# Taxes and Inequality 

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## I. Introduction

The creation of the individual and corporate income taxes was largely motivated by concerns about equity. ${ }^{1}$ At the turn of the twentieth century, the federal government relied on regressive tariffs and excise taxes for most of its financing. Progressive Democrats and Republicans rallied around the new income tax and the required three-quarters of the states quickly ratified the amendment enabling the new legislation. ${ }^{2}$ Initially, the individual income tax was a $1 \%$ levy on the incomes of the wealthy, with a $6 \%$ surtax on the super-rich. ${ }^{3}$ U.S. entry into World War I vastly increased federal revenue needs and the top income tax rate rose to $77 \%$ in 1918. ${ }^{4}$

For its first thirty years, the income tax remained a "class tax," affecting only a small sliver of the population with very high incomes. World War II again increased the federal government's revenue needs and the innovation of payroll tax withholding made the income tax into a "mass tax," affecting most working people in the country. ${ }^{5}$ Nonetheless, the income tax has remained progressive: It claims a much larger share of income from those at the top than at the bottom

[^0]of the income distribution. ${ }^{6}$ And, indeed, the income tax now serves as an important income supplement for low-income working families. ${ }^{7}$

Some argue that the need for a highly progressive tax has never been greater. ${ }^{8}$ Economic inequality has been rising since the 1970's and is now at levels not seen since the eve of the Great Depression. Myriad factors have contributed to this trend, including rising returns to higher education, technological change, increased globalization, the declining role of unions and other institutions, the evolution of a win-ner-take-all society where top performers earn much, much higher rewards than those near the top, and the erosion in the real value of the minimum wage.

While the ideal response to extreme inequality is to address the underlying impediments to success, it is clear that the tax system can play an important role in mitigating income disparities, especially in the short- to medium-term. The question for economists is the cost of progressive taxation, that is, how much can the income tax reduce inequality? The question for policymakers is how much the tax system should reduce inequality given those costs and social values about fairness.

This Article examines trends in economic inequality and the role of the tax system in reducing it. Part II provides an historical and international perspective on inequality. Part III looks at the role of taxes in mitigating inequality and how that has changed over time. Part IV considers the trade-off between the gains to social welfare from a more equal distribution of incomes and the economic costs of using the tax system to reduce inequality. Part V discusses the important role that the income tax now plays in providing a safety net. The last Part offers some concluding observations.

## II. Trends in Inequality

If all people had equal abilities to earn income, a simple flat or lump-sum tax might be the fairest option, but that has never been the

[^1]case. Although there are significant differences in the choices people make to work, save, pursue higher education, and in the kinds of jobs they are willing to take, the larger differences occur in an individual's intelligence, inheritance, and luck. Some people are born smart, rich, good-looking, or with the ability to jump very high or throw a baseball very fast.

Those differences manifest themselves in a highly skewed distribution of income, and inequality is growing over time. Data collected by economists Thomas Picketty and Emmanuel Saez show that, in 2007, the top $1 \%$ of households received more than $21 \%$ of all income for the first time since $1928 .{ }^{9}$

Figure 1
Income Share of Top 1\% and Top 0.1\%, 1913-2011 ${ }^{10}$


The income share of the top earners plummeted during the Great Depression falling to around $10 \%$ in the 1950's, 1960's, and 1970's before rising steadily starting in the 1980's. ${ }^{11}$ A similar pattern applies to the highest-income $0.1 \%$ of households. Their share of income reached an all-time record of $10.5 \%$ in $2007 .{ }^{12}$

[^2]Atkinson, Picketty, and Saez report that while income inequality in the United States was once quite moderate by an international standard, it is now among the highest in the developed world. ${ }^{13}$

Figure 2
Top Income Shares in Selected Countries, in Percent, 1949 vs. $2005{ }^{14}$


Looked at another way, data from the Congressional Budget Office show that the top $1 \%$ of households received about $9 \%$ of all income in 1979 , compared with almost $19 \%$ on the eve of the Great Recession in $2007 .{ }^{15}$

[^3]Figure 3
Share of Pretax Income Earned by the Top $1 \%$ and Bottom $40 \%$, 1979 to $2009^{16}$


The bottom $40 \%$ received $17 \%$ of income in 1979 , but their share dropped below that of the top $1 \%$ in the late 1990's. ${ }^{17}$ They received about $14 \%$ of pretax income in $2000 .{ }^{18}$ The income share for the bottom $40 \%$ exceeded that at the top in succeeding years, but then fell short until the Great Recession leveled incomes somewhat in 2009.19 This, however, is likely to be a transitory phenomenon.

Income inequality is clearly growing, and the trend appears likely to continue. Explanations for rising inequality include the decline in the power of labor unions, increased immigration, and the effects of international trade and the growth in information technology. ${ }^{20}$ Despite remarkable gains in labor productivity, the benefits of those gains have mostly accrued to the highest-income $10 \%$. All other income classes have seen their wages grow more slowly than productivity. ${ }^{21}$ Ian Dew-Becker and Robert Gordon attribute the increasing skew in earnings to "the economics of superstars," which richly rewards the top performers relative to others who are nearly as productive. ${ }^{22}$

Increased inequality has not arisen because the middle class is working less. Indeed, the opposite seems to be the case. Women be-

[^4]tween the ages of twenty-five and fifty-four are $20 \%$ more likely to be working outside the home now than they were in 1979, and there has been only a modest decrease in labor force participation among men of the same age. ${ }^{23}$

Figure 4
Civilian Labor Force Participation Rate by Gender,
Age 25-54, 1979-200924


Michael Hout and Caroline Hanley found that married women with children increased their average time at paid work by nearly one-half between 1979 and 2001, and married women without children worked over $25 \%$ more hours each week in 2001 than in 1979. ${ }^{25}$ Together, married parents increased their hours worked by more than $10 \%$, whether they had children or not. ${ }^{26}$

The average American family is working longer but, except at the top of the income scale, its income does not reflect the extra effort. Between 1979 and 2009, average income for households in the middle quintile rose less than $1 \%$ a year, climbing just $21 \%$ after adjusting for inflation. ${ }^{27}$

[^5]Figure 5
Average Pretax Household Income Middle and Top Income Quintiles, 1979-2009 ${ }^{28}$


In contrast, households in the top quintile saw their average income double between 1979 and 2007. The recession cut their incomes significantly, but it was still $64 \%$ above the 1979 level in $2009 .{ }^{29}$

## III. The Tax System and Inequality

The federal tax system reduces economic inequality because, overall, it is progressive. It reduces the after-tax incomes of high-income people by proportionately more than the incomes of lower-income people. Figure 6 illustrates how the tax system has historically diminished income disparities.

[^6]Figure 6
Pre- and After-Tax Shares of Household Income for the Top $20 \%$ and Bottom $80 \%$, 1979 to $2009^{30}$

Pretax


After-Tax


In 1979, the bottom four quintiles ( $80 \%$ ) of the income distribution earned $55 \%$ of pretax income and the top quintile earned the other $45 \% .^{31}$ Over time, the higher-income households earned an ever larger share of pretax income. In the late 1980's and first half of the 1990's, the two groups approximately split total income in half; in 1996, the top $20 \%$ pulled ahead and the gap has tended to widen since

[^7]then (although the 2000 and 2007 recessions both temporarily narrowed the gap). ${ }^{32}$

The right-hand panel in Figure 6 shows how taxes change that comparison. Until 2000, the bottom $80 \%$ always received a larger share of after-tax income than the top $20 \%$. The stock market surge in the late 1990's, which peaked in 2000, and the capital gains tax cuts in 199733 and $2003^{34}$ and the ordinary income tax rate cuts starting in 200135 allowed the top quintile to overtake the bottom four-fifths in 2000 and again in 2005-2007. ${ }^{36}$ Nonetheless, after-tax income is significantly more equally distributed than pretax income.

In 1979, the difference in shares of after-tax income was 16 percentage points, compared with a 10 percentage point difference in the share of pretax income. ${ }^{37}$ In 2009, taxes reversed the division from a 1.6 percentage point advantage in pretax income for the top quintile to a $5.6 \%$ percentage point advantage in after-tax income for the bottom $80 \%{ }^{38}$

The CBO data also show how the progressivity of the tax system has changed over time. In 1979, the richest $1 \%$ of tax units paid about $35 \%$ of their incomes in taxes to the federal government, compared with $19 \%$ for the middle quintile and $8 \%$ for the lowest income quintile. ${ }^{39}$

[^8]Figure 7
Effective Federal Tax Rates
by Quintile and Top 1\% 1979-200940


The Reagan tax cuts in the early 1980's reduced taxes dramatically for the highest income earners and by lesser amounts for other income groups. ${ }^{41}$ The exception was people in the bottom $20 \%$, who actually paid more because of the payroll tax increases enacted to extend solvency of the Social Security system. ${ }^{42}$ Tax changes enacted under the first President Bush and President Clinton ${ }^{43}$ restored the federal tax system to the level of progressivity achieved in the early 1980's, although a cut in taxes on capital gains, enacted in 1997,44 reversed that pattern for very high income families. Expansions in refundable tax credits (the earned income tax credit, and, in this decade, the child tax credit) have reduced the tax burdens on low- and middle-income households since the mid-1980's. The dramatic increase in incomes of higher income workers in the late 1990's contributed to an increase in effective tax rates for the top two quintiles, since a progressive tax system collects larger and larger shares of income in taxes when income growth exceeds inflation. By the same logic, the drop in income in 2001 reduced average tax bills, but the tax cuts enacted since 2001 had a far larger impact.

[^9]The federal tax system is an amalgam of progressive and regressive taxes. The individual and corporate income taxes and the estate tax are highly progressive.

Figure 8
Average Tax Rates by Cash Income Quintile and Type of Tax, $2012^{45}$


Because of the refundable tax credits, individual income tax burdens are actually negative for the lowest-income households, averaging $-6.9 \%$ of income, meaning that the average household gets a refund in excess of taxes paid. The middle quintile paid only about $4 \%$ of income in individual income taxes while the top quintile paid an average of $16.6 \%{ }^{46}$ Corporate income taxes are a much smaller source of revenue, but most of them are also borne by high-income households. And the estate tax-the smallest source of revenue shown in the figure-is entirely borne by very high income tax units. It averages $0.2 \%$ of income for the top quintile. ${ }^{47}$

Payroll taxes and excise taxes are regressive, however. The payroll tax is regressive for two reasons. First, only wages and self-employment income are subject to the tax and they comprise almost all of income for low- and middle-income households, but only a fraction

[^10]for very high-income families. ${ }^{48}$ Second, the Social Security tax, which is more than $80 \%$ of payroll taxes for most people, ${ }^{49}$ only applies to earnings up to an annual cap ( $\$ 113,700$ in 2013). ${ }^{50}$ Above that level, no additional Social Security tax is due. Thus, the tax declines as a fraction of wages for high-income earners. In consequence, payroll taxes are a smaller share of income for the top $20 \%$ than they are for the bottom $80 \%$. Excise taxes are also regressive because expenditures on goods subject to the taxes-alcoholic beverages, cigarettes, gasoline, tires, and other goods-make up a larger share of income for lower-income people than for those with higher incomes.

Nonetheless, despite these regressive components, the overall federal tax system remained largely progressive in 2012. The top quintile paid $26 \%$ of income in tax, compared with $14 \%$ for the middle quintile and less than $1 \%$ for the lowest-income group. ${ }^{51}$

The tax rates shown in Figure 8 understate the longer-run shifts in the composition of taxes. As noted, the increase in payroll tax rates enacted in the early 1980's raised tax burdens disproportionately on lower-income households. Over a longer period, the change in composition of taxes has been even more dramatic. After World War II, progressive income and estate taxes comprised more than $70 \%$ of federal receipts, while regressive payroll and excise taxes accounted for only about $26 \%$ of receipts.

By 2011, the regressive taxes made up over $40 \%$ of receipts while progressive taxes accounted for less than $58 \% .{ }^{52}$

[^11]Figure 9
Composition of Federal Receipts by Source, 1946 to $2011^{53}$


A complete assessment of tax burdens must include state and local taxes, which constituted about $40 \%$ of total taxes in 2009. ${ }^{54}$ State and local governments rely much more heavily on regressive taxes, such as sales taxes, than does the federal government, and states often assess income tax liability on households near, or even below, the poverty line. Robert McIntyre has shown that when state and local taxes are included, the overall tax system is much less progressive. ${ }^{55}$

[^12]Figure 10
Federal and State Taxes as Percent of Income, 201156


While the progressive income tax reduces the disparity of average after-tax incomes across income groups, it may actually increase the disparity of after-tax incomes within income groups. Within the bottom quintile in 2012, $10 \%$ of families had tax rates below $-13.7 \%$ and $10 \%$ faced rates higher than $15.5 \%$-a spread of almost twenty-nine percentage points.

Figure 11
Distribution of Effective Tax Rates, by Income Group, $2012^{57}$


Within the top $1 \%$, the spread was almost as large, ranging from $8.7 \%$ to $34.6 \%$ between the tenth and ninetieth percentiles. ${ }^{58}$

This wide disparity would seem to violate the basic principle of horizontal equity, that ". . . people in equal positions should be treated equally." ${ }^{59}$ Harvey Rosen points out that income may be a poor measure of economic status-primarily because people who start with equal ability may make different decisions about working and saving that affect their income. ${ }^{60}$ However, while some adjustments to tax may reflect differences in inherent ability to pay-for example, the deduction for extraordinary medical expenses-most simply represent policymakers' penchant for rewarding certain behaviors or constituencies through deductions, exemptions, and tax credits. Indeed, Rudolph Penner points out that the principle of horizontal equity, which appears self-evident to many policy analysts, is completely inconsistent with policymakers' incentives to provide benefits for constituents (who will presumably reward politicians with votes). ${ }^{61}$

[^13]Very uneven treatment of taxpayers with similar incomes can raise the economic cost of the progressive tax system. In particular, higher income tax rates magnify the value of exclusions and deductions and thus will increase the disparity in effective tax rates. Put differently, the economic cost of progressive taxation would decline in the context of base-broadening tax reform, a point that I return to below.

## IV. How Progressive Should the Tax System Be?

Three questions must be answered to determine the ideal shape of the tax rate schedules. First, how much revenue does the government need? When the economy is near full employment, revenues should be close to the level of spending. That certainly does not imply a balanced budget every year or even necessarily over the business cycle, but it does rule out large persistent deficits as we have experienced over the past decade. ${ }^{62}$ That said, there is a strong argument for running deficits while the economy remains weak, because raising taxes or cutting spending reduces aggregate demand and could plunge the economy back into recession. That argument holds with special force when monetary policy appears to be near its limits. And, even when the economy is at full employment, there might be an argument for a modest deficit if much of government spending is in the form of investments that pay returns over many years. On the other hand, if the government is accumulating obligations without adequately funding them, there might be an argument for running surpluses.

Second, how broad or narrow will the tax base be? Currently, the income tax code includes around $\$ 1.2$ trillion dollars of tax subsidies or tax expenditures. ${ }^{63}$ The exact number could be larger or smaller depending on what is considered a tax expenditure, but the total is quantitatively quite significant. Most economists' preference would be to eliminate or reform many tax expenditures so that rates can be kept as low as possible while still meeting distributional and revenue objectives. Every recent tax reform proposal, dating back at least to

[^14]those made by President Bush's tax reform commission, ${ }^{64}$ would significantly scale back tax expenditures and use at least some of the savings to cut income tax rates. ${ }^{65}$

Third, how should the tax burden be distributed? The answer to this question balances normative considerations reflecting social values against the economic incentive effects of higher tax rates.

## A. Top Tax Rates Are Low by Historical Standards

Although higher than they were in the immediate aftermath of the Tax Reform Act of 1986, top tax rates are now (and were during the Clinton Administration) lower than at any time between 1932 and 1986.

Figure 12
Highest Individual Income Tax Bracket, in Percent, 1913-201266


[^15]While it is possible that the economic costs of taxation have grown since 1986-for example, because the technology of tax avoidance has improved-it is unlikely that modest increases in progressivity would entail a large economic cost. Despite predictions that the economy would collapse in 1993 when tax rates increased, ${ }^{67}$ economic growth was quite robust until 2000. And notwithstanding forecasts that the Bush tax cuts would turbocharge the economy, ${ }^{68}$ growth was anemic throughout the last decade (even before the Great Recession). This certainly does not prove that economic growth is independent of tax rates-few economists would go that far-but it suggests that, at least at current tax levels, other factors are more important.

Thomas Hungerford attempted to control for other macroeconomic factors that might have driven economic growth in a time series analysis. ${ }^{69}$ He concluded that "changes over the past 65 years in the top marginal tax rate and the top capital gains tax rate do not appear correlated with economic growth. The reduction in the top tax rates appears to be uncorrelated with saving, investment, and productivity growth. The top tax rates appear to have little or no relation to the size of the economic pie. The top tax rate reductions, however, appear to be associated with the increasing concentration of income at the top of the income distribution." ${ }^{70}$

## B. The Stagnation of Middle Class Income

There is great concern about the harm caused by the financial meltdown and ensuing recession, but the middle class in the United States has experienced stagnant incomes for thirty years. Incomes by a variety of measures have grown barely faster than inflation. For example, Figure 13 shows that median earnings for full-time, full-year workers were virtually unchanged between 1974 and 2012 after adjusting for inflation.

[^16]Figure 13
Median Earnings for Full-Time, Full-Year Workers, in 2012 Dollars, 1974-2012 ${ }^{71}$


Some point out that total compensation has grown faster because most workers still get health insurance at work ${ }^{72}$ and the cost of health insurance has far outstripped inflation. ${ }^{73}$ But I doubt that workers perceive more economic gain when it is explained that almost all of their gains in compensation have gone to pay for increasingly expensive health insurance.

## C. Taxing Luck, Economic Rents, Ability, and Effort

Top incomes represent an amalgam of factors, including luck, economic rents (what economists call supernormal returns), ability, and effort. These different aspects seem to call for different, sometimes contradictory, policy responses. If all differences in income were attributable to luck, there would be a strong case for extremely progressive taxation. But luck is not completely random. If it arises from individuals' making risky capital investments, very high taxes could

[^17]discourage such investments and deprive the economy from the fruits of those investments, which weakens the case for very progressive taxation. And if all the variation in economic outcomes was attributable to differences in effort, the ethical and economic case for progressive taxation disappears.

The effect of taxation on risk-taking is complex. On the one hand, high taxes can reduce the reward from risky investments. On the other hand, progressive taxation provides a form of insurance, which reduces the riskiness of certain investments.

With taxes, government becomes a kind of partner. When taxpayers do well, they pay a lot of tax. When things go badly, they pay less (or even get a net subsidy). Even a flat tax reduces the variance of after-tax returns (since the government takes on a fraction, $t$, of any gain or loss, where $t$ is the tax rate), but a progressive income tax allows for a higher level of consumption when things go badly than a flat tax system that raises the same amount of revenue. Effectively, it provides insurance in the case of bad luck. (And, just like other forms of insurance, it also creates a moral hazard by reducing the incentive to avoid bad outcomes-a cost that I discuss below.) To the extent that the income distribution reflects luck, risk-averse households would prefer a system that smooths after-tax incomes (for the same reason that we buy insurance).

Economist Hal Varian, who developed the theory of taxation as insurance in a seminal paper, argued that this aspect of taxation might justify especially high tax rates on people with very high incomes-say over $\$ 1$ million per year. ${ }^{74}$ The logic is that incomes that high must have a substantial luck component. It is not plausible that people reach that level of income simply by working especially hard or saving much more than their neighbors. To the extent that very high incomes derive from factors outside taxpayers' control, taxing those incomes at high rates might have little or no effect on their behavior. That theory, however, did not account for the possibility of tax shelters that may be especially attractive to those with high incomes. Participation in tax shelters is likely to be very sensitive to marginal tax rates.

A second aspect of incomes at the top is economic rents-monopoly profits or returns from other market imperfections that exceed the return required to induce investment of capital (including human capital). Since economic rents, by definition, exceed required returns, taxing them at rates up to $100 \%$ should have no effect on economic behavior and thus entails no efficiency cost. Gregory Mankiw argues that economic rents are a very small part of top incomes and cannot

[^18]justify highly progressive taxation. ${ }^{75}$ Josh Bivens and Lawrence Mishel provide evidence that rents comprise a large share of the compensation of corporate executives and financial professionals, suggesting that high tax rates could be desirable on both equity and efficiency grounds. ${ }^{76}$

A more contentious issue is how differences in inherent ability should be taxed. Mankiw argues that a significant share of differences in income represent differences in ability. He argues that high-ability people are more productive and that their high compensation simply reflects voluntary transactions where everyone is better off-consumers get more and better products and services and the highly able producer is appropriately compensated. ${ }^{77} \mathrm{He}$ calls this aspect of income inequality "just deserts" and argues that taxing high productivity people highly would be not only unjust-since the compensation is de-served-but counterproductive if it induces highly able people to produce less. ${ }^{78}$

Corak argues that what appear to be differences in ability is an essential component in the intergenerational transmission of inequality. ${ }^{79}$ Good genes are an aspect of luck, which are augmented by more parental investments in human capital for children of high-income parents, legacy admissions to top schools, and the advantages of connections in securing employment. Some of these differences may be ameliorated by public policy, for example, by investing more in higher education, but some may only be addressed through progressive taxation.

A final problem with taxing ability, which has long been recognized in the economics literature, is that heavier taxation on people with high ability provides an incentive for some of them to pretend to have low ability, which entails an economic cost. The empirical question is

[^19]how important these kinds of behavioral responses are and how to distinguish them.

## D. The Economic Cost of Progressive Taxation

As noted, the obvious downside of progressive taxation is that it can produce costly behavioral responses. Most economic evidence suggests that taxpayers' real responses to the individual income tax are small. ${ }^{80}$ One might expect high tax rates to deter work and saving, but in fact, the effects are ambiguous. On the one hand, a higher tax rate reduces the reward to both activities (the substitution effect). On the other hand, by making taxpayers feel poorer, taxes can ironically provide an incentive to work or save more (the income effect). For example, a taxpayer whose living expenses are inflexible may need to work harder to make ends meet when take-home pay falls. Someone saving for retirement needs to save more to reach a target level of retirement income if the after-tax rate of return declines. The overall response of both work and saving to taxation is the sum of the substitution and income effects. Empirically, the average response appears to be very small. ${ }^{81}$ Surely some people work or save less when taxes go up, but others choose to work or save more.

There are two parts to the labor supply response: participation and hours. Evidence suggests that hours worked is not very responsive to tax rates, but participation (the decision of whether to work or not) is somewhat more sensitive, especially for second earners and those with low incomes. ${ }^{82}$ Recent policies tend to encourage participation in both groups. Marriage penalty relief enacted over the past ten years reduces the marginal tax rates facing many second earners, providing more incentive to enter and stay in the work force. The earned income tax credit and the refundable portion of the child tax credit are contingent on earnings, ${ }^{83}$ providing a strong incentive for low-income people to enter the work force. Without earnings, they cannot claim the credits.

As for those with very high incomes, their labor supply is unlikely to be very responsive to taxation. Otherwise, people earning millions of

[^20]dollars a year would be working hundreds or thousands of times as hard as people with moderate incomes, which is implausible. One component of wage inequality at the top is the "winner take all" model, which suggests that the people at the very top echelons earn many times as much as people who are quite talented, but a rung below. This suggests that the penalty to slacking off, even a little bit, would be much more than could be affected by taxation. Compare the salaries of vice presidents with CEOs, triple-A baseball players with major league starters, off-Broadway actors with Broadway stars. It seems highly unlikely that top performers would work less in response to higher taxation. And, as noted earlier, luck plays a larger role in the incomes of the super-rich than the rest of us. Overall, evidence suggests that their labor supply is insensitive to tax rates. ${ }^{84}$

There are other ways, however, to skirt tax liability, legally and not, and those appear to be more responsive to taxation. Those responses are not typically as economically costly as real responses. ${ }^{85}$ If a corporate executive chooses to squirrel away a few hundred thousand dollars in deferred compensation, there may be a loss to the Treasury but there's unlikely to be much of an effect on the real level of economic activity. If, however, that executive invests in complex tax shelter arrangements, those might entail a real cost to the economy for several reasons. First, some of the kinds of investments that make good tax shelters would make no sense absent tax considerations. As a result, capital may be allocated to less productive investments than it would without the tax incentives. Second, the kinds of people who invent complex tax shelters could otherwise be doing productive work. Their work on shelters, as inventive as it might be, does nothing to make us more competitive or produce goods and services that real people might want to buy. So tax avoidance is wasteful.

In some cases, the avoidance might actually reflect Congress' priorities. For example, if I decide to save more for retirement to avoid tax, presumably that is exactly what Congress had in mind when it created tax-free retirement accounts. Those incentives are stronger at higher tax rates. And some people might decide to take a chance on starting a business because it is a good way to avoid tax. Businesses can deduct expenses that employees cannot, and many of them choose not to report all the income that the IRS thinks should be taxed. Both legal avoidance and shadier evasion activities are more profitable at higher

[^21]tax rates. If policymakers want to encourage people to go into business for themselves, raising tax rates would provide a boost. ${ }^{86}$

To the extent, however, that tax shelters become more prevalent at high incomes, the economic cost of raising top rates will increase at the same time that the revenue yield diminishes. The best ways to address this problem are to eliminate loopholes that enable tax avoidance and raise the likelihood of detection and penalties for illegal tax evasion. And the biggest loophole is arguably the lower tax rate on capital gains, which I discuss in the next Section.

There is an upper bound on productive tax rates in the sense that higher rates could actually reduce revenue (an effect made famous by Arthur Laffer and his napkin). ${ }^{87}$ Peter Diamond and Emmanuel Saez estimated that the revenue-maximizing federal income tax rate is "conservatively" $48 \%$, assuming the existing tax base and could be as high as $76 \%$ if the tax base were much broader. ${ }^{88}$ Evidence from other studies also suggests that current rates are safely below the unproductive level. ${ }^{89}$

## E. Tax Rates on Capital Gains

A key element in the progressivity of the tax system-and the debate about how progressive it should be-is the tax treatment of capital gains. Long-term capital gains (those on assets held at least one year) are generally taxed at a top rate of $20 \% .^{90}$ By comparison, the top tax rate on other income is $39.6 \% .{ }^{91}$ The Affordable Care Act added a surcharge on investment income of $3.8 \%$, which raises the top effective rates to $24 \%$ and $44 \% .{ }^{92}$

A key argument for lower taxation of dividends and capital gains is that corporate income is already taxed at the company level. Taxing capital gains and dividends again corresponds to double taxation. The lower rate, however, is a very imperfect offset. While some corporations pay a lot of tax, some are able to use tax breaks to significantly reduce their effective corporate tax rate, and a significant share of capital gains is earned on assets other than corporate shares.

[^22]The ideal adjustment for corporate double taxation-at least from the economist's perspective-would be to integrate the individual and corporate taxes. In other words, corporate income would be allocated to shareholders and taxed at individual rates. For technical reasons, however, this is much easier said than done.

While double taxation is a plausible rationale for tax breaks on corporate capital gains and dividends, the lower tax rate also applies to noncorporate capital gains. I earlier explained why these arguments are incomplete or overstated and how, as long as top ordinary income tax rates are not too high, a large preference for capital gains can do more harm than good. ${ }^{93}$

The benefits of a capital gains tax preference are extremely concentrated among those with very high incomes. In 2010, according to the Tax Policy Center, the highest-income $20 \%$ realized more than $90 \%$ of long-term capital gains. ${ }^{94}$

Figure 14
Percent Distribution of Long-Term Capital Gains, by Income Quintile, $2010{ }^{95}$

${ }^{93}$ Tax Reform and the Tax Treatment of Capital Gains: Hearing Before the H. Comm. on Ways and Means \& the S. Comm. on Finance, 112th Cong. 36 (2012) (statement of Leonard E. Burman, Syracuse Univ.).
94 Urban-Brookings Tax Pol'y Ctr., Table T09-0490 (Dec. 11, 2009), http://www.taxpoli-cycenter.org/T09-0490.
${ }^{95}$ Id.; Internal Revenue Service, The 400 Individual Income Tax Returns Reporting the Largest Adjusted Gross Incomes Each Year, 1992-2009, http://www.irs.gov/pub/irs-soi/ 09intop400.pdf (last visited Aug. 29, 2013).

The top $1 \%$ realized almost $70 \%$ of gains and the richest 1 in 1000 households accrued about $47 \% .{ }^{96}$ It is hard to think of another form of income that is more concentrated by income.

The concentration of capital gains has also been growing over time. The IRS has published aggregate data from the income tax returns of the highest-income 400 taxpayers from 1992 to 2009. In 2009, the "fortunate $400 " 97$ had AGI of at least $\$ 77$ million. ${ }^{98}$ That small group, which corresponded to $0.00028 \%$ of taxpayers, realized $16 \%$ percent of all gains ( $\$ 37$ billion). ${ }^{99}$

Figure 15
Share of Capital Gains and Total Amount Realized by 400
Highest-Income Taxpayers, 1992-2009100


That share is an all-time high because, even though ultra-high income households' capital gains fell in 2009, the capital gains of other less well-off taxpayers fell even more. But Figure 15 shows that the trend toward increased concentration has tended to increase over time.

Based on surveys, a majority of Americans favors a more progressive tax system. ${ }^{101}$ A higher level of progressivity could be achieved without raising top ordinary income tax rates by reducing or eliminating the capital gains tax preference. (This approach was taken in

[^23]$1986^{102}$ and proposed by the Bowles-Simpson debt reduction commission. ${ }^{103}$ ) Alternatively, if capital gains tax rates are to be kept low, it will be very difficult if not impossible to cut top income tax rates as part of tax reform while satisfying the public's preferences with respect to the distribution of tax burdens.

## V. The Income Tax and the Social Safety Net

The economic discussion of optimal taxation generally concludes that raising the after-tax incomes of low-income families is socially desirable if the costs in terms of incentive effects are not too great. Some commentators, however, and at least one presidential candidate have expressed alarm about the nearly $50 \%$ of families that do not pay income tax, which is a direct consequence of using the tax system to raise incomes at the bottom. ${ }^{104}$

First, many of these people are retirees and most of the rest are lowincome working families, many of whom receive refundable credits. ${ }^{105}$ Only workers get back more than they owe in income taxes as work is a requirement for claiming the credits. While low-income working families might be exempt from the income tax, they pay payroll taxes. (Payroll taxes are bigger than income taxes for most workers.) As I noted above, encouraging low-income people to work reduces the distortions created by the income tax. In addition, connection to the labor force is important for building job skills (human capital) as well as maintaining personal dignity.

A broader point is that the income tax is now a critical component of the safety net. The Census Bureau recently developed a new alternative measure of poverty that accounts for the effect of tax and transfer programs on poverty levels. ${ }^{106}$ (Astonishingly, under the standard measure of poverty, noncash transfer programs and tax credits cannot reduce poverty because they are not counted in families' incomes.) Under the broader measure, the single most effective program at reducing poverty in 2010 was the EITC. It reduced overall poverty rates

[^24]by 2 percentage points and the child poverty rate by 4.2 percentage points. ${ }^{107}$ Overall, this single program cut child poverty by more than $20 \% .^{108}$ It encourages work and helps a significant fraction of working families and children escape poverty.

Figure 16
Effect of Selected Government Programs
on Poverty Rates in 2010 ${ }^{109}$


While the EITC and other tax provisions helping low-income working families, such as the child tax credit, could certainly be simplified, any reform should reflect the fact that many low-income families and children rely upon the Code as a safety net.

Moreover, most of us receive more from government than we pay for. That is a consequence of the skewed income distribution and progressive tax rates. How much is a robust national defense, research on life-saving medicines and basic science, national highways and parks, food safety, air traffic control, the legal system, and the like, worth? The only difference between us and the low-income "lucky duckies" ${ }^{110}$ is that only some of our benefits are claimed on income tax returns. Many are supplied by traditional government programs.

It is potentially problematic, however, for half of Americans to think that government is free. One solution might be to clarify the division between tax obligations and government programs, which are

[^25]currently commingled on income tax returns. Every year, the IRS could send taxpayers a statement letting them know what they paid in income and payroll tax before subsidies (tax expenditures) as well as the value of those tax subsidies. This would make a few things clear. People might discover that they pay much more in tax than they think, although they get a portion of it back after jumping through the hoops required to claim exclusions, deductions, and credits. Some might decide that they would rather pay less tax and jump through fewer hoops. (That is, tax reform might become a more attractive option.)

Some might be surprised to see how little they benefit from tax breaks. For example, homeowners are pleased that they get to deduct their mortgage interest, charitable contributions, and taxes, but many have total deductions not much bigger than the standard deduction. Their mortgage interest is only a benefit to the extent that it (plus the other itemized deductions) exceeds the standard deduction. If that excess is only a few hundred dollars and they are in the $10 \%$ or $15 \%$ bracket, they might not save enough money to pay for a nice dinner out.

And some people might notice that the IRS is not just in the tax collection business, but in the business of administering 250 or so spending programs. ${ }^{111}$ A little thought might suggest that some of those programs are not worth the cost and some others might be better run through traditional agencies that can better administer them.

## VI. Concluding Thoughts

Economic inequality is rising and the trend is unlikely to abate any time soon. The federal tax system substantially mitigates economic inequality, although the overall degree of progressivity has varied significantly over time. Even within the past dozen years, there have been notable oscillations. The tax cuts enacted under President Bush made the tax system less progressive. Under President Obama, tax rates on high-income households have increased markedly. ${ }^{112}$ The debate about the right level of progressivity is likely to continue for the next hundred years.

What is the right level of progressivity? The answer depends on the factors that drive inequality and the costs of taxation. If all differences in income simply reflected differences in effort, thrift, or choice of occupations, there would be little basis for progressive taxation. At

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the other extreme, if differences in income simply reflected differences in luck or rent-seeking, there would be a compelling argument for highly progressive tax rates.

In fact, inequality reflects an amalgam of factors. Golfer Phil Mickelson recently made news when he complained about the high taxes he faces on his winnings and endorsement income in his home state of California, ${ }^{113}$ which led to a vociferous debate about whether his high income was simply the just reward for his hard work or an example of how our society richly rewards the fortunate few with exceptional talents. ${ }^{14}$ Many people enjoy watching highly skilled golfers and it would be counterproductive to discourage Mickelson and his peers from the countless hours they spend honing their craft. On the other hand, pro golfers know that a small slip in their skills would drop them out of the elite ranks and would cause their income to plummet. Few if any top athletes would respond to high taxes by working less.

In fact, the evidence suggests that taxation at current levels has only modest effects on effort or thrift, although it can spur other kinds of tax avoidance. For example, Mickelson might follow his friend Tiger Woods to Florida, which does not levy an income tax. Given that the federal income tax is harder to avoid than state taxes, highly progressive federal taxes are more sustainable. And tax reform that broadened the tax base could further reduce the avenues for tax avoidance while maintaining or increasing the overall level of progressivity.

Beyond the issue of progressivity, the U.S. tax system also embodies a substantial part of the social safety net. The EITC is, according to the Census bureau, the largest and most effective anti-poverty program affecting working age adults. ${ }^{115}$ Policies that increased progressivity might bolster the social safety net while those that reduced progressivity could undermine it.

And, of course, this suggests that consideration of progressivity should include not only the tax system, but direct spending. If the child tax credit were replaced with a cash child allowance, as exists in the United Kingdom, ${ }^{116}$ the tax system would become much less progressive, but low-income families might be better off, depending on how generous the child allowance was. A complete analysis should include all the ways in which the government affects families' wellbeing, not just taxes. But I will leave that for another paper.

[^27]
[^0]:    * Tax Policy Center and Syracuse University. I am grateful to Jeff Brown and to participants at the NYU/UCLA Tax Symposium for helpful comments and discussions, and to Yuri Shadunsky for research assistance. Views expressed are my own.
    ${ }^{1}$ W. Elliot Brownlee, Historical Perspectives on U.S. Tax Policy Toward the Rich, in Does Atlas Shrug?: The Economic Consequences of Taxing the Rich 29, 36 (Joel B. Slemrod ed., 2000).
    2 Joseph Thorndike argues that, while the Supreme Court had ruled in 1895 (Pollock v. Farmers' Loan and Trust Co., 157 U.S. 429 (1895)) that an income tax enacted the prior year was unconstitutional, change in the composition of the court probably would have allowed income tax legislation to withstand a challenge in the early twentieth century. Joseph Thorndike, Why Repealing the 16th Amendment Probably Wouldn't Matter, 136 Tax Notes 1369 (Sept. 7, 2012). Indeed, opponents of the income tax proposed the constitutional amendment in 1909 as a way to derail growing support for the populist measure. Brownlee, note 1, at 39-40. The strategy backfired, however, as the states quickly ratified the amendment, which was enacted in 1913. Tariff Act of 1913, Pub. L. No. 63-16, 38 Stat. 114.

    31913 Act, note 2, § II(A)(1)-(2), 38 Stat. 166-81.
    4 Revenue Act of 1918, Pub. L. No. 65-254, §§ 210-211, 40 Stat. 1057, 1062-64.
    5 Carolyn C. Jones, Class Tax to Mass Tax: The Role of Propaganda in the Expansion of the Income Tax During World War II, 37 Buff. L. Rev. 685, 697 (1989).

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    7 See IRC § 32 (providing refundable Earned Income Tax Credit to low-income wage earners).
    ${ }^{8}$ E.g. Congressional Progressive Caucus, Progressive Principles for Tax Reform, http:// cpc.grijalva.house.gov/progressive-principles-for-tax-reform/; Chuck Marr \& Chye-Ching Huang, Ctr. for Budget and Pol'y Priorities, How Tax Reform Could Become a Trap: Tax Reform Holds Promise, But If Not Done Carefully, Could Increase the Deficit and Inequality and Harm the Economy 1 (June 8, 2012), http://www.cbpp.org/files/6-8-12tax.pdf; Andrew Fieldhouse, Econ. Pol'y Inst., Rising Income Inequality and the Role of Shifting Market-Income Distribution, Tax Burdens, and Tax Rates, (June 14, 2013), http://www.epi. org/publication/rising-income-inequality-role-shifting-market/.

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    10 Adapted from id. Note: excludes volatile capital gains income.
    11 Id.
    12 Id.

[^3]:    13 Anthony B. Atkinson, Thomas Piketty \& Emmanuel Saez, Top Incomes in the Long Run of History, 49 J. Econ. Literature 3, 45 tbl. 6 (2011).

    14 Author's calculations based on id.
    15 Cong. Budget Office, Pub. No. 1441, The Distribution of Household Income and Federal Taxes, 2008 and 2009, Supp. Data tbl. 3 (2012), available at http://www.cbo.gov/sites/ default/files/cbofiles/attachments/43373-Supplemental_Tables_Final.xls.

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    ${ }^{17}$ Id.
    ${ }^{18}$ Id.
    19 Id.
    ${ }^{20}$ Lawrence F. Katz \& Kevin M. Murphy, Changes in Relative Wages, 1963-1987: Supply and Demand Factors, 107 Q.J. Econ. 35, 35-36 (1992).
    ${ }^{21}$ Ian Dew-Becker \& Robert J. Gordon, Where Did the Productivity Growth Go? Inflation Dynamics and the Distribution of Income, Brookings Papers on Econ. Activity, No. 2,2005 , at $67,70$.
    22 Id. at 51-58.

[^5]:    ${ }^{23}$ U.S. Bureau of Labor Statistics http://www.bls.gov/data/\#employment (Current Population Survey, Series IDs LNU01300060, LNU01300061, LNU01300062).
    ${ }^{24}$ Id.
    25 Michael Hout \& Caroline Hanley, Working Hours and Inequality, 1968-2001: A Family Perspective on Recent Controversies (2003), available at http://www.russellsage.org/ sites/all/files/u4/Hout\%20\%26\%20Hanley.pdf.
    ${ }^{26}$ Id. at 13-14.
    ${ }^{27}$ Congressional Budget Office, note 15, at tbl.3.

[^6]:    28 Id.
    29 Id.

[^7]:    ${ }^{30}$ Author's calculations based on id.
    ${ }^{31}$ Congressional Budget Office, note 15, at tbl.3.

[^8]:    32 Id.
    33 Taxpayer Relief Act of 1997, Pub. L. No. 105-34, § 311, 111 Stat. 788, 831-36.
    34 Jobs and Growth Tax Relief Reconciliation Act of 2003, Pub. L. No. 108-27, §§ 301302, 117 Stat. 752, 758-64.

    35 Economic Growth and Tax Relief Reconciliation Act of 2001, Pub. L. No. 107-16, § 101, 115 Stat. 38, 41-44.
    36 Author's calculations based on Congressional Budget Office, note 15, at tbl.3.
    37 Id.
    38 Id.
    39 Id. at tbl.1.

[^9]:    ${ }^{40}$ Id. at 1.
    41 Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, § 101, 95 Stat. 172, 176-85.
    42 Social Security Amendments of 1983, Pub. L. No 98-21, § 123, 97 Stat. 65, 87-88.
    43 Omnibus Budget Reconciliation Act of 1990, Pub. L. No. 101-508, § 11101, 104 Stat. 1388, 1791-93; Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, §§ 1320102, 107 Stat. 312, 457-61.

    441997 Act, note 33, § 311, 111 Stat. at 831-36.

[^10]:    ${ }^{45}$ The source for the data is Urban-Brookings Tax Pol'y Ctr., Table T12-0190 (Sept. 30, 2012), www.taxpolicycenter.org/numbers/displayatab.cfm?DocID=3495.
    ${ }^{46}$ Id.
    47 Id.

[^11]:    48 Wages, salaries, and net business income comprised more than $80 \%$ of adjusted gross income (AGI) in 2010 for tax filers with AGI less than $\$ 50,000$. They were less than onethird of income for filers with AGI over $\$ 1$ million, and only one-sixth of income for those with AGI over $\$ 10$ million. Author's calculations based on Justin Bryan, Individual Income Tax Returns, 2010, IRS Stat. Income Bull., Fall 2012, at 23 tbl.1.
    ${ }^{49}$ The Social Security tax is $12.4 \%$ and is capped at the first $\$ 113,700$ of a workers earnings in 2013 while the rest of the payroll tax is $2.9 \%$ but is uncapped. See Payroll Taxes, Urban Brookings Tax Pol'y Ctr., http://taxpolicycenter.org/taxtopics/Payroll-Taxes.cfm. So for the first $\$ 113,700$ of an individual's wages, he pays more than $80 \%$ of his payroll tax as Social Security taxes. The average household income for the fourth quintile in 2009 was $\$ 93,800$. Thus, more than $60 \%$ of households earn less than $\$ 113,700$. See Congressional Budget Office, note 15, tbl.3.
    ${ }^{50}$ See U.S. Social Security Adm., Benefits Planner: Maximum Taxable Earnings, http:// www.ssa.gov/planners/maxtax.htm (last visited Aug. 26, 2013).
    ${ }^{51}$ See Tax Policy Center, note 45.
    52 Office of Management and Budget, Fiscal Year 2013 Historical Tables, Budget of the U.S. Government 32-33 tbl.2.2, http://www.whitehouse.gov/sites/default/files/omb/budget/ fy2013/assets/hist.pdf. Federal Reserve deposits are excluded from total receipts; customs duties and fees and other miscellaneous receipts are not shown.

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    54 Urban-Brookings Tax Pol'y Ctr., Revenue by Government Level 2001-2011, http:// www.taxpolicycenter.org/taxfacts/displayafact.cfm?docid=328.

    55 Bob McIntyre, Citizens for Tax Justice, America's Tax System Is Not As Progressive As You Think (Apr. 15, 2011), available at http://www.ctj.org/pdf/taxday2011.pdf.

[^13]:    ${ }^{57}$ Economic Report of the President 88 tbl.3-1 (2012), available at www.whitehouse.gov /sites/default/files/microsites/ERP_2012_Complete.pdf.
    58 Id.
    59 Richard A. Musgrave, The Theory of Public Finance 160 (1959).
    ${ }^{60}$ Harvey S. Rosen, An Approach to the Study of Income, Utility, and Horizontal Equity, 92 Q.J. Econ. 307, 308 (1978).
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    ${ }^{65}$ See Samuel Brown \& William G. Gale, Tax Reform for Growth, Equity, and Revenue (2012), available at www.taxpolicycenter.org/UploadedPDF/1001649-growth-equity-revenue.pdf; Leonard E. Burman, Pathways to Tax Reform Revisited, 41 Pub. Fin. Rev. 721 (2013).
    ${ }^{66}$ Data drawn from Urban Brookings Tax Pol'y Ctr., Historical Individual Income Tax Parameters, (Apr. 10, 2013), http://taxpolicycenter.org/taxfacts/displayafact.cfm?DocID= 543.

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[^17]:    ${ }^{71}$ Data drawn from U.S. Census Bureau, Table P-36, Full-Time, Year-Round All Workers by Median Income and Sex: 1955 to 2012, http://www.census.gov/hhes/www/ income/data/historical/people/.
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[^19]:    75 N. Gregory Mankiw, Defending the One Percent, 27 J. Econ. Persp. 21 (2013).
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    ${ }^{78}$ N. Gregory Mankiw, Spreading the Wealth Around: Reflections Inspired by Joe the Plumber, 36 E. Econ. J. 285, 293-95 (2010). Mankiw and Matthew Weinzierl argue, further, that the public has little interest in taxing ability, using as an example the fact that height is positively correlated with earnings-tall people earn more on average after controlling for education and other attributes. N. Gregory Mankiw \& Matthew Weinzierl, The Optimal Taxation of Height: A Case Study of Utilitarian Income Distribution, 2 Am. Econ. J.: Econ. Pol'y 155 (2010). Since people are unlikely to manipulate their height to avoid taxation, a surtax based on height could make the tax system better reflect differences in ability with virtually no efficiency cost. Id. at 156-57. Mankiw \& Weinzierl surmise that many people would object to a height tax, nonetheless, suggesting that they do not endorse the notion of utilitarian redistribution. Id. at 174. My guess is that the objection would be more with the inaccuracy of height as a proxy for ability, and the fact that low-ability tall people would be overtaxed.
    ${ }_{79}$ Miles Corak, Income Inequality, Equality of Opportunity, and Intergenerational Mobility, 27 J. Econ. Persp. 79 (2013).

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    ${ }^{99}$ Id.
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    ${ }^{101}$ See, e.g., Pew Research Ctr., The Tax System Seen As Unfair, in Need of Overhaul (2011), www.people-press.org/files/legacy_pdf/12-20-11\%20Taxes\%20release.pdf.

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