



Is Inequality Growing Out Of Control?

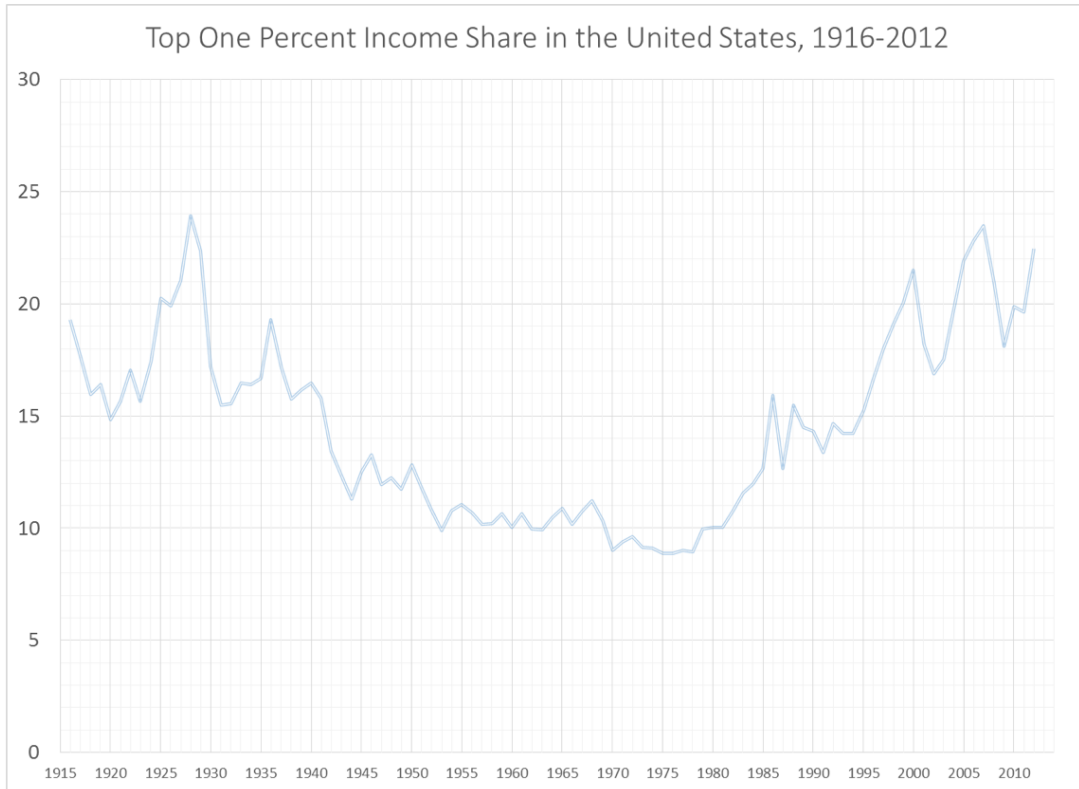
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4/24/2014

Has income concentration soared in the United States in recent decades? To ask the question is to sound like some sort of inequality truther in today's post-Occupy world. Many believe the evidence leaves no doubt that income concentration has increased dramatically. Thomas Piketty devotes most of Part Three of his celebrated *Capital in the Twenty-First Century* to an examination of the inequality trendlines he and others have produced over the past fifteen years. Before we were driven to worry about whether r will exceed g , we shuddered at the unsparing rollercoaster chart made famous by Piketty and his collaborator Emmanuel Saez, showing income concentration rising sharply after its dive earlier in the twentieth century, headed toward some awful stratospheric asymptote.

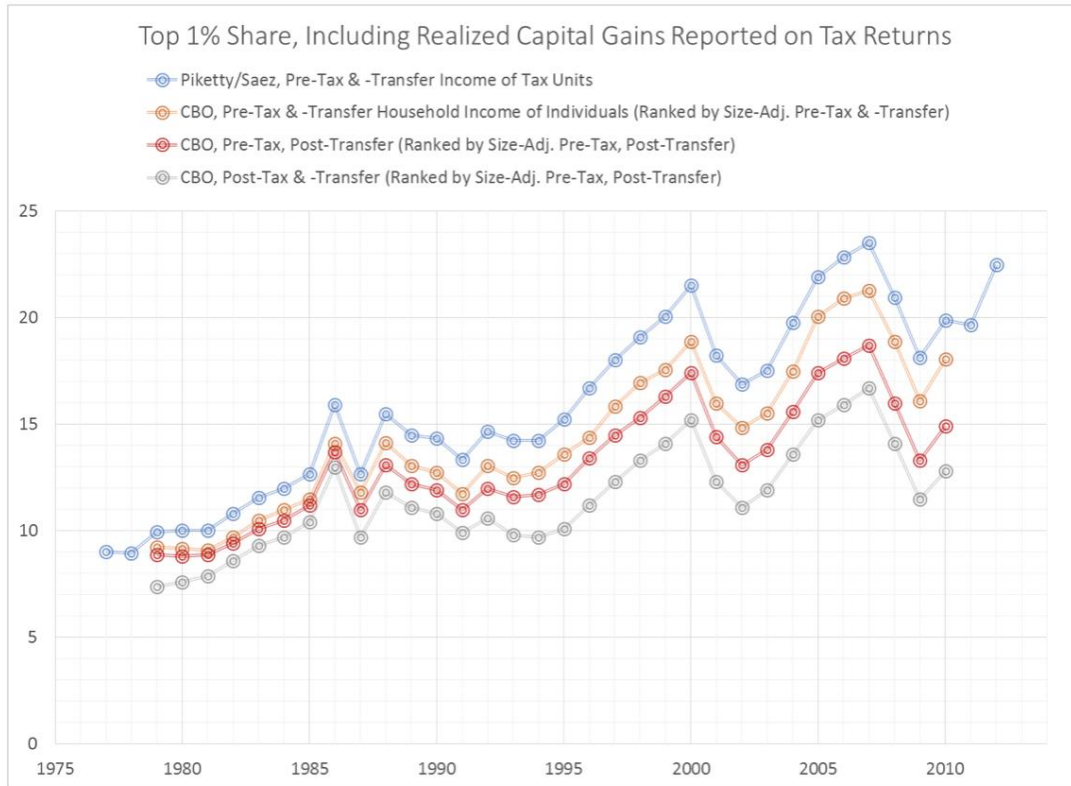
But research on American income concentration, building on Piketty's paradigm-changing research with Saez, raises substantial doubts about the degree to which income has become more concentrated.

According to the Piketty and Saez estimates shown in the familiar chart below, income concentration fell sharply with the Great Crash in 1929 and continued to fall through the 1960s. At the end of the 1970s, income concentration started rising, taking off after 1981.



Source: Emmanuel Saez website, <http://elsa.berkeley.edu/users/saez/TabFig2012prel.xls>.

Here I will focus on this period of rising income concentration, though there are interesting issues that deserve further exploration around the pre-1950 estimates too. The figure below shows several different trendlines for the share of aggregate income in the United States accruing to the richest one percent of Americans. The top line is taken from the latest estimates published by Saez on his University of California-Berkeley [website](#). It shows the top one percent's income share rising from 10 percent in 1979 to 24 percent in 2007. Income concentration dropped sharply between 2007 and 2009, but it was approaching the 2007 peak by 2012, the last year for which estimates are available.



A couple features that are common to all of the trendlines in this chart are notable. There is an odd “jag” between 1985 and 1988—the result of investors first selling off assets in 1986 to avoid the higher capital gains taxes included in the Tax Reform Act of 1986, then taking a hit from the stock market crash of 1987. Then there is the clear tendency of the top one percent share to follow the stock market from the 1990s forward.

The Piketty-Saez estimates refer to the top one percent of “tax units,” a tax unit being either a tax return or a single adult or married couple who did not file a return. As I mentioned in my [last post](#), one issue with the IRS tax return data used by Piketty and Saez is that tax units are not households. Because the typical tax unit is poorer than the typical household (all those dependents filing tax returns) and because tax units are more numerous than households, one concern is that the Piketty-Saez estimates overstate the more relevant income concentration that exists among households.

We can check this by using alternate income concentration estimates created by the Congressional Budget Office in recent years, which conveniently go back to 1979. The [CBO figures](#) merge tax return data with information from the Department of Commerce’s Current Population Survey, the study of households used to estimate unemployment rates every month. In an elaborate process, CBO researchers create tax units from the CPS households, match each one up with a similar tax unit in the IRS data, and use elements from both datasets to estimate income for the reconstituted households. According to the CBO estimates of income concentration, shown in the second line in the above chart, the top one percent of individuals in America received 9 percent of pre-tax and -transfer household income in 1979 but 21 percent in

2007—not much different than indicated in the Piketty-Saez series for tax units. The CBO figures include employer provided health insurance in this income measure, unlike the Piketty-Saez estimates, and there are other differences beyond the tax-unit/household distinction.

Another feature of the Piketty-Saez estimates that make them less useful for assessing levels of inequality is that incomes are measured prior to government redistribution through transfer programs and the tax code. Pointing to pre-tax and -transfer income concentration to raise concerns about how the poor and middle class are doing ignores the very policies we have to ameliorate inequality (whether one likes those policies or not). Indeed, many cross-national comparisons of inequality within the bottom 99 percent focus on post-tax and -transfer income, where the United States looks worse relative to other countries than it does in terms of pre-tax and -transfer income. Other countries look more egalitarian than we do in terms of this below-the-top-one-percent inequality primarily (though not entirely) because of their government redistribution. Failing to include transfers also means many older taxpayers appear to have very little income because their Social Security and Medicare benefits are missing.

The third line in the chart above shows CBO estimates of the top one percent's income share after transfers are taken into account but before taxes are considered. From 1979 to 2007, the increase in this share was from 9 percent to 19 percent. Finally, the bottom line of the chart shows the top's share of post-tax and -transfer income, which rose from 8 percent to 17 percent.

By moving from the pre-tax and -transfer tax-unit-based estimates of Piketty and Saez to a more comprehensive measure of household income, the 14 point rise in income concentration falls to a 9 point rise. But even the post-tax and -transfer estimates show income concentration doubling over time. However we are not done dissecting these numbers.

All of the estimates cited so far include capital gains—the increase (or decline) in the value of a tradable asset one owns—but only some of them, and allocated in a problematic way. Specifically, both the Piketty-Saez estimates and those from the Congressional Budget Office count capital gains only if they are reported on tax returns. Capital gains are generally reported only in the year in which the asset is sold, and only if they are taxable. This creates two problems.

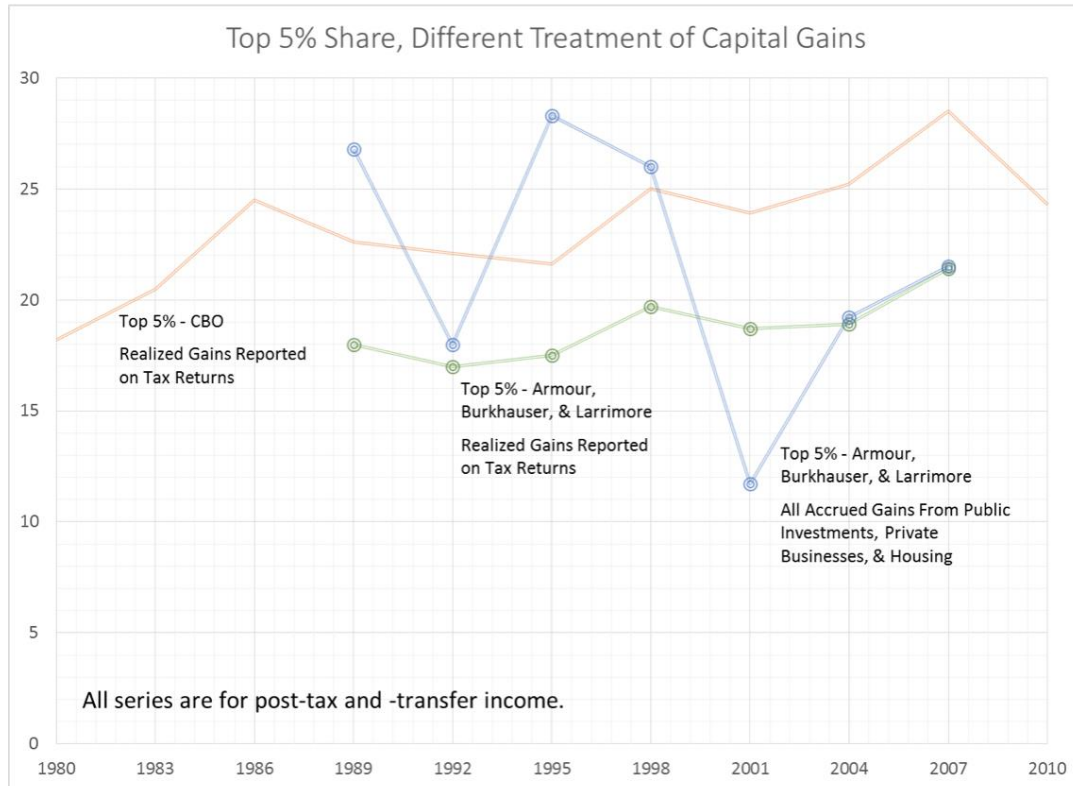
First, most gains received by the poor and middle class are not taxable, including typical gains realized from the sale of a home and gains that accrue in retirement accounts such as 401(k)s and IRAs. Second, when capital gains *are* realized—disproportionately accruing to the top—all of the gains that have accrued over the entire time an asset was owned are counted as income received in a single year. Economists agree that the right way to count income from an asset that appreciates in value is to ignore whether or not the asset is sold; either way, there is a flow of resources that is either consumed or saved. Put another way, Piketty's fear about wealth accumulation and about the return on wealth (r) exceeding economic growth (g) implicitly recognizes that capital gains enrich people even if they are not realized. The gains to the non-working rich are simply reinvested to take advantage of the high r . They are enriched year-by-year, not all at once upon deciding to sell an asset.

This issue of accumulated capital gains being counted in the year they are realized interacts with strategic timing on the part of the wealthy of when gains are realized. Together, they produce the notable peaks in the Piketty-Saez series during the tech-stock boom of the late 1990s and the housing boom of the aughts, along with the drops associated with the bursting of those bubbles. It does not require any gift of imagination to envision the impact on the Piketty-Saez series if extraordinarily wealthy people with assets they have held for ten or twenty years all choose to sell their assets at or near a market peak, thereby realizing large capital gains that were actually accrued over many years. The impact would be particularly large if, oh I don't know, the number of older Americans—more likely to have long-held assets—was growing.

This line of criticism was advanced by Cato Institute scholar Alan Reynolds [as early as 2005](#), but it would be several years before research was conducted to assess the potential impact of the problem. In a 2011 paper, [Timothy Smeeding and Jeffrey Thompson](#) used a survey sponsored by the Federal Reserve Board to identify the investment portfolios of households and impute one-year returns to the assets they owned, whether or not those assets were sold. They found steadily rising income concentration between 1989 and 2007, similar to the CBO trend. However, rather than imputing one-year capital gains from the returns typical in the year an asset was held, Smeeding and Thompson used the average returns [over the previous 30 years](#), smoothing out short-run changes in asset valuation and defeating the purpose of focusing on annual income. They also appear to have double-counted realized capital gains.

Last year, [Richard Burkhauser, Phillip Armour, and Jeff Larrimore](#) unveiled a second attempt to estimate changes in inequality while fully accounting for capital gains. They assigned households in the CPS and the Federal Reserve Board dataset to each other to take advantage of the strengths of both surveys. They imputed capital gains to assets using the returns typical of the previous year rather than a multi-year average. Their results are not the final word, but there is a good chance that they will necessitate a fundamental rethinking of income concentration trends, at least in the United States.

In the chart below, I focus on the top five percent's post-tax and -transfer income share, since the Burkhauser data did not allow them to reliably look at the top one percent. The line running from 1980 to 2010 is from the CBO data and includes taxable realized capital gains as income. It tracks the top one percent trend from the earlier chart very closely (but of course in every year the top five percent receives more than the top one percent). More surprisingly, the Burkhauser estimates for post-tax and -transfer income including taxable realized capital gains track the CBO ones very closely as well, as shown by the green line. (His study could only examine every three years between 1989 and 2007.)



In part, the alignment is so close because Burkhauser and his team exercised great care to improve the estimates for the richest people in the CPS, and they also benefitted from the fact that the Federal Reserve Board survey is the rare household study that interviews a relatively large number of rich people in order to get reliable information for the top one percent. The important point is that since the Burkhauser estimates follow the CBO trend so well, we can be confident that his other trends are not simply the result of using inferior household survey data or of the statistical merging of the two datasets he uses.

The third line in the chart shows the trend Burkhauser and his colleagues estimated when they imputed annual capital gains to all households based on their asset portfolios, whether or not they sold their assets. The trend is much more volatile, but it is clearly downward. One can pick any of the first three years in the series (1989, 1992, and 1995) and any of the last three years (2001, 2004, and 2007) and seven of the nine possible comparisons indicate income concentration declined. The Burkhauser estimates are likely to understate the share of income going to the top, but they are likely to understate it by a similar amount each year, so the trend need not be affected.

When the Burkhauser paper came out, a number of economists, including Saez, [were dismissive](#). [Jared Bernstein](#) of the Center on Budget and Policy Priorities concluded that “the results make no sense” and that the authors had “jumped the analytic shark.” Bernstein insisted that the conclusion of declining income concentration was sensitive to the years chosen, but the chart above shows that is only true in a very limited sense. He said that if Burkhauser and team had chosen a post-bubble-burst endpoint the results “would have been completely different.” I have

seen the authors' estimates for 2010—and presented some of them at a conference—and I can report that income concentration remained lower than in 1989, 1995, and 1998.

Bernstein also noted that the top one percent of workers had received a rising share of earnings over the period, but the increase was [much smaller](#) than indicated in the Piketty-Saez results. He said that the evidence on wealth concentration also showed a rising share going to the top, but the [table to which he linked](#), from the Economic Policy Institute, actually revealed a small decline in the top one percent's share between 1989 and 2007. New research by [Saez and Gabriel Zucman](#) purports to show that wealth concentration has actually been rising, but that conclusion (from a PowerPoint presentation Zucman's website describes as "preliminary") contradicts not only the EPI table but a previously published paper by Saez.

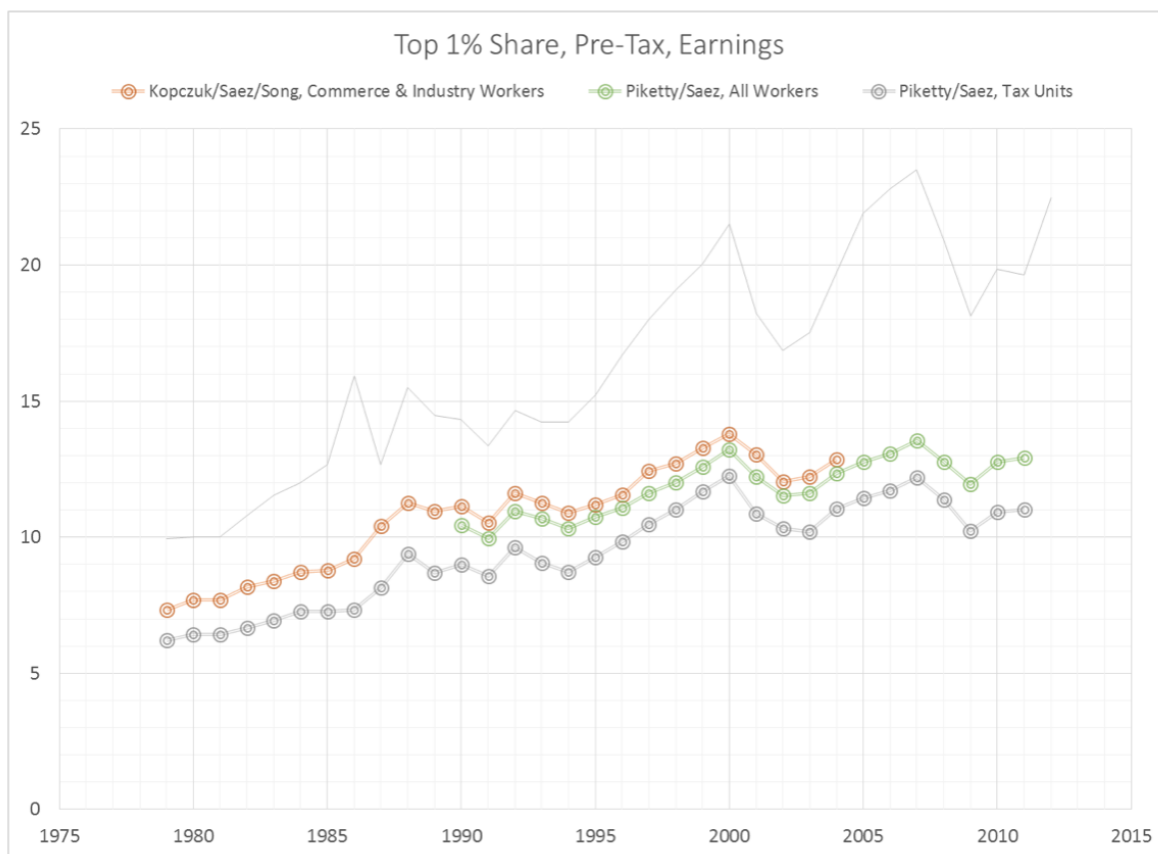
Bernstein also questions the assumption implicit in the Burkhauser approach that investment returns do not vary by income class. But Saez and Zucman confirm that this appears to be true in fact. Finally Bernstein scoffs that in an appendix table one set of Burkhauser's results shows that all income groups saw declines in their income ("so...um...where did the economy's growth go?"). But capital gains—realized or not—are not included in national income accounting because they don't represent income from new production. It is possible to have economic growth and growth in national income while household incomes defined to include capital gains fall.

In the end, it would not surprise me at all if the paper's conclusion that income concentration fell turns out to be too strong. There is a lot of evidence that income concentration has risen, including income concentration when capital gains are entirely excluded and earnings concentration, as I will show below. Income concentration has risen in numerous countries (though those results are based on tax return data too, so...). Complicated forms of income like exercised stock options are unlikely to be well-reported in the CPS. I agree with [Dean Baker](#) of the Center for Economic and Policy Research that an important implication of the Burkhauser paper is that ideally we should probably average multiple years of income together in order to look at inequality trends that incorporate unrealized capital gains. Otherwise year-to-year incomes look much more volatile and could obscure the underlying inequality trend. Unfortunately, that may not be possible with existing datasets.

But the Burkhauser paper needs to be reckoned with. Ultimately, at a minimum, his results are likely to lead us to conclude that, at least in the U.S. since 1989, the Piketty-Saez and CBO income concentration estimates have overstated the increase in inequality substantially. Interestingly, a wide array of research has found that inequality between the middle class and poor [has not risen meaningfully](#) since the 1980s.

Given the problems with estimating capital gains, it is worth considering whether there might be other income concentration measures that do not require grappling with these conceptual and measurement problems. Capital gains accrue mainly to the top, so looking at income concentration measures that fail to take them into account will understate the level of income concentration in America. However, the trends might not necessarily be affected.

The chart below provides several trendlines for earnings concentration in the U.S., with the basic Piketty-Saez income concentration series included for context. From 1979 to 2007, the increase in the top one percent of workers' share of earnings was from 7 percent to 14 percent, and the increase in the tax-unit earnings of the top one percent of tax units was from 6 percent to 12 percent. As with the CBO post-tax and -transfer series, income concentration doubles over the period. There are three points to emphasize from this chart.



Sources: Kopczuk, Saez, and Song (2010); Piketty and Saez (2013, Tables B2 and B5)

First, there really is no escaping the issue of capital gains because income from stock options are sometimes treated as earnings, sometimes as capital gains. Since the Tax Reform Act of 1986, stock options have become an increasingly large part of executive compensation. Stock options give their recipient a chance to purchase company stock in the future at a fixed price, so that if the stock appreciates in the meantime, the employee will stand to profit. Options must be held during a vesting period before being exercised. Depending on the type of option, the holding requirements and taxation differ. Non-qualifying stock options generally have a short vesting period, and when options are exercised, the difference between the stock price and the price when the options were granted is taxed as ordinary income, showing up as earnings on tax returns. With incentive stock options, so long as they are not exercised prematurely, the only income taxed is the capital gain that is realized after exercising the options and later selling the stock.

The idea behind incentive stock options is that lower capital gains tax rates will be attractive to grantees, and so they will not exercise the option as soon as they could in return for the tax benefit. However the 1986 tax reform lowered the top ordinary income tax rate from 50 percent to 28 percent and raised the top capital gains tax rate. This change had several effects. It caused some grantees of non-qualifying options to delay exercise them until 1988 or later, it caused some grantees of incentive stock options to exercise them early triggering a tax liability under ordinary income rates, and it made non-qualifying options more popular than incentive stock options after 1986.

The impact of the tax law changes are evident in the above chart, where the share of earnings received by the top jumps two percentage points between 1986 and 1988. This raises a second point: the richest Americans are especially sensitive to tax law changes, and their responses affect measured trends in income concentration. The 1986 to 1988 jump is even more evident in the income concentration trend for pre-tax and -transfer income after capital gains are excluded entirely (not shown). In addition to the stock option issue, lower individual income tax rates as corporate tax rates stayed in place increased the incentives to organize corporations under Subchapter S of the tax code rather than the traditional Subchapter C. Profits to S-corporation owners appear on individual income tax returns annually rather than on corporate income tax returns. More S-corporations means more income in the tax return data for the richest Americans.

These jumps in income concentration are obviously artificial, but it does not follow that the rise in income concentration is an artifact of tax law changes increasing income from non-qualified stock options and S-corporations. In the absence of the 1986 changes, incentive stock options and sale of ownership shares of C-corporations would have generated larger capital gains income. It may be that the primary effect of the 1986 legislation and other tax law changes is to alter the timing of when income is received at the top without affecting the basic increase in income concentration shown in the tax return data. (I have previously argued that these legislative changes likely do affect the measured trend, but I have come to believe that conclusion is unjustified.)

Nevertheless, the 1986-to-1988 jump should concern us that the top one percent—or the top one percent of the top one percent, which drives the increase in income concentration—are not only sensitive to opportunities for tax arbitrage but able to take advantage of them in ways that may make tracking trends in their income difficult. In particular, the very richest Americans may be able to take advantage of obscure provisions that hide their incomes from the tax data, and changes in tax law and other economic incentives may provide a misleading picture of trends in top incomes.

Since top income tax rates have fallen since the 1970s, the concern is that the incentives for tax avoidance and evasion have fallen. That would cause more income to show up on tax returns rather than being hidden in tax-exempt or tax-deferred forms, or otherwise sheltered from the view of the IRS. In other words, it is possible that part of the apparent increase in income concentration is simply the result of a more transparent picture of incomes at the top. Combine that with the capital gains issue, and it is easy to imagine that Piketty's view of income concentration trends may be distorted by shortcomings of the data.

Finally, note the change in earnings concentration from 1989 to 2007 among tax units—a rise from 9 percent to just 12 percent (and one that is likely overstated because of the rising share of stock options that shows up as earnings in the tax data).

Incomes below the top ten percent have grown more in the U.S. than Thomas Piketty thinks, and it may very well be that incomes at the top are growing less than he believes. At the very least, the U.S. is probably less distinctive in its income concentration than *Capital in the Twenty-First Century* suggests. For that matter, because many of the flaws noted here of tax return data generalize to other countries, readers should approach his conclusions and policy recommendations with healthy skepticism. This is an issue where we need more and better evidence before declaring economic inequality the fundamental policy challenge of our time, let alone a threat to our prosperity.