2	6.1	-6.0	1948	7.7	25.5	55.8	11.6	4.8	-5.4	1948	39.4	12.4	21.9	24.2	7.5	-5.5	1948	36.0	12.6	27.9	20.9	9.0	-6.4
1949	12.9	19.3	56.6	11.7	6.9	-7.4	1949	10.5	21.6	59.1	10.2	6.2	-7.5	1949	39.2	12.1	23.0	22.7	7.7	-4.6	1949	35.8	12.8	28.1	20.7	9.2	-6.7
1950	13.6	19.3	57.0	11.5	7.1	-8.5	1950	12.5	21.3	59.1	10.1	6.7	-9.7	1950	39.1	12.2	23.2	22.6	7.8	-4.9	1950	35.4	12.9	28.7	20.6	9.3	-6.8
1953	9.1	17.1	63.3	9.2	6.8	-5.4	1953	5.3	20.4	66.6	7.6	5.4	-5.2	1953	39.1	9.9	25.6	21.3	9.5	-5.4	1953	33.6	9.9	33.2	19.1	10.6	-6.4
1954	9.6	13.9	64.1	9.4	8.1	-5.2	1954	7.0	13.7	68.2	7.3	8.5	-4.7	1954	39.2	9.4	25.9	21.5	8.9	-4.9	1954	34.2	9.0	33.7	19.2	10.2	-6.2
1956	9.1	14.4	65.7	8.5	7.6	-5.3	1956	6.9	15.1	68.7	6.6	7.8	-5.1	1956	38.5	8.2	28.6	20.7	9.3	-5.3	1956	32.1	8.5	36.6	19.0	10.1	-6.3
1958	9.9	13.9	66.3	8.1	7.7	-5.9	1958	8.3	15.2	68.2	6.4	8.0	-6.0	1958	37.6	7.4	30.8	20.5	9.3	-5.6	1958	31.3	7.8	38.6	18.6	9.9	-6.2
1960	7.4	14.1	69.1	6.7	7.2	-4.4	1960	5.0	15.4	70.0	5.4	7.5	-3.3	1960	34.5	7.0	34.6	20.9	8.5	-5.4	1960	28.8	7.5	43.1	18.4	8.4	-6.1
1962	8.7	11.8	74.2	7.0	6.6	-8.2	1962	6.3	11.1	79.8	5.0	5.4	-7.6	1962	39.2	5.3	32.9	22.0	11.9	-11.3	1962	32.1	5.8	42.3	18.3	11.4	-10.0
1965	9.2	13.1	71.9	7.5	3.5	-5.2	1965	8.0	13.8	74.5	5.6	3.4	-5.3	1965	34.6	6.1	32.0	26.3	6.2	-5.1	1965	27.4	6.1	42.5	22.9	5.7	-4.7
1969	9.8	11.6	67.3	6.4	15.1	-10.2	1969	7.4	12.9	66.2	4.6	18.5	-9.5	1969	38.4	4.9	32.4	24.7	11.6	-12.1	1969	31.1	5.2	38.8	21.9	13.9	-10.8
1972	12.1	11.6	67.9	6.6	9.4	-7.6	1972	7.4	9.2	73.9	4.7	10.3	-5.5	1972	38.3	5.4	29.1	26.7	11.2	-10.8	1972	31.2	6.4	34.0	27.4	11.7	-10.7
1976	14.0	17.1	56.1	9.2	13.4	-9.8	1976	10.6	14.8	58.1	8.4	16.2	-8.1	1976	43.7	5.3	22.7	27.9	11.9	-11.5	1976	41.2	5.8	28.7	22.3	13.2	-11.2
1982	23.3	10.4	42.4	9.7	23.1	-8.9	1982	16.1	12.4	44.7	7.9	25.8	-6.9	1982							1982	45.5	5.7	22.9	22.4	17.6	-14.1
1983	21.3	7.6	54.6	8.0	18.9	-10.5	1983	14.0	9.1	58.6	7.6	17.5	-6.8	1983							1983	44.2	7.2	24.4	19.0	17.4	-12.1
1984	25.3	8.2	43.9	12.8	21.8	-12.0	1984	22.1	7.6	49.8	10.4	22.3	-12.1	1984							1984	39.4	7.7	20.2	23.0	20.5	-10.7
1985	14.6	10.5	53.8	9.4	17.5	-5.7	1985	10.1	7.8	60.3	7.6	17.8	-3.7	1985							1985	34.2	8.0	26.3	22.8	19.2	-10.5
1986	17.7	9.5	56.2	8.1	17.8	-9.2	1986	11.7	7.9	62.0	7.7	17.9	-7.2	1986							1986	37.6	9.7	24.5	19.8	19.5	-11.1
1987	20.4	11.4	45.3	9.6	22.7	-9.3	1987	15.8	9.8	52.1	8.7	23.0	-9.4	1987							1987	37.6	9.3	23.9	21.4	18.1	-10.4
1988	22.8	11.4	46.2	10.3	17.0	-7.6	1988	21.9	10.1	49.5	8.6	16.6	-6.7	1988							1988	39.3	10.7	20.4	22.1	17.3	-9.8
1989	19.6	12.2	38.2	8.0	27.9	-5.9	1989	13.9	9.7	39.9	6.0	35.1	-4.7	1989							1989	38.9	10.7	20.0	20.1	19.8	-9.4
1990	18.8	17.1	35.7	10.8	24.6	-7.0	1990	13.8	17.7	36.9	10.2	27.4	-6.0	1990							1990	37.4	11.7	20.7	20.5	18.9	-9.2
1991	17.7	14.3	48.1	9.1	19.5	-8.6	1991	12.9	14.1	52.9	8.2	20.1	-8.2	1991							1991	32.8	11.6	21.0	21.9	21.7	-9.0
1992	16.3	17.3	48.2	8.8	15.3	-5.8	1992	12.2	15.9	54.2	7.1	15.9	-5.4	1992							1992	32.6	12.8	21.3	19.6	21.7	-7.9
1993	14.9	15.9	50.8	9.1	15.2	-5.8	1993	10.8	13.9	59.7	7.7	13.0	-5.1	1993							1993	30.7	14.2	22.4	17.4	23.3	-8.1
1994	16.6	16.1	49.8	9.2	15.2	-7.0	1994	11.8	14.9	58.7	7.6	14.8	-7.7	1994							1994	33.2	13.6	22.9	16.3	21.6	-7.6
1995	21.1	12.0	49.3	7.9	15.3	-5.6	1995	23.2	7.7	52.5	6.4	15.4	-5.3	1995							1995	32.1	12.6	23.5	16.3	23.0	-7.5
1996	15.2	12.5	56.0	8.3	14.8	-6.8	1996	12.1	12.3	61.6	7.9	13.1	-7.0	1996	32.6	10.6	22.3	17.5	25.9	-8.9	1996	29.1	13.1	26.3	14.2	24.0	-6.9
1997	14.4	10.5	57.3	9.1	14.6	-6.0	1997	11.0	7.3	62.6	8.9	14.5	-4.3	1997	31.8	10.2	24.7	17.3	24.4	-8.4	1997	27.8	10.9	28.0	16.2	24.5	-7.4
1998	13.3	10.5	58.9	10.4	12.8	-5.9	1998	10.0	9.5	63.7	11.5	12.1	-6.7	1998	31.7	10.5	27.6	16.7	21.0	-7.6	1998	27.0	12.5	32.7	16.4	18.3	-6.9
1999	13.5	12.3	56.1	8.4	15.6	-5.8	1999	9.7	12.7	60.9	7.5	15.7	-6.5	1999	30.5	9.1	25.2	17.1	25.2	-7.1	1999	26.8	10.0	32.3	14.0	24.3	-7.5
2000	16.2	10.2	50.9	8.9	20.7	-6.9	2000	13.3	8.2	53.6	9.3	23.4	-7.8	2000	29.8	8.5	25.7	16.6	26.2	-6.8	2000	30.4	9.9	26.7	15.2	25.6	-7.8

Notes: Wealth is defined as all sources of (non-human) wealth net of debts and liabilities but excludes life insurance, annuities, and claims on future pensions.
Real is defined as real estate. Bonds is the sum of federal, local, foreign, and corporate bonds. Stock is corporate stock
Cash is currency, mortages, and notes. Other is equity in unincorporated business, and miscellaneous assets
The sums of all sources less debts add up to 100%.

Table B3: Composition by Sources of Wealth and by Fractiles of Total Wealth in the United States, 1916-2000 (continued)

	Top 0.5-0.25%						Top 0.25-0.1%						Top 0.1-0.05%						Top 0.05-0.01%						Top 0.01%					
	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts	Real	Bonds	Stock	Cash	Other	Debts
1916	52.0	7.6	22.5	23.0	10.5	-15.6	36.6	10.1	31.5	23.1	6.9	-8.3	30.4	9.5	42.0	20.9	8.1	-10.9	18.2	18.1	45.3	17.4	6.0	-5.1	16.4	35.4	38.4	6.9	8.1	-5.2
1917	53.1	8.2	19.7	23.9	7.8	-12.7	41.0	13.7	26.1	23.2	6.2	-10.2	29.2	12.8	37.7	20.2	7.6	-7.5	23.8	16.4	44.0	17.7	5.0	-6.9	13.1	17.8	58.9	10.4	5.6	-5.8
1918	47.5	9.6	23.3	22.9	9.4	-12.7	38.1	13.2	30.9	21.2	9.5	-12.9	27.5	17.4	39.2	17.5	9.2	-10.9	21.7	18.0	44.5	15.2	10.1	-9.4	15.3	23.4	53.0	9.7	5.4	-6.9
1919	47.5	10.4	26.5	19.7	10.5	-14.6	35.6	12.9	37.5	16.3	8.1	-10.6	28.1	17.4	41.4	14.9	11.8	-13.5	21.6	18.2	46.1	12.7	8.6	-7.2	10.8	20.7	60.4	8.9	8.7	-9.6
1920	45.1	10.4	28.8	21.4	11.1	-16.7	34.0	13.0	37.0	19.1	10.9	-14.0	27.4	15.6	49.0	15.8	8.9	-16.7	23.1	17.5	51.8	11.0	9.4	-12.7	8.1	18.3	67.9	5.2	6.3	-5.8
1921	44.0	13.8	27.0	19.8	6.8	-11.3	36.9	15.9	34.1	17.1	7.2	-11.2	28.5	18.5	42.2	14.6	7.0	-10.8	24.5	17.8	47.8	12.5	6.7	-9.2	15.4	25.2	51.2	11.1	5.5	-8.3
1922	41.9	14.1	25.3	23.0	7.4	-11.6	33.3	17.0	33.9	19.9	7.2	-11.3	26.2	19.5	44.0	14.8	6.4	-10.8	20.5	21.6	49.8	11.1	6.9	-9.9	15.4	24.3	51.5	8.3	9.2	-8.7
1923	42.4	13.4	24.5	23.1	8.1	-11.5	34.2	16.3	33.9	18.6	8.3	-11.3	26.6	19.2	40.0	17.1	6.8	-9.7	21.2	21.1	44.6	14.1	7.2	-8.1	9.9	18.0	64.7	8.1	5.5	-6.2
1924	38.9	14.7	28.4	22.3	8.1	-12.4	31.6	17.7	37.6	17.9	7.5	-12.3	25.0	20.2	42.2	14.8	7.3	-9.5	18.6	22.3	49.6	11.2	6.6	-8.2	8.5	18.4	59.1	12.8	7.0	-5.9
1925	36.6	15.4	28.9	22.3	8.1	-11.3	28.7	16.6	36.9	18.1	9.8	-10.0	22.6	19.5	45.0	15.1	6.7	-8.9	18.8	20.9	49.3	11.9	7.7	-8.5	11.3	18.1	58.4	8.9	9.4	-6.1
1926																									11.4	18.2	63.3	9.6	8.5	-10.9
1927	33.4	14.9	34.9	21.5	7.2	-11.9	27.2	16.3	41.0	18.5	7.2	-10.2	20.9	16.2	50.1	15.4	7.7	-10.3	16.9	21.4	52.6	11.8	5.5	-8.2	7.8	15.6	73.8	6.4	5.1	-8.7
1928	36.6	9.2	38.5	19.4	8.9	-12.5	24.4	14.4	50.6	16.3	8.4	-14.1	17.2	13.7	58.4	13.8	9.6	-12.8	13.4	16.6	62.3	8.8	6.9	-8.0	6.2	11.6	75.2	4.9	7.6	-5.5
1929	32.1	10.3	43.0	19.1	9.4	-13.9	22.0	14.1	53.1	16.8	7.2	-13.2	16.0	14.7	65.1	12.1	6.9	-14.8	12.0	16.0	66.1	9.1	7.5	-10.7	6.4	19.3	65.6	5.6	9.4	-6.2
1930	28.1	16.1	41.2	21.2	6.1	-12.7	23.5	14.2	50.5	17.8	7.5	-13.6	19.2	16.8	58.4	12.4	5.6	-12.4	13.7	15.1	63.6	10.5	8.6	-11.5	7.4	19.2	69.6	5.6	5.8	-7.7
1931	27.3	16.3	38.0	24.7	6.1	-12.3	25.5	17.3	40.9	22.4	6.2	-12.4	20.0	19.8	47.5	18.1	5.9	-11.2	14.8	23.3	50.0	14.7	6.4	-9.3	9.5	22.9	56.1	9.8	9.0	-7.2
1932	28.1	20.9	29.3	29.7	5.3	-13.4	27.3	20.3	34.5	26.7	5.8	-14.6	22.4	22.8	37.1	23.5	6.7	-12.5	17.9	25.9	43.0	17.4	7.3	-11.5	9.9	32.6	45.2	12.4	9.4	-9.5
1933	30.4	17.7	31.4	28.1	6.7	-14.1	25.2	20.5	35.0	24.5	6.5	-11.8	18.1	23.3	41.7	20.3	6.4	-9.9	15.9	27.6	47.4	13.5	6.0	-10.3	8.1	32.5	48.7	7.1	10.7	-7.0
1934	27.7	19.8	30.5	26.9	6.9	-11.8	24.3	21.4	34.0	24.2	6.6	-10.4	18.3	25.3	40.7	18.3	6.6	-9.1	13.4	28.5	45.8	14.5	5.6	-7.8	8.5	24.7	55.8	11.4	5.8	-6.2
1935	27.7	19.8	30.5	26.9	6.8	-11.8	24.7	21.1	33.6	24.6	6.6	-10.5	18.8	25.2	40.2	18.6	6.6	-9.3	13.2	28.5	46.1	14.4	5.7	-7.8	5.9	21.3	58.6	8.0	10.6	-4.3
1936	30.3	15.2	32.5	26.5	6.8	-11.3	22.8	18.2	39.7	21.5	7.1	-9.2	16.3	22.9	47.3	16.3	5.9	-8.8	10.8	24.4	53.1	12.0	5.4	-5.7	5.1	25.6	60.2	9.1	5.8	-5.8
1937	28.9	14.9	33.2	26.1	7.3	-10.4	21.2	18.1	41.6	20.8	7.2	-8.8	16.3	21.6	45.5	17.5	6.5	-7.3	11.5	22.9	52.9	12.9	6.7	-6.9	6.5	26.1	56.7	11.8	8.4	-9.5
1938	29.3	12.5	33.0	27.3	9.3	-11.4	24.4	14.3	44.9	22.8	8.5	-14.9	15.1	16.0	52.1	16.8	8.8	-8.8	11.4	21.0	53.1	13.7	6.9	-6.0	4.6	28.8	50.1	8.7	12.2	-4.3
1939	28.0	11.1	36.4	26.2	10.9	-12.5	22.8	14.1	43.8	21.0	9.1	-10.8	16.1	17.1	51.8	17.8	7.5	-10.2	11.0	20.1	56.2	14.2	6.7	-8.2	4.6	25.6	61.3	9.5	4.2	-5.2
1940	30.2	9.7	34.4	26.1	10.9	-11.4	21.6	13.7	39.4	22.3	12.2	-9.2	17.0	17.8	47.5	18.9	7.6	-8.9	14.2	17.8	53.8	15.6	7.2	-8.6	6.4	23.7	54.5	12.3	9.5	-6.5
1941	34.1	13.1	30.8	27.9	6.7	-12.6	28.9	15.7	39.7	23.3	7.7	-15.3	20.9	18.2	46.3	18.9	6.4	-10.7	15.7	22.6	50.3	16.2	5.7	-10.4	7.2	26.7	53.6	13.0	5.1	-5.7
1942	33.7	13.5	31.6	25.5	7.0	-11.2	27.1	16.3	39.6	22.1	7.6	-12.7	20.0	19.2	45.1	19.6	7.2	-11.2	15.8	23.9	47.5	17.5	5.9	-10.6	10.8	26.6	54.3	11.0	6.6	-9.3
1943	31.1	14.2	31.7	23.3	8.9	-9.1	25.1	16.5	39.9	19.9	9.0	-10.3	19.0	19.4	45.8	17.9	7.7	-9.9	13.3	23.5	51.5	14.8	6.3	-9.5	4.6	26.3	60.3	10.6	3.7	-5.5
1944	26.2	14.7	35.3	19.2	13.4	-8.8	18.2	16.9	42.1	17.1	13.9	-8.2	14.4	16.1	50.8	13.8	10.7	-5.8	12.5	20.3	53.9	11.2	7.7	-5.5	6.8	24.8	58.1	9.4	4.8	-4.0
1945																			14.6	17.2	47.4	15.8	14.9	-9.9	6.5	30.3	54.1	9.6	4.3	-4.8
1946	29.3	14.0	35.7	19.3	9.0	-7.1	22.6	16.1	43.6	16.7	8.3	-7.2	18.5	18.1	49.1	14.3	7.4	-7.3	14.7	19.3	54.9	12.3	5.9	-7.1	8.4	26.3	56.1	8.5	4.7	-4.0
1947	31.0	13.3	34.9	19.2	9.9	-8.3	23.9	15.5	42.4	17.2	8.9	-7.9	19.3	17.3	47.9	15.1	7.7	-7.3	14.5	20.2	53.7	12.6	6.0	-7.0	7.9	21.7	55.3	13.6	5.7	-4.2
1948	31.2	13.3	34.1	19.5	10.0	-8.1	24.2	15.4	42.1	17.1	9.0	-7.8	19.5	16.0	49.0	14.9	8.2	-7.5	15.0	16.7	54.5	12.8	7.6	-6.6	7.7	25.5	55.8	11.6	4.8	-5.4
1949	30.1	13.4	35.5	18.7	9.3	-7.0	24.2	14.3	42.6	17.2	9.1	-7.5	19.8	15.6	48.1	15.4	8.6	-7.4	15.3	17.1	54.1	13.2	7.6	-7.3	10.5	21.6	59.1	10.2	6.2	-7.5
1950	29.4	13.4	36.3	18.6	9.3	-7.0	23.7	14.5	43.2	17.0	9.1	-7.4	19.5	15.6	48.5	15.3	8.5	-7.4	14.7	17.3	54.8	12.9	7.6	-7.3	12.5	21.3	59.1	10.1	6.7	-9.7
1953	29.2	10.2	40.0	17.4	10.4	-7.2	22.7	11.3	48.0	15.6	9.7	-7.2	16.6	12.9	55.6	12.7	8.5	-6.3	12.8	13.8	60.2	10.8	8.1	-5.7	5.3	20.4	66.6	7.6	5.4	-5.2
1954	27.5	10.1	41.7	17.5	10.2	-7.0	21.9	10.9	48.5	15.7	9.4	-6.4	16.4	12.1	55.6	13.5	8.5	-6.1	12.4	14.1	59.8	11.7	7.7	-5.7	7.0	13.7	68.2	7.3	8.5	-4.7
1956	26.3	9.3	44.6	16.6	9.8	-6.7	19.8	10.1	52.6	14.4	9.3	-6.1	15.5	11.6	58.2	12.5	8.2	-5.9	11.4	13.7	62.6	10.4	7.5	-5.6	6.9	15.1	68.7	6.6	7.8	-5.1
1958	26.3	8.1	45.7	16.4	9.7	-6.3	19.9	9.0	54.0	13.8	9.4	-6.1	15.8	10.7	59.3	12.0	8.1	-5.8	11.8	12.5	64.0	10.1	7.4	-5.8	8.3	15.2	68.2	6.4	8.0	-6.0
1960	23.8	8.1	50.0	16.0	8.2	-6.1	18.7	9.3	57.0	13.3	7.6	-5.9	15.6	10.6	61.0	11.3	7.5	-6.0	9.9	12.8	68.1	8.0	6.8	-5.5	5.0	15.4	70.0	5.4	7.5	-3.3
1962	27.5	6.4	49.4	16.1	11.3	-10.7	20.6	7.1	56.4	12.7	11.0	-7.9	16.4	9.0	61.2	11.6	8.2	-6.5	11.3	12.4	68.2	9.1	7.8	-8.9	6.3	11.1	79.8	5.0	5.4	-7.6
1965	22.3	6.6	51.7	18.8	5.4	-4.7	17.7	8.1	59.8	14.7	4.5	-4.8	14.2	10.1	65.3	11.5	3.7	-4.8	10.5	12.4	69.0	9.6	3.5	-5.1	8.0	13.8	74.5	5.6	3.4	-5.3
1969	26.9	6.6	47.1	18.4	10.5	-9.5	23.7	7.9	52.3	16.5	11.7	-12.0	14.9	9.7	62.3	12.3	10.0	-9.2	12.9	9.9	68.7	8.9	10.5	-11.0	7.4	12.9	66.2	4.6	18.5	-9.5
1972	28.5	7.9	44.3	19.4	10.5	-10.6	22.7	8.7	51.9	15.6	10.6	-9.5	18.7	11.6	54.3	10.5	13.6	-8.7	17.4	14.5	61.0	8.9	8.2	-10.0	7.4	9.2	73.9	4.7	10.3	-5.5
1976	38.6	8.0	34.1	20.1	11.4	-12.1	28.9	11.9	38.8	17.6	12.2	-9.4	23.4	15.6	44.8	13.3	12.4	-9.5	17.5	19.5	54.0	10.2	10.4	-11.6	10.6	14.8	58.1	8.4	16.2	-8.1
1982	40.7	7.5	26.8	19.5	17.0	-11.4	36.4	8.2	31.9	16.2	18.6	-11.3	31.1	8.9	41.8	11.2	17.0	-10.0	29.7	8.6	40.4	11.3	20.7	-10.6	16.1	12.4	44.7	7.9	25.8	-6.9
1983	41.6	5.8	21.0	19.1	22.5	-10.0	29.4	9.0	32.6	21.6	13.3	-5.9	28.7	6.9	22.6	13.3	41.3	-12.8	28.7	6.2	50.6	8.3	20.4	-14.1	14.0	9.1	58.6	7.6	17.5	-6.8
1984	45.6	9.9	28.8	15.5	16.0	-15.7	41.9	5.1	26.1	23.5	15.4	-12.0	33.4	10.6	30.1	14.9	22.5	-11.5	29.0	8.8	37.2	15.5	21.2	-11.8	22.1	7.6	49.8	10.4	22.3	-12.1
1985	34.2	10.3	29.0	17.8	19.7	-11.0	36.1	10.4	30.3	15.9	18.9	-11.6	31.3	11.6	41.5	14.2	15.3	-13.9	20.4	14.0	45.3	11.6	17.0	-8.2	10.1	7.8	60.3	7.6	17.8	-3.7
1986	31.6	12.0	28.2	18.8	18.3	-8.9	31.2	12.8	30.7	12.8	22.0	-9.6	25.3	12.0	40.7	11.4	21.0	-10.5	24.4	11.4	49.7	8.5	17.7	-11.6	11.7	7.9	62.0	7.7	17.9	-7.2
1987	34.1	12.0	24.8	17.7	19.2	-7.8	28.5	10.5	35.5	14.3	19.6	-8.4	23.9	8.9	37.0	12.4	27.1	-9.3	25.2	13.0	38.1	10.5	22.4	-9.2	15.8	9.8	52.1	8.7	23.0	-9.4
1988	38.6	12.0	25.3	14.9	19.3	-10.1	30.9	14.2	30.6	15.3	17.8	-8.9	26.0	11.4	35.7	16.8	19.7	-9.5	24.0	12.8	42.3	12.2	17.5	-8.8	21.9	10.1	49.5	8.6	16.6	-6.7
1989	35.4	12.8	24.7	17.1	20.0	-10.1	36.9	11.6	28.6	13.6	20.4	-11.2	31.5	12.4	32.9	12.9	19.7	-9.3	26.2	15.1	36.2	10.3	19.5	-7.4	13.9	9.7	39.9	6.0	35.1	-4.7
1990	32.8	14.5	22.6	15.9	22.6	-8.4	34.6	13.9	26.6	16.3	17.6	-8.9	28.2	15.4	36.0	10.3	21.5	-11.4	24.7	16.4	34.3	11.4	21.3	-8.1	13.8	17.7	36.9	10.2	27.4	-6.0
1991	32.6	13.5	24.5	17.8	20.1	-8.5	30.1	13.6	27.9	18.3	19.1	-9.0	21.6	17.2	30.6	12.2	24.1	-5.6	22.9	14.5	42.8	10.1	18.8	-9.0	12.9	14.1	52.9	8.2	20.1	-8.2
1992	32.7	14.1	25.9	17.0	20.2	-9.8	30.6	14.9	29.2	15.0	21.1	-10.9	27.0	15.9	33.4	11.7	20.3	-8.3	21.1	18.9	41.1	10.7	14.5	-6.2	12.2	15.9	54.2	7.1	15.9	-5.4
1993	26.2	16.1	29.4	13.9	22.0	-7.5	22.0	23.9	28.7	13.3	18.7	-6.8	21.4	17.6	38.1	11.5	17.4	-6.0	20.1	18.3	39.5	10.9	18.0	-6.8	10.8	13.9	59.7	7.7	13.0	-5.1
1994	28.7	14.0	26.8	17.9	20.7	-8.1	24.8	17.2	28.8	13.9	21.7	-6.4	18.7	21.0	33.9	17.5	14.7	-5.8	22.7	17.8	38.6	11.2	15.7	-6.0	11.8	14.9	58.7	7.6	14.8	-7.7
1995	28.1	14.8	26.7	16.4	21.3	-7.4	26.6	15.8	33.4	11.9	19.8	-7.6	22.0	15.0	39.5	12.2	17.4	-6.1	18.4	17.2	45.2	9.8	15.2	-5.8	23.2	7.7	52.5	6.4	15.4	-5.3
1996	25.2	16.3	32.4	11.8	21.4	-7.1	22.5	16.1	34.3	11.8	21.2	-5.9	22.0	13.8	39.9	10.6	19.6	-5.9	19.1	12.7	49.0	8.8	16.8	-6.4	12.1	12.3	61.6	7.9	13.1	-7.0
1997	23.6	12.3	35.1	13.8	22.2	-7.1	20.6	13.3	37.5	14.3	19.5	-5.4	22.3	13.2	39.2	12.6	18.7	-5.9	18.6	14.4	51.0	9.4	14.6	-8.0	11.0	7.3	62.6	8.9	14.5	-4.3
1998	24.5	12.1	39.2	15.9	14.7	-6.5	21.3	14.2	40.5	13.0	16.8	-5.8	18.4	13.2	50.3	11.4	12.8	-6.0	17.2	11.6	53.3	9.2	13.6	-5.0	10.0	9.5	63.7	11.5	12.1	-6.7
1999	22.4	10.7	35.4	12.8	24.7	-6.0	22.7	11.4	37.7	12.8	20.5	-5.2	19.7	15.4	39.3	14.4	15.8	-4.5	17.9	11.8	50.5	9.5	15.5	-5.1	9.7	12.7	60.9	7.5	15.7	-6.5
2000	25.6	8.6	38.4	11.1	23.3	-7.0	24.4	11.7	40.1	9.7	20.1	-5.9	21.7	10.0	39.2	13.1	22.4	-6.3	19.6	12.5	47.6	8.5	17.7	-5.9	13.3	8.2	53.6	9.3	23.4	-7.8

Notes: Wealth is defined as all sources of (non-human) wealth net of debts and liabilities but excludes life insurance, annuities, and claims on future pensions.
Real is defined as real estate. Bonds is the sum of federal, local, foreign, and corporate bonds. Stock is corporate stock
Cash is currency, mortages, and notes. Other is equity in unincorporated business, and miscellaneous assets
The sums of all sources less debts add up to 100%.

Table B4: Gender, Age, and Marital Status and by Fractiles of Total Wealth in the United States, 1916-2000

	Top 2%						Top 1%							Top 0.5%							Top 0.25%							Top 0.1%						
		Female			Male				Female			Male				Female			Male				Female			Male				Female			Male		
	Age	Female	Married	Widow	Married	Widower		Age	Female	Married	Widow	Married	Widower		Age	Female	Married	Widow	Married	Widower		Age	Female	Married	Widow	Married	Widower		Age	Female	Married	Widow	Married	Widower
1916							1916							1916		25					1916		25					1916		25				
1917							1917							1917		27					1917		29					1917		30				
1918							1918							1918		27					1918		27					1918		27				
1919							1919	54	21					1919	56	25					1919	56	25					1919	56	25				
1920							1920	54	20					1920	55	23					1920	55	23					1920	56	25				
1921							1921	54	20					1921	55	24					1921	56	25					1921	57	26				
1922							1922	54	22					1922	55	26					1922	55	25					1922	56	24				
1923							1923	54	23					1923	56	28					1923	56	27					1923	56	29				
1924							1924	54	23					1924	56	27					1924	56	27					1924	56	27				
1925							1925	54	24	36	40	72	10	1925	56	26	38	42	73	10	1925	56	25	39	42	74	10	1925	57	25	41	43	73	10
1926							1926	54	24	40	41	72	12	1926	56	27	39	42	74	11	1926	57	27	41	44	75	9	1926	58	25	45	41	74	10
1927							1927							1927	55	25	43	40	78	10	1927	56	27	43	41	76	10	1927	56	27	43	42	74	11
1928							1928							1928	55	24	40	42	77	10	1928	56	26	40	44	76	10	1928	56	23	40	49	76	10
1929							1929							1929	55	27	40	41	76	10	1929	56	29	38	43	77	10	1929	56	26	42	43	75	12
1930							1930							1930	55	25	41	39	79	8	1930	56	29	43	40	78	8	1930	57	29	48	39	80	9
1931							1931							1931	55	23	43	41	80	8	1931	57	32	37	43	76	10	1931	58	31	40	45	76	10
1932							1932							1932	56	30	40	42	73	11	1932	56	31	37	44	74	11	1932	57	32	39	44	76	10
1933							1933							1933	56	32	38	45	73	11	1933	57	33	37	46	74	12	1933	57	30	36	47	70	12
1934							1934							1934	57	34	40	42	72	11	1934	57	35	40	41	71	11	1934	58	35	40	43	71	11
1935							1935							1935	57	37	37	43	70	12	1935	57	38	38	43	71	11	1935	58	35	35	46	73	11
1936							1936	55	26	39	41	73	11	1936	57	34	35	45	72	11	1936	57	34	38	44	73	12	1936	58	34	43	42	74	11
1937							1937	55	29	39	41	73	11	1937	58	37	38	42	72	11	1937	58	37	39	42	74	11	1937	58	36	41	41	71	10
1938							1938	55	27	40	39	75	9	1938	58	35	36	43	72	11	1938	58	34	37	43	73	10	1938	58	35	37	40	68	11
1939							1939	55	28	39	42	73	10	1939	58	36	38	44	70	11	1939	58	35	39	44	71	11	1939	58	35	40	40	70	12
1940							1940	56	29	39	39	75	10	1940	58	36	37	42	73	10	1940	58	37	37	41	75	10	1940	59	38	37	42	76	10
1941							1941	56	31	37	42	74	10	1941	58	37	35	44	74	10	1941	58	37	40	43	74	10	1941	58	38	39	43	73	11
1942							1942	55	31	40	41	75	9	1942	57	37	37	43	72	10	1942	57	38	36	43	71	10	1942	57	37	37	45	71	9
1943							1943	54	24	44	38	77	8	1943	56	33	39	41	74	8	1943	56	34	37	41	74	9	1943	56	34	40	42	70	9
1944	53	20	49	34	79	6	1944	53	26	39	40	73	8	1944	54	31	40	40	73	8	1944	55	34	41	39	72	8	1944	55	32	40	42	73	8
1945	52	21	41	39	78	7	1945	54	29	39	40	77	8	1945	55	32	41	40	76	8	1945	55	32	42	40	76	7	1945	56	34	48	37	77	8
1946							1946							1946							1946							1946						
1947							1947							1947							1947							1947						
1948	54	32					1948	54	31					1948	55	36					1948	55	26					1948	56	28				
1949	55	31					1949	54	31					1949	55	36					1949	56	25					1949	57	29				
1950	55	32					1950	54	31					1950	55	36					1950	56	27					1950	57	29				
1953	55	32					1953	55	31					1953	55	37					1953	55	29					1953	57	33				
1954							1954							1954							1954							1954						
1956							1956							1956							1956							1956						
1958	55	30					1958	55	32					1958	56	38					1958	57	32					1958	58	35				
1960							1960							1960							1960							1960						
1962	58	40	43	40	83	7	1962	59	40	44	40	82	7	1962	59	41	45	39	82	7	1962	59	42	48	36	81	7	1962	60	44	53	35	84	6
1965		41					1965		43					1965		42					1965	0	42	0	0	0	0	1965	0	44	0	0	0	0
1969	59	43	38	40	82	7	1969	59	42	42	41	83	7	1969	60	41	44	39	83	7	1969	60	41	48	38	82	7	1969	60	44	46	37	84	8
1972	58	44	39	45	77	8	1972	57	44	37	43	77	8	1972	58	44	40	39	80	8	1972	58	46	40	37	82	8	1972	56	47	38	37	81	7
1976	59	40	36	45	82	6	1976	59	39	38	43	80	7	1976	61	42	37	45	82	7	1976	60	42	40	44	83	7	1976	61	41	43	43	82	7
1982	57	41	44	38	80	8	1982	59	43	47	37	81	7	1982	59	42	48	36	81	7	1982	60	40	50	36	81	6	1982	60	38	51	34	85	5
1983	58	39	42	39	82	7	1983	59	37	52	36	86	7	1983	60	36	51	35	88	6	1983	61	37	47	42	86	5	1983	59	34	61	23	90	3
1984	57	36	64	23	67	9	1984	60	43	58	25	73	9	1984	59	48	64	24	81	6	1984	60	46	66	26	80	7	1984	62	39	51	44	86	8
1985	54	31	44	34	72	8	1985	59	40	46	31	74	6	1985	59	40	45	33	79	6	1985	59	42	50	31	80	7	1985	60	43	46	34	84	7
1986	54	36	47	37	69	8	1986	59	45	49	36	74	8	1986	58	43	49	33	75	6	1986	58	41	53	30	78	5	1986	59	35	53	29	82	4
1987	54	30	43	42	67	9	1987	59	42	49	36	75	7	1987	59	37	54	34	79	6	1987	59	32	59	32	81	5	1987	58	36	63	28	82	4
1988	54	35	43	34	69	9	1988	59	47	44	35	74	6	1988	58	42	47	30	77	5	1988	58	38	47	29	77	5	1988	61	37	53	30	82	6
1989	55	38	50	33	68	7	1989	59	44	52	31	73	7	1989	58	42	55	29	73	6	1989	59	41	60	28	76	6	1989	60	40	61	27	78	5
1990	56	40	49	33	71	7	1990	59	47	52	34	73	7	1990	58	45	54	30	73	7	1990	59	48	59	27	75	7	1990	61	44	58	32	76	7
1991	55	37	42	35	67	8	1991	58	45	45	30	73	8	1991	58	43	47	30	72	6	1991	57	42	46	32	73	5	1991	57	40	48	29	79	5
1992	55	39	44	32	66	6	1992	58	44	46	32	68	6	1992	58	42	47	31	73	6	1992	59	41	49	31	75	6	1992	58	41	46	33	74	6
1993	55	43	47	33	67	8	1993	57	47	47	30	72	6	1993	56	44	46	31	73	6	1993	56	43	46	27	75	5	1993	59	38	51	31	74	6
1994	56	43	47	26	68	7	1994	57	46	50	28	69	6	1994	57	43	52	29	68	5	1994	56	42	45	30	70	5	1994	56	40	43	33	73	6
1995	57	44	49	30	69	7	1995	59	46	50	28	72	7	1995	58	46	48	27	76	7	1995	59	44	50	29	77	6	1995	59	42	49	28	78	6
1996	59	46	50	30	66	7	1996	58	45	51	30	68	6	1996	56	41	49	29	67	7	1996	60	41	47	31	75	6	1996	59	38	50	30	76	6
1997	59	47	44	33	68	8	1997	58	45	47	30	70	7	1997	57	43	47	29	69	7	1997	58	47	44	27	78	7	1997	62	41	52	33	78	7
1998	60	48	47	30	69	8	1998	58	45	48	28	69	7	1998	58	45	48	29	72	7	1998	57	42	47	30	72	7	1998	59	46	46	29	79	7
1999	59	50	44	34	69	8	1999	58	46	46	32	68	6	1999	57	44	50	26	69	6	1999	57	42	53	30	67	7	1999	56	38	53	29	67	6
2000	59	51	40	35	67	8	2000	59	44	37	33	70	5	2000	59	39	51	27	67	7	2000	58	41	51	28	71	5	2000	58	41	51	29	77	6

Notes: The Table reports the average age, the percent female, the fraction married (among females), the fraction widowed (among females), the fraction married (among males), the fraction widowed (among males) for each wealth fractile.

Table B4: Gender, Age, and Marital Status and by Fractiles of Total Wealth in the United States, 1916-2000 (continued)

	Top 0.05%						Top 0.01%						Top 2-1%						Top 1-0.5%					
		Female		Male				Female		Male				Female		Male				Female		Male		
	Age	Female	Married	Widow	Married	Widowers	Age	Female	Married	Widow	Married	Widowers	Age	Female	Married	Widow	Married	Widowers	Age	Female	Married	Widow	Married	Widowers
1916		25						25																
1917		30						25																
1918		26						23																
1919	55	26					58	16											53	17				
1920	57	24					56	26											52	17				
1921	57	25					55	40											53	16				
1922	56	23					58	20											53	18				
1923	57	29					57	33											52	18				
1924	57	28					52	35											53	20				
1925	58	28	41	42	70	11	58	24	59	38	66	11							53	22	33	39	71	10
1926	59	22	45	45	74	10	61	21	51	43	72	9							53	21	41	40	71	13
1927	57	26	51	35	74	12	57	20	35	45	72	10												
1928	56	21	40	48	76	9	59	21	41	46	87	7												
1929	56	25	42	46	75	12	54	24	62	29	73	8												
1930	57	25	48	41	81	8	56	26	56	31	76	9												
1931	59	30	35	46	75	11	59	26	36	35	69	10												
1932	57	31	35	48	74	9	59	35	35	44	75	9												
1933	58	28	35	47	70	12	56	24	41	35	68	8												
1934	60	35	40	45	73	11	61	31	42	39	61	13												
1935	59	32	38	48	73	12	59	27	29	55	67	10												
1936	56	34	44	41	74	11	57	32	50	38	69	13							54	18	43	37	75	10
1937	58	35	34	47	71	10	57	33	34	38	73	7							53	22	40	40	73	10
1938	58	35	42	39	64	10	56	35	46	37	60	7							53	19	44	36	78	8
1939	58	35	34	43	70	12	53	31	39	49	60	9							53	21	40	39	76	9
1940	59	40	40	41	77	11	58	37	42	37	79	11							54	22	41	37	76	9
1941	59	37	41	45	75	12	59	39	58	35	76	14							54	26	39	40	74	10
1942	57	41	43	40	67	11	56	48	49	36	70	18							54	24	43	40	78	9
1943	56	38	41	41	69	8	53	26	36	51	61	7							52	16	49	35	80	7
1944	57	33	37	44	71	10	58	32	28	41	63	8	54	15	59	29	85	4	51	21	37	39	73	9
1945	56	37	53	31	78	8	59	42	57	36	80	10	50	13	43	38	78	7	53	27	37	40	78	8
1946																								
1947																								
1948	57	30					61	26					54	34					53	26				
1949	58	30					57	35					55	32					53	26				
1950	58	29					61	27					55	33					54	25				
1953	57	35					57	48					55	32					55	25				
1954																								
1956																								
1958	58	38					59	46					55	29					55	26				
1960																								
1962	60	43	50	38	82	7	61	45	56	29	86	6	58	40	43	40	83	7	59	40	43	41	83	8
1965		45						44						40						43				
1969	60	47	49	34	83	10	62	48	46	45	83	8	59	43	35	39	80	8	59	43	40	44	84	7
1972	55	48	35	43	79	8	59	45	41	43	81	6	59	44	41	46	78	9	56	44	34	47	73	8
1976	62	40	44	45	83	6	62	44	31	60	83	6	59	40	34	46	84	5	57	37	40	41	78	7
1982	60	38	52	28	87	6	60	31	63	30	89	4	56	38	42	40	79	9	59	45	45	38	81	8
1983	60	30	62	19	86	3	58	52	64	22	89	5	57	40	32	43	78	8	58	39	53	37	84	7
1984	61	30	37	57	78	13	62	43	68	24	80	9	54	29	70	21	62	8	60	38	51	26	65	12
1985	60	35	38	38	85	4	61	33	55	36	73	4	49	21	42	37	69	10	59	41	47	29	69	7
1986	59	34	60	27	82	4	57	25	67	33	87	3	50	26	45	37	64	9	59	48	48	39	73	9
1987	59	40	65	24	85	4	59	36	71	22	85	4	49	19	37	47	58	10	58	46	43	39	72	8
1988	61	38	55	30	85	7	62	40	60	31	91	5	50	23	42	33	64	11	59	52	42	40	71	7
1989	60	41	60	28	78	5	59	28	51	39	83	3	52	33	48	36	64	8	60	46	49	33	72	8
1990	62	39	52	39	78	6	60	48	55	29	84	7	53	33	47	32	69	7	59	48	50	37	73	8
1991	59	36	52	32	83	3	61	46	38	34	87	4	52	30	39	40	61	9	58	47	42	31	75	9
1992	57	37	45	34	71	5	61	37	55	34	82	5	53	34	42	32	64	7	57	46	44	34	63	6
1993	62	33	47	39	78	5	61	33	29	35	79	5	54	38	48	37	63	9	58	50	47	28	71	7
1994	62	38	48	37	81	6	60	29	50	36	87	4	55	40	44	24	67	8	56	49	49	27	70	7
1995	57	45	51	24	79	5	62	42	61	32	79	7	55	42	47	33	67	8	60	47	52	29	68	7
1996	62	38	58	32	78	5	64	31	51	37	83	6	59	48	49	30	64	8	59	48	53	31	70	6
1997	62	38	53	33	80	6	63	36	57	32	88	5	60	50	42	36	65	9	59	46	47	31	71	7
1998	61	46	55	28	78	6	58	43	71	20	71	4	61	52	45	32	70	9	59	44	49	28	65	7
1999	58	40	54	29	77	8	60	27	49	37	76	10	60	54	43	36	69	10	58	48	42	39	68	7
2000	55	43	48	25	83	4	59	32	61	27	80	4	59	58	42	36	64	10	59	50	23	39	73	4

Notes: The Table reports (NOT YET WEIGHTED WITH MULTIPLIERS) the average age, the percent female, the fraction married (among females), the fraction widowed (among females), the fraction married (among males), the fraction widowed (among males) for each wealth fractile.

KEY RESULTS: the percent female increases from 25% to 45% over the period but the fraction married vs widowed relatively stable within gender groups.

Suggests that more wealth has been given to women (both through spousal bequests but also distribution within married couples)

Table B4: Gender, Age, and Marital Status and by Fractiles of Total Wealth in the United States, 1916-2000 (continued)

	Top 0.5-0.25%						Top 0.25-0.1%						Top 0.1-0.05%						Top 0.05-0.01%						Top 0.01%					
		Female			Male			Female			Male			Female			Male			Female			Male			Female			Male	
	Age	Female	Married	Widow	Married	Widower	Age	Female	Married	Widow	Married	Widower	Age	Female	Married	Widow	Married	Widower	Age	Female	Married	Widow	Married	Widower	Age	Female	Married	Widow	Married	Widower
1916		25						25						25						25						25				
1917		26						28						29						32						25				
1918		26						26						29						26						23				
1919	55	24					1919	56	25				1919	57	24				1919	55	28				1919	58	16			
1920	55	23					1920	55	22				1920	55	25				1920	57	23				1920	56	26			
1921	55	22					1921	56	25				1921	56	26				1921	57	21				1921	55	40			
1922	55	27					1922	55	25				1922	56	25				1922	56	24				1922	58	20			
1923	56	29					1923	56	26				1923	56	29				1923	57	28				1923	57	33			
1924	56	26					1924	56	28				1924	55	26				1924	58	26				1924	52	35			
1925	55	26	37	41	72	10	1925	56	24	37	42	75	10	1925	57	23	42	43	76	9	1925	58	29	36	43	71	11	1925	58	24	59	38	66	11
1926	55	28	38	39	72	12	1926	56	29	38	46	76	9	1926	57	28	45	37	75	10	1926	58	23	43	45	74	10	1926	61	21	51	43	72	9
1927	54	23	43	39	79	10	1927	55	27	43	41	77	9	1927	56	27	34	48	75	10	1927	57	27	55	33	74	12	1927	57	20	35	45	72	10
1928	54	21	40	39	78	9	1928	55	29	41	41	75	10	1928	56	25	39	50	77	11	1928	56	21	40	48	73	10	1928	59	21	41	46	87	7
1929	54	26	42	40	75	10	1929	55	30	36	43	78	8	1929	56	27	42	40	75	12	1929	57	26	37	50	75	13	1929	54	24	62	29	73	8
1930	53	21	38	38	79	8	1930	55	29	40	40	76	8	1930	57	33	47	37	80	9	1930	58	24	46	44	82	8	1930	56	26	56	31	76	9
1931	52	14	49	38	84	6	1931	57	32	35	41	77	10	1931	57	32	44	44	76	10	1931	58	31	35	49	77	11	1931	59	26	36	35	69	10
1932	56	28	43	40	73	11	1932	56	31	36	44	72	12	1932	57	34	44	39	78	11	1932	57	29	35	49	74	9	1932	59	35	35	44	75	9
1933	56	30	40	43	72	11	1933	57	34	37	46	76	12	1933	57	32	38	47	70	12	1933	58	30	33	50	71	13	1933	56	24	41	35	68	8
1934	56	32	40	43	73	11	1934	57	36	41	40	71	11	1934	57	34	39	42	69	11	1934	59	36	40	46	76	11	1934	61	31	42	39	61	13
1935	57	36	37	43	68	13	1935	56	39	39	40	70	11	1935	57	39	33	45	72	9	1935	59	33	40	46	75	13	1935	59	27	29	55	67	10
1936	57	35	32	46	71	11	1936	57	34	35	45	72	12	1936	59	34	41	42	74	12	1936	56	35	43	42	75	10	1936	57	32	50	38	69	13
1937	57	36	36	42	70	12	1937	58	38	38	42	76	11	1937	57	38	47	36	71	10	1937	59	35	34	49	70	11	1937	57	33	34	38	73	7
1938	57	35	36	42	71	11	1938	58	34	37	45	76	10	1938	58	35	33	42	71	12	1938	58	35	41	39	65	11	1938	56	35	46	37	60	7
1939	57	36	37	45	70	11	1939	58	36	38	46	71	10	1939	57	36	46	37	70	11	1939	60	36	33	42	73	13	1939	53	31	39	49	60	9
1940	57	35	37	42	72	11	1940	57	37	37	41	75	10	1940	58	36	34	42	75	9	1940	59	40	39	42	76	11	1940	58	37	42	37	79	11
1941	58	36	31	46	74	10	1941	57	37	40	43	74	9	1941	57	39	37	41	71	10	1941	59	36	37	47	75	11	1941	59	39	58	35	76	14
1942	57	37	37	42	73	10	1942	57	38	36	42	71	10	1942	58	34	31	50	75	8	1942	57	39	41	41	66	9	1942	56	48	49	36	70	18
1943	55	32	41	40	74	8	1943	57	34	35	41	77	9	1943	56	31	39	43	70	10	1943	56	41	42	38	71	8	1943	53	26	36	51	61	7
1944	54	28	40	42	73	8	1944	54	34	41	37	72	8	1944	54	32	44	39	75	7	1944	57	33	39	45	73	10	1944	58	32	28	41	63	8
1945	55	32	39	41	77	8	1945	55	30	38	42	75	7	1945	57	32	43	43	75	8	1945	56	35	52	30	78	8	1945	59	42	57	36	80	10
1946							1946							1946							1946							1946						
1947							1947							1947							1947							1947						
1948	54	46					1948	55	24					1948	56	27					1948	56	31					1948	61	26				
1949	54	46					1949	56	22					1949	57	27					1949	58	29					1949	57	35				
1950	55	45					1950	55	27					1950	56	28					1950	57	29					1950	61	27				
1953	54	46					1953	55	26					1953	57	31					1953	56	32					1953	57	48				
1954							1954							1954							1954							1954						
1956							1956							1956							1956							1956						
1958	55	45					1958	57	30					1958	57	32					1958	58	36					1958	59	46				
1960							1960							1960							1960							1960						
1962	59	39	41	42	82	7	1962	58	41	45	36	80	7	1962	59	45	56	32	85	6	1962	60	43	48	40	81	7	1962	61	45	56	29	86	6
1965		42					1965	0	42	0	0	0	0	1965		42					1965		45					1965		44				
1969	59	41	39	40	83	7	1969	60	39	49	38	81	7	1969	60	41	42	41	85	6	1969	59	47	50	31	83	10	1969	62	48	46	45	83	8
1972	59	43	40	42	79	8	1972	59	46	42	36	82	8	1972	58	45	40	32	83	6	1972	54	49	34	43	79	9	1972	59	45	41	43	81	6
1976	62	42	33	47	81	7	1976	60	42	38	44	83	7	1976	60	42	43	41	81	7	1976	62	40	47	41	83	6	1976	62	44	31	60	83	6
1982	58	44	47	35	80	7	1982	59	42	49	38	79	7	1982	60	38	50	40	83	5	1982	60	39	49	28	86	6	1982	60	31	63	30	89	4
1983	60	34	56	28	89	8	1983	61	39	38	54	84	6	1983	59	38	60	28	94	2	1983	60	24	62	18	85	3	1983	58	52	64	22	89	5
1984	58	51	62	22	81	5	1984	60	50	76	14	76	7	1984	63	48	65	32	94	2	1984	61	26	29	65	78	14	1984	62	43	68	24	80	9
1985	58	37	41	35	79	4	1985	59	42	53	29	77	7	1985	59	51	53	30	83	10	1985	60	36	34	39	88	4	1985	61	33	55	36	73	4
1986	58	44	45	37	72	7	1986	58	45	53	30	76	6	1986	60	37	46	31	81	5	1986	59	36	58	26	81	4	1986	57	25	67	33	87	3
1987	59	42	49	35	76	8	1987	60	30	56	34	80	5	1987	58	31	62	32	79	4	1987	59	41	63	25	85	4	1987	59	36	71	22	85	4
1988	59	47	46	31	77	6	1988	56	38	44	28	74	4	1988	60	37	50	30	78	5	1988	61	37	54	30	84	8	1988	62	40	60	31	91	5
1989	57	44	50	30	70	6	1989	59	41	60	28	75	6	1989	60	40	62	27	78	5	1989	60	44	62	25	77	5	1989	59	28	51	39	83	3
1990	57	42	49	34	71	6	1990	59	51	59	23	74	7	1990	59	48	65	26	73	7	1990	63	37	51	41	77	6	1990	60	48	55	29	84	7
1991	58	44	49	27	71	7	1991	57	43	45	34	69	6	1991	55	43	44	26	74	6	1991	58	34	55	31	82	3	1991	61	46	38	34	87	4
1992	58	43	45	31	72	5	1992	59	41	52	30	75	6	1992	59	45	46	33	77	6	1992	56	37	43	34	68	5	1992	61	37	55	34	82	5
1993	55	46	47	36	71	6	1993	54	46	42	24	75	5	1993	55	43	56	23	70	6	1993	63	33	51	40	78	5	1993	61	33	29	35	79	5
1994	58	44	58	28	66	5	1994	56	43	47	28	68	5	1994	51	41	37	29	66	5	1994	62	40	48	37	79	7	1994	60	29	50	36	87	4
1995	57	47	47	24	75	7	1995	59	46	50	30	77	7	1995	61	38	48	33	77	6	1995	56	46	48	22	79	5	1995	62	42	61	32	79	7
1996	53	42	51	26	59	8	1996	60	42	45	31	74	6	1996	57	39	41	28	74	6	1996	61	39	60	31	77	5	1996	64	31	51	37	83	6
1997	56	39	49	31	60	6	1997	55	51	38	23	79	7	1997	62	44	51	34	75	9	1997	62	38	52	33	78	6	1997	63	36	57	32	88	5
1998	58	47	49	28	73	7	1998	56	40	47	30	67	7	1998	58	46	37	30	80	7	1998	62	47	51	30	80	7	1998	58	43	71	20	71	4
1999	57	47	47	21	70	5	1999	58	44	52	30	67	7	1999	53	36	53	30	58	4	1999	58	43	55	27	77	7	1999	60	27	49	37	76	10
2000	61	37	51	27	63	8	2000	59	41	51	28	67	5	2000	60	40	54	33	70	8	2000	54	45	45	24	84	4	2000	59	32	61	27	80	4

Notes: The Table reports (NOT YET WEIGHTED WITH MULTIPLIERS) the average age, the percent female, the fraction married (among females), the fraction widowed (among females), the fraction married (among males), the fraction widowed (among males) for each wealth fractile.

KEY RESULTS: the percent female increases from 25% to 45% over the period but the fraction married vs widowed relatively stable within gender groups.

Suggests that more wealth has been given to women (both through spousal bequests but also distribution within married couples)

Table C1: Comparing Top 1% Wealth Share with Previous Estimates

Author	Kopczuk-Saez	Lampman (1962)	Smith (1984)	Wolff-Marley (1989)	Wolff (1995)	Scholz (2003)
Unit	Adults	Adults	Individuals	Individuals	Households	Households
Data	Estates	Estates	Estates	Patched Estates	Patched SCF-Estates	SCF
Wealth	Net Worth	Net Worth	Net Worth	Total Assets	Net Worth	Net Worth
	(1)	(2)	(3)	(4)	(5)	(6)
1922	36.32	31.6		34.0	36.7	
1929	37.22	36.3		37.2	44.2	
1933	31.31	28.3		31.3	33.3	
1939	26.92	30.6		38.1	36.4	
1945	25.36	23.3		28.9	29.8	
1949	23.43	20.8		25.7	27.1	
1953	24.68	24.3		28.1	31.2	
1954	24.06	24.0				
1956	25.66	26.0				
1958	25.10		26.6	27.0		
1962	25.14		28.2	30.1	31.8	31.6
1965	25.69		25.4	31.9	34.4	
1969	23.49		27.4	29.0	31.1	
1972	23.73		21.9	28.6	29.1	
1976	19.71		19.2	18.9	19.9	
1983	21.13				30.9	31.5
1986	22.73				31.9	
1989	21.99				35.7	30.0
1992	21.25					30.0
1995	21.71					35.3
1998	21.87					34.1
2000	21.40					
2001						32.3

Notes: Lampman (1962), Table 94, p. 204, estimates are based on all estate tax returns filers and Pareto interpolation to optain top 1% share.
Smith (1984), Table 1, p. 422, ranks individuals by total assets (not net worth) and defines top 1% group relative to total population (not only adults), and reports share of net-worth for this group.
Wolff-Marley (1989), Table 6, p. 786, row W2, completed and corrected in Wolff (1995), Table A1, pp. 78-79, col. (1), "Wolff-Marley series".
Top 1% defined relative to total population (not only adults). Estimates based on previous estimates by Lampman (1962) and Smith (1984).
Wolff (1995), Table A1, pp. 78-79, col. (6) "New Household Series" based on previous "Wolff-Marley" series and SCF estimations.
Scholz (2003) based on SCF data.

Table C2: Very Top Shares from Forbes 400 Richest Americans

			Very Top Wealth Shares			Ratio to Average Wealth			Top Estate Share
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Forbes 400 Total Wealth (billions 2000 $)	Forbes 400 Average Wealth (millions 2000 $)	Top .0002% (top 404 in 2000)	Top .00005% (top 101 in 2000)	Top .0002-.00005% (rank 102 to 404 in 2000)	Top .0002% (top 404 in 2000)	Top .00005% (top 101 in 2000)	Top .0002-.00005% (rank 102 to 404 in 2000)	Top .01% Share (top 20,000 in 2000)
1982	164.2	411	0.984	0.521	0.510	4,922	10,414	3,400	2.581
1983	204.1	510	1.187	0.593	0.593	5,933	11,864	3,957	3.269
1984	207.3	518	1.165	0.595	0.570	5,826	11,909	3,799	3.591
1985	214.5	536	1.153	0.567	0.586	5,763	11,335	3,905	4.170
1986	245.1	613	1.217	0.628	0.589	6,084	12,560	3,926	3.991
1987	333.6	834	1.603	0.856	0.747	8,017	17,129	4,979	3.506
1988	320.4	801	1.486	0.797	0.689	7,430	15,946	4,592	3.654
1989	373.1	933	1.670	0.885	0.785	8,349	17,702	5,232	3.861
1990	359.5	899	1.635	0.868	0.767	8,173	17,360	5,110	3.706
1991	363.4	909	1.658	0.932	0.726	8,291	18,649	4,839	3.619
1992	369.3	923	1.655	0.946	0.709	8,277	18,930	4,726	3.787
1993	390.6	977	1.735	1.000	0.735	8,676	20,001	4,901	3.826
1994	405.2	1,013	1.799	1.049	0.750	8,994	20,976	5,001	3.939
1995	446.0	1,115	1.923	1.142	0.781	9,614	22,841	5,205	4.093
1996	514.0	1,285	2.089	1.221	0.868	10,444	24,424	5,785	3.950
1997	669.5	1,674	2.537	1.552	0.985	12,687	31,042	6,569	3.892
1998	779.3	1,948	2.715	1.751	0.965	13,577	35,017	6,431	3.946
1999	1033.0	2,582	3.286	2.268	1.018	16,429	45,355	6,787	3.990
2000	1200.1	3,000	3.743	2.510	1.233	18,715	50,202	8,219	3.907
2001	925.1	2,313	3.031	1.971	1.060	15,157	39,428	7,066	
2002	860.0	2,150	2.958	1.909	1.049	14,791	38,184	6,993	

Notes: Data source is the Forbes 400 Richest American list published annually in October by Forbes Magazine since 1982.
Columns (1) and (2) report the total wealth and average wealth of the Forbes 400 richest (in 2000 dollars, CPI from Table A)
Columns (3) to (5) report the share of total wealth (reported in Table A, col. (3)) for the top .0002%, the top .00005%, and the top .0002-.00005% estimated using the Forbes list.
The top .0002% corresponds to the top 404 richest americans in 2000. The top .00005% corresponds to the top 101 richest americans in 2000.
The top .0002-.00005% corresponds to the americans with wealth rank 102 to 404 in 2000.
Columns (6) to (8) report the ratio of the average wealth in the top .0002%, the top .00005%, and the top .0002-.00005% to the average wealth in the United States (from col. (4) in Table A).
Column (9) report the top .01% wealth share estimated from tax returns (from Table B1, col. (7)).

Table D: Sample size, weights, asset details information

	Sample size							Average Weight							Fraction subject to a complete edit						
Groups	.01%	.05-.01%	.1-.05%	.25-.1%	.5-.25%	1-.75%	2-1%	.01%	.05-.01%	.1-.05%	.25-.1%	.5-.25%	1-.75%	2-1%	.01%	.05-.01%	.1-.05%	.25-.1%	.5-.25%	1-.75%	2-1%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1916	57	211	227	681	1,140	55		0.98	0.99	1.00	1.00	1.00	0.99		100%	93%	64%	44%	32%	42%	
1917	196	673	753	2,211	3,797	661		0.99	1.00	1.00	1.00	1.00	1.00		100%	90%	67%	46%	32%	33%	
1918	177	602	794	2,192	3,726	2,297		0.99	1.00	1.00	1.00	1.00	1.00		100%	93%	74%	48%	34%	34%	
1919	160	596	708	2,006	3,298	4,366		0.99	1.00	1.00	1.00	1.00	1.00		100%	98%	82%	52%	39%	34%	
1920	161	625	715	2,110	3,383	5,506		0.99	1.00	1.00	1.00	1.00	1.00		100%	98%	84%	53%	40%	34%	
1921	175	606	727	2,117	3,253	4,801		0.99	1.00	1.00	1.00	1.00	1.00		100%	15%	0%	0%	0%	0%	
1922	172	618	758	2,137	3,486	5,258		0.99	1.00	1.00	1.00	1.00	1.00		100%	22%	0%	0%	0%	0%	
1923	180	671	775	2,353	3,907	5,020		0.99	1.00	1.00	1.00	1.00	1.00		100%	23%	0%	0%	0%	0%	
1924	155	724	736	2,390	3,839	5,463		0.99	1.00	1.00	1.00	1.00	1.00		100%	26%	1%	0%	0%	0%	
1925	188	726	852	2,343	3,923	5,746		0.99	1.00	1.00	1.00	1.00	1.00		100%	32%	0%	0%	0%	0%	
1926	227	804	927	2,585	2,256	937		0.99	1.00	1.00	1.00	1.81	6.51		100%	27%	1%	0%	0%	0%	
1927	197	740	849	2,432	3,454			0.99	1.00	1.00	1.00	1.00			100%	42%	1%	0%	0%		
1928	215	752	916	2,681	3,754			0.99	1.00	1.00	1.00	1.00			100%	100%	88%	61%	52%		
1929	193	792	904	2,600	3,931	417		0.99	1.00	1.00	1.00	1.00	1.00		100%	100%	91%	65%	50%	70%	
1930	175	825	942	2,608	3,590	77		0.99	1.00	1.00	1.00	1.00	0.99		100%	100%	85%	59%	54%	75%	
1931	229	840	1,000	2,852	2,291			0.99	1.00	1.00	1.00	1.00			100%	23%	1%	0%	1%		
1932	244	839	1,035	2,519	2,470	377		0.99	1.00	1.00	1.14	1.76	1.76		89%	2%	0%	0%	0%	1%	
1933	210	899	992	3,033	4,541	907		0.99	1.00	1.00	1.00	1.00	1.00		100%	7%	0%	0%	0%	0%	
1934	276	939	1,057	3,124	4,788	777		1.00	1.00	1.00	1.00	1.00	1.00		93%	3%	0%	0%	0%	1%	
1935	260	957	1,127	3,153	4,567	992		0.99	1.00	1.00	1.00	1.16	2.97		100%	3%	0%	0%	0%	0%	
1936	222	901	1,239	3,385	5,471	4,672		0.99	1.00	1.00	1.00	1.00	1.00		100%	16%	0%	0%	0%	0%	
1937	258	997	1,139	3,493	5,603	5,078		1.00	1.00	1.00	1.00	1.00	1.00		100%	8%	0%	0%	0%	0%	
1938	241	917	1,180	3,344	5,378	4,729		1.00	1.00	1.00	1.00	1.00	1.00		100%	83%	49%	32%	23%	23%	
1939	243	1,074	1,129	3,445	5,502	5,249		1.00	1.00	1.00	1.00	1.00	1.00		100%	100%	78%	57%	41%	42%	
1940	252	1,027	1,239	3,477	5,787	5,505		0.99	1.00	1.00	1.00	1.00	1.00		100%	78%	47%	32%	21%	21%	
1941	260	1,039	1,193	3,379	5,613	6,537		0.99	1.00	1.00	1.00	1.00	1.00		98%	2%	0%	0%	0%	0%	
1942	224	927	1,208	3,201	5,113	5,001		0.99	1.00	1.00	1.00	1.05	1.25		100%	6%	0%	0%	0%	0%	
1943	278	971	1,121	3,444	5,212	5,123		1.00	1.00	1.00	1.00	1.00	1.00		99%	3%	0%	0%	0%	0%	
1944	252	966	998	3,000	4,920	7,240	332	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100%	89%	51%	33%	25%	20%	25%
1945	295	884	1,120	3,033	4,920	8,319	1,555	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100%	14%	0%	0%	0%	0%	0%
1962	321	1,290	1,531	4,228	7,001	13,717	25,448	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100%	100%	100%	100%	100%	100%	100%
1965	352	1,356	1,539	4,778	8,000	8,971	8,148	1.00	1.00	1.00	1.00	1.00	1.76	3.77	100%	100%	100%	100%	100%	100%	100%
1969	401	1,373	1,636	4,554	6,345	4,430	7,218	1.00	1.00	1.02	1.10	1.25	3.48	4.13	100%	100%	100%	100%	100%	100%	100%
1972	367	1,352	1,702	5,305	8,116	7,197	6,763	1.00	1.00	1.00	1.00	1.00	2.20	4.72	100%	100%	100%	100%	100%	100%	100%
1976	428	1,715	1,893	5,517	4,824	3,498	5,623	1.00	1.00	1.00	1.00	1.97	4.65	5.84	100%	100%	100%	100%	100%	100%	100%
1982	345	1,317	1,678	4,634	3,153	4,801	5,601	1.02	1.03	1.02	1.09	2.57	3.39	4.48	100%	100%	100%	100%	100%	100%	100%
1983	328	438	21	132	128	289	504	1.07	4.04	60.76	45.24	56.13	61.63	56.54	100%	100%	100%	100%	100%	100%	100%
1984	377	550	62	124	182	367	661	1.05	2.54	32.42	38.90	46.32	60.48	40.08	100%	100%	100%	100%	100%	100%	100%
1985	407	732	65	241	371	647	613	1.03	2.62	20.92	19.58	24.49	28.94	10.74	100%	100%	100%	100%	100%	100%	100%
1986	363	1,209	958	2,630	3,888	2,699	2,071	1.00	1.21	2.01	1.99	2.38	6.89	4.54	100%	100%	100%	100%	100%	100%	100%
1987	421	1,084	184	484	671	967	636	1.00	1.32	10.46	12.89	14.19	19.51	9.15	100%	100%	100%	100%	100%	100%	100%
1988	435	1,248	200	451	790	1,185	956	1.01	1.35	9.12	11.66	12.60	16.58	8.44	100%	100%	100%	100%	100%	100%	100%
1989	405	1,464	930	2,545	4,027	5,000	3,785	1.00	1.05	2.09	2.16	2.24	3.98	3.81	100%	100%	100%	100%	100%	100%	100%
1990	397	1,456	265	579	877	1,109	1,438	1.00	1.27	7.08	9.47	10.71	16.55	13.69	100%	100%	100%	100%	100%	100%	100%
1991	445	858	552	1,317	1,054	1,445	1,605	1.00	1.66	3.38	4.16	9.55	13.71	11.73	100%	100%	100%	100%	100%	100%	100%
1992	431	1,625	794	1,918	1,725	2,502	3,130	1.00	1.00	2.58	3.13	5.59	8.12	6.50	100%	100%	100%	100%	100%	100%	100%
1993	463	1,031	587	1,646	1,187	1,842	2,301	1.00	1.92	3.31	3.44	8.48	11.57	11.99	100%	100%	100%	100%	100%	100%	100%
1994	443	1,036	545	1,740	1,277	1,681	2,398	1.00	1.87	3.24	3.47	8.26	11.63	12.81	100%	100%	100%	100%	100%	100%	100%
1995	501	1,610	1,196	2,228	1,883	2,978	3,932	1.00	1.01	1.96	2.92	5.52	7.54	8.51	100%	100%	100%	100%	100%	100%	100%
1996	535	1,144	737	1,881	1,378	2,158	2,975	1.00	1.60	2.89	3.55	6.52	10.03	14.31	100%	100%	100%	100%	100%	100%	100%
1997	524	1,349	870	1,686	1,943	2,250	3,032	1.00	1.50	2.77	3.48	5.41	10.05	15.86	100%	100%	100%	100%	100%	100%	100%
1998	412	2,024	2,070	2,174	2,885	3,589	4,611	1.00	1.01	1.08	2.96	3.68	6.35	10.61	100%	100%	100%	100%	100%	100%	100%
1999	466	1,428	662	1,444	1,782	1,581	2,636	1.00	1.15	3.14	4.90	5.54	13.75	18.45	100%	100%	100%	100%	100%	100%	100%
2000	436	1,457	638	1,210	1,286	1,590	2,846	1.01	1.05	3.56	5.35	9.52	13.90	16.67	100%	100%	100%	100%	100%	100%	100%

Notes: Computations by authors based on estate tax return micro-dataset. See Appendix Section B for details.
The weight numbers represent the inverse of the sampling probability. Complete edit data provides detailed information on estate composition.

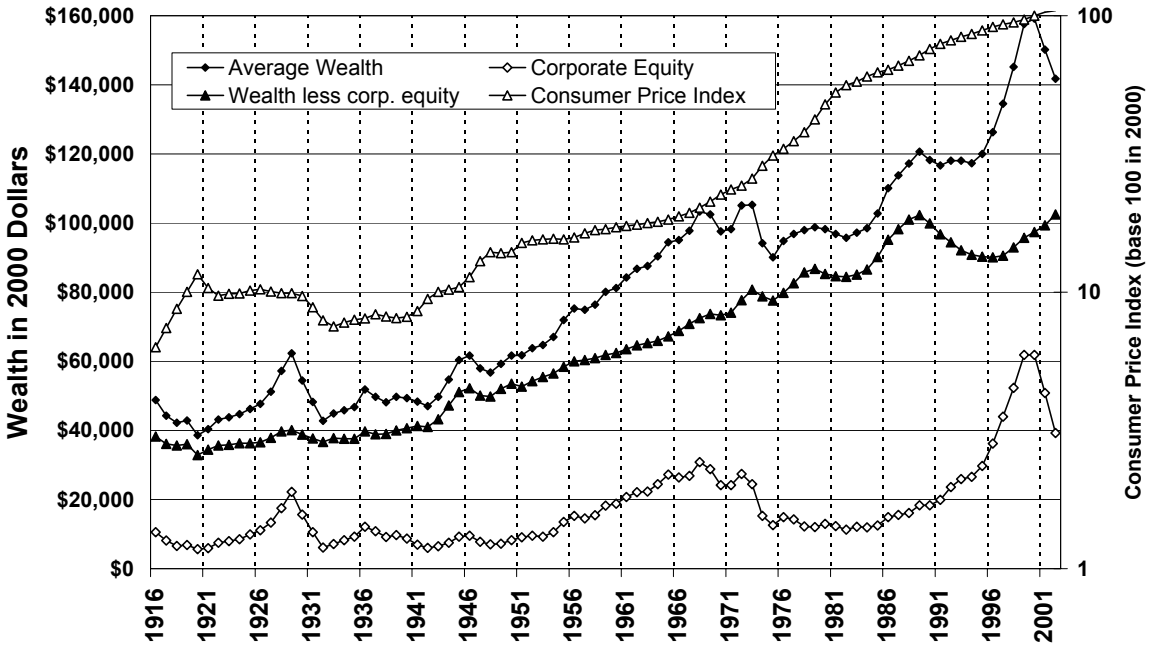

FIGURE 1

Average Real Wealth and Consumer Price Index in the United States, 1916-2002

Source: Table A, columns Average Wealth (in real 2000 dollars) and CPI (base 100 in 2000)

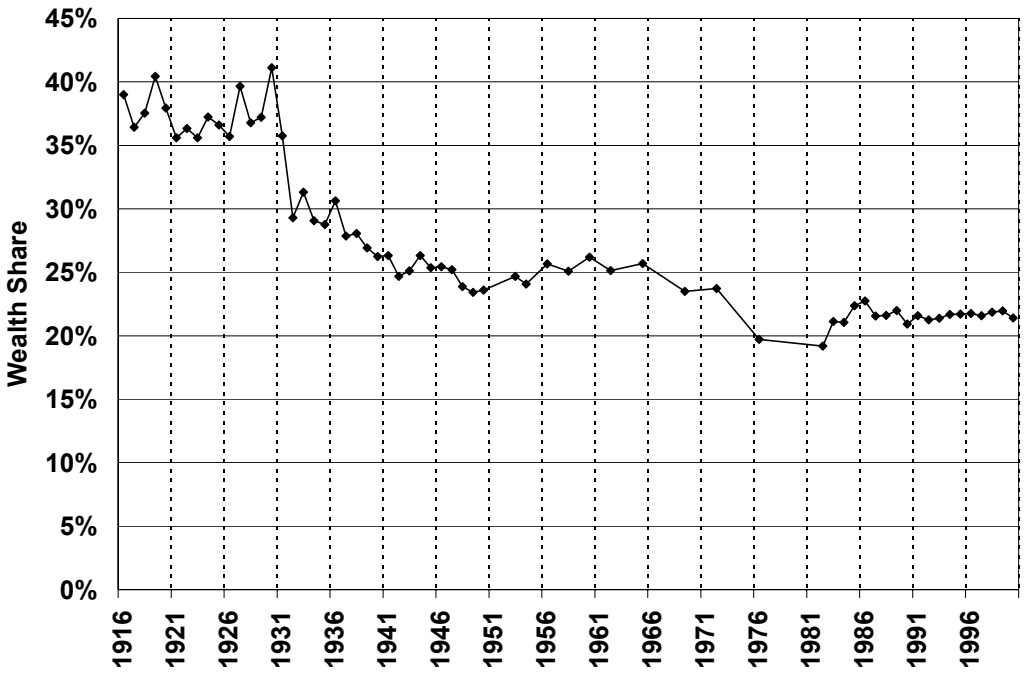

FIGURE 2

The Top 1% Wealth Share in the United States, 1916-2000

Source: Table B1, col. Top 1%.

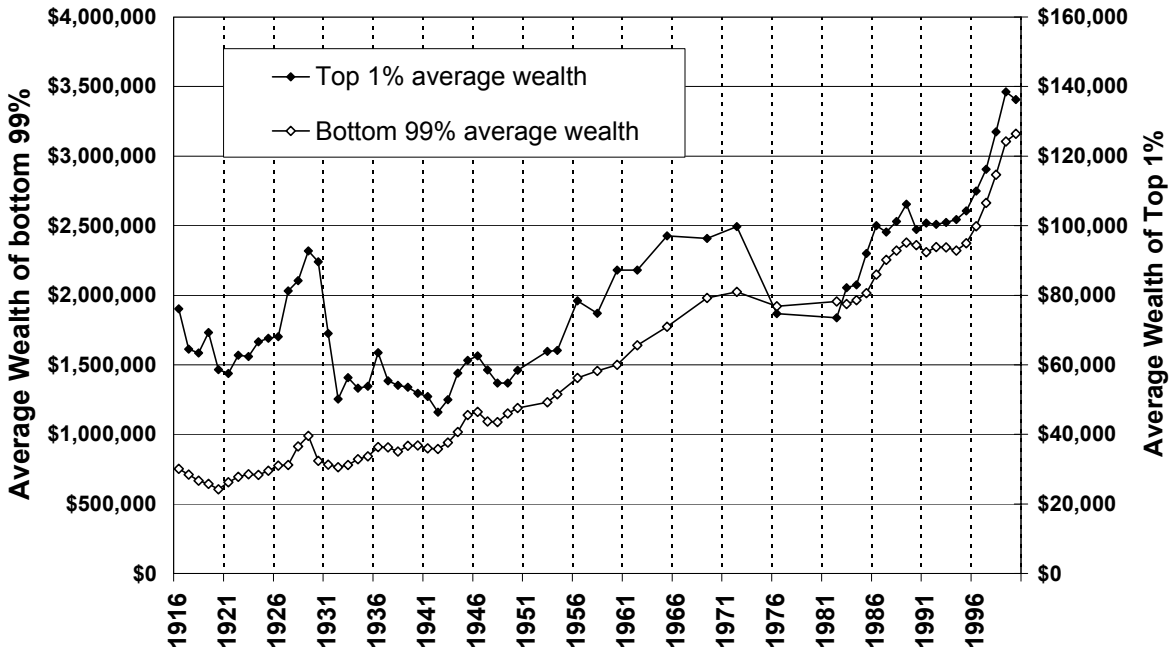

FIGURE 3

Average Real Wealth of bottom 99% and top 1% in the United States, 1916-2000

Source: Table B2, columns Top 1%, Bottom 99% computed from Average Wealth (Table A, Col. (4)) and Average Top 1% wealth. Amounts are expressed in 2000 dollars

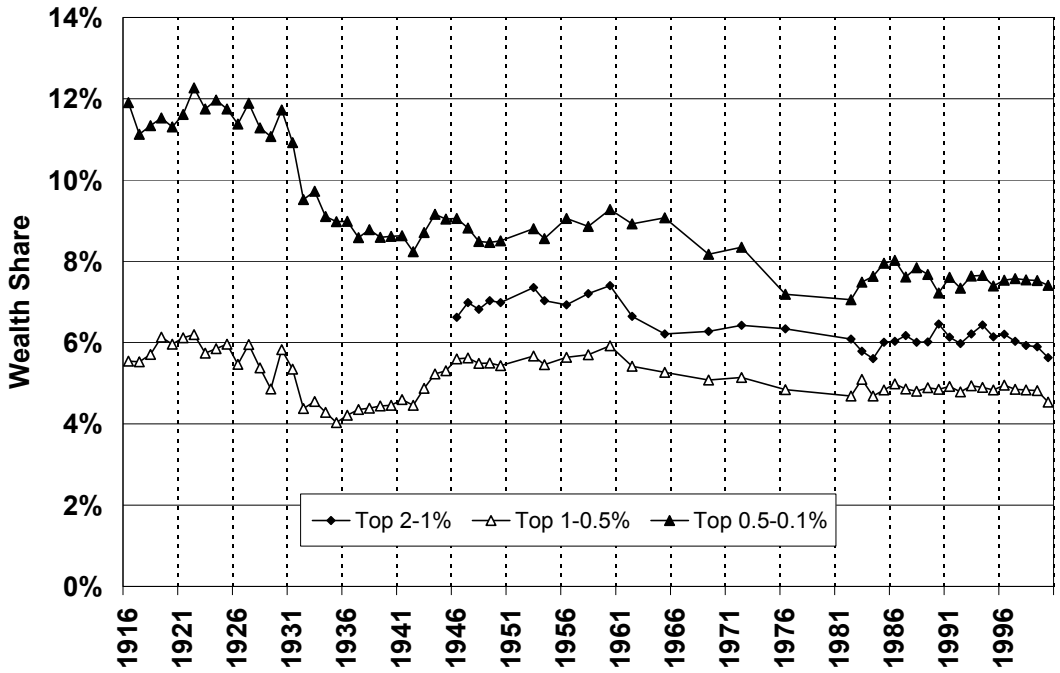

FIGURE 4

The Wealth Shares of Top 2-1%, 1-0.5%, and 0.5-0.1%, 1916-2000

Source: Table B1, columns Top 2-1%, 1-0.5%, and 0.5-0.1%.
Estimates for Top 2-1% are only available from 1946.

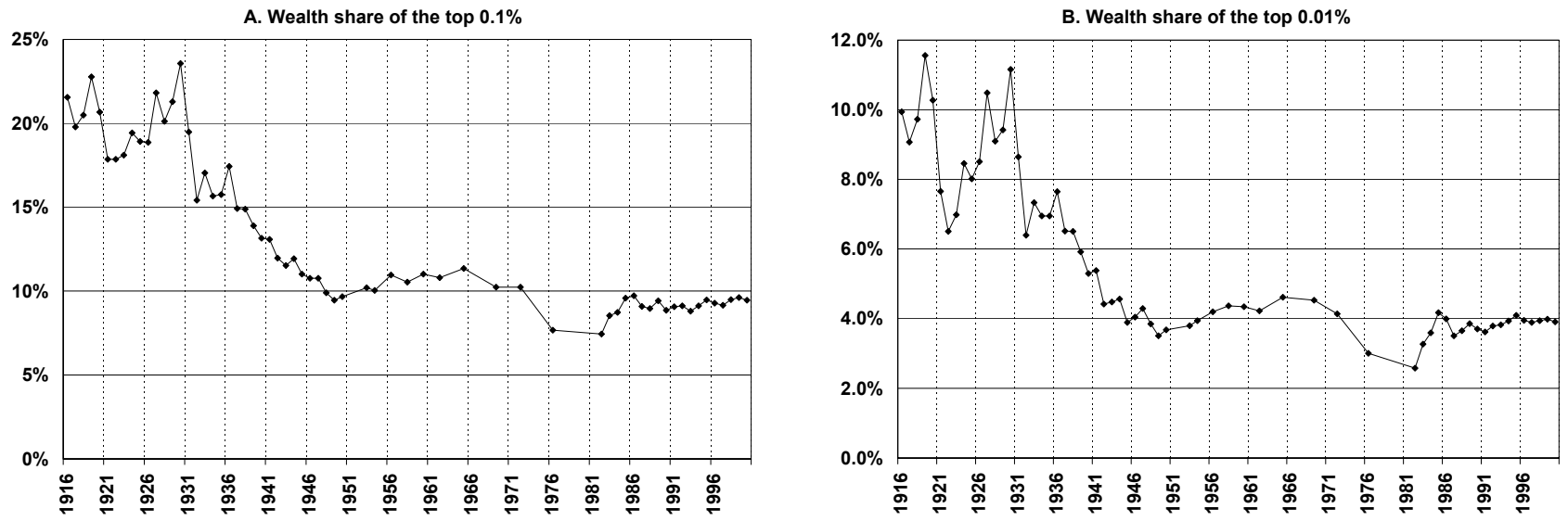

FIGURE 5

The Shares of the Top Wealth Groups in the United States, 1916-2000

Source: Table B1, Columns 0.1%, and 0.01%.

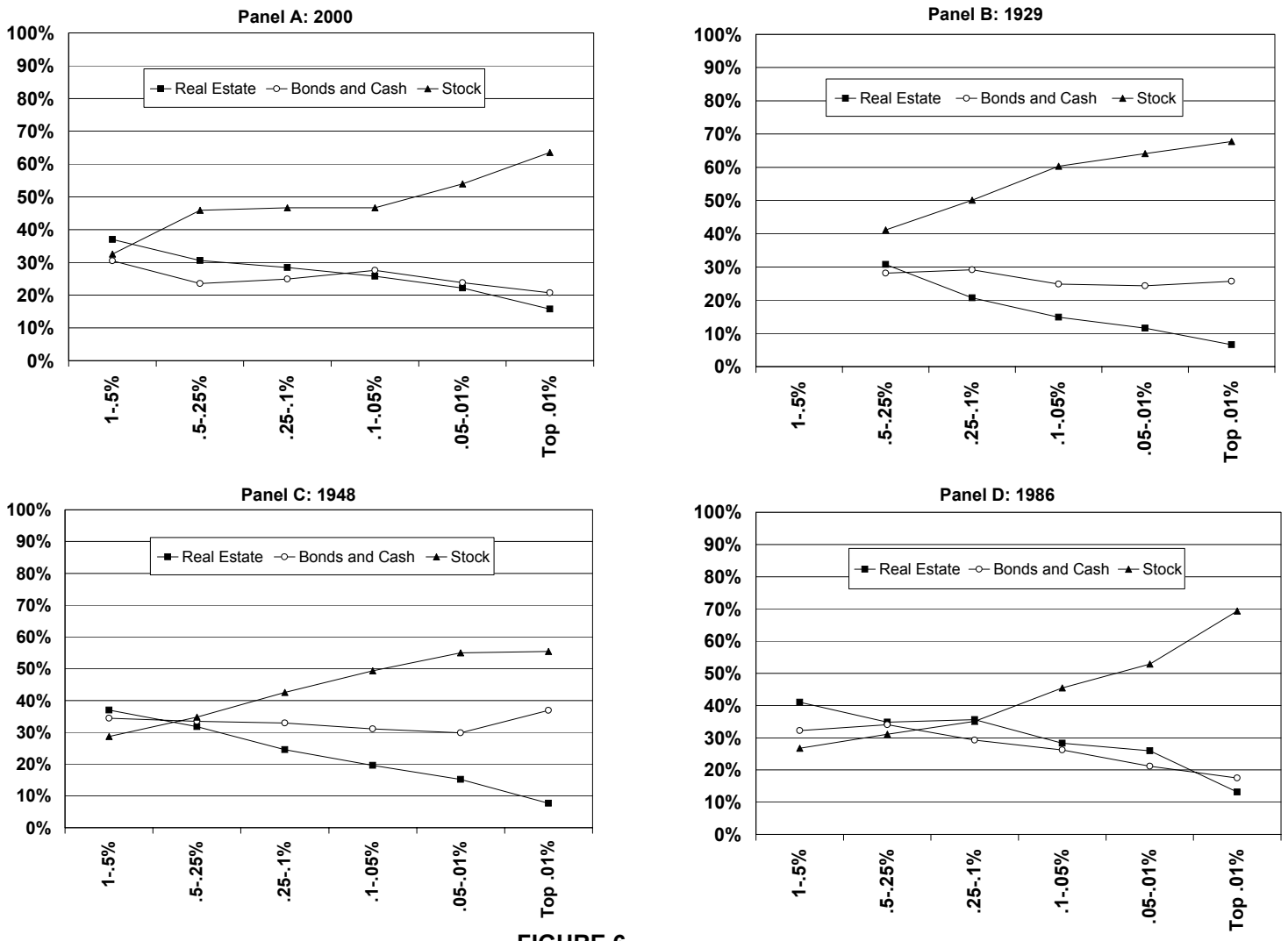

FIGURE 6

Wealth Composition of Top Groups within the Top Percentile in 2000, 1929, 1948 and 1986

Source: Table B3, rows 2000, 1929, 1948, 1986.
Sum of three category is 100%. Categories others and debts have been excluded.

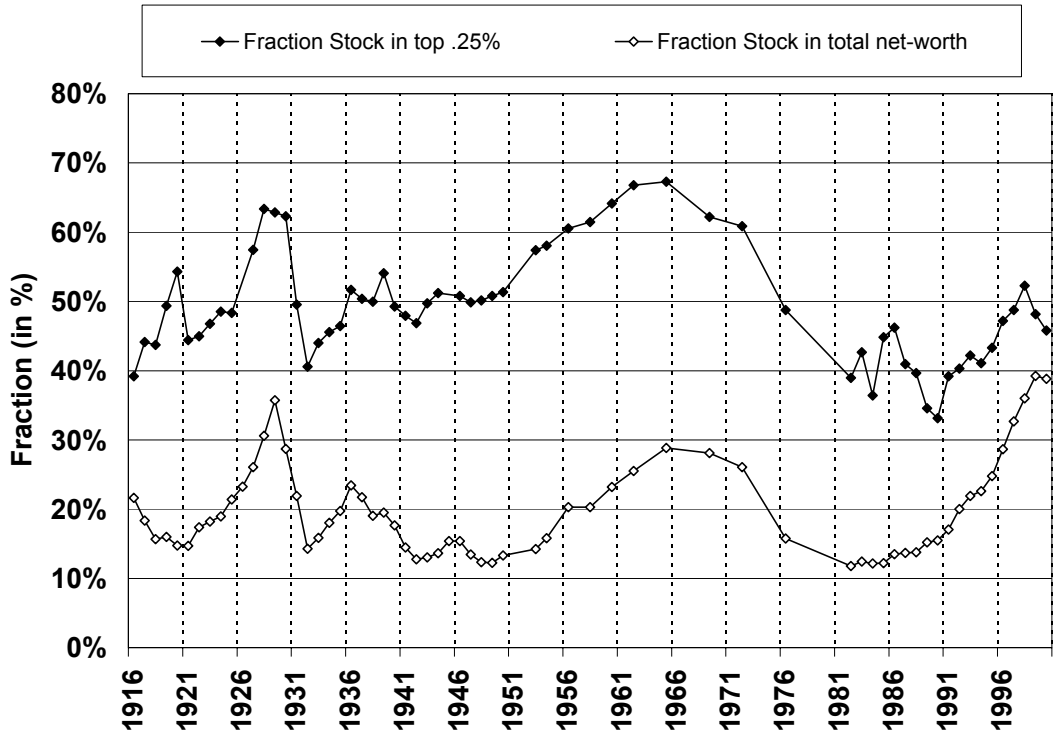

FIGURE 7

Fraction of Corporate Stock within the Top .25% and total net-worth, 1916-2000

Source: Table A, Column (7) and Table B3, Top .25%, column stock

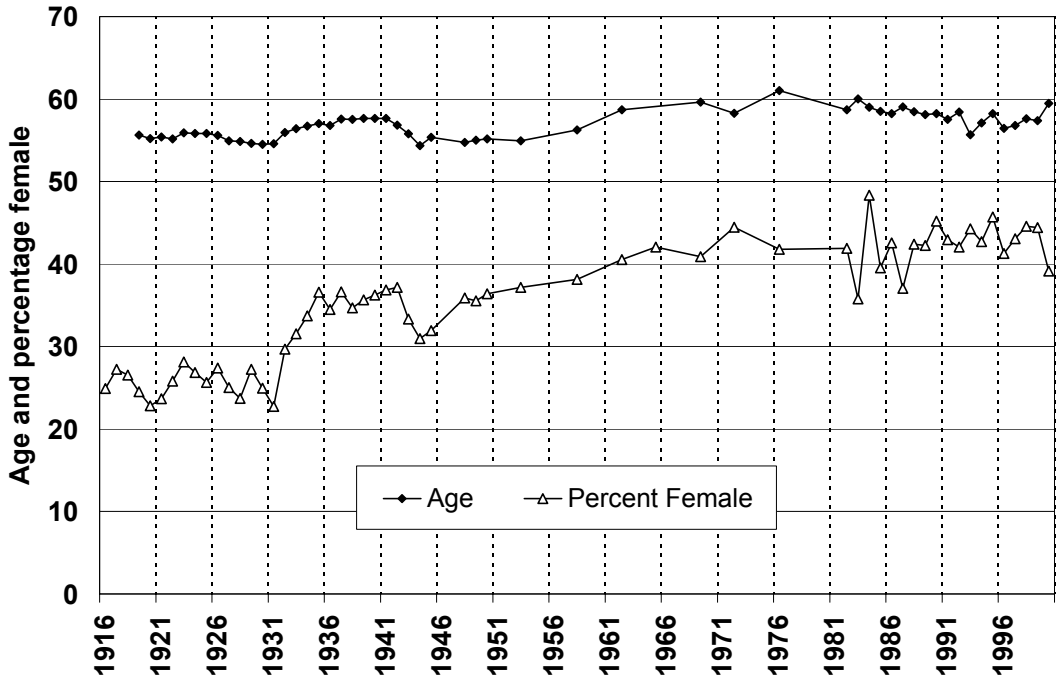

FIGURE 7B

Average Age and Fraction Female in Top 0.5%, 1916-2000

Source: Table B4

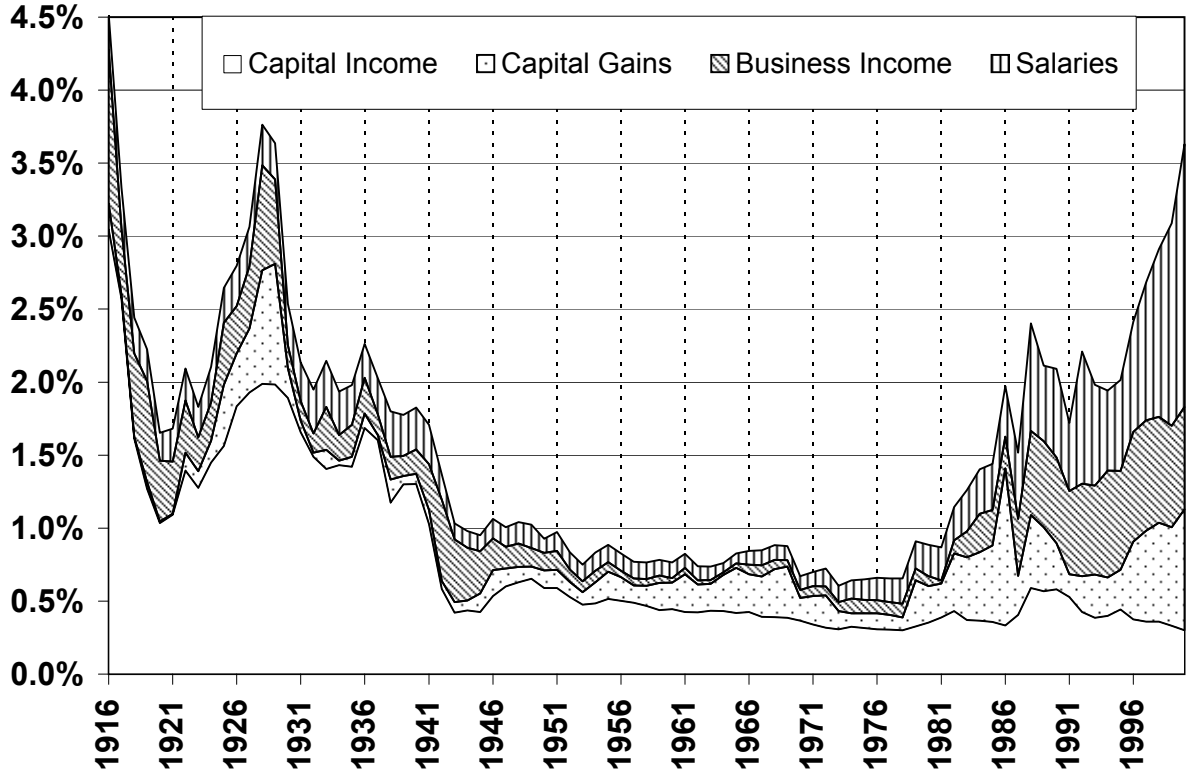

FIGURE 8

The Top 0.01% Income Share and Composition, 1916-2000

The Figure displays the top 0.01% income share (top curve). Estimates are based on families and not individuals.

Taxpayers are ranked by income excluding capital gains but capital gains included in the share. Interest, Rents, Trusts, etc.),

The Figure displays the composition of those top incomes into Capital Income (Dividends, Realized Capital Gains, Business Income (Sole Proprietorships, Partnerships, S-Corporations), and Salaries (Wages and Salaries, Pensions).

Source: Piketty and Saez (2003), series updated to year 2000

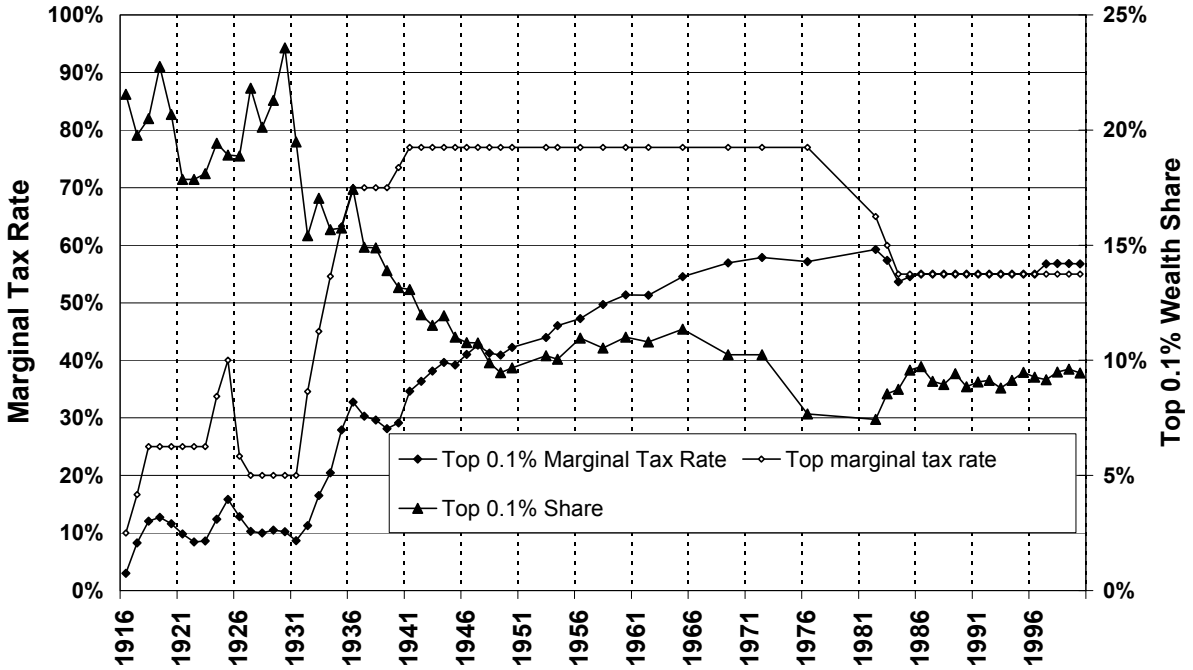

FIGURE 9

Marginal Tax Rate and Wealth Share for the Top 0.1%, 1916-2000

Notes: Marginal Tax Rate computations are made assuming no deductions beyond the basic exemption. Effective marginal tax rates are lower due to additional deductions (funeral expenses, spousal bequest deductions, charitable bequests, etc.)

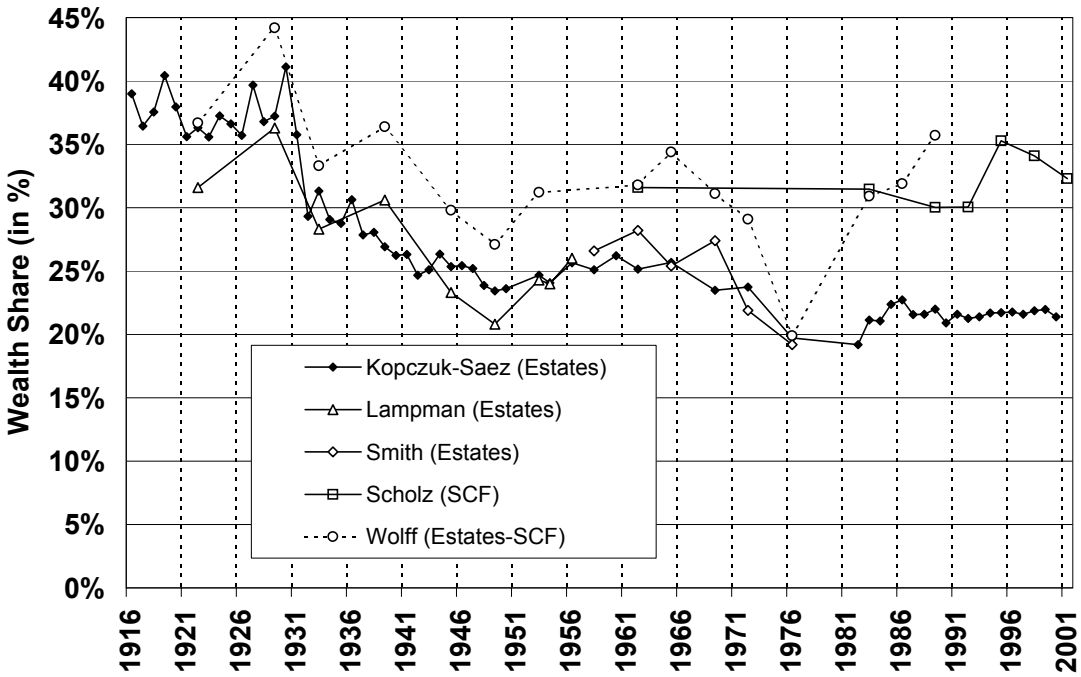

FIGURE 10

The Top 1% Wealth Share: Comparing Various Estimates

Source: Table C1

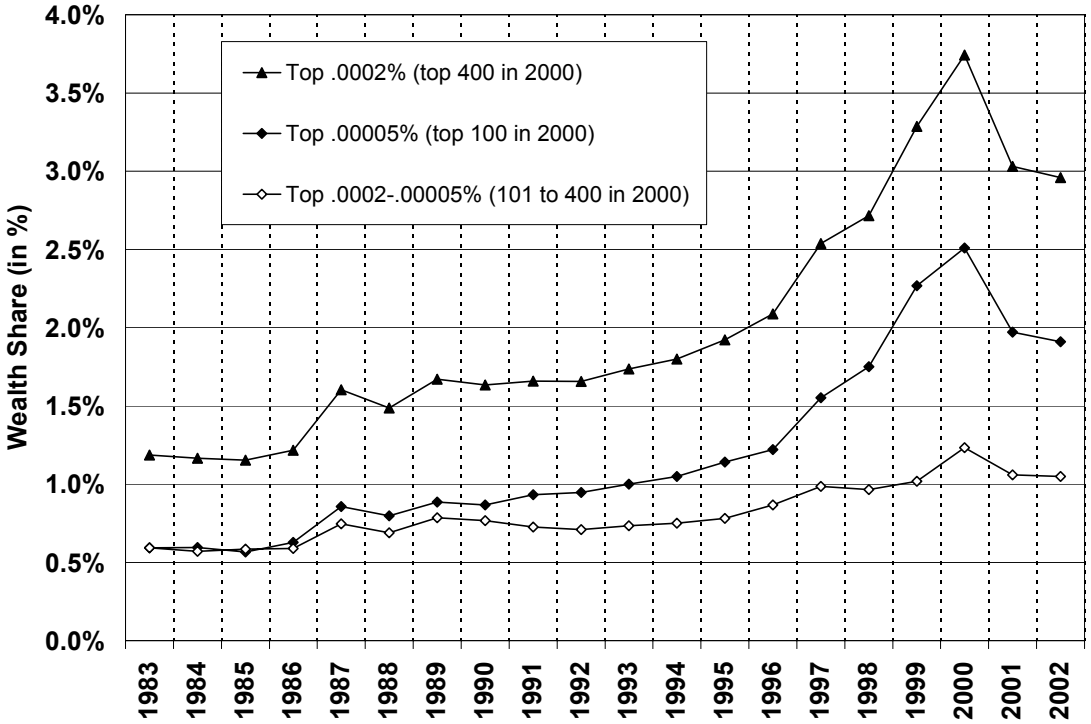

FIGURE 11

Very Top Shares from Forbes 400 Richest Americans, 1983-2002

Source: Table C3, col. (3), (4), (5), and (9).
Year 1982 has been excluded because, as the first survey year, the Forbes list missed a number of fortunes.

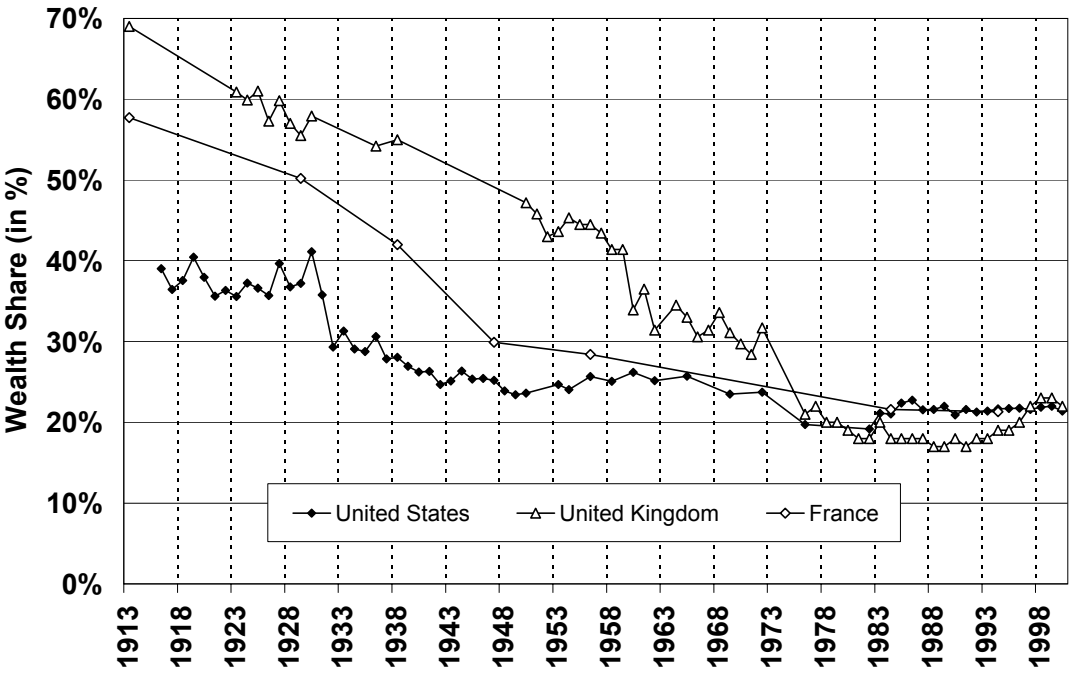

FIGURE 12

The Top 1% Wealth Share in the United States, the United Kingdom, and France

Sources: United States, Table B1, column Top 1%
United Kingdom: 1913-1972, Atkinson and Harrison (1978), p. 159, Column Top 1%, England and Wales.
1976-2000: Inland Revenue Personal Wealth (Top 1% Marketable net worth series for adult population, Table 13.5) http://www.inlandrevenue.gov.uk/stats/personal_wealth/dopw_t05_1.htm
Series 1913-1989 reproduced in Lindert (2000), Table 2, pp. 181-182.
France: Piketty, Postel-Vinay, and Rosenthal (2003), Table 4, Top 1% estate share
(wealth shares not yet available)

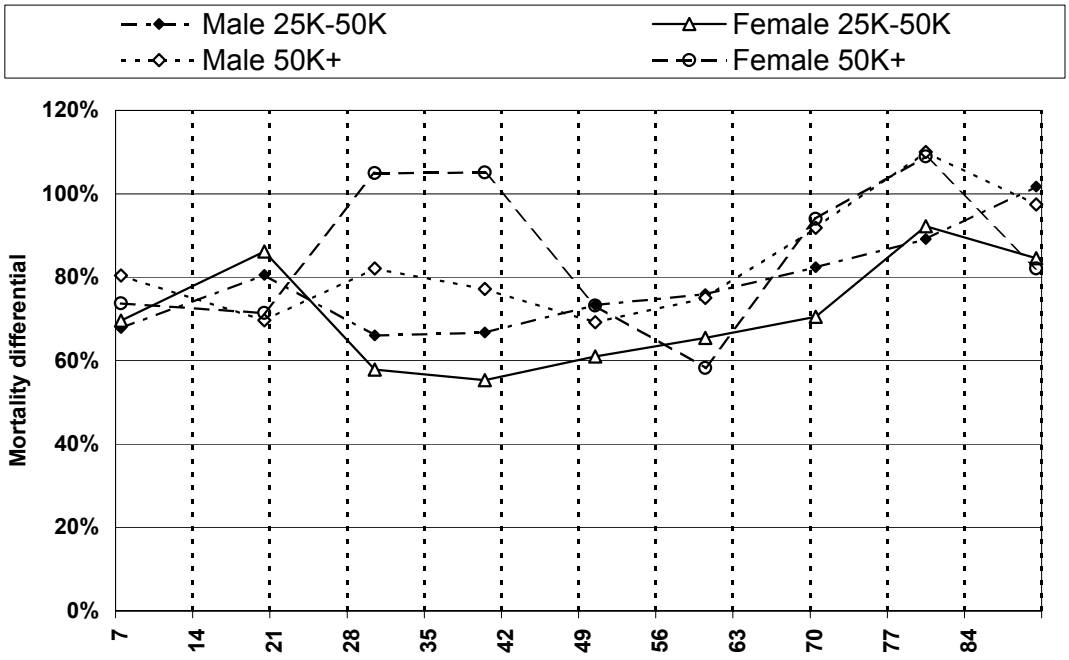

Figure A1

Ratio of the average mortality to the mortality of the wealthy based on Rogot et. al. (1992)

Note: The graph is based on tables 1 and 7 in Rogot et al. (1992) and shows the ratios of death rates for white individuals with family incomes above 25,000 and 50,000 of 1980 dollars to the corresponding death rates for the whole population (Table 1). The annualized death rates for income-age categories are computed by multiplying the annualized mortality rate for the age category by the ratio of actual and expected numbers of deaths in the income categories (all of these numbers are reported in Table 7). Deaths in Rogot et al. (1992) are tabulated for age categories of: 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+ and the corresponding values of age used on the graph are 7, 10, 20, 30, 40, 50, 60, 70, 80 and 90. The number of individuals and deaths in the $50,000+ categories is relatively small and the resulting age-pattern is considerably noisier.

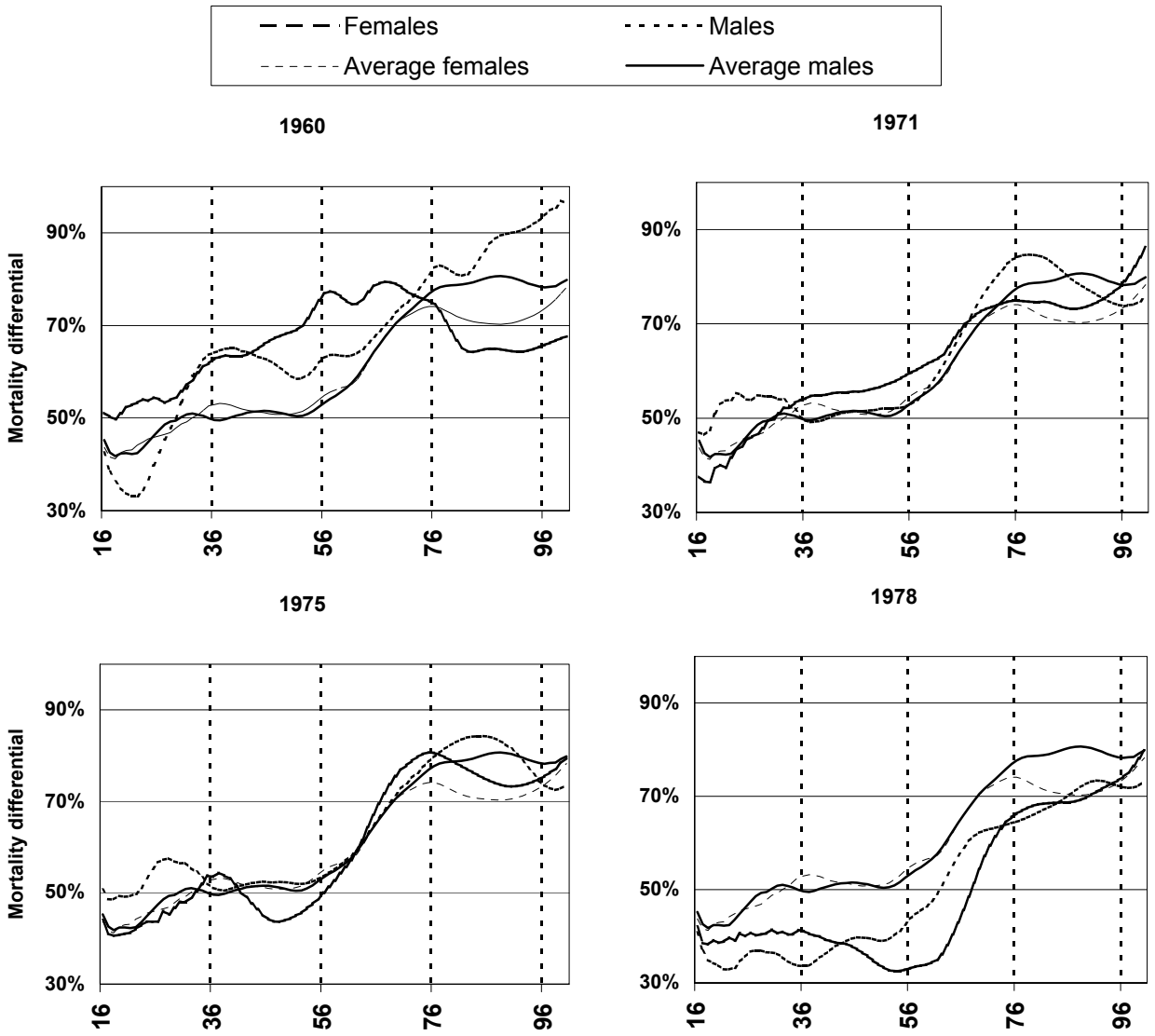

Figure A2

Ratio of the average mortality to the mortality of the wealthy, over time, based on Buck tables

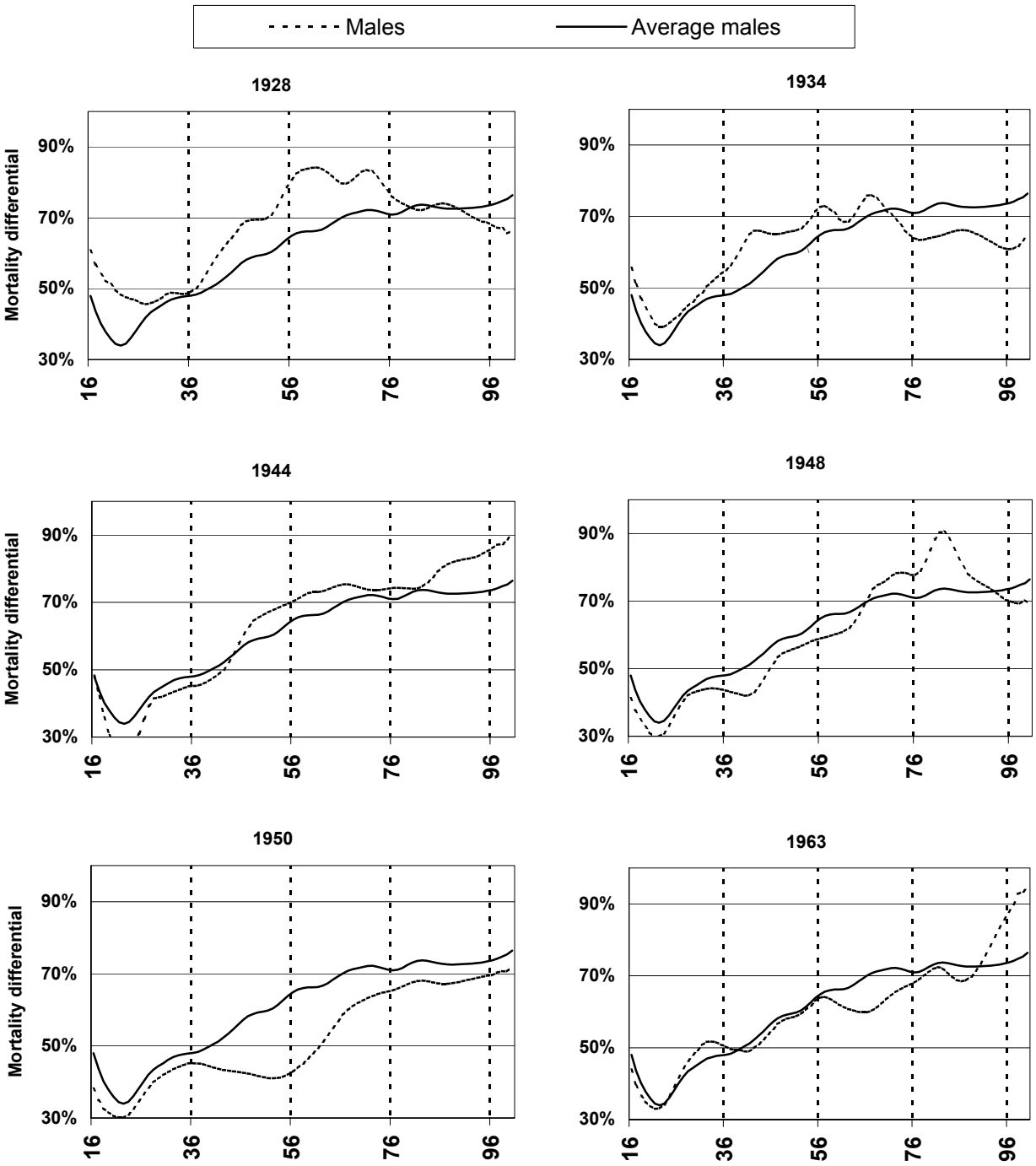

Figure A3

Ratio of the average mortality to the mortality of the wealthy, over time, based on annuity data

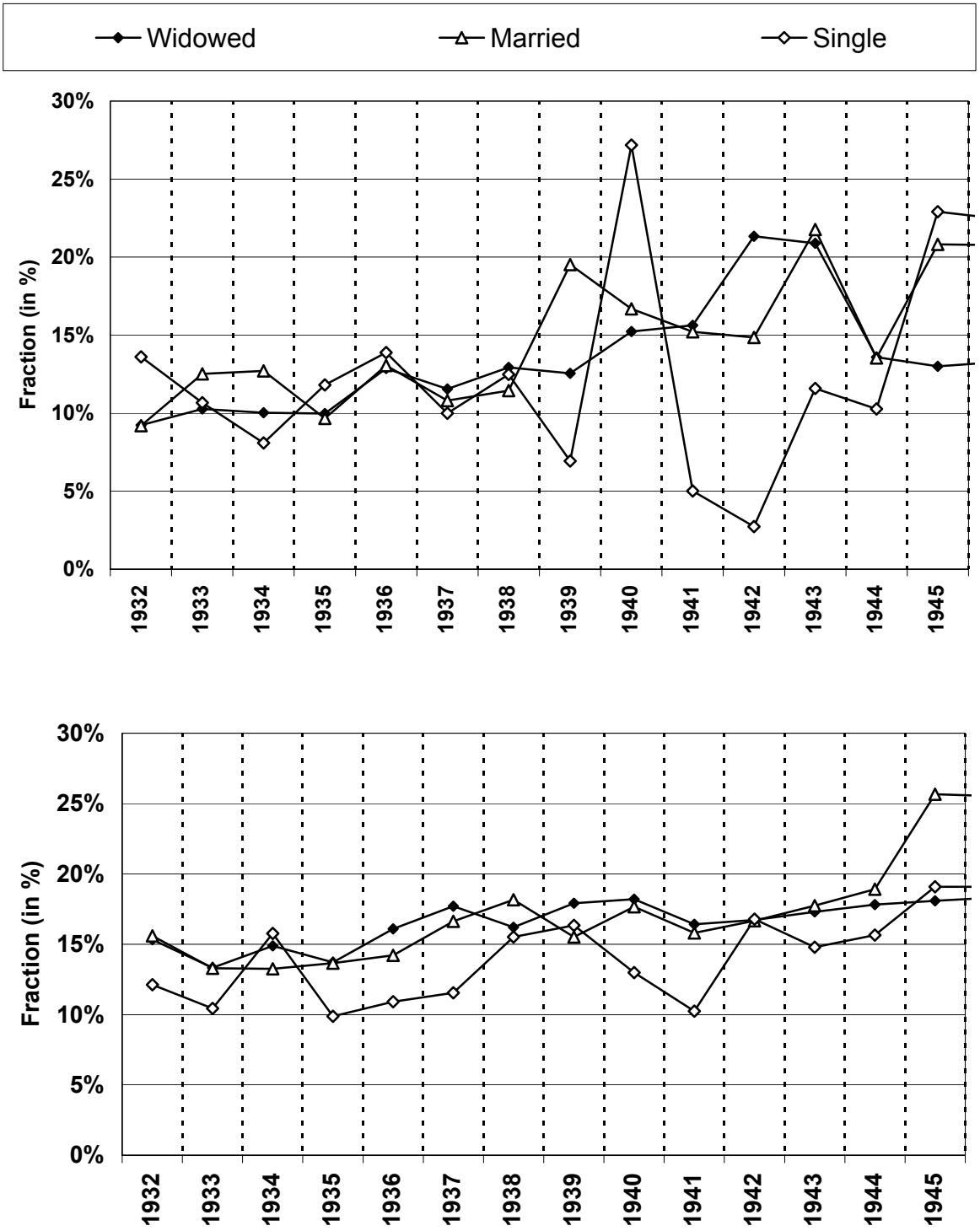

Figure A4

Population living in community property states
(top: P99.95-100, bottom: P99.75-P99.95)