

# Striking it Richer:

## The Evolution of Top Incomes in the United States

### (Updated with 2008 estimates)

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July 17, 2010

#### What's new for 2008?

From 2007 to 2008, average real income per family declined dramatically by 9.9% (Table 1),<sup>1</sup> the largest single year drop since the Great Depression. Average real income for the top percentile fell even faster (19.7 percent decline, Table 1), which led to a decrease in the top percentile income share from 23.5 to 20.9 percent (Figure 2). Average real income for the bottom 99% also fell sharply by 6.9%, also by far the largest year-to-year decline since the Great Depression.

The sharp fall in top incomes is explained primarily by the halving of realized capital gains in 2008 (relative to 2007) due to the stock-market crash. Indeed, including realized capital gains, the top decile income share dropped from 49.7% in 2007 to 48.2% in 2008 while excluding realized capital gains, the top decile income share actually slightly increased from 45.5% in 2007 to 45.6% in 2008 (Figure 1).

Perhaps surprisingly, the fall in top income shares from 2007 to 2008 is less than during the 2001 recession, in part because the Great recession has hit bottom 90% incomes much harder than the 2001 recession (Table 1), and in part because upper incomes excluding realized capital gains have resisted relatively well during the first year of the Great Recession.

#### What will happen to income concentration next?

The Great Recession has obviously continued into 2009 and average incomes will fall further in 2009. What will happen to top income shares in 2009? The stock market and corporate profits partial recovery in 2009 should

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<sup>1</sup> This decline is much larger than the real official GDP growth of 0.4% for several reasons. First, our income measure includes realized capital gains while realized capital gains are not part of GDP. Our average real income measure excluding capital gains decreased by 5.2% (instead of 9.9%). Second, the total number of US families increased by 1.7% from 2007 to 2008 mechanically reducing income growth per family relative to aggregate income growth. Third, from 2007 to 2008, the real GDP deflator increased by only 2.1% while the Consumer Price Index increased by 3.8% (those indexes move closely in the long-run but with some discrepancies in the short-run). Finally, nominal GDP increased by 2.6% while the total market nominal income aggregate we use increased only by 0.1% (when excluding realized capital gains), in part because government transfers (excluded from our measure) grew much faster than market income.

contribute to increasing top incomes in 2009 (relative to 2008). Most strikingly, at the very top, the Absolute Return+Alpha magazine survey of the top 25 hedge fund managers shows that their profits plummeted from \$22.5bn in 2007 to \$11.6bn in 2008 but then more than doubled to \$25.3bn in 2009 hence surpassing the previous 2007 peak. However, evidence from company filings shows that CEO compensation has continued to drop from 2008 to 2009 among the largest US companies.<sup>2</sup> In my view, the most likely outcome is that top income shares will continue falling into 2009 but modestly.

This suggests that the Great Recession is unlikely to have a very large impact on top income shares and will certainly not undo much of the dramatic increase in top income shares that has taken place since the 1970s.

Looking further ahead, based on the US historical record, falls in income concentration due to economic downturns are temporary unless drastic regulation and tax policy changes are implemented and prevent income concentration from bouncing back. Such policy changes took place after the Great Depression during the New Deal and permanently reduced income concentration until the 1970s (Figures 2, 3). In contrast, recent downturns, such as the 2001 recession, lead to only very temporary drops in income concentration (Figures 2, 3).

### **Could we get income distribution data faster?**

Distributional statistics used to estimate our series are produced by the Statistics of Income division at the Internal Revenue Service. Those statistics are extremely high quality and final, but come with a 2-year lag--year 2008 statistics were released on July 9, 2010. Timely statistics are central to enlighten the public policy debate, especially distributional statistics at this time of controversy about bonuses paid by financial companies receiving government aid. As currently done for National Accounts, it should be possible to produce preliminary distributional statistics much earlier. In particular, individual tax returns filed before April 15, information returns (such as W2 and 1099 forms), and requests for filing extensions could be combined to create preliminary statistics perhaps one year earlier. Furthermore, individual quarterly wage income data gathered by the unemployment insurance system could be used systematically to analyze the distribution of wage income even faster.

### **Text of “Striking it Richer” updated with 2008 estimates**

The recent dramatic rise in income inequality in the United States is well documented. But we know less about which groups are winners and which are losers, or how this may have changed over time. Is most of the income growth being captured by an extremely small income elite? Or is a broader upper middle class profiting? And are capitalists or salaried managers and professionals the main winners? I explore these questions

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<sup>2</sup> For example, according to Forbes, average CEO pay among the Fortune 500 companies (largest 500 US companies) was \$11.7m in 2005, \$15.8m in 2006, \$12.9m in 2007, \$11.4m in 2008, and \$8m in 2009. The Equilar survey published by the New York Times shows that median CEO pay among the 200 largest firms (for which data was available) dropped by 6% in 2008 and then 13% in 2009.

with a uniquely long-term historical view that allows me to place current developments in deeper context than is typically the case.

Efforts at analyzing long-term trends are often hampered by a lack of good data. In the United States, and most other countries, household income surveys virtually did not exist prior to 1960. The only data source consistently available on a long-run basis is tax data. The U.S. government has published detailed statistics on income reported for tax purposes since 1913, when the modern federal income tax started. These statistics report the number of taxpayers and their total income and tax liability for a large number of income brackets. Combining these data with population census data and aggregate income sources, one can estimate the share of total personal income accruing to various upper-income groups, such as the top 10 percent or top 1 percent.

We define income as the sum of all income components reported on tax returns (wages and salaries, pensions received, profits from businesses, capital income such as dividends, interest, or rents, and realized capital gains) before individual income taxes. We exclude government transfers such as Social Security retirement benefits or unemployment compensation benefits from our income definition. Therefore, our income measure is defined as market income before individual income taxes.

### **Evidence on U.S. top income shares**

Figure 1 presents the income share of the top decile from 1917 to 2008 in the United States. In 2008, the top decile includes all families with market income above \$109,000. The overall pattern of the top decile share over the century is U-shaped. The share of the top decile is around 45 percent from the mid-1920s to 1940. It declines substantially to just above 32.5 percent in four years during World War II and stays fairly stable around 33 percent until the 1970s. Such an abrupt decline, concentrated exactly during the war years, cannot easily be reconciled with slow technological changes and suggests instead that the shock of the war played a key and lasting role in shaping income concentration in the United States. After decades of stability in the post-war period, the top decile share has increased dramatically over the last twenty-five years and has now regained its pre-war level. Indeed, the top decile share in 2007 is equal to 49.7 percent, a level higher than any other year since 1917 and even surpasses 1928, the peak of stock market bubble in the “roaring” 1920s. In 2008, the top decile share fell to 48.2 percent, approximately, its 2005 level, and is still higher than any other year before 2005 (except for 1928).

Figure 2 decomposes the top decile into the top percentile (families with income above \$368,000 in 2008) and the next 4 percent (families with income between \$153,000 and \$368,000 in 2008), and the bottom half of the top decile (families with income between \$109,000 and \$153,000 in 2008). Interestingly, most of the fluctuations of the top decile are due to fluctuations within the top percentile. The drop in the next two groups during World War II is far less dramatic, and they recover from the WWII shock relatively quickly. Finally, their shares do not increase much during the recent decades. In contrast, the top percentile has gone through enormous fluctuations along the course of the twentieth century, from about 18 percent before WWI, to a peak

to almost 24 percent in the late 1920s, to only about 9 percent during the 1960s-1970s, and back to almost 23.5 percent by 2007, and then to 20.9 percent in 2008. Those at the very top of the income distribution therefore play a central role in the evolution of U.S. inequality over the course of the twentieth century.

The implications of these fluctuations at the very top can also be seen when we examine trends in *real* income growth per family between the top 1 percent and the bottom 99 percent in recent years as illustrated on Table 2. From 1993 to 2008, for example, average real incomes per family grew at a 1.3 percent annual rate (implying a growth of 21 percent over the fifteen year period). However, if one excludes the top 1 percent, average real income growth fall to 0.75 percent per year (implying a growth of 12 percent over the fifteen year period). Top 1 percent incomes grew at a much faster rate of 3.9 percent per year (implying a 79 percent growth over the fifteen year period). This implies that top 1 percent incomes captured slightly more than half of the overall economic growth over the period 1993-2008.

The 1993–2008 period encompasses, however, a dramatic shift in how the bottom 99 percent of the income distribution fared. Table 1 next distinguishes between four sub-periods: (1) the 1993–2000 expansion of the Clinton administrations, (2) the 2000-2002 recession, (3) the 2002-2007 expansion of the Bush administrations, and (4) 2007-2008, the first year of the Great recession. During both expansions, the incomes of the top 1 percent grew extremely quickly at an annual rate over 10.3 and 10.1 percent respectively. However, while the bottom 99 percent of incomes grew at a solid pace of 2.7 percent per year from 1993–2000, these incomes grew only 1.3 percent per year from 2002–2007. As a result, in the economic expansion of 2002-2007, the top 1 percent captured two thirds of income growth. Those results may help explain the disconnect between the economic experiences of the public and the solid macroeconomic growth posted by the U.S. economy from 2002 to 2007. Those results may also help explain why the dramatic growth in top incomes during the Clinton administration did not generate much public outcry while there has been an extraordinary level of attention to top incomes in the press and in the public debate since 2005. Moreover, top income tax rates went up in 1993 during the Clinton administration (and hence a larger share of the gains made by top incomes was redistributed) while top income tax rates went down in 2001 during the Bush administration.

During both recessions, the top 1 percent incomes fell sharply, at an annual rate of 16.8 percent from 2000 to 2002, and by 19.7 percent from 2007 to 2008. The primary driver of the fall in top incomes during those recessions is the stock market crash which reduces dramatically realized capital gains, and, especially in the 2000-2002 period, the value of executive stock-options. However, bottom 99 percent incomes fell by 6.9% from in the first year of the Great recession while they fell only by 3.3 percent annually from 2000 to 2002. Therefore, the top 1 percent absorbed a larger fraction of losses in the 2000-2002 recession (57%) than in the first year of Great recession (47%). The 6.9 percent fall in bottom 99 percent incomes is the largest annual fall on record since the Great Depression of 1929-1933.

The top percentile share declined during WWI, recovered during the 1920s boom, and declined again during the great depression and WWII. This very specific timing, together with the fact that very high incomes account for a disproportionate share of the total decline in inequality, strongly suggests that the shocks incurred by capital owners during 1914 to 1945 (depression and wars) played a key role.<sup>3</sup> Indeed, from 1913 and up to the 1970s, very top incomes were mostly composed of capital income (mostly dividend income) and to a smaller extent business income, the wage income share being very modest. Therefore, the large decline of top incomes observed during the 1914-1960 period is predominantly a capital income phenomenon.

Interestingly, the income composition pattern at the very top has changed considerably over the century. The share of wage and salary income has increased sharply from the 1920s to the present, and especially since the 1970s. Therefore, a significant fraction of the surge in top incomes since 1970 is due to an explosion of top wages and salaries. Indeed, estimates based purely on wages and salaries show that the share of total wages and salaries earned by the top 1 percent wage income earners has jumped from 5.1 percent in 1970 to 12.4 percent in 2007.<sup>4</sup>

Evidence based on the wealth distribution is consistent with those facts. Estimates of wealth concentration, measured by the share of total wealth accruing to top 1 percent wealth holders, constructed by Wojciech Kopczuk and myself from estate tax returns for the 1916-2000 period in the United States show a precipitous decline in the first part of the century with only fairly modest increases in recent decades. The evidence suggests that top incomes earners today are not “rentiers” deriving their incomes from past wealth but rather are “working rich,” highly paid employees or new entrepreneurs who have not yet accumulated fortunes comparable to those accumulated during the Gilded Age. Such a pattern might not last for very long. The possible repeal of the federal tax on large estates in coming years would certainly accelerate the path toward the reconstitution of the great wealth concentration that existed in the U.S. economy before the Great Depression.

The labor market has been creating much more inequality over the last thirty years, with the very top earners capturing a large fraction of macroeconomic productivity gains. A number of factors may help explain this increase in inequality, not only underlying technological changes but also the retreat of institutions developed during the New Deal and World War II - such as progressive tax policies, powerful unions, corporate provision of health and retirement benefits, and changing social norms regarding pay inequality. We need to decide as a society whether this increase in income inequality is efficient and acceptable and, if not, what mix of institutional reforms should be developed to counter it.

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<sup>3</sup> The negative effect of the wars on top incomes can be explained in part by the large tax increases enacted to finance the wars. During both wars, the corporate income tax was drastically increased and this reduced mechanically the distributions to stockholders.

<sup>4</sup> Interestingly, this dramatic increase in top wage incomes has not been mitigated by an increase in mobility at the top of the wage distribution. As Wojciech Kopczuk, myself, and Jae Song have shown in a separate paper, the probability of staying in the top 1 percent wage income group from one year to the next has remained remarkably stable since the 1970s.

**Table 1. Real Annual Income Growth by Groups, 1993-2008**

	Average Income Real Annual Growth (1)	Top 1% Incomes Real Annual Growth (2)	Bottom 99% Incomes Real Annual Growth (3)	Fraction of total growth (or loss) captured by top 1% (4)
<b>Full period 1993-2008</b>	<b>1.30%</b>	<b>3.94%</b>	<b>0.75%</b>	<b>52%</b>
Clinton Expansion 1993-2000	4.0%	10.3%	2.7%	45%
2001 Recession 2000-2002	-6.0%	-16.8%	-3.3%	57%
Bush Expansion 2002-2007	3.0%	10.1%	1.3%	65%
Great Recession 2007-2008	-9.9%	-19.7%	-6.9%	47%

Computations based on family market income including realized capital gains (before individual taxes).

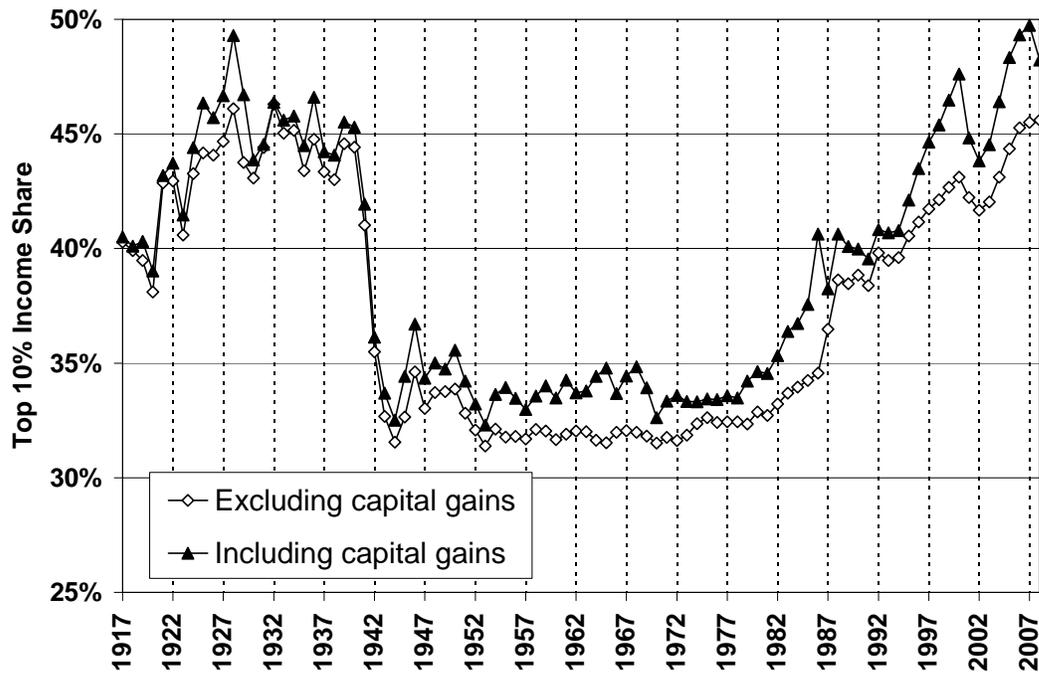
Incomes are deflated using the Consumer Price Index.

Column (4) reports the fraction of total real family income growth (or loss) captured by the top 1%.

For example, from 2002 to 2007, average real family incomes grew by 3.0% annually but 65% of that growth accrued to the top 1% while only 35% of that growth accrued to the bottom 99% of US families.

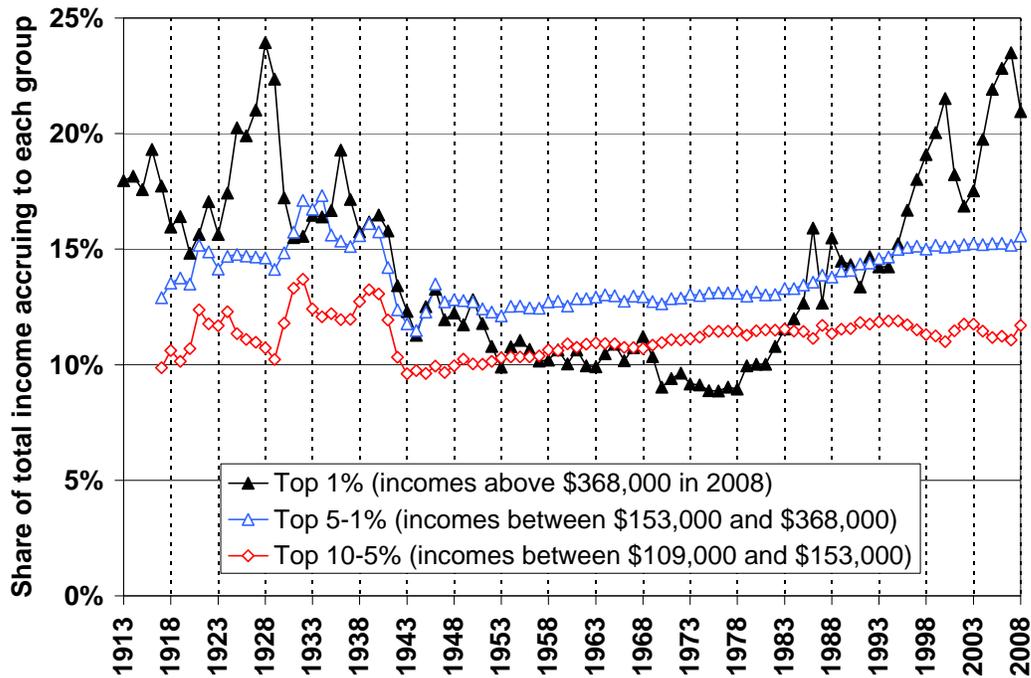
From 2007 to 2008, average real family incomes contracted by 9.9% and the top 1% absorbed 47% of that contraction.

Source: Piketty and Saez (2003), series updated to 2008 in July 2010 using final IRS tax statistics.



**FIGURE 1**  
The Top Decile Income Share, 1917-2008

Source: Table A1 and Table A3, col. P90-100.  
Income is defined as market income (and excludes government transfers).  
In 2008, top decile includes all families with annual income above \$109,000.



**FIGURE 2**

Decomposing the Top Decile US Income Share into 3 Groups, 1913-2008

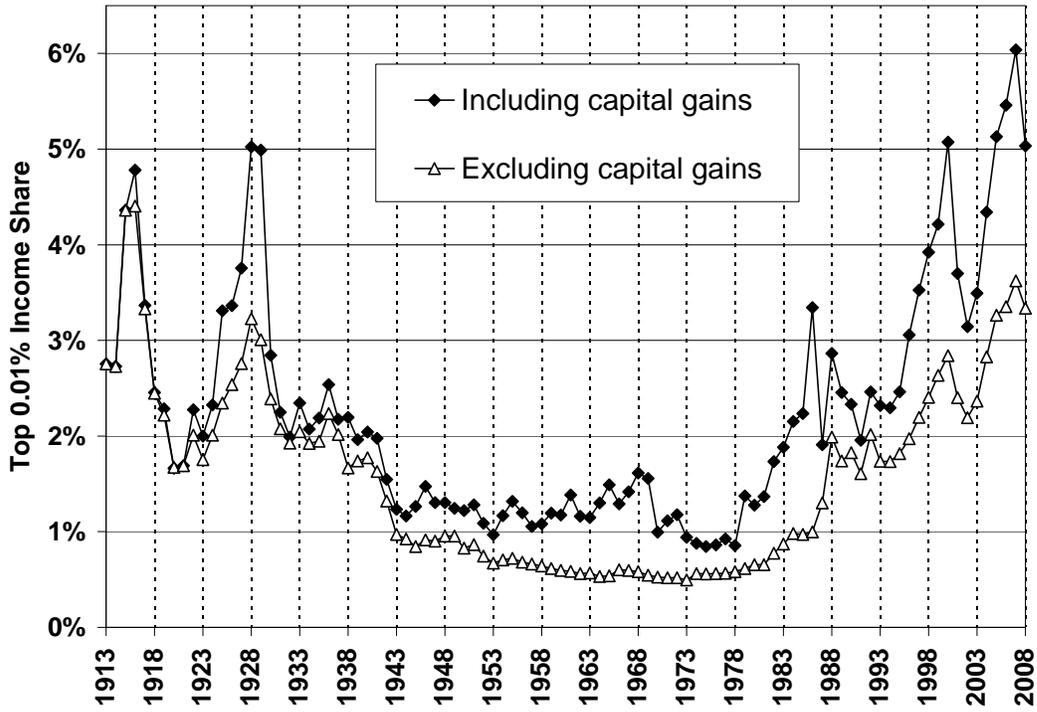
Source: Piketty and Saez (2003), series updated to 2008.

Income is defined as market income including capital gains.

Top 1% denotes the top percentile (families with annual income above \$368,000 in 2008)

Top 5-1% denotes the next 4% (families with annual income between \$153,000 and \$368,000 in 2008)

Top 10-5% denotes the next 5% (bottom half of the top decile, families with annual income between \$109,000 and \$153,000 in 2008).



**FIGURE 3**  
The Top 0.01% Income Share, 1913-2008

Source: Piketty and Saez (2003), series updated to 2008.

Income is defined as market income including (or excluding) capital gains.

In 2008, top .01% includes the 15,246 top families with annual income above \$9,141,000.