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Winner-Take-All Markets: Easing the Case for Progressive Taxation

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I. INTRODUCTION

Everybody loves a winner, and the market often agrees, providing spectacular rewards for those who win. While the winners win big, everyone else is left behind, reaping rewards that bear little relationship to how close they were to winning or to the magnitude of the difference between their talents and those of the winners.

The winner-take-all phenomenon, long the hallmark of the sports and entertainment markets, has spread throughout the U.S. economy over the last two decades.¹ As more markets operate like the entertainment market, scholars have begun to analyze the ways in which such markets suggest a need to rethink established conclusions and policies.² The recent work of two economists,

1. See *infra* notes 7-16, 52-61 and accompanying text. See generally, Edward N. Wolff, *Top Heavy: A Study Of The Increasing Inequality Of Wealth In America* (1995). For an exhaustive compilation of scholarship showing the increasing gap in the distribution of income in the United States generally, see Enrique R. Carrasco, *Opposition, Justice, Structuralism, and Particularity: Intersections Between Latcrit Theory and Law and Development Studies*, 28 *U. Miami Inter-Am. L. Rev.* 313, 314 n.4 (1997).

2. Scholars interested in the operation of specific markets have already begun to explore the implications of winner-take-all markets. Thus, David Wilkins and Mitu Gulati have shown that the market for big firm lawyers operates in this way and explains the scarcity of minority lawyers in those firms. David B. Wilkins & G. Mitu Gulati, *Why Are There So Few Black Lawyers in Corporate Law Firms? An Institutional Analysis*, 84 *Cal. L. Rev.* 493 (1996). Wilkins and Gulati argue that the market in which aspiring big firm lawyers compete functions in a way that fails to provide traditional safeguards against discriminatory action. See *id.* at 496. Because the number of qualified applicants far exceeds the number of positions available, both at the entry level and at the partner level, firms can make racist decisions without the adverse market effects that would follow in a market that operated in the traditional, economically efficient way. See *id.* The market described by Wilkins and Gulati operates in the same way as that described by Frank and Cook. See Robert H. Frank & Phillip J. Cook, *The Winner-Take-All Society* (1995); see also David Charny & G. Mitu Gulati, *Efficiency- Wages, Tournaments and Discrimination: A Theory of Employment*

Robert H. Frank and Phillip J. Cook, provides a good springboard for this analysis. In *The Winner-Take-All Society*,³ Frank and Cook describe how an

Discrimination Law for “High Level” Jobs, 33 Harv. C.R.-C.L. L. Rev. 57 (1998). More recently, Douglas Lichtman, noted that patent law perpetuates the winner-take-all phenomenon because relatively few individuals receive patents which allow them to reap enormous financial rewards while leaving those with unpatentable goods with little economic gain. Douglas G. Lichtman, *The Economics of Innovation: Protecting Unpatentable Goods*, 81 Minn. L. Rev. 693 (1997); see also Michael A. Fitts, *The Paradox of Power in the Modern State: Why a Unitary, Centralized Presidency May Not Exhibit Effective or Legitimate Leadership*, 144 U. Pa. L. Rev. 827 (1996)(stating that a winner-take-all market exists in news media because the enormous payoff accruing to the news organization which breaks the big story causes the news media to focus a disproportionate amount of its resources on potential big stories such as the President).

3. Frank & Cook, *supra* note 2. Although Frank and Cook were not the first to identify the winner-take-all phenomenon, their analysis of it is the broadest and has received considerable public and scholarly attention. Over 15 years ago, University of Chicago economist Sherwin Rosen identified what he described as “[t]he phenomenon of Superstars, wherein relatively small numbers of people earn enormous amounts of money and dominate the activities in which they engage,” and began to relate the phenomenon to the distribution of income. Sherwin Rosen, *The Economics of Superstars*, 71 Am. Econ. Rev. 845, 845 (1981); Sherwin Rosen, *Prizes and Incentives in Elimination Tournaments*, 76 Am. Econ. Rev. 701 (1986). Later, in planning a commencement address to Harvard’s 1988 graduating class, Derek Bok, former president of Harvard University, began to think about the disparities in compensation paid to workers in various sectors. His inquiry culminated in a thoughtful book that dissects the role of money in determining young people’s career choices, analyzes the impact of disproportionately high compensation on values, and laments the increasing lure of the private sector to the detriment of the public sector. Derek Bok, *The Cost of Talent* (1993). Like Frank and Cook, Bok looks to progressive taxation, among other things, to curb the lure of disproportionately high earnings. *Id.* at 275-80. More recently, numerous scholars have applied the insights offered by

increasing number of labor markets now operate in ways that depart significantly from the classical economically efficient model.⁴ In these markets, a large number of individuals compete for a relatively small number of positions that offer the possibility for financial rewards far exceeding those that

Frank and Cook to other areas. See Davison M. Douglas, *The End of Busing?*, 95 Mich. L. Rev. 1715, 1730 n.63 (1997)(discussing the growing gap between education and opportunities available to rich and poor children); Andrew J. Gold, *In the Aftermath of Sheff—Considerations for a Remedy*, 29 Conn. L. Rev. 1043, 1058 n.54 (1997)(striving for improvement can produce non-useful societal results); Consuelo L. Kertz, *Executive Compensation Dilemmas in Tax-Exempt Organizations: Reasonableness, Comparability, and Disclosure*, 71 Tul. L. Rev. 819, 847 n.99 (1996-1997)(comparing Frank and Cook’s work to Bok’s); J.B. Ruhl & Harold J. Ruhl, Jr., *The Arrow of the Law In Modern Administrative States: Using Complexity Theory to Reveal the Diminishing Returns and Increasing Risks the Burgeoning of Law Poses to Society*, 30 U.C. Davis L. Rev. 403, 463 n.145 (1996)(unequal distribution of opportunities accounts for huge income disparities); C. Edwin Baker, *Giving the Audience What It Wants*, 58 Ohio St. L.J. 311, 338 n.50 (1997)(winner-take-all markets create heightened incentives to spend resources in manner which produces little to no value to society); Kathleen E. Keest, *Whither Now? Truth in Lending in Transition—Again*, 49 Consumer Fin. L. Q. Rep. 360, 366 n.40 (1995)(growing disparity in income and power in American society underscores a need for greater regulation of contract).

4. In Frank and Cook’s words, “[R]eward by relative performance is the single most important distinguishing characteristic of winner-take-all markets. In the markets that economists normally study, by contrast, reward depends only on absolute performance.” Frank & Cook, *supra* note 2, at 24. Although we will focus on the effect of these markets on the labor performance of individuals, as do Frank and Cook, it is important to note that such markets exist for goods as well. In a telling example of the emphasis on relative quality in such markets, Frank and Cook note that to mark a special occasion “[w]e give two ounces of Russian caviar, not forty pounds of frozen whitefish costing the same amount; one silk undergarment, not an equivalent dollar purchase of Fruit of the Loom cotton underpants.” *Id.* at 42.

await less successful competitors.⁵ As in the entertainment industry, where the difference between the compensation received by the star and that received by her understudy is almost always far more than proportional to the differences in their talent, these steadily growing markets display what is essentially a winner-take-all paradigm.⁶

Data on changes in the distribution of income confirm both the existence and the expansion of winner-take-all markets.⁷ In 1990, families in

5. Frank and Cook's thesis is that these markets are inefficient because their reward structure is so lucrative that it lures too many wanna-bes away from pursuits which would allow them to make a more meaningful contribution to society. Frank & Cook, *supra* note 2, at 8-11, 101-15. For example, the Madonna wanna-be who neglects her studies and eschews college in her quest for stardom but ends up waiting tables, deprives society of the contributions she might have made as a scientist. She might also decrease the chances that any other person will win a coveted role, at least if one assumes that selection is, to a large extent, the product of chance, and that there are a limited number of starring roles available. *Id.* Frank and Cook also posit that such markets are inefficient because they encourage wasteful competition, much like an arms-race. *Id.* at 8-11, 125-38. The reward structure is so great that it encourages excessive investment in the competition, to the detriment of other uses to which those resources might have been put. *Id.*

While Frank and Cook's work on the existence of such markets is central to the claims we make in this piece, agreement with their evaluation of the merits of such markets is not. Thus, while our analysis posits the existence of such markets, our conclusions do not proceed from a desire either to foster such markets or to eliminate them. In Frank and Cook's ideal world, such markets would be severely restricted or eliminated, and tax policy would be used to that end. *Id.* at 212-19. In ours, they simply serve to justify graduated progressive taxation.

6. Frank and Cook acknowledge that most of the markets they analyze have more than one winner, so that it "would be more accurate to call them 'those-near-the-top-get-a-disproportionate-share' markets. But this is a mouthful, and hence our simpler, if somewhat less descriptive, label." Frank & Cook, *supra* note 2, at 3. We agree and do likewise.

7. The data we present here appear, or are derived from, *The Distribution of Income and Tax Burdens by Household*, which appears

the top 20% of the income scale⁸ received 51.4% of all income; families in the top 1% received nearly 13% of all income.⁹ That same year families in the bottom 40% also received 13% of all income.¹⁰ That a fifth of the families received over half of the income, with the top 1% receiving over 10% of the income, shows that we are indeed a winner-take-all society.¹¹ That families in the top 1% had the same share of income as those in the bottom 40% is a testament to the size of the chasm between the winners and the wannabes.¹² Figures 1 and 2, below, paint the picture.

as Appendix K in the Committee on Ways and Means, Overview of Entitlement Programs, 103d Cong., 1st Sess. (Comm. Print 1993) [hereinafter 1993 Greenbook]. These data were derived from what the Greenbook described as a “forthcoming” study by the Congressional Budget Office entitled, Trends in Federal Tax Progressivity: 1977-1994. However, the study has not been issued as a separate document. We will therefore refer to these data as the “Greenbook data” throughout this Article.

8. The definition of the top quintile varies with family size, but for the sake of consistency we will refer to the numbers that reflect the income for a family of four. For 1977, a family of four in the top quintile had income above \$75,653. 1993 Greenbook, *supra* note 7, at 1503 tbl. 14. For 1990, a family of four in the top quintile had income above \$84,109. *Id.* at 1502. However, the gap between most of those in the top quintile and those in the top 1% is substantial. A family of four had to have income of more than \$400,000 (in 1996 dollars) to be counted in the top 1% in 1990, and the average income of families in this group was over \$600,000. Joel Slemrod & Jon Bakija, *Taxing Ourselves: A Citizen’s Guide To The Great Debate Over Tax Reform* 56 (1996)(Slemrod and Bakija also derive these numbers from the 1993 Greenbook. *Id.* at n.14.)

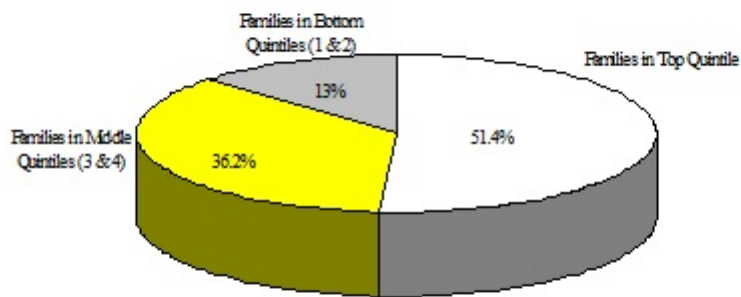
9. 1993 Greenbook, *supra* note 7, at 1506 tbl. 17.

10. See *id.*

11. See *id.*

12. That the maximum income thresholds for the first four quintiles vary by \$21,000, on average, but rise by over \$256,000 between the fourth quintile and the first 19% of the fifth quintile—a factor of 12—underscores the size of the gulf. See 1993 Greenbook, *supra* note 7, at 1502 tbl. 14. For a family of four, in 1990, the maximum income thresholds were:

FIGURE 1
Shares of Pre-Tax Income for All Families in 1990¹³

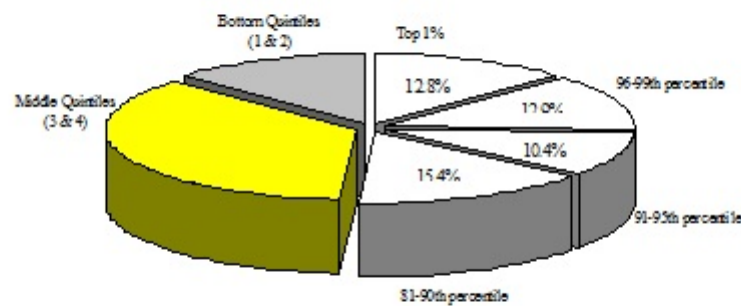


Lowest Quintile:	\$ 20,274
Second Quintile:	\$ 37,241
Third Quintile:	\$ 55,659
Fourth Quintile:	\$ 84,109
Fifth Quintile:	\$340,174 (lowest 19% only)

Id. at 1501-02.

13. Derived from 1993 Greenbook, *supra* note 7, at 1506 tbl. 17.

FIGURE 2
Share of Pre-Tax Income in 1990 for Families in the Top Quintile¹⁴



The winner-take-all society is not only alive and well, but over the last two decades it has given an increasing share of the stakes to the winners. Between 1977 and 1990 families in the top 1% increased their share of total income by 45%, while just about everybody else saw their share of total income decline,¹⁵ and those in the bottom quintile saw their share of income decline precipitously—by 24.5%.¹⁶ The winners are not only winning bigger, they are

14. *Id.*

15. See *id.* Declines occurred for all families except those in the top 4% of the income scale. See Figure 3. To make comparisons between years meaningful, the Greenbook data put family incomes in constant dollars by the CPI-X1 price index. 1993 Greenbook, *supra* note 7, at 1484.

16. See 1993 Greenbook, *supra* note 7, at 1506 tbl. 17. A family

leaving everybody else in the dust.

When it comes to their share of federal taxes, the winners have also been winning, for the changes in their share of the federal tax burden are anything but proportional to the changes in their share of the income.¹⁷ As Figure 3,¹⁸ below, demonstrates graphically, while changes in shares of income

of four with income under \$21,920 was in the bottom quintile in 1977, and a family of four with income under \$20,274 was in the bottom quintile in 1990. *Id.* at 1501-03 tbl. 14.

17. See 1993 Greenbook, *supra* note 7, at 1499 chart 1.

18. The table below presents the raw data from which we derived the graph in Figure 3, and illustrates the changes in the shares of before-tax income and all federal taxes, including social security taxes, by income group.

**SHARES OF TOTAL FEDERAL TAXES PAID BY ALL
FAMILIES COMPARED
TO SHARE OF TOTAL PRE-TAX INCOME, 1977 and 1990**

1990	Quintile	1977		
		Taxes	Income	Taxes
Income				
3.7%	Lowest	2.0%	4.9%	1.4%
	2d	7.2%	10.6%	6.4%
	3d	13.4%	15.7%	12.5%
	4th	21.6%	22.5%	21.2%
	81 to 90%	16.7%	15.8%	16.6%
	91 to 95%	11.3%	10.2%	11.7%
	96 to 99%	14.1%	11.9%	14.9%
12.8%	Top 1%	13.6%	8.8%	14.9%

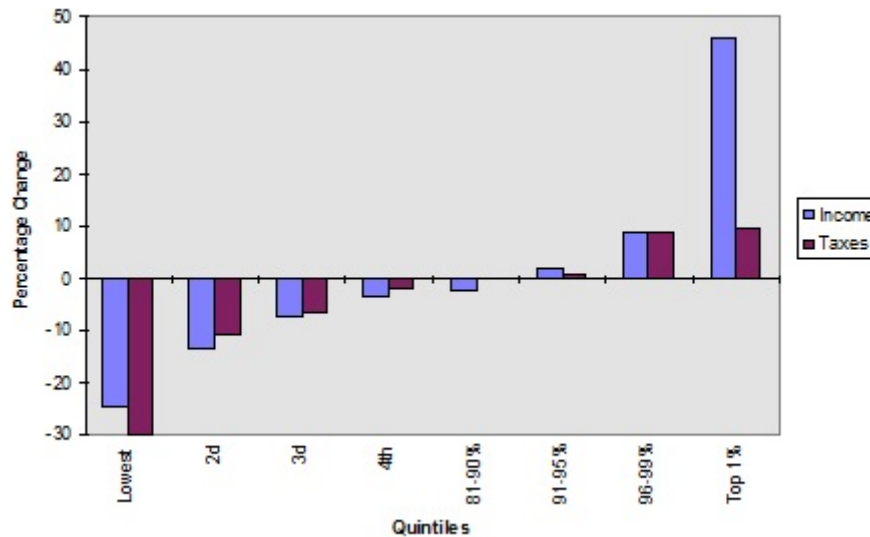
1993 Greenbook, *supra* note 7, at 1506 tbl. 17, 1515 tbl. 25. While these numbers confirm the widely touted claim that the individuals at the top of the income scale pay more than half of the taxes (according to the foregoing data, families in the top quintile paid more than 58% of the taxes in 1990), that assertion overlooks the relationship between their

and taxes have remained in rough proportion to one another for 99% of the population, the increase in share of income has outstripped the increase in share of taxes by a factor of almost 5 for those at the top 1% of the income scale—the real winners.¹⁹ The spike in the graph confirms both the expansion of winner-take-all markets and the growing disjuncture between the distribution of income and the distribution of the tax burden.

share of income and their share of taxes.

19. While the share of income received by families in the top 1% has risen by 45%, their share of the tax burden has only risen by 9.5%. Data derived from 1993 Greenbook, *supra* note 7, at 1506 tbl. 17, 1515 tbl. 25.

FIGURE 3
CHANGES IN SHARES OF INCOME AND TAXES
1977-1990



The dramatic effect revealed by Figure 3 would be masked by grouping all of the families in the fifth quintile, because three quarters of the families in that quintile have seen their shares of income and taxes either rise very little or actually decline. Indeed, looking at the winners separately is at the heart of the analysis we offer. The distributional data show that those in the top 1% are very different from others in the top quintile, and that when it comes to fluctuations in income, three-fourths of those in the top quintile have more in common with those in the second, third, and fourth quintiles than they do with those at the top of the quintile.²⁰ Tax policy should reflect this, but it has not.

Tax policy has failed to consider the ways in which the distribution of income within the top quintile should affect the distribution of the tax burden. Congress, like most policy analysts, apparently has assumed that those within the top quintile are just slightly different from one another, or that they differ from one another only incrementally. But the data show that families in the top

20. A member of a group in which the average income is \$600,000 and the minimum income is \$400,000, Slemrod & Bakija, *supra* note 8, at 56, is more like the other members of that group than like members of a group in which the minimum income is \$84,109, which is the starting point for the fifth quintile.

quintile but below the 95th percentile have a lot more in common with one another and with families in the third and fourth quintiles than with families in the top 5th percentile, and especially with families in the top 1%. Families in the top 1% are truly in a class of their own. These data, and the winner-take-all distribution it reveals, have significant implications for tax policy and tax system design.²¹

Acknowledging the existence, expansion and unique operation of winner-take-all markets can serve to illuminate various aspects of tax policy. For instance, if people play to win, then taxing the second half of the winnings more steeply than the first half should not decrease the incentive to play the game. Put another way, the existence of winner-take-all markets presents a serious challenge to the classical argument that progressive taxation is inefficient because it distorts the decision to create additional income or to consume at the margin, and so entails trading efficiency for equity.²² In a winner-take-all market, progressive taxation may be not only efficient, it may be nearly optimal; it may raise revenue from people whose incentive to make more money is nearly unaffected by the existence of the tax.²³

The absence of a linear relationship between effort, ability, and

21. Unlike Frank and Cook, we do not aim to provide a comprehensive explanation for the growth of winner-take-all markets. Our project is to show that the surge in such markets, whatever the multiplicity of reasons for their proliferation, has significant implications for tax policy and for tax system design.

22. See Richard A. Musgrave & Peggy B. Musgrave, *Public Finance in Theory and Practice* 88-104 (3d ed. 1980); Arthur M. Okun, *Equality And Efficiency: The Big Tradeoff* (1975); Martin Feldstein, *On the Theory of Tax Reform*, 6 *J. Pub. Econ.* 77, 78 (1976), and sources cited in note 2 therein; see also Walter J. Blum & Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation*, 19 *U. Chi. L. Rev.* 417 (1952); Walter J. Blum, *Revisiting the Uneasy Case for Progressive Taxation*, 60 *Taxes* 16 (1982). That a uniform tax rate is more economically efficient often has been conceded by both economists and lawyers representing a broad spectrum of viewpoints with respect to desirable tax rates and structures, even when arguing for a rate or base structure that might not comport with efficiency maximization. See Jane G. Gravelle, *The Flat Tax And Other Proposals: Who Will Bear The Tax Burden?*, 69 *Tax Notes* 1517 (Dec. 19, 1995).

23. For a brief explanation of the theory of optimal taxation, see the discussion at note 198.

compensation in winner-take-all markets²⁴ lends special force to arguments that rest on the diminishing marginal utility of money.²⁵ Even a model that makes conservative assumptions about the rate at which the marginal utility of money declines shows that in winner-take-all markets progressive taxation results in greater total private utility after taxes than proportional taxation.²⁶ In a society dominated by winner-take-all markets, then, we do not need to trade equity for efficiency.²⁷ Progressive income taxation can provide both.²⁸

24. See discussion *infra* Part IV.D.

25. The theory of diminishing marginal utility postulates that as consumers obtain additional units of the same good, they receive less utility from each additional unit. Campbell R. McConnell, *Economics*, 501-02 (7th ed. 1981). The theory “presupposes not only the measurability of utility but also the cardinal measurability of the thing that produces felicity,” and can be traced to the eighteenth century writing of Jeremy Bentham. *Encyclopedia of Economics* 935 (Douglas Greenwald ed., 1982); see also George J. Stigler, *Essays In The History of Economics* 382 (1965)(discussing Jeremy Bentham’s *An Introduction to the Principles of Morals and Legislation* (1789)). For a more detailed discussion of the status of the theory in the economic literature, see discussion *infra* Part III.

26. See *infra* Part IV.

27. See *infra* notes 114-16 and accompanying text.

28. We focus here on progressive income taxation for at least three reasons. First, it is progressive income taxation that has served as the lightning rod for the progressivity debate. While other systems may have the virtue of adding progressivity to the tax system overall, see Michael J. Graetz, *To Praise The Estate Tax, Not To Bury It*, 93 *Yale L.J.* 259 (1983), only the income tax has the potential for affecting large numbers of individuals in ways that can raise large amounts of revenue. Second, because the equity/efficiency tradeoff is one that necessarily implicates the likely behavioral responses to a tax, it is logical to focus on the effect of the tax usually thought to induce the greatest behavioral responses—the income tax. Behavioral responses to other progressive taxes, such as the estate tax, are currently indeterminate, given the uncertainty over the impact of the bequest motive on behavior. See Joint Comm. on Taxation, 103d Cong., 1st Sess., *Methodology and Issues in Measuring Changes In The Distribution of Tax Burdens* 68-69 (Comm. Print 1993) [hereinafter *Redbook*]. Third, this Article serves as a

With this Article we begin the process of exploring the ways in which winner-take-all markets can alter perceptions about the appropriate distribution of the tax burden. This is neither a soak-the-rich polemic nor a plea for rejection of the tools of traditional economic analysis.²⁹ It is an attempt to apply economic analysis to markets that produce unique incentives and that have resulted in a dramatically skewed distribution of income. Winner-take-all markets are probably here to stay, so it behooves us to study them and to consider their operation when crafting tax policy.

In Part II of this Article we analyze the ways in which changes in the distribution of income over the last two decades evidence the growth of winner-take-all markets. We show that the federal income tax system has failed to reflect that growth and has resulted in a system that imposes taxes at dramatic odds with the distribution of pre-tax income. Because this polarity reflects the triumph of efficiency concerns, we turn to an analysis of those concerns in Parts III and IV, where we first consider the possible effects of the diminishing marginal utility of money and then present a quantitative model that shows how progressive taxation can be superior to proportional taxation in providing the greatest overall utility. We turn to the question of equity in Part V, where we explain why we think that progressive taxation is more equitable than proportional taxation. We conclude in Part VI with a proposal for a rate structure that more accurately reflects the relationship between the diminishing marginal utility of money and the skewed distribution of income wrought by the expansion of winner-take-all markets.

II. THE DISTRIBUTION OF INCOME AND THE DISTRIBUTION OF TAXES

A. *Historical Background*

From both the political and theoretical perspectives, progressive income tax rates always have been controversial.³⁰ They also took nearly 30

theoretical exploration of the subject, not an exhaustive treatise; future pieces may discuss the application of theories and models we develop here to other taxes and even to combinations of taxes.

29. This does not mean that we are not sympathetic to critical examination of the assumptions and methodologies on which traditional economic analysis is based. Actually, we are, and have engaged in such critical analysis ourselves—if we had to choose, we would choose equity over efficiency in a heartbeat. The point of this piece, however, is not to argue that we would be right in making the choice, but that we don't need to make the choice because both roads lead to Rome.

30. See generally Sheldon Pollack, *The Failure of U.S. Tax*

years to become a distinguishing feature of our tax system.³¹ At its inception in 1913, the income tax had a relatively flat structure with generous exemptions.³² It imposed a low, nearly flat, rate of tax on high incomes.³³ The most significant factor in the creation of the steeply graduated rate schedule that characterized our income tax system between the 1950s and the 1980s and that many have come to regard as the prototype for progressive taxation was the need for

Policy: Revenue and Politics 46-53, 234-37 (1996); John F. Witte, *The Politics and Development of the Federal Income Tax* 67-154 (1985); Marjorie E. Kornhauser, *The Morality of Money: American Attitudes Toward Wealth and the Income Tax*, 70 *Ind. L.J.* 119 (1994); Marc Linder, *Eisenhower-Era Marxist-Confiscatory Taxation: Requiem for the Rhetoric of Rate Reduction for the Rich*, 70 *Tul. L. Rev.* 905 (1996).

31. Traditionally, the phrase progressive taxation has referred to a tax system that has a rate structure featuring graduated progressive rates. In such a system, which generally is simply called a progressive rate system, taxpayers are subject to increasing marginal rates of tax; for example, 10% on the first \$10,000 of taxable income, 15% on the second \$10,000, 30% on the third \$10,000, and so forth. The term progressive taxation sometimes has been applied to flat rate taxes that have a zero bracket exemption. As a result of the zero bracket exemption, such a flat rate tax produces an aggregate tax rate that is less than the marginal tax rate but consistently increases as income increases. See Charles R. O'Kelley, Jr., *Tax Policy for Post-Liberal Society: A Flat-Tax-Inspired Redefinition of the Purpose and Ideal Structure of a Progressive Income Tax*, 58 *S. Cal. L. Rev.* 727, 729 (1985); Robert E. Hall & Alvin Rabushka, *The Flat Tax* (2d ed. 1995). The latter usage of the term progressive taxation is largely confined to the advocates of flat rate taxes who like to clothe their proposals in the garb of progressive taxation. See Marjorie E. Kornhauser, *The Rise of Rhetoric in Tax Reform Debate: An Example*, 70 *Tul. L. Rev.* 2345 (1996); Marjorie E. Kornhauser, *Equality, Liberty, And A Fair Income Tax*, 23 *Fordham Urb. L.J.* 607, 652 n.123 (1996).

32. See Boris I. Bittker, *Federal Taxation Of Income, Estates And Gifts*, at A-8 tbl. 5 (1981). An earlier income tax was held unconstitutional in *Pollock v. Farmers' Loan & Trust Co.*, 158 U.S. 601 (1895). See also Paul R. McDaniell et al., *Federal Income Taxation* 3-5 (3d ed. 1994)(discussing *Pollock*).

33. See Bittker, *supra* note 32.

revenues in World War II. During World War II, the maximum marginal rate was increased to over 90%, and it remained close to that level until 1964.³⁴ In 1965 the top rate was reduced to 70% as part of a general tax cut, and in 1969 the top rate on “earned income” was reduced to 50%.³⁵ Other income, however, was subject to tax at rates up to 70%, except capital gains, which were taxed at maximum rates that varied from 25% to 35% through the 1960s and 1970s.³⁶

When the post-1964 rate schedules, which were not indexed for inflation, met the Viet-Nam War and the OPEC-induced high inflation of the late 1960s and the 1970s, which pushed increasing numbers of middle class taxpayers into marginal tax brackets in the high 20s and the low 30s, the effectively flat rate tax system for most of the population was history.³⁷ The middle class taxpayers who were subjected to this graduated rate schedule didn't like the results.³⁸ By 1981 the middle class was ready for tax relief.

The 1981 Tax Act,³⁹ which turned into a bidding war between the Republicans and Democrats to see who could provide the biggest tax cut,⁴⁰ was

34. See Bittker, *supra* note 32. Withholding of income taxes on wages was also introduced during World War II, in 1943. See Slemrod & Bakija, *supra* note 8, at 23. In the early 1960s, roughly 90% of taxpayers faced the 20, 22, and 24% brackets, and not very many reached the 24% bracket. See C. Eugene Steuerle, *The Tax Decade 23-25* (1992). In essence, the system was largely a flat tax with steeply progressive surtaxes on a relatively small percentage of the population. See Slemrod & Bakija, *supra* at 25.

35. Bittker, *supra* note 32; Paul R. McDaniel et al., *Federal Income Taxation, Cases and Materials 9* (4th ed. 1998). The 1964 Act was a tax reduction that revised the rate schedules to create lower rate brackets, down to 14%, increasing the number of taxpayers exposed to the stair-step graduated rates.

36. Bittker, *supra* note 32.

37. Bittker, *supra* note 32.

38. See Steuerle, *supra* note 34, at 17-29. Slemrod and Bakija provide graphic evidence of the shift from “class tax” to “mass tax” after World War II by showing that while personal income tax revenues as a percentage of gross domestic product (GDP) remained essentially level between 1940 and 1990, the top rate during that period fell precipitously. Slemrod & Bakija, *supra* note 8, at 24 fig. 2.2.

39. Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, 95 Stat. 172 (1981).

40. See Harry L. Gutman, *Reforming Federal Wealth Transfer*

the first step in the statutory attack on progressivity. First, all brackets above 50%—which applied almost exclusively to current yield from capital—were eliminated; this had the important ancillary effect of reducing the maximum rate on long-term capital gains from 28% to 20%. Second, through adjustments in the remaining rate brackets, taxpayers at almost all demographic income levels received approximately a 10% reduction.⁴¹

The Tax Reform Act of 1986 continued to dismantle the graduated rate schedule by reducing the number of rate brackets from 14 to just two: 15% and 28%.⁴² This flattening of the rate structure was combined with a broadening of the tax base so as not to produce an overall tax cut,⁴³ or to affect the progressivity of the system, as measured by broad demographic income groups, such as income quintiles.⁴⁴ Nevertheless, the combined effects of the 1981 and 1986 Acts produced changes in income tax burdens that turned out to be

Taxes After ERTA, 69 Va. L. Rev. 1183, 1198-1206 (1983).

41. The 10% across the board reduction was not surprising; but the top end reductions were. Historically, except for disproportionate relief at the lower end, tax cuts have tended to be proportional across income classes. For example, the 1969 reduction of the top rate on earned income from 70% to 50% was coupled with other changes restricting deductions and creating the alternative minimum tax that resulted in no net tax relief for the income class benefitting from the nominal statutory rate reduction. But the 1981 reduction of the top rate from 70% to 50% didn't follow this pattern. It was more akin to the Andrew Mellon led tax cuts of the 1920s. See Witte, *supra* note 30, at 228-35.

42. Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085 (1986). There was, however, a disguised 33% rate bracket, on what might loosely be described as the upper middle class. See Boris I. Bittker & Martin J. McMahon, Jr., *Federal Income Taxation of Individuals* ¶ 40.2 (1988); Andrew B. Lyon, *Individual Marginal Tax Rates under the U.S. Tax and Transfer System*, in *Distributional Analysis of Tax Policy* 214 (David F. Bradford ed., 1995).

43. See Staff of the Joint Comm. on Taxation, *General Explanation of The Tax Reform Act of 1986*, 1354 tbl. A-1 (Comm. Print 1987)(5-year projected revenue impact of 1986 Act was projected to be a tax cut of only \$257 million).

44. See Michael J. Graetz, *Paint-By-Numbers Tax Lawmaking*, 95 Colum. L. Rev. 609, 618 (1995).

lopsidedly in favor of those at the very top of the economic ladder.⁴⁵

B. *The Distribution of Changes During "The Tax Decade"*⁴⁶

Dividing the population into quintiles, as was generally done in analyses of the 1981 and 1986 Acts, and comparing the changes in the average effective income tax rates for each quintile, leads to the conclusion that the effects of that legislation were generally proportional across income classes. From 1977 to 1990 income tax burdens changed as shown in Table 1.

TABLE 1
CHANGE IN AVERAGE INCOME TAX RATES: 1977-1990⁴⁷

<u>Quintile</u>	<u>Percent Change</u>
Lowest	N/A (negative rates)
2d	-7.6
3d	-6.8
4th	-8.3
5th	-7.3

But all is not as it appears, particularly when the appearance is produced by a distributional table.⁴⁸ Breaking down the top quintile and isolating the top 1% reveals the disproportionate reduction in tax rates for taxpayers at the very top of the income scale. It not only isolates the winners, but also exposes the size of the disparity between the top 1% and everybody else. Within the top quintile, the percentage reduction in income tax rates was as shown in Table 2.

45. For a discussion of how changes made during the 1990s affected the distribution of the tax burden, see *infra* Part II.C.

46. Steuerle, *supra* note 34.

47. 1993 Greenbook, *supra* note 7, at 1516 tbl. 26.

48. See generally, Graetz, *supra* note 44. For an excellent discussion of the subject of, and problems with, distributional analysis, see Lyon, *supra* note 42. Exactly which distributional tables one examines, and what economic assumptions are made in constructing the tables, can dramatically affect the conclusions that are reached. *Id.* For example, the lowest income quintile can include students, who are only temporarily poor, as well as the elderly, some of whom may be living by dissaving substantial accumulated wealth. Income mobility also may be an issue, individuals with short term or one time large amounts of income appearing in higher than usual brackets. See *infra* text accompanying notes 109-113.

TABLE 2
CHANGE IN AVERAGE INCOME TAX RATES FOR
THE TOP 20%: 1977-1990⁴⁹

81 to 90%	-7.3
91 to 95%	-7.4
96 to 99%	-5.9
Top 1%	-18.9

The results reflected by the distribution in Table 2 are what one would expect in a progressive system: the magnitude of the changes increases toward the top of the income scale. The problem, of course, is that those values reflect a reduction in taxes. That is, they are negative numbers which reflect a regressive change in the average income tax rate, where those at the very top enjoyed the greatest percentage decrease. That families in the top 1% enjoyed a reduction that was more than twice that bestowed on families in the remainder of the top quintile shows not only the absence of proportionality in the reductions within the top quintile, but also how analyzing the distribution within the fifth quintile more clearly reveals the effect of the rate reductions on progressivity.⁵⁰ Those in the top 1% won the rate reduction sweepstakes.

49. 1993 Greenbook, *supra* note 7, at 1516 tbl. 26.

50. We refer to “families” because that is the unit used by the Greenbook data from which we have drawn much of our analysis. The 1993 Greenbook defines a family to include “both families of two or more people and single individuals.” 1993 Greenbook, *supra* note 7, at 1485. The 1993 Greenbook data also measures family income:

[O]n a cash receipt basis, a definition generally consistent with the measure of income used by the Federal tax system. Family income equals the sum of wages, salaries, self-employment income, personal rents, interest, dividends, government cash transfers, cash pension benefits and realized capital gains. Family income excludes accrued but unrealized capital gains, employer contributions to pension funds, in-kind government transfer payments, and other noncash income. Because income is measured before reductions for any Federal taxes, employer contributions for Federal social insurance and Federal corporate profits taxes are added to family income. Family incomes are put in constant dollars by the CPI-X1 price index.

Opponents of progressive taxation often claim that flattening the rate schedule increased progressivity, citing data indicating that during the 1980s the share of aggregate income taxes paid by high income taxpayers increased.⁵¹

Id. at 1484. Income for these purposes is therefore likely to be higher than the amounts actually available for consumption by individuals, but may be comparatively higher for workers who earn amounts under the social security threshold than for others due to the addition of the employer's share of payroll taxes. The differences between the disposable incomes of those in the top 1% and everyone else may therefore be understated as a result of this methodology. To control for the effect of what the 1993 Greenbook refers to as "paper losses," which are more likely to be present for those at the top of the income distribution, "rental losses and most partnership losses were not subtracted from family income." Id.

Some critics of certain distributional studies have claimed that measures of income that include amounts other than disposable income, (such as family economic income), overstate wealth and so serve to give the appearance that the benefits of particular tax legislation go disproportionately toward the wealthy. For a sampling of this controversy see Saxton Calls Treasury's Tax Analysis Method "Misleading," Tax Notes Today (Tax Analysts) June 20, 1997, 97 TNT 119-H, available in LEXIS, FEDTAX library, TNT file; Treasury Analysis of Tax Bills A Sham, House GOP Leaders Charge, Tax Notes Today (Tax Analysts) July 17, 1997, 97 TNT 137-6, available in LEXIS, FEDTAX library, TNT file; Rubin Hails CRS Take on Tax Bills' Fairness, Tax Notes Today (Tax Analysts) July 10, 1997, 97 TNT 132-2, available in LEXIS, FEDTAX library, TNT file; Donald Lambro, Keeping An Eye On Total Tax Burdens, Wash. Times, June 26, 1997, at A15. Whatever the merits of such claims generally, in this context, such additions probably serve to decrease the differences between those in the top 1% and everyone and thus mute the effect we seek to expose. For example, addition of the employer's share of FICA, employer contributions to pension plans and even the addition of the imputed value of owner-occupied housing would have a proportionately greater effect on those in the bottom quintiles than on those in the top quintile, more of whose income is likely to come from capital and thus be unaffected by those measures, unless unrealized gains were included in the measure.

51. See The National Commission on Economic Growth and Tax Reform, *Unleashing America's Potential: A Pro-Growth, Pro-Family Tax*

And so it did. But increases in the share of taxes is only part of the picture that policymakers should examine. The other part of the picture, the part that opponents of progressivity ignore, is the relationship between the increase in the share of taxes and the increases in the share of household income. Between 1977 and 1990 families in the top 1% of the income distribution saw their share of household income increase at a much faster clip than their share of taxes. According to analysis of CBO data by Paul Krugman, the increases in income were approximately as shown in Table 3.⁵²

TABLE 3
INCREASES IN HOUSEHOLD INCOME, 1977-1989

<u>Quintile</u>	<u>Percent Change</u>
Lowest	-10%
2d	-2%
3d	+5%
4th	+10%
81 to 90%	+14%
91 to 95%	+18%
96 to 99%	+24%
Top 1%	+104%

Indeed, Krugman estimates that 70% of the aggregate increase in average family income in this period accrued to the top 1% of families.⁵³ As Table 3 reveals, families in the top 1% saw their income increase more than four times as much as those in the remainder of the top 5%, i.e. the 96th to 99th

System for the Twenty-First Century 47 (1996) [hereinafter Kemp Commission Report]. Of course, flattening the rate schedule could result in an increase in the aggregate share of taxes paid by high income taxpayers if the base broadening provisions that apply to such taxpayers (such as the increasingly popular phaseouts) serve to add progressivity through the back door. Even if the base broadening provisions have precisely that effect, our claim is that the effect—the share of the tax burden borne by such individuals—should not be examined in isolation.

52. Paul Krugman, *The Rich, The Right, And The Facts: Deconstructing the Income Distribution Debate*, 11 Am. Prospect 19, 21 (1992).

53. *Id.* at 23. As Table 3 reveals, the income of the top 1% rose by 104%, and this increase represents 70% of the total increase in average family income.

percentiles, and more than 10 times as much as those within the 4th quintile.⁵⁴ Again, the winners won big.

An examination of changes in the share of total income received by different groups confirms the magnitude of the winners' victory. From 1977 to 1990, the share of total income received by the top 1% increased from 8.8% to 12.8%.⁵⁵ Professor Joel Slemrod, one of the nation's leading fiscal economists, described this leap as "an extraordinary increase by the standards of usually glacial demographic trends."⁵⁶

The turtle became a hare when viewed from still another angle. Thus, not only did average income rise relative to the median income at an increasing rate,⁵⁷ but wage earners at the very top of the distribution saw a dramatic increase in their share of total wages.⁵⁸ Those at the apex, the top 1% of individuals by gross income, increased their share of wages from 3.8% of the total in 1970 to 4.7% in 1977; 5.6% in 1982; and 8.8% in 1988.⁵⁹ Similarly, the share of wages received by the top one-quarter of 1% of wage earners grew from 2.5% in 1970, to 3.7% in 1980, to 4.4% in 1984, and to 6.2% in 1990.⁶⁰ This trend matches the increasing share of total income realized by those at the very top of the top.⁶¹ Evidence of the winner-take-all market abounds.

54. *Id.* at 21.

55. 1993 Greenbook, *supra* note 7, at 1506 tbl. 17.

56. Joel B. Slemrod, On the High-Income Laffer curve, in *Tax Progressivity and Income Inequality* 177, 203 (Joel B. Slemrod ed., 1994). Using data from a different source, Slemrod shows the increase from 1977 to 1989 to be from 8.4% to 12.4%. *Id.* at 203.

57. Krugman, *supra* note 52, at 23. Based on census data, Krugman concluded that income mobility was not significant. *Id.* at 28-30. That the median income (the income in the middle of the distribution; for example, of the numbers 1, 2, 3, 4, 5, the number 3 is the median) rose at a slower rate than the average can only mean that the income of those at the top of the distribution was rising faster than everybody else's. Had the relative distribution remained the same, the median would have risen at the same rate as the average.

58. See Slemrod, *supra* note 56.

59. *Id.* at 192 tbl. 7, 193 tbl. 8, 194 tbl. 9, 195 tbl. 10. The portion of the income of the top 1% derived from wages rose from 30.5% in 1962 to 43.4% in 1988. *Id.* at 191 tbl. 6, 195 tbl. 10.

60. *Id.* at 205.

61. A wealth of data is available on income distributions, and it reveals very unequal distributions no matter what method is chosen.

Another measure of income concentration commonly used for comparative purposes by economists is the Gini index. See generally, Graetz, *supra* note 44, at 622-24; Daniel H. Weinberg, Bureau of the Census, A Brief Look at Postwar U.S. Income Inequality, Current Population Reports P60-191 (1996). For criticism of the use of the Gini index, see Louis Kaplow, A Fundamental Objection To Tax Equity Norms: A Call For Utilitarianism, 48 Nat'l Tax J. 497, 510-11 n.21 (1995). On the Gini index, a measure of zero is absolute equality and a measure of one is the maximum inequality. Changes in the Gini index resulting from changing economic conditions over a time period or as a result of a change in government policy that affects income indicate the direction and magnitude of changes in the distribution of incomes. The Bureau of the Census calculates and publishes detailed Gini indices using a variety of definitions of income. The pre-tax index, which includes money income (including capital gains), other than government transfers, and health insurance benefits for the period 1979 to 1993 shows steadily increasing concentration on incomes. See Bureau of the Census, Table RDI-5, Index of Income Concentration (Gini Index), by Definition of Income: 1979-1997 (last modified Jan. 4, 1999) <<http://www.census.gov/hhes/income/histinc/rdi05.html>>.

GINI INDEX OF INCOME CONCENTRATION FOR 1979 TO 1993

<u>Year</u>	<u>Gini Index</u>	<u>Year</u>	<u>Gini Index</u>
1993	.514	1985	.486
1992	.497	1984	.477
1991	.490	1983	.478
1990	.487	1982	.475
1989	.492	1981	.466
1988	.489	1980	.462
1987	.488	1979	.460
1986	.505		

The 1986 Gini index for incomes including capital gains reflects abnormally high capital gains realizations in 1986 before higher tax rates on capital gains under the Tax Reform Act of 1986 became effective. The Gini indices of money income excluding capital gains and government

As the graph in Figure 3 revealed, and as the foregoing data have underscored, since 1977 the distribution of income has reflected the expansion of winner-take-all markets. Collectively, we have also continued to pay lip service to the concept of progressivity, with the opponents of progressivity pointing to statistics that show that those at the top pay a large share of the taxes to support their claims that flattening tax rates increases progressivity.⁶² But careful analysis reveals the fallacy of their claims.

It is axiomatic that if share of income goes up, share of taxes will go up as well, even if tax rates remain constant. When income and tax data are linked, however, the picture of progressivity changes. The numbers that, alone, are so often used to show the increased progressivity of the federal income tax, also show that the system is a lot less progressive than it used to be when they are paired with the corresponding numbers for changes in income.⁶³ Pairing the tax and income numbers reveals that the rate reductions of the 80's reduced the progressivity of the income tax system relative to the distribution of income.⁶⁴

transfers for 1985, 1986, and 1987 were as follows: 1985, .471; 1986, .476; 1987, .477. For the Gini index for all money income, including government transfers, see Weinberg, *supra*; see also Lynn A. Karoly, *Trends in Income Inequality: The Impact of, and Implications for, Tax Policy*, in *Tax Progressivity and Income Inequality* (Joel Slemrod ed., 1994).

The Gini index is rather abstract for purposes of making static comparisons and is not particularly helpful in clearly identifying the particular demographic income levels at which vast disparities in income occur. Among the other, perhaps more easily understood, methods for comparing income distributions are actual money incomes for different income classes, incomes for different groups with reference to an index number, for example, as a multiple of the poverty rate, and the percentage of national income received by different income classes. These are all valid measures of income inequality and changes in income inequality. See Weinberg, *supra*.

62. See *supra* note 51 and accompanying text.

63. See *supra* Figure 3.

64. That the figures used in Figure 3 include all federal taxes, and thus reflect the effect of the social security payroll tax, which taxes a larger proportion of the income earned by those at the bottom of the income scale, does not detract from the conclusions we seek to draw from these data. First, income tax rates declined precipitously, as shown in Tables 1 and 2. Second, our point is that the share of taxes paid by the

Looking at the distribution of after-tax income also exposes the failure of income tax rates to reflect the increasing importance of winner-take-all markets. While those in the lowest quintile saw their share of income decline by 25% between 1977 and 1990, those in the top 1%, the winners, saw their share increase by 67%.⁶⁵ The result of this trend is that by 1990, families in the top quintile had over 50% of the income.⁶⁶

The graph in Figure 4, below, which compares 1977 to 1990 on an after-tax basis, shows that the top 10% gained while everyone else lost, and that the gains enjoyed by the top 1% far outstripped the gains for the remainder of the decile.⁶⁷

winner has failed to keep pace with their share of income, as these data graphically reveal, and that the federal income tax, whose graduated structure is extant and familiar, should be used to bring the share of taxes paid by the winners more into line with the relative increases in their income.

65. Derived from 1993 Greenbook, *supra* note 7, at 1507 tbl. 18.

66. See *supra* Figure 1.

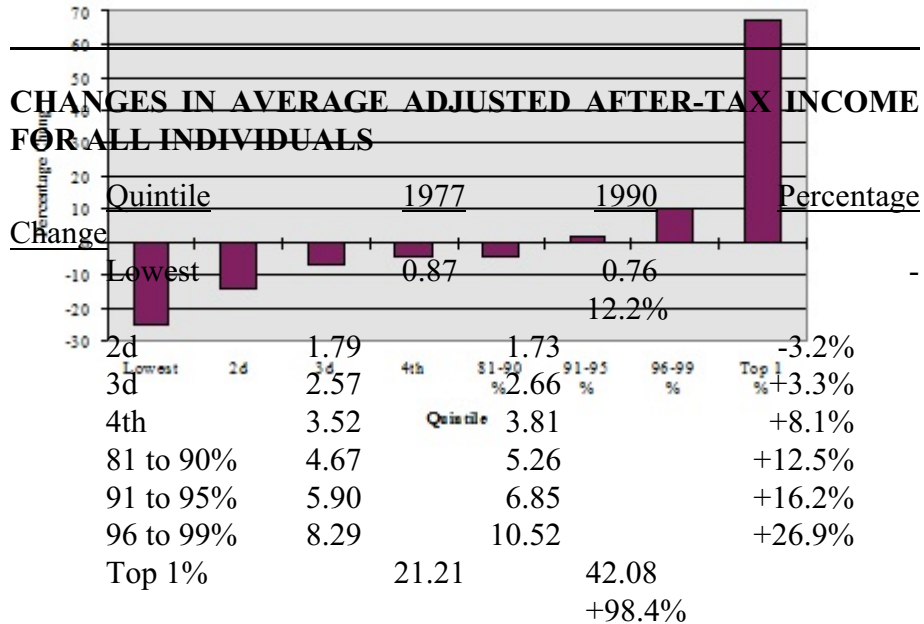
67. The discrepancies revealed so graphically earlier in the text are not a function of aberrations for a few individuals at the top of each income segment. Analysis of changes in average adjusted pre- and after-tax income shows the same kind of discrepancies.

CHANGES IN AVERAGE ADJUSTED PRE-TAX INCOME FOR ALL INDIVIDUALS

<u>Change</u>	<u>Quintile</u>	<u>1977</u>	<u>1990</u>	<u>Percentage</u>
	Lowest	0.96	0.84	-12.8%
	2d	2.12	2.06	-2.8%
	3d	3.20	3.31	+3.4%
	4th	4.51	4.89	+8.5%
	81 to 90%	6.13	6.94	+13.2%
	91 to 95%	7.88	9.19	+16.5%
	96 to 99%	11.37	14.23	+25.1%
	Top 1%	32.80	57.07	+74.0%

1993 Greenbook, *supra* note 7, at 1498 tbl. 12 (Income is expressed as a multiple of the poverty threshold and quintiles are weighted by persons.).

FIGURE 4
PERCENTAGE CHANGE IN SHARES OF AFTER-TAX INCOME
1977-1990⁶⁸



1993 Greenbook, supra note 7, at 1500 tbl. 13 (Income is expressed as a multiple of the poverty threshold and quintiles are weighted by persons.).

68. Derived from 1993 Greenbook, supra note 7, at 1507 tbl. 18. The Greenbook data from which Figure 4 was generated is as follows:

SHARES OF AFTER-TAX INCOME
1977-1990

<u>Quintile</u>	<u>1977</u>	<u>1990</u>	<u>Percentage</u>
<u>Lowest</u>	5.7%	4.3%	-25%
2d	11.6%	10.0%	-14%
3d	16.3%	15.1%	-7%
4th	22.8%	21.8%	-4%
81 to 90%	15.6%	15.0%	-4%
91 to 95%	9.8%	10.0%	+2%
96 to 99%	11.2%	12.3%	+10%
Top 1%	7.3%	12.2%	+67%

Despite the numerous odes to base broadening sung by its proponents, the '86 Act failed to increase the base of those at the top of the income scale enough to make up for the rate reductions it granted.⁶⁹ Indeed, base broadening might have hit taxpayers in the middle quintiles more heavily than those at the top, enhancing the salutary effect of the rate cuts for the winners.⁷⁰

69. As Gene Steuerle has chronicled, although “a drop of about one-third in the top rate required about a 50 percent expansion of the tax base for the group of taxpayers paying that rate of tax.” Steuerle, *supra* note 34, at 113. It was difficult to expand the base by that much because a large portion of the income of individuals at the top income levels came from interest and dividends, which were already considered to be over-taxed because of the corporate tax on dividend income and the taxation of the inflationary component of interest and so were not likely targets for base broadening; full taxation of capital gains would not have sufficed and elimination of the deduction for state and local income taxes did not survive the political process. Steuerle, *supra* note 34, at 112-14. Elimination of tax shelters through the restrictions on passive activity losses (§ 469), one of the more salient accomplishments of the '86 Act, did result in base broadening. See *id.* at 113. This probably accounts for at least some of the increase in the share of taxes paid by those subject to the top rate. See Pollack, *supra* note 30, at 98-106; Timothy J. Conlan et al., *Taxing Choices, The Politics of Tax Reform* 26-30 (1990).

70. This would occur if the impact of the back door base broadening provisions—the floor on miscellaneous itemized deductions (§ 67), the reduction in all but a few itemized deductions (§ 68), and the phaseout of dependency exemptions (§ 151)—hit taxpayers in the bottom half of the fifth quintile more heavily than those in the top half. This could occur because the loss of deductions is not infinite and the portion of the deduction that remains after application of the various limitations is worth proportionately more to a taxpayer facing the top bracket. Moreover, the back door progressivity provisions inserted into the '86 Act through surtaxes and evanescent bubbles only served to insure that those with more than a certain amount of taxable income paid tax at an effective rate of 28%; while that made the system more progressive than it would otherwise have been, it did not make the system more progressive than it was prior to the early '80's rate reductions. In addition to the brackets provided in §§ 1(a), (b), (c), (d) and (e), the '86 Act phased out the 15% bracket and the personal exemptions at various

C. *Distribution of Income in the 90s*

According to Census Bureau data, for 1994 the average household income was \$43,133, but the median household income was only \$32,264.⁷¹ The distribution of incomes, by quintiles, was as shown in Table 4.⁷²

TABLE 4
HOUSEHOLD INCOME BY INCOME GROUP FOR 1994⁷³

<u>Quintile</u>	<u>Average Income</u>	<u>Upper Limit for the Quintile</u>	<u>Percent of Aggregate Household Income</u>
1st	\$ 7,762	\$13,426	3.6%

income levels (§ 1(h) as in effect immediately after amendment by the '86 Act), and provided for a marginal rate "bubble" designed to make the effective rate 28% at certain income levels. For a somewhat different view of the potential effect of floors, see Louis Kaplow, *The Standard Deduction and Floors in the Income Tax*, 50 *Tax L. Rev.* 1 (1994)(with certain adjustments elsewhere in the system, floors and the standard deduction can operate in identical ways).

71. Bureau of the Census, Table H-7, Divisions--Households (All Races) by Median and Mean Income: 1976 to 1997 (last modified Nov. 8, 1998) <<http://www.census.gov/hhes/income/histinc/h07.html>>.

72. The Census Bureau used a variety of measures of income over the year, particularly varying whether to take into account taxes and both cash and noncash transfer payments. Although taking taxes and transfer payments into account somewhat levels inequality, the alternative methods do not alter the trends. See Weinberg, *supra* note 61.

73. Bureau of the Census, Table H-1, Income Limits for Each Fifth and Top 5 Percent of Households (All Races): 1967 to 1997 (last modified Nov. 6, 1998) <<http://www.census.gov/hhes/income/histinc/h01.html>>; Bureau of the Census, Table H-2, Share of the Aggregate Income Received by Each Fifth and Top 5 Percent of Households (All Races): 1967 to 1997 (last modified Nov. 6, 1998) <<http://www.census.gov/hhes/income/histinc/h02.html>>; Bureau of the Census, Table H-3, Mean Income Received by Each Fifth and Top 5 Percent of Households (All Races): 1967 to 1997 (last modified Nov. 6, 1998) <<http://www.census.gov/hhes/income/histinc/h03.html>>. The data for these years are slightly different in Weinberg, *supra* note 61, but the differences are not significant.

2d	\$ 19,224	\$25,250	8.9%
3d	\$ 32,385	\$40,100	15.0%
4th	\$ 50,395	\$62,851	23.4%
5th	\$105,945		49.1%

Within the top quintile, incomes were markedly skewed toward the top 5%. The average income for the top 5% was \$183,044, and the threshold for entry into the top 5% was \$109,821.⁷⁴ The top 5%'s share of aggregate household income was 21.2% of the total household income in the United States.⁷⁵ However one looks at the data, the conclusion is inescapable: a disproportionately large share of the income is earned by a small percentage of the population.⁷⁶

74. See Table H-1, Table H-3, *supra* note 73.

75. See Table H-2, *supra* note 73.

76. This conclusion remains unchanged even when different measures of income distribution are used. Thus, another way to look at the data is to compare income groups' income when measured as a percentage of the poverty rate. This measure is illustrated in the following table, drawn from data published in, *Data on Poverty*, which appears as Appendix H in the Committee on Ways and Means, *Overview of Entitlement Programs*, 103d Cong., 2d Sess. (Comm. Print 1994) [hereinafter 1994 Greenbook], and reflects changes in incomes between 1979 and 1992 measured as a multiple of the poverty rate.

**AVERAGE INCOME AS A MULTIPLE OF POVERTY RATE,
1979 and 1992**

<u>Quintile</u>	<u>1979</u>	<u>1992</u>	<u>C h</u>
<u>ange</u> lowest	.90	.77	-14.4%
2d	2.06	1.95	-5.4%
3d	3.27	3.10	-5.2%
4th	4.32	4.55	+5.3%
5th	7.39	8.36	+13.1%

See *id.* at 1196 tbl. H-21.

Neither the 1994 Ways and Means data nor the Census Bureau data provide detailed information on subgroups within the top quintile, but data from the 1994 Greenbook, which compare 1977 and 1990, do provide some more detailed information. Income as a multiple of the poverty rate separately stated within the top 10% reveals vast disparities

The Census Bureau data do not make any further distinctions within the top quintile, but the Greenbook provides such data for 1990 and selected earlier years. Table 5 illustrates the average family income and percent of aggregate income, by income group, for 1990. The overall average household income in that year was \$39,429.⁷⁷

TABLE 5
AVERAGE FAMILY INCOME IN THE TOP QUINTILE—1990⁷⁸

<u>Percentile</u>	<u>Average</u>	<u>Percent of Aggregate</u>
81 to 90%	\$ 60,719	15.4%
91 to 95%	\$ 78,226	10.4%
96 to 99%	\$120,090	12.9%

within the top quintile. According to the 1994 Greenbook, the overall change from 1977 to 1990 was a 14% increase, and the top quintiles average adjusted income increased from 8.95 times the poverty rate in 1977 to 11.47 times the poverty rate in 1990, for an increase of 28.1%. These numbers are deceiving, however, because of the concentration of incomes in the top 5% and the even greater concentration within the top 1%, as illustrated below.

**AVERAGE INCOME AS A MULTIPLE OF POVERTY RATE,
TOP QUINTILE DETAILS, 1977 and 1990**

	<u>1977</u>	<u>1990</u>	<u>Change</u>
81 to 90%	6.13	6.94	+13.2%
91 to 95%	7.88	9.19	+16.6%
96 to 99%	11.37	14.23	+25.1%
Top 1%	32.80	57.07	+74.0%

1993 Greenbook, supra note 7, at 1498 tbl. 12.

The foregoing data demonstrate that incomes are very unequal and that the inequality has been increasing.

77. According to the Census Bureau data, the average household income for 1990 was only \$37,403. Bureau of the Census, Table H-12, Earners—Households (All Races) by Median and Mean Income: 1980 to 1997 (last modified Nov. 6, 1998) <<http://www.census.gov/hhes/income/histinc/h12.html>>.

78. Derived from 1993 Greenbook, supra note 7, at 1486 tbl. 10, 1506 tbl. 17.

Top 1%	\$507,185	12.8%
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Over one-half of all income was concentrated in the top quintile, and more than one-half of that amount (one-quarter of all income) was concentrated in the top 5%.

The Greenbook data reveal further details regarding the significant disparities within the top quintile and the significant disparity between the top 1% and the remainder of the top 5%. Average income for a family in the 91st to 95th percentiles was slightly less than twice the overall average income. Average income for the 96th to 99th percentiles was slightly more than three times the overall average. Average income for the top 1% was more than twelve times the overall average.⁷⁹ The winners really are different from the rest of us.

The Greenbook data do not break down the top 1%, but data from the Internal Revenue Service, Statistics of Income, provide some insight into the differences within that range. For 1992, the top 1% of income tax returns, ranked by positive income, consisted of returns with at least \$250,000 of positive income.⁸⁰ Thus, the top 1% includes not only Fortune 500 CEOs, leading entertainers and athletes, Wall Street investment bankers and lawyers, but hundreds of thousands of successful professionals and business owners all across the country.⁸¹ Within the top 1% of tax return filers, which is a smaller

79. Table 5 also illustrates that average income is a deceptive concept for measuring general well-being of the average citizen because it reveals nothing about distribution. The 1990 average income of \$39,429 was nearly \$10,000 more than the average income of the third quintile. Average does not mean typical. Average does not even approach typical. The average income of the fourth quintile was barely \$4,000 above the average overall income. Distribution is important in measuring the well-being of the citizenry as a whole. Thus, average income is a facile but deceptive yardstick on which to base tax policy decisions. An increase in per capita income may mask welfare losses by the majority of the population. Likewise, a decrease in average income might not result in a welfare loss for the majority of the population.

80. This group represented 1,183,989 out of 111,210,660 income tax returns, or 1.06%. Statistics of Income Division, Internal Revenue Service, Pub. No. 1304, Individual Income Tax Returns 1992, at 20 (1995).

81. For a demographic description of the top 1%, see Edward N. Wolff, *Who Are the Rich? A Demographic Profile of High-Income and High-Wealth Americans* (presented at the Conference, "Does Atlas

group than the top 1% of the population as a whole, the potential disparities are even more dramatic than suggested by the preceding data. The number of return filers for various positive income groups within that top 1% was as shown below in Table 6. The data reveal that the disparities in income within the top and bottom of the fifth quintile are significantly greater than those between the top and bottom of the fourth quintile.

TABLE 6
DISTRIBUTION OF TOP ONE PERCENT BY INCOME RANGE -
1992

<u>Income Range</u>	<u>Number</u>
\$ 251,000 - \$ 499,999	824,083
\$ 500,000 - \$ 999,999	250,233
\$ 1,000,000 - \$1,999,999	73,453
\$ 2,000,000 - \$4,999,999	27,312
\$ 5,000,000 - \$9,999,999	5,839
\$10,000,000 or more	3,066

Thus, although the average income for the top 1% may be just a shade over \$500,000, the median income looks to be well below that amount. A very few households at the very top of the top of the distribution have vastly disproportionate incomes even when measured against the bottom half of the top 1%.

A recent study by James Alm and Sally Wallace underscores the magnitude of the gap between individuals at the very top of the income distribution and others, even others within the rarefied atmosphere of the top 1%.⁸² Based on individual tax model files obtained from the IRS Statistics of Income Division, Alm and Wallace estimated that in 1989 individuals in the top 1% had 14.39% of all income, but individuals in the top one-half of 1% had 10.96% of the income.⁸³ This means that individuals in the top half of the top 1% received over 75% of the income of that group. That pattern of concentration at the top of the top was repeated in 1994, when individuals in the top 1% claimed 13.73% of all income, but those in the top half of that group received 10.47% of the total.⁸⁴

Shrug? The Economic Consequences of Taxing the Rich,” October 24-25, 1997, Office of Tax Policy Research, University of Michigan Business School [hereinafter Atlas Shrug Conference], on file with the authors, to be published by the Cambridge University Press).

82. James Alm & Sally Wallace, Are the Rich Different? 29 tbl. 5, presented at Atlas Shrug Conference, supra note 81.

83. Id.

84. Id.

The dramatic differences within the top quintile reveal both the need to analyze this quintile more closely when formulating tax policy and the flaw in treating everyone in the top quintile alike.⁸⁵ Moreover, the dramatic differences within the top 1% itself show that even treating everyone within this relatively small group alike is inapt. Those in the 5th quintile may all be winners relative to the rest of the population, but the top 1% wins on a very different scale from the rest of us, and those at the top one tenth of 1% win on a very different scale from the rest of the top 1%.⁸⁶

85. Most studies of popular notions of progressivity examine perceived fairness of differing marginal tax rates at income levels below \$100,000 and lump together all persons with income over \$100,000. See Steven M. Sheffrin, *Perceptions of Fairness in the Crucible of Tax Policy*, in *Tax Progressivity and Income Inequality* 309 (Joel B. Slemrod ed., 1994), Peggy A. Hite & Michael L. Roberts, *An Experimental Investigation of Taxpayer Judgments on Rate Structure in the Individual Income Tax System*, 13 *J. Am. Tax Assoc.* 47 (1991).

86. The differences are revealed both by examples from the traditional winner-take-all markets—sports and entertainment—as well as from the evolving winner-take-all market of the corporate world. Thus, *Forbes* reports that entertainers still tend to be at the very top of the heap and provides useful insight into the size of winnings. See Robert La Franco, *The Top 40*, *Forbes* 162 (Sept. 22, 1997). The number one earner in the entertainment industry for the two year period 1996 and 1997, Steven Spielberg, made \$283 million in 1997 and \$30 million in 1996, for a two-year total of \$313 million. The runner up, George Lucas, made \$189 million in 1997 and \$52 million in 1996, for a two-year total of \$241 million. Number three, Oprah Winfrey, made \$104 million in 1997 and \$97 million in 1996, for a total of \$201 million. By comparison, Michael Crichton, whose income was only half of Oprah's—\$65 million in 1997 and \$37 million in 1996, for a total of \$102 million, seems almost penurious. Jerry Seinfeld, David Copperfield, Steven King, Tom Cruise, Arnold Schwarzenegger, and Harrison Ford all made more than \$70 million over the two year period. Tim Allen, John Grisham, John Travolta, Garth Brooks, Roseanne, Michael Jackson, Tom Clancy, and Robin Williams were among those earning \$50 million or more. Bill Cosby, number 40 on the list, earned \$36 million during 1996 and 1997. See *id.*

Athletes do well too. In December, 1997, Pedro Martinez, a 26 year old pitcher, signed a six-year contract with the Boston Red Sox for \$75 million; the average annual value of the contract was \$12.5 million. See Murray Chass, *Martinez's \$75 Million For 6 Years Raises Bar*, N.Y. Times, Dec. 11, 1997, at C1. That was the top baseball salary; second place went to Greg Maddux, who will receive an average of approximately \$11.5 million per year for five years from the Atlanta Braves. The average salary for major league baseball players in 1997 was \$1,336,609. See Murray Chass, *Sultans Who Swat: D.H.'s Are Well Paid*, N.Y. Times, Dec. 3, 1997, at C7. Over the next six years, the Minnesota Timberwolves of the National Basketball Association will pay 21-year old Kevin Garnett \$126 million, an average annual salary of over \$20 million a year deal, while the venerable Michael Jordan had the highest annual salary in basketball, \$36 million, see Dave Anderson, *1997 In Review: Amid All the Achievements, a Year of Lost Years*, N.Y. Times, Dec. 28, 1997, § 8, at 1, while Patrick Ewing averages \$17 million a year from the N.Y. Knicks. Coaches get big money as well. Rick Pitino left the University of Kentucky to run the Boston Celtics for \$70 million over 10 years, and Chuck Daly is getting \$15 million over three years to coach the Orlando Magic. In professional hockey, top star Eric Lindros will receive \$16 million over two years. The listings could go on and on. Hundreds of major league baseball and football players make more than \$1 million dollars a year. See Claire Smith, *On Baseball: For Football Union, A Cap Is No Big Deal*, N.Y. Times, Sept. 1, 1994, at B18.

Athletes do well off the field or court as well as on. For 1996 Michael Jordan was estimated to have earned \$40 million from advertising endorsements alone. Other endorsements earnings leaders included Tiger Woods, \$25 million, Shaquille O'Neal, \$23 million, Arnold Palmer, \$19.2 million, Andre Agassi, \$17 million, Jack Nicklaus, \$16 million, Grant Hill, \$15.5 million, Joe Montana, \$12 million, and Ken Griffey, Jr. and Deon Sanders, \$6 million each.

Corporate CEOs, while generally not in the same class as entertainers and athletes, do better than the average Joe or Jane. The 25 highest paid CEOs between 1992 and 1996 collectively received over \$2.5 billion in salaries and bonuses in that five year period. Eric S. Hardy, *The Prize*, Forbes, May 19, 1997, at 166. That's an average of over \$20

D. *Legislative Reaction to the Tax Cuts of the 80s*

The enormously disproportionate tax cuts accorded to the very highest income class in the 1980s helped fuel the income disparities described above and set the stage for the 1993 tax increases, in the form of the 36% bracket for taxable incomes between \$140,000 and \$250,000 (married, filing jointly), and the 39.6% bracket on taxable incomes over \$250,000.⁸⁷ Despite claims of some

million a year each. Lawrence M. Coss of Green Tree Financial may have distorted the averages, however, by getting over \$102 million for just that year. By comparison, notables like Michael Eisner of Disney and Jack Welch of General Electric received \$8.65 million and \$6.3 million respectively. Eight of the top 25 CEOs received more than \$5 million for 1996 and ten received between \$2 and \$5 million. See *id.* Notably, we have not mentioned Bill Gates, whom we believe to be in a class by himself.

Significant numbers of investment bankers are reported to have earnings comparable to the mid-level Forbes Top-40 entertainers, and some lawyers are reported to have incomes approaching those of the typical top-25 CEO. See Kevin Phillips, *The Politics of Rich and Poor: Wealth and the American Electorate in the Reagan Aftermath* 173-76 (1990). The bull market that was still going strong until August, 1998, has been so good to Wall Streeters that they are redefining the term conspicuous consumption by spending well over a quarter of a million dollars on country club memberships or home sound systems, and over \$2,000 for suits. See Brian O'Reilly, *Spoils of a Pig Market*, *Fortune*, Sept. 7, 1998, at 116.

It is also possible that numerous owners of closely held businesses, entrepreneurs whose incomes are not public record, may be within the select group. But then so might securities traders and arbitrageurs. In the end, the best that can be said is that we can obtain only random glimpses of the identities and activities, and thus the social contribution, of the big winners, and accordingly no single categorization or generalization is fair.

87. Revenue Reconciliation Act of 1993, Pub. L. No. 103-66, §§ 13201(a), 13202(a)(1), 105 Stat. 312, 458, 461 (1993). As a result, the share of total federal taxes paid by the top 1% increased from 14.9% in 1990 to 15.8% in 1994, and the share of taxes paid by the remainder of

politicians and commentators that the 1993 rate increases had a broad impact, they affected less than 4% of taxpayers—those at the very top of the income distribution.⁸⁸ Nevertheless, such rate increases were unprecedented in peacetime.⁸⁹ Why, then, were they enacted? Three factors appear to have converged to lead to these new higher rates.

First, the budget deficit may have created the perception of an almost war-like financing crisis.⁹⁰ Second, taking into account *both* income and FICA taxes, both of which reduce current after-tax income, and which individuals

the top 5% increased from 14.9% to 15.2%; the share of all other groups decreased. 1993 Greenbook, *supra* note 7, at 1515 tbl. 25.

88. See Therese M. Cruciano & Michael Strudler, *Individual Income Tax Rates and Tax Shares, 1993*, 16 Stat. Inc. Bull. 7, 10 fig. C (1996).

89. See *supra* Part II.A.

90. Professor Sheldon Pollack has observed that, “The enduring budget crisis continued to play a crucial role in orienting tax policy making in 1993.” Pollack, *supra* note 30, at 132. During the 1992 presidential campaign, candidate Clinton emphasized the need to address the deficit. See, e.g., *Clinton Suggests Deficit May Cancel a Tax Cut*, Wall St. J., January 14, 1993, at A18. When he presented his economic program to Congress in his first State of the Union address in February, 1993, President Clinton expressed his support for the so-called “millionaire’s surtax” championed by Congressional Democrats since the early 1990s and proposed the marginal rate increases that became law later that year. Pollack, *supra* note 30, at 125-26. For a good analysis of the political forces that led to the 1993 rate increases, including an analysis of other 1993 proposals (like the BTU or energy tax) that did not become law, see Pollack, *supra* note 30, at 125-33.

Professor Daniel Shaviro, who more recently undertook a comprehensive study of deficits generally, also attributes the tax increases of the 1990s, as well as the rate increases of 1982, 1984, 1987, 1990 and 1993 to concern over the deficit. Daniel Shaviro, *Do Deficits Matter?* 25-26 (1997). (The large rate reductions to which we have referred occurred in 1981 and 1986.) Indeed, Professor Shaviro has observed that “[T]he Reagan deficits may have been designed in part to create pressure for spending reductions in domestic programs. In their aftermath, however, deficit reduction through tax increases became an occasional Democratic Party theme. . . .” *Id.* at 26.

may perceive as commingled,⁹¹ the rate increases hit those who actually got the overall tax rate reductions that exacerbated the deficit.⁹² Third, as Willie Sutton

91. Although middle income Americans whose full salary is subject to payroll taxes pay more in payroll taxes than in income taxes, they probably view their federal burden as the difference between their gross and net pay, and attribute it all to the federal income tax. See Chris R. Edwards, *Typical American Family Pays 40 Percent of Income in Taxes*, 66 *Tax Notes* 735 (Jan. 30, 1995). For a fuller discussion of the relationship between the burdens imposed by the payroll and income taxes, see Alice G. Abreu, *Taxes, Power, and Personal Autonomy*, 33 *San Diego L. Rev.* 1, 39-50 (1996).

92. The 1993 rate increases added two brackets, 36% and 39.6%, which apply to joint filers with taxable income above \$140,000 and \$250,000, respectively. Pub. L. No. 103-66, §§ 13201(a), 13202(a)(1), 107 Stat. 457-58, 61 (1993). Thus, the rate increases apply to those individuals who received the benefit of the previous rate reductions. The following tables show the effect of the 80's rate reductions.

CHANGE IN AVERAGE OVERALL TAX RATES: 1977-1990

<u>Quintile</u>	<u>Percent Change</u>
Lowest	-3.8%
2d	1.9%
3d	-0.3%
4th	1.0%
5th	-6.3%

1993 Greenbook, *supra* note 7, at 1513 tbl. 24.

CHANGES IN FEDERAL EFFECTIVE TAX RATES HOLDING INCOME AND DEMOGRAPHICS CONSTANT AT 1989 LEVELS AND APPLYING 1977 AND 1989 TAX LAWS

<u>Quintile</u>	<u>Percent Change</u>
Lowest	8%
2d	17%
3d	12%
4th	9%
5th	-5%

is reputed to have answered when asked why he robbed banks, “That’s where the money is.”

As prominent political analyst Kevin Phillips has observed, the 1980s were “an era of tax *deception* . . . where the average American family was concerned.”⁹³ As the tables and graphs we have included in this Part demonstrate, Phillips was right, for despite all of the rhetoric of tax reduction, families in the middle quintiles saw their share of the tax burden rise even as their share of income was declining.⁹⁴ Only families in the top 5% saw their share of income rise more steeply than their share of taxes, and only families in the top 1% saw that happen dramatically.⁹⁵ That’s where the money went.

The 1993 rate changes are so new, relatively speaking, that long term data on their effects does not yet exist.⁹⁶ To be sure, the data indicate that the average income tax rates for the highest income earners have increased slightly since the 1993 rate changes took effect, but have remained relatively stable since then. Table 7 illustrates the changes by AGI income classes.

TABLE 7
AVERAGE INCOME TAX RATES BY AGI CLASS

Income Range by AGI	Approximate Percentage of Returns	Average Income Tax Rate			
		1992 ⁹⁷	1993 ⁹⁸	1994 ⁹⁹	1995 ¹⁰⁰
Separately stated within the top 10%					
	81-90%				9%
	91-95%				9%
	95-99%				1%
	Top 1%				-26%

1993 Greenbook, *supra* note 7, at 1539 tbl. 35.

93. Kevin Phillips, *Boiling Point: Democrats, Republicans, and the Decline of Middle Class Prosperity* 103 (1993)(emphasis in original).

94. See *supra* Figure 3.

95. *Id.*

96. As we go to press, in the Fall, 1998, the latest *Statistics of Income Bulletin* in print is Spring, 1998, which contains 1994 and 1995 tax return data.

97. Therese M. Cruciano, *Individual Income Tax Returns, Preliminary Data, 1993*, 14 *Stat. Inc. Bull.* 9, 10 fig. B (1995).

98. Therese M. Cruciano, *Individual Income Tax Returns*,

\$100,000 - \$199,999	4.0	18.4	18.5	18.5	18.3
\$200,000 - \$499,999	1.2	23.9	25.7	25.6	25.6
\$500,000 - \$999,999	.2	26.1	30.3	30.2	30.2
\$1,000,000 or more	.1	27.2	31.7	31.2	31.5

These rate increases—which generally affect only those in AGI classes above \$200,000—are the result of the combined effects of the higher income tax rates enacted in 1993 and the operation of the alternative minimum tax;¹⁰¹ the exact source of the changes cannot easily be isolated. More importantly, the post-1992 increases in the effective average tax rates for the top 1% are relatively modest compared to the tax cuts accorded this group during the 1980s,¹⁰² and do not begin to match the increased rate of growth in the income of this group.¹⁰³

Furthermore, whatever increase in effective rates the top 1% may have experienced as a result of the 1993 rate increases was probably only transitory. Existing data necessarily fail to take account of the dramatic changes made to the tax law in 1997 and, again, in 1998.¹⁰⁴ The 1997 legislation dramatically lowered the maximum rate of tax on capital gains, and the 1998 legislation enhanced that benefit by reducing the holding period necessary to obtain the lowest possible rate.¹⁰⁵ Since most capital gains are realized by high-income

Preliminary Data, 1994, 15 Stat. Inc. Bull. 6, 7 fig. B (1996).

99. Therese J. Cruciano, Individual Income Tax Rates and Tax Shares, 1995, 17 Stat. Inc. Bull. 11, 13 fig. B (1998).

100. *Id.*

101. Revenue from the Alternative Minimum Tax (“AMT”) increased dramatically—by 51.3%—in 1993, and continued to increase in 1995. See Cruciano, *supra* note 99, at 17.

102. See *supra* Table 2.

103. See *supra* text accompanying notes 68-86.

104. See The Taxpayer Relief Act of 1997, Pub. L. No. 105-34, § 311, 111 Stat. 788, 831 (1997) [hereinafter 1997 Act]; Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. No. 105-206, § 5001, 112 Stat. 685, 787 (1998).

105. While we cannot attempt a comprehensive analysis of the effects of the 1997 Act at this juncture, that piece of legislation so exemplifies the trends we have observed and decry, that we cannot resist a few observations. For example, by creating back-loaded individual retirement accounts, the act threatens to so divorce the tax burden from any measure of ability to pay that at least one noted economist has

taxpayers,¹⁰⁶ it is not farfetched to surmise that most of the substantial benefits wrought by the 1997 and 1998 changes went to the million dollar winners.¹⁰⁷ For them, the mid-1990s increased effective tax rates very likely were just a temporary blip that was fixed by a sympathetic Congress shortly thereafter. And the Congressional sympathy only keeps growing, as talk of further reductions in the capital gains rates runs rampant.¹⁰⁸

likened it to replacing income and consumption taxes with a head tax. Gene Steuerle, *Back-Loaded IRAs: Head Taxes Replace Income & Consumption Taxes*, 77 *Tax Notes* 109 (Oct. 6, 1997). Similarly, by dramatically reducing the rate of tax on capital gains, but not on other types of income, the 1997 Act further widens the gulf between increases in income and increases in income taxes. See 1997 Act, *supra* note 104, at 831; Jane G. Gravelle, *CRS Distributional Estimates Find Wealthy Would Win Under Tax Bill*, 74 *Tax Notes* 281 (Jul. 14, 1997)(reprinting a Congressional Research Service distributional analysis of the 1997 Act prepared by Dr. Jane G. Gravelle).

106. In 1995, approximately 1.07% of returns reporting an AGI of \$200,000 or more reported 59.57% of all net long-term capital gains from the sale of assets. Within that group, .22% of returns reporting AGI in excess of \$500,000 reported 43.71% of capital gains, and .07% of returns reporting income of \$1,000,000 or more reported 34.77%. Data derived from Therese M. Cruciano, *Individual Income Tax Returns, 1995*, 17 *Stat. Inc. Bull.* 9, 24 tbl. 1 (1997). It is reasonable to believe that most of these gains are reported by taxpayers who consistently report capital gains, not by the apocryphal low or middle income farmer or small business owner who realizes a one-shot capital gain. For analysis of capital gains realizations over time, indicating that individuals realizing capital gains generally are not in the highest income group by reason of one-shot or occasional recognition of capital gain, but tend to realize capital gains regularly, see Michael Haliassos & Andrew B. Lyon, *Progressivity of Capital Gains Taxation with Optimal Portfolio Selection*, in *Tax Progressivity and Income Inequality* 275 (Joel Slemrod ed., 1994).

107. See Cruciano, *supra* note 99, at 16.

108. For example, during each week in the period from the beginning of August, 1998, through the day after Labor Day, 1998, there was at least one, and often many more than one, major story on a capital gains tax cut proposal, notwithstanding that Congress recesses in August, and much of the rest of the world is supposed to be on vacation.

E. The Question of Income Mobility

An individual's income is rarely static. Before embracing an analytical model grounded in the distribution of income we must therefore consider whether that distribution reflects only transitory fluctuations in income that average out over the course of a lifetime, or whether it reflects enduring differences in income over the long term. In populations where there is a great deal of income mobility, with individuals frequently moving across a wide range of income classes within short periods of time, the distribution of income provides a less compelling model for the design of the rate structure than in populations where the distribution of income remains fairly constant, within one or two categories.

Examination of available data leads us to conclude that the analytical model we propose is sound even after taking into account the possibility of income mobility. While Americans experience "significant" income fluctuations from year to year,¹⁰⁹ the data do not support the conclusion that many households oscillate between broadly defined income classes. Indeed, it is fair to say that most income mobility appears to result from life-cycle variations in wages, not from wide fluctuations in income realized by individuals while within any particular age cohort.¹¹⁰

According to one leading study, only 13.8% of those who are in the bottom 30% for any given year are in the top 30% over their lifetime, and only 2.6% of those who are in the top 30% for any particular year are in the bottom

See, e.g., Heidi Glenn & Daniel Tyson, Congress's Homestretch Will Highlight Popular Tax Cuts, 80 Tax Notes 1111 (Sept. 7, 1998); Ryan J. Donmoyer, Presidential Hopeful Unveils \$ 4 Trillion Tax Cut Plan, 80 Tax Notes 992 (Aug. 31, 1998); Rep. William J. Coyne, Coyne Bill Would Reform Capital Gains Tax Laws, 80 Tax Notes 934 (Aug. 24, 1998); Senator Charles E. Grassley, Grassley Bill Would Cut Capital Gains, Aid Farmers, 80 Tax Notes 823 (Aug. 17, 1998); Tax Analysts, Tax Cut Talk Fills the Summer Air, 80 Tax Notes 637 (Aug. 10, 1998); Heidi Glenn, Lott and Others Introduce Capital Gains Cut, Farm Tax Breaks, 80 Tax Notes 533 (Aug. 3, 1998).

109. Wilfred T. Masumura, Bureau of the Census, Moving Up and Down the Income Ladder, Current Population Reports P70-56 (1996).

110. See Joseph Bankman & Barbara H. Fried, Winners and Losers in the Shift to a Consumption Tax, 86 Georgetown L.J. 539, 558-61 (1998).

30% over their lifetime.¹¹¹ Top to bottom mobility is therefore quite rare, as is its converse, notwithstanding the emotional appeal of the American Dream. Focusing on those at the top of the pyramid, 90% of those in the top decile for their age cohort at age 49 were in the top two deciles at age 79, and only 2% of individuals in the top decile for their age cohort at age 49 had fallen below the top three deciles by age 79.¹¹² At the top, then, almost all of the mobility is up, not down. This finding is confirmed by “other studies [which] show income mobility within one or two deciles, but not much income mobility across more dispersed deciles,” within any particular age cohort.¹¹³ In sum, the data on income mobility do not impugn the case for progressive taxation.

III. EQUITY, EFFICIENCY, AND THE DIMINISHING MARGINAL UTILITY OF MONEY

Debates over progressive taxation have divided scholars into those who champion efficiency over equity and those who favor equity over efficiency.¹¹⁴

111. Don Fullerton & Diane Lim Rogers, *Who Bears the Lifetime Tax Burden?* 111 (1993).

112. *Id.* at 109.

113. See Bankman & Fried, *supra* note 110, at 560. Other data suggest that there is no reason to worry that widespread movement across income categories will impugn the integrity of an analytical model of the rate structure that is founded on the distribution of income. Thus, from 1992 to 1993, for example, the Census Bureau data tell us that 39% of households saw their income decline by 5% or more, 39% of households saw their income grow by 5% or more, and 22% of households failed to experience any change as high as 5%, in either direction. Similar patterns occurred from 1990 to 1991 and from 1991 to 1992. Nevertheless, our focus is the relationship between the economic position of individuals whose annual incomes exceed half a million dollars, and that of individuals making \$50,000, \$75,000, or even \$150,000 per year. Fluctuations of 5%, or even 10 or 15%, per year are not significant enough to support treating those individuals as if they were similarly situated over their lifetimes.

114. Over 20 years ago, Arthur Okun analogized the tradeoff to taking from the poor to give to the rich, but carrying the money in a leaky bucket; the amount of leakage was the loss in efficiency, and the policy question was how much leakage should be tolerated. Okun, *supra* note

The scholarly literature on the equity/efficiency tradeoff is rich and varied.¹¹⁵ Equity and efficiency generally have been viewed as mutually exclusive objectives between which policy makers must choose.¹¹⁶ During the 80s, concerns over efficiency carried the day, producing the inequitable distribution of income described in Part II. We aim to show that the equity/efficiency tradeoff is a mirage. An efficient tax system need not produce the lopsided distribution of income that now exists. We will now show that progressive taxation can be efficient. In Part IV, we will show why we think it is also equitable.

A. The Diminishing Marginal Utility of Money and Equiproportional Sacrifice

The most persuasive arguments for the equity of progressive taxation rest on the concept of the diminishing marginal utility of money and the proposition that taxation ought to exact equiproportional sacrifice.¹¹⁷ If the marginal utility of money declines as the amount of money increases,¹¹⁸ then

22, at 91. Okun explained how some people—those motivated by Rawls’ difference principle pursuant to which ‘all social values . . . are to be distributed equally unless an unequal distribution of any . . . is to everyone’s advantage’—would favor equality over efficiency whereas others, like Milton Friedman, would favor efficiency over everything else. Okun, *supra* at 92 (quoting John Rawls, *A Theory of Justice* 62 (1971)). Favoring efficiency does not necessarily lead to favoring proportional taxation, however. Optimal tax theorists, who would impose high rates of tax on inelastic transactions, show that efficiency and proportionality need not follow one from the other. See *infra* note 198.

115. See Musgrave & Musgrave, *supra* note 22, at 88-104; Okun, *supra* note 22; Feldstein, *supra* note 22, at 78 and sources cited in note 2 therein.

116. See Musgrave & Musgrave, *supra* note 22, at 88-104; Okun, *supra* note 22; Feldstein, *supra* note 22, at 78 and sources cited in note 2 therein.

117. Equal sacrifice can mean equal absolute sacrifice, equiproportional sacrifice, or equal marginal sacrifice. Equal absolute sacrifice does not necessarily warrant progression, but equal proportional sacrifice does warrant progression at some rate regardless of the rate at which the marginal utility of money decreases. Equal marginal sacrifice calls for leveling of incomes from the top down, a proposition that finds little support. See Musgrave & Musgrave, *supra* note 22, at 250-55.

118. See generally Mark S. Stein, *Diminishing Marginal Utility*

proportional sacrifice requires progressive rather than proportional tax rates.¹¹⁹

The proposition that money has diminishing marginal utility follows from the empirical observation that all of the goods and services that money purchases have diminishing marginal utility.¹²⁰ Nevertheless, some prominent scholars have argued that just because the things money can buy have diminishing marginal utility does not *a priori* establish that money itself has diminishing marginal utility and maintain that the diminishing marginal utility of money has not been successfully demonstrated on an empirical basis.¹²¹ These scholars therefore reject the notion that the diminishing marginal utility of money provides an equitable justification for progressive taxation.¹²²

Until the 1930s, neoclassical economics generally accepted the proposition that money had diminishing marginal utility.¹²³ With the rise of the ordinalist economics movement in the 1930s, analysis based on the diminishing marginal utility of money fell out of favor, ostensibly because it was “unscientific” due to the inability precisely to measure utility and to make

of Income and Progressive Taxation: A Critique of The Uneasy Case, 12 N. Ill. L. Rev. 373 (1992)(arguing that there is a diminishing marginal utility of income which means that there is a lesser sacrifice per dollar taxed for a high income taxpayer as opposed to a low income taxpayer); Milton Friedman & L.J. Savage, The Utility Analysis of Choices Involving Risk, 56 J. Pol. Econ. 279 passim (1948).

119. See Donna M. Byrne, Progressive Taxation Revisited, 37 Ariz. L. Rev. 739, 765-69 (1995).

120. See *id.* at 767.

121. See Blum & Kalven, *supra* note 22, at 474; Richard A. Musgrave, The Theory of Public Finance 102-03 (1959). Some scholars also point to the development of modern welfare economics, which is based largely on absolute wealth maximization and treats all dollars as having equal utility. See David F. Bradford, Untangling the Income Tax 153-54 (1986); see also Jules L. Coleman, Markets, Morals and the Law 98-100, 104-08 (1980); Richard A. Posner, The Economics of Justice 60-88 (1981); John B. Shoven & Paul Taubman, Saving, Capital Income, and Taxation, in The Economics of Taxation 202-04 (Henry J. Aaron & Michael J. Boskin eds., 1980); Edward J. McCaffery, Tax Policy Under a Hybrid Income-Consumption Tax, 70 Tex. L. Rev. 1145, 1155-57 (1992).

122. Blum & Kalven, *supra* note 22, at 457-60.

123. See Herbert Hovenkamp, The First Great Law & Economics Movement, 42 Stan. L. Rev. 993, 1031-38 (1990).

interpersonal utility comparisons.¹²⁴ It has been suggested, however, that the ordinalist economists were actually concerned that some of the more prominent neoclassicists began to use marginal utility analysis generally as a basis for justifying wealth redistribution, a course that was *politically* unacceptable to most economists.¹²⁵ And while modern welfare economics, an outgrowth of ordinalism, generally rejects the notion that money has diminishing marginal utility,¹²⁶ many economists still accept the concept of the diminishing marginal utility of money.¹²⁷ We do likewise for two principal reasons.

First, we believe that to neglect the concept of the diminishing marginal utility of money is to ignore reality.¹²⁸ The experiential case for the proposition

124. In 1970, in his famous work, *The Cost of Accidents*, Judge Guido Calabresi referred to the diminishing marginal utility of money as an “empirical generalization” that had fallen out of favor among economists because it could not be proven to be universally true and had been shown to be invalid in some cases. Guido Calabresi, *The Cost of Accidents* 39-40 (1970). Thus, some studies showed that individuals might care more about a relatively small drop in amount of money that resulted in a drop in social status than about a relatively larger drop in amount of money that did not result in a loss of status. See Friedman & Savage, *supra* note 118. We do not dispute the conclusions reached by such studies (indeed, we acknowledge the importance of factors other than absolute wealth throughout this article), but we believe that the diminishing marginal utility of money is such an accurate generalization that it cannot be ignored in the formulation of tax policy.

125. See Hovenkamp, *supra* note 123, at 1056-57.

126. See David F. Bradford, *Untangling the Income Tax* 153-54 (1986)(asserting that economics has rejected the concept of utility generally).

127. See Joseph Bankman & Thomas Griffith, *Social Welfare and the Progressive Rate Structure: A New Look at Progressive Taxation*, 75 *Cal. L. Rev.* 1905, 1947 (1987); Feldstein, *supra* note 22, at 81 n.9.

128. The concept of the diminishing marginal utility of money serves as the foundation for positive law outside of the tax law. Thus, in the law of torts, most states allow evidence of the defendant’s wealth to allow the jury to determine the size of an award for punitive damages. See Dan B. Dobbs, *Law of Remedies, Damages—Equity—Restitution* 328-30 (2d ed. 1993); Douglas Laycock, *Modern American Remedies, Cases and Materials* 673 (2d ed. 1994). As Professor Laycock has explained, “If

the jury is to figure out how large an award is necessary to punish and deter the defendant, it surely must know something of his wealth.” *Id.* at 673. Only a belief in the diminishing marginal utility of money can explain that statement and the positive law it reflects. Indeed, Professor Dobbs has pointedly observed that evidence of the defendant’s wealth is generally admissible because

[T]he trier must know something about the defendant’s financial condition in order to inflict a liability that will have an appropriate sting, and proof may show either a wealthy defendant or a poor one. Punishment, in other words, is to fit the person, not the crime. Some kinds of financial information about the defendant, if it is an enterprise, would also be highly relevant in determining the amount necessary to achieve a deterrence.

Dobbs, *supra*, at 329 (footnotes omitted); see also Restatement (Second) of Torts § 908 cmt. e (1977) (wealth is relevant). Although in recent years a debate over the propriety of what some commentators have labeled the “long-standing rule that the defendant’s wealth is relevant in determining punitive awards,” has ensued, the positive law has not changed and the very existence of the debate underscores both the tenacity and appeal of the concept of the diminishing marginal utility of money. See Kenneth S. Abraham & John C. Jeffries, Jr., *Punitive Damages and the Rule of Law: The Role of Defendant’s Wealth*, 18 *J. Legal Stud.* 415, 415 (1989); Jennifer H. Arlen, *Should Defendants’ Wealth Matter?*, 21 *J. Legal Stud.* 413 (1992); Thomas J. Miceli & Kathleen Segerson, *Defining Efficient Care: The Role of Income Distribution*, 24 *J. Legal Stud.* 189 (1995); see also Paul Mogin, *Why Judges, Not Juries, Should Set Punitive Damages*, 65 *U. Chi. L. Rev.* 179, 209-10 (1998).

Indeed, the diminishing marginal utility of money has been used by Judge Guido Calabresi to explain the theoretical foundation for loss spreading in the tort system. Calabresi, *supra* note 124, at 39-42.

Scholars have also considered the role of a defendant’s wealth, and thus of the diminishing marginal utility of money, in the context of the criminal law. See, e.g., David D. Friedman, *Reflections on Optimal Punishment, or: Should the Rich Pay Higher Fines*, 3 *Res. L. & Econ.* 185 (1981); A. Mitchell Polinsky & Steven Shavell, *A Note on Optimal Fines When Wealth Varies Among Individuals*, 81 *Am. Econ. Rev.* 618

that money has diminishing marginal utility is so strong that those who argue that it does not should be forced to bear the burden of proof.¹²⁹ We believe that a dollar means more to a poor person than to a middle class person and that it means more to a middle class person than to a truly rich person.

Although the diminishing marginal utility of money is difficult to measure empirically, evidence does indeed support its existence. If we use objective criteria of the value of things purchased with money in addition to subjective preferences, evidence abounds.¹³⁰ The purchase of casualty and liability insurance that costs more than the statistical value of an expected uninsured loss, is a common example of a transaction motivated by the diminishing marginal utility of money.¹³¹ A number of studies and experiments likewise support the concept of the diminishing marginal utility of money,¹³² and significant anecdotal evidence indicates that those with very high incomes attach very little value to tens of thousands, or even millions, of dollars. Indeed, the spending habits of those who are extraordinarily wealthy are so out of sync with those of everybody else that they are even considered newsworthy.¹³³ Witness the \$2 million birthday party that Malcolm Forbes threw for himself in Morocco in 1989,¹³⁴ or Bill Gates' new \$100 million mansion,¹³⁵ or consider

(1991).

129. See Stein, *supra* note 118.

130. See Herbert Hovenkamp, *Marginal Utility and the Coase Theorem*, 75 *Cornell L. Rev.* 783, 810 (1990).

131. See *id.* at 798-99.

132. See *id.* at 799-801.

133. For example, on February 8, 1998, the *New York Times* reported that Michael Jordan had chosen to skip some NBA all-star activities (a press conference) to go play golf, even though doing so would result in the imposition of a \$10,000 fine. Steve Popper, *NBA All-Star Weekend; Illness Lays Jordan Low, Putting Appearance in All-Star Game in Jeopardy*, *N.Y. Times*, Feb. 8, 1998, § 8, at 1.

134. See *It's Your Party*, *The New Republic* 4 (Sept. 11, 1989).

135. See Richard Folkers, *Xanadu 2.0, Bill Gates's Stately Pleasure Dome and Futuristic Home*, *U.S. News & World Report*, Dec. 1, 1997, at 87. Although the residence is described as "The \$100 million Gates mansion in Medina, Wash.," costs had apparently not reached \$100 million figure at press time, although they were expected to, given the mammoth scale on which the house is being built. *Id.* The structures on the property have a total square footage of over 66,000 square feet, with the family wing occupying 11,500 square feet, and the formal dining

Ross Perot and Steve Forbes's self-financed runs for the presidency. The message is clear: each additional dollar spent means very little, if anything at all, to the super-rich.

Second, we simply disagree with those who reject the proposition of the diminishing marginal utility of money because of the difficulty of measuring the rate at which utility declines or the existence of individual differences in utility.¹³⁶ While each of those things contributes to making quantifiable, empirically provable assertions impossible, they do not render the theory a nullity. We know that many things that are neither quantifiable nor empirically provable both exist and affect general well-being.¹³⁷ In formulating public policy the welfare of the citizenry should be the primary goal. While welfare may be measured in either dollars or utility,¹³⁸ to measure wealth maximization without regard to distribution—that is, to measure wealth in aggregate dollars—is to abdicate important decisions about overall societal welfare. Modern welfare economics may reject interpersonal utility comparisons as “unscientific,” but policy makers cannot conscientiously ignore such comparisons. Economists who refuse to make interpersonal utility comparisons forfeit the ability to provide useful advice regarding the course of action that ought to be taken by policy makers who must consider the distribution of wealth in America.¹³⁹

Opponents of progressive taxation have also argued that even acceptance of the diminishing marginal utility of money does not produce equiproportional sacrifice because it is possible to construct utility curves for

room alone occupying 1,000 square feet. *Id.* at 88-91. The property is reported to have a total assessed value of \$53,392,200. *Id.* at 91; see also, Wendy Goodman, *A Classicist in Cyberspace*, *Harper's Bazaar*, Dec. 1995, at 178.

136. See Lionel Robbins, *The Nature and Significance of Economic Science*, in *Philosophy of Economics: An Anthology*, 130-32; Avery W. Katz, *Positivism and the Separation of Law & Economics*, 94 *Mich. L. Rev.* 2229, 2248 (1996).

137. Consider love, or hate.

138. See Coleman, *supra* note 121, at 100-03, 106-08.

139. See Hovenkamp, *supra* note 123, at 1048; Jeffrey L. Harrison, *Piercing Pareto Superiority: Real People and the Obligations of Legal Theory*, 39 *Ariz. L. Rev.* 1, 2 (1997) (“Because economics must and does steer clear of interpersonal comparisons of utility, it really is of no help in determining when one distribution is better or worse than another.”).

which progression does not produce equal proportional sacrifice.¹⁴⁰ This occurs if marginal utility does not decline more rapidly than average utility.¹⁴¹ Such a utility schedule is in all likelihood unusual,¹⁴² and the possible existence of idiosyncratic utility preferences should not drive the formulation of tax policy.

The theory of equiproportional sacrifice based on the diminishing marginal utility of money also requires use of the simplifying assumption that all individuals have the same income-utility curve.¹⁴³ Opponents of progressive taxation often argue that because not everyone has the same utility curve and interpersonal utility comparisons are impossible, a progressive tax based on interpersonal utility comparisons is unfair because it is based on unrealistic simplifying assumptions.¹⁴⁴

Even detractors of progressive taxation make interpersonal utility comparisons, however. The conclusion that all dollars have equal utility to all taxpayers, which justifies proportional, rather than progressive, taxation, itself reflects a particular interpersonal comparison. Similarly, the argument that uncertainty about the degree of interpersonal utility differences requires treating all taxpayers alike,¹⁴⁵ also reflects a particular interpersonal comparison and has the same effect as one based on the assumption that the marginal utility of money is equal for everyone. In short, interpersonal utility comparisons may be difficult to make generally and impossible to make precisely, but they are nevertheless essential to making a rational choice regarding the structure of the tax system.¹⁴⁶

140. Musgrave, *supra* note 121, at 100-02; Jeffrey A. Schoenblum, *Tax Fairness or Unfairness? A Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, 12 *Am. J. Tax Pol'y* 221, 241-42 (1995).

141. See Musgrave, *supra* note 121, at 98.

142. See Blum & Kalven, *supra* note 22.

143. See Musgrave, *supra* note 121, at 99.

144. See, e.g., Schoenblum, *supra* note 140, at 241-42; Musgrave, *supra* note 140, at 108-10. For a more general discussion of the rejection of interpersonal utility comparisons, see Gary Lawson, *Efficiency and Individualism*, 42 *Duke L.J.* 53, 63-71 (1992).

145. See Bankman & Griffith, *supra* note 127, at 1947.

146. See Louis Kaplow, *A Fundamental Objection to Tax Equity Norms: A Call For Utilitarianism*, 48 *Nat'l Tax J.* 497, 506 (1995); see also Feldstein, *supra* note 22, at 79. Indeed, many real world judgments are made on the assumption that interpersonal utility comparisons are possible. See Hovenkamp, *supra* note 130, at 810 n.73.

B. Proof and Imprecision

If the case for progressive taxation cannot be established for lack of precise knowledge, neither can the case for proportional taxation. The decision boils down to deciding who needs to prove what to whom. For us, the strength of the U.S. economy over the last 50 years and the remarkable stability of its political system suggest that the assumptions upon which progressive federal income taxation is based are sound.¹⁴⁷ Logic, reasonable assumptions, and credible empirical evidence support them.¹⁴⁸ We place the burden of proof on those who would have us move away from a progressive tax system. The question is: Which system is more likely to be closer to the correct estimation of the utility curves of the greatest number of people?

We believe that the answer is a system of progressive taxation. If the marginal utility of money declines at all, then a system with some progression probably comes closer to reflecting reality than one that assumes that the marginal utility of money remains constant. Average Americans, who may never have heard the diminishing marginal utility of money referred to as such, also seem to understand this. In a 1991 study, Peggy Hite and Michael Roberts

asked a random sample of 593 Americans what they thought the average rate of personal income tax should be at nine different levels of income. The average responses . . . show a strong degree of progressivity, with the average rate increasing uniformly with income. . . . [Furthermore] [w]hen forced to choose among five alternative tax schedules, 34% of the respondents chose one that featured a flat rate of 20% on all income above \$5,000 a year. But two-thirds preferred a more progressive graduated rate structure. Twenty-eight percent chose graduated rates that were about as progressive as the current system, and 38% chose rates that were more progressive than the current system.¹⁴⁹

147. For a discussion of the overall progressivity of the tax burden in the United States, see Joseph A. Pechman, *Federal Tax Policy* 6 (5th ed. 1987).

148. See *supra* Part III.A.

149. Slemrod & Bakija, *supra* note 8, at 60-61 (emphasis added)(discussing Hite & Roberts, *supra* note 85). For a thorough study of the difficulties of drawing meaningful conclusions from survey data, see Marjorie E. Kornhauser, *Equality, Liberty, and a Fair Income Tax*, 23 *Fordham Urb. L.J.* 607, 652 n.123 (1996).

The case for progressive taxation may be uneasy, but it is both popular and persistent.

C. The Diminishing Marginal Utility of Money and Least Aggregate Sacrifice Theory

The diminishing marginal utility of money has also provided another justification for progressive taxation. The equal marginal sacrifice theory, which is also, more properly, called the least aggregate sacrifice theory, posits that even if the rate at which utility declines is uncertain, as long as the marginal utility of money declines, aggregate private utility can always be maximized by imposing a confiscatory tax rate on all incomes above a certain level while exempting incomes below that level.¹⁵⁰ This theory is not based on equity but rather on welfare economics.¹⁵¹

150. See Musgrave, *supra* note 140, at 108-10; William Vickrey, *Agenda For Progressive Taxation* 373 (1947). But see Joel Slemrod et al., *The Optimal Two-Bracket Linear Income Tax*, 53 *J. Pub. Econ.* 269 (1994)(asserting that welfare can be maximized by using two brackets with the second bracket lower than the first bracket).

151. See Musgrave, *supra* note 121, at 110-11. The operation of a tax system based on this theory can be illustrated by considering a very simplified model society with four individuals. If we assume that the marginal utility of money, measured in utils, is 11 utils for every dollar up to \$100, 8 utils for every dollar above \$100 but not above \$200, 6 utils for every dollar above \$200 but not above \$300, and 5 utils for every dollar above \$300, the incomes and aggregate utility are as illustrated below:

MODEL SOCIETY BEFORE-TAX INCOME

<u>Person</u>	<u>Income</u>	<u>Utility</u>
A	100	1,100
B	200	1,900
C	300	2,500
D	<u>400</u>	<u>3,000</u>
	1,000	8,500

If the society requires public goods of \$200, the least aggregate sacrifice

The problem with a tax system based on the least aggregate sacrifice theory is that a completely confiscatory tax rate clearly would have significant adverse behavioral effects. It would destroy incentives and reduce output so severely that the overall effect might not be welfare maximization. Nevertheless, the least aggregate sacrifice theory can be a starting point for designing a system that is intended to maximize utility, as it shows that progressivity can maximize utility.¹⁵²

IV. A UTILITY-BASED MEASURE OF EFFICIENCY

The theory that the tax system should be designed to maximize Kaldor-Hicks efficiency,¹⁵³ as measured by the gross domestic product (GDP),¹⁵⁴ rests

results from a tax of \$150 on D and \$50 on C, with A and B being exempt from tax. Such a rate structure has the effect of confiscating all income above \$250, as it leaves both C and D with \$250 after-taxes. The resulting after-tax income and utility of each member of society is illustrated below:

MODEL SOCIETY WITH LEAST AGGREGATE SACRIFICE

INCOME TAX

<u>Person</u>	<u>Before-Tax Income</u>	<u>Tax</u>	<u>After-Tax Income</u>	<u>After-Tax Income</u>
	<u>Utility</u>			
A	100	0	100	1,100
B	200	0	200	1,900
C	300	50	250	2,200
D	400	150	250	<u>2,200</u>
				7,400

Aggregate private material utility decreased from 8,700 utils to 7,400 utils. If C's tax burden is reduced by \$1 and B's tax burden is increased by \$1, C's total utility increases to 2,206 utils, but B's decreases to 1,892 utils. Aggregate after-tax private utility decreases from 7,400 utils to 7,398. There is no reallocation of tax burdens that will result in greater aggregate after-tax private utility.

152. See Vickrey, *supra* note 150.

153. For a concise definition of Kaldor-Hicks efficiency, see Jules L. Coleman, *Markets, Morals, and the Law* 98 (1988).

One state of affairs (E') is Kaldor Hicks efficient to another (E)

on the judgment that aggregate wealth maximization is a desirable public policy. If all dollars were of equal utility, regardless of how distributed, and interpersonal comparisons of utility are eschewed, a tax structure that maximizes GDP is by definition Kaldor-Hicks efficient, and no other tax structure is Kaldor-Hicks efficient.¹⁵⁵ From this point, it is argued that a tax

if and only if those whose welfare increases in the move from E to E' could fully compensate those whose welfare diminishes with a net gain in welfare. Under Kaldor-Hicks, compensation to losers is not in fact paid.

This definition of efficiency is illustrated in the following example. For Situation 1, assume a society consists of four individuals, A, B, C, and D, each of whom has 25 units of benefit (e.g., dollars, utils, etc.; the exact measure does not matter). In the aggregate, the society has 100 units. Now, for Situation 2, assume an alternative society in which individuals A, B, and C, have 5 units and D has 105 units. In the aggregate, the society in Situation 2 has 120 units, 20 more than the society in Situation 1, and a move from the Situation 1 to Situation 2 is Kaldor-Hicks efficient, even though three-quarters of the members of the society are left worse off by it. After the move from Situation 1 to situation 2, D *could* give each of A, B, and C 20 units, thereby restoring them to the amount they had in situation 1 (25 units) while retaining 45 units ($105 - (3 \times 20)$). Nothing in the definition of Kaldor-Hicks efficiency, however, actually requires D to compensate A, B, and C. Thus a move from equality to vast inequality can be Kaldor-Hicks efficient if the winners' gains exceed the losers' losses, even if the losers are moved below the poverty line while the winners simply add to vast amounts of pre-existing wealth.

154. Gross Domestic Product is the measure of all production inside the United States regardless of the nationality of the owner of the enterprise engaging in the manufacturing or production. Karl E. Case & Ray C. Fair, *Principles of Economics* 1002 (1989).

155. See John B. Shoven & Paul Taubman, *Saving, Capital Income, and Taxation*, in *The Economics of Taxation* 203, 204 (Henry J. Aaron & Michael J. Boskin eds., 1980). Another measure of efficiency uses the Pareto criteria. A system is Pareto optimal when no Pareto efficient change is possible; a change is Pareto efficient if it can make one member of society better off, without making another member of the society worse off. Case & Fair, *supra* note 154, at 289. For a discussion

structure that results in any smaller GDP is inefficient, thus establishing the trade-off between equity and efficiency.¹⁵⁶

Kaldor-Hicks efficiency theory arose from economists' efforts to provide a methodology for analyzing public policy without making interpersonal comparisons of utility.¹⁵⁷ Its measure of efficiency is aggregate wealth maximization.¹⁵⁸ Thus, Kaldor-Hicks efficiency, by definition, treats all dollars as having equal utility regardless of whether those dollars are received and held by a prince or by a pauper.¹⁵⁹

But if the marginal utility of money declines, which we believe is undeniable, and we assume that it declines at identical rates for everyone,¹⁶⁰ which as a practical matter is the only workable assumption,¹⁶¹ the maximization of total private utility depends on the distribution of the income as well as the aggregate amount of income.¹⁶² Since a marginal dollar may have

of why Kaldor-Hicks efficiency is the touchstone for analysis rather than Pareto criteria, see Gary Lawson, *Efficiency and Individualism*, 42 *Duke L.J.* 53, 88-96 (1992).

156. See *supra* note 22 and authorities cited therein.

157. See Lawson, *supra* note 144, at 89-90.

158. *Id.* at 92-96. For a criticism of the view that Kaldor-Hicks efficiency is based on wealth maximization, see Jules Coleman, *The Normative Basis of Economic Analysis: A Critical Review of Richard Posner's The Economics of Justice*, 34 *Stan. L. Rev.* 1105, 1112-17 (1982).

159. See Robert Cooter & Peter Rappaport, *Were the Ordinalists Wrong About Welfare Economics?*, 22 *J. Econ. Literature* 507 (1984).

160. To assume that utility declines at the same rate for everyone is not to assume that utility declines at a linear rate. The rate of decline might be logarithmic, but our point is that the logarithm is identical for everyone.

161. Assuming identical rates of decline is the only practical assumption because there is no reliable way of constructing a model of different rates of decline for different individuals. See Edwin R. A. Seligman, *The Income Tax*, 32-33 (2d ed. 1914)(government can "deal only with classes, that is, with average men").

162. For a concise presentation of the late 19th century economics literature that discusses this proposition and describes its fall from favor in the 1930s in the face of criticisms of the ability to make interpersonal utility comparisons, see Hovenkamp, *supra* note 123, at 1002-05.

far more utility to a poor person than to a wealthy person, diminishing the income of the wealthy person by \$3 to increase the income of the poor person by only \$1 may actually increase total utility. Thus, a tax structure that results in a lower GDP than a competing tax structure may actually result in greater utility.¹⁶³ In other words, equity and efficiency may be advanced simultaneously. There is no trade off.

A. *The Model*

The foregoing thesis can be illustrated more concretely by assuming the existence of a model society with five individuals and a GDP of \$1,000, before the introduction of taxes. Assume that any person with less than \$35 will die from starvation or exposure, but that the poverty level is \$100. Also assume that the marginal utility of money, measured in utils, is 11 utils for every dollar up to \$35, 9 utils for every dollar above \$35 but not above \$100, 8 utils for every dollar above \$100 but not above \$250, and 7 utils for every dollar above \$250. The income and utility in this society are distributed as shown in Table 8.

TABLE 8
MODEL SOCIETY BEFORE-TAX INCOME

<u>Individual</u>	<u>Income</u>	<u>Utility</u>
A	50	520
B	100	970
C	150	1,370
D	200	1,770
E	<u>500</u>	<u>3,920</u>
Totals:	1,000	8,550

Now assume that the society requires public goods of 300. The 300 could be raised by a proportional tax of 30%. Assuming that the proportional tax does not result in any diminution in the aggregate social product, the after tax income and after tax utility for each person is as shown in Table 9 (which makes no effort to allocate the utility of the public goods).

TABLE 9
MODEL SOCIETY WITH PROPORTIONAL INCOME TAX OF 30%

Before-Tax	After-Tax	After-Tax
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163. This argument is based on the equal marginal, or least aggregate, sacrifice theory of equal sacrifice. See Musgrave, *supra* note 121, at 95-96, 110-11.

<u>Individual</u>	<u>Income</u>	<u>Tax</u>	<u>Income</u>	<u>Util ity</u>
A	50	15	35	385
B	100	30	70	700
C	150	45	105	1,010
D	200	60	140	1,290
E	<u>500</u>	<u>150</u>	<u>350</u>	<u>2,870</u>
Totals:	1,000	300	700	6,255

Under the proportional tax, total private income decreased from \$1,000 to \$700 and total private material utility decreased from 8,550 utils to 6,255 utils. Since there was no reduction in output, the total product of the society remained \$1,000, the sum of the public and private sectors.¹⁶⁴ Total utility is more difficult to determine because it would be dependent on the distribution of benefits from the \$300 of public goods.¹⁶⁵

Alternatively, the society might levy a graduated progressive tax with the following rate schedule.¹⁶⁶

<u>Income</u>	<u>Rate</u>
\$0 - \$50	0%
\$51 - \$100	20%
\$101 - \$150	30%
\$151 - \$250	40%

164. The lack of reduction in output follows from the proportional nature of the tax. Even those who regard the labor supply as elastic in response to higher tax rates agree that the substitution effect is minimized under a proportional tax, since the tax rate does not vary in response to amount of money earned. See *infra* notes 207-208, 213-214 and accompanying text.

165. Any such measurement is so difficult that the benefits theory of distributing tax burdens is generally held in disrepute. See Marjorie E. Kornhauser, *The Rhetoric of the Anti-Progressive Income Tax Movement: A Typical Male Reaction*, 86 *Mich. L. Rev.* 465, 491 (1987).

166. This rate schedule may impose far steeper progressivity than equity would support, and we offer it not because we necessarily feel such steep progression is desirable, but because the application of such a rate schedule illustrates that progressive rates, even steeply progressive rates, can be more efficient than a flat rate.

\$251 or more

62%

This rate schedule is more steeply progressive than justified under the equiproportional sacrifice theory for progressive taxation, but less progressive than a rate schedule based on the least aggregate sacrifice theory of progressive taxation.¹⁶⁷ It represents a compromise between the two, and might be justified by concerns that completely confiscatory rates would almost certainly have disincentive effects, reducing before-tax output. Assuming that this tax schedule results in no change in aggregate social product, however, the results of this tax system are as shown in Table 10.¹⁶⁸

TABLE 10
MODEL SOCIETY WITH PROGRESSIVE INCOME TAX
RATES: 0/20/30/40/62

<u>Individual</u>	<u>Before-Tax</u>		<u>After-Tax</u>	
	<u>Income</u>	<u>Tax</u>	<u>Income</u>	<u>Utility</u>
A	50	0	50	520
B	100	10	90	880
C	150	25	125	1,170
D	200	45	155	1,410
E	<u>500</u>	<u>220</u>	<u>280</u>	<u>2,380</u>
Totals:	1,000	300	700	6,360

Again, total private income decreased from \$1,000 to \$700. Under the graduated progressive tax regime, however, total private material utility decreased from 8,550 utils to 6,360 utils. When compared to the proportional tax that left 6,255 utils in the private sector, the progressive tax leaves 105 more utils in the private sector. Although E is left with fewer utils, A,B,C, and D have a greater number of utils after-tax under the progressive tax. Total private material utility is increased by the relative redistribution. Thus, in the model society the progressive tax system is more efficient than the flat tax if efficiency is measured with respect to aggregate utility.

B. *Productivity and Tax Rates*

The progressive rate structure necessarily enhances total utility only if

167. See discussion at supra note 151.

168. For a discussion of the support for this assumption, see infra notes 207-208, 213-214 and accompanying text.

one assumes that progressive income tax rates do not depress total productivity, as the model assumes. Not surprisingly, this is the linchpin or the equity/efficiency tradeoff and it is on this assumption that theorists differ quite passionately. Our thesis that the tradeoff is illusory does not rest on a rejection of the proposition that productivity is responsive to tax rates, however. Rather, our thesis is that even if productivity is responsive to tax rates, that does not necessarily prove that proportional taxation is more efficient than progressive taxation. If efficiency is determined with respect to aggregate private material utility, progressive taxation can yield greater aggregate utility.

The choice of a rate structure based on efficiency concerns depends not on the existence of a connection between productivity and tax rates but on the magnitude of the response and the demographics of the distribution of the response. Since the choice is between tax structures, not between a no-tax world and a tax structure, the relative effects on productivity are determinative. In our model, only E faces a higher average tax rate under the progressive tax structure than under the proportional rate structure. Individuals A, B, C, and D all face lower average rates. Individuals A and B face a lower marginal tax rate; C's marginal rate is unchanged; both D and E face a higher marginal tax rate.

The higher marginal rates faced by D and E raise concerns about decreases in their productivity. The effect on D is most difficult to predict, because although D's marginal rate has increased, her average rate has decreased. Thus, D could reduce her productivity as a result of an income effect; D could work marginally less and still be better off under the progressive tax structure. Conversely, if productivity is more responsive to marginal rates than to average tax rates, on the ground that marginal rates are more visible and many people don't even know their average tax rates, then D's productivity might actually increase as a result of an income effect. Of course, the increase in D's marginal rate could also cause her productivity to decline as a result of a substitution effect. On balance, since D's after tax income does not decline, and the increase is not of great magnitude (7.5%), the change in tax would not be likely to affect D's behavior significantly.

The productivity effects on E are more straightforward. If E's productivity declines, the model assumes the decline is caused by a net substitution effect resulting from the higher marginal tax rate, a conservative assumption. Although the change in after tax income could produce either an income effect or a substitution effect, the substitution effect is the only one that need concern us; an income effect would result in increased productivity, and that would make the case for progressivity on efficiency grounds alone.¹⁶⁹

The substitution effect could operate as follows. Assume that E's

169. See *infra* notes 207-08, 213-14 and accompanying text.

productivity decreases by \$10 (a 2% response),¹⁷⁰ total output falls to \$990, and the highest marginal tax rate is increased to 64.58% to avoid a public deficit. In this case, E's after-tax income drops from to \$280 to \$270. E's after tax utility drops from 2,380 utils to 2,310 utils, and the society's total utility drops from 6,360 to 6,290 utils. Nevertheless, total utility is still 35 utils greater than under the model proportional tax system.

If E's productivity decreased by 3%, and E's output dropped to \$945, and if E's tax rate were adjusted again to balance the budget, total societal utility would be the same as under the model proportional rate system. If E's productivity in the model decreased by more than 3%, then total societal utility would be less under the progressive tax than under the proportional tax. For example, if E's productivity decreased by 4%, total societal utility would be 35 utils less under the progressive tax than under the proportional tax.

A significant problem with the foregoing assumption is its lack of symmetry: Why would we assume that E reacts to the higher rate by decreasing productivity but not assume that A and B will react to the lower rate by increasing their productivity? If A and B increase the dollar value of their productivity, their increased production more than proportionately offsets E's reduced productivity. This occurs because a marginal dollar provides greater utility to A and B than to E.

For example, assume the following: If A increased productivity by 4%, from \$50 to \$52, and B increased productivity by 3%, from \$100 to \$103, an additional \$.40 of tax will be collected from A and \$.60 from B, leaving A with \$51.60 and B with \$92.40. A then has 14.4 additional utils, and B has 21.6 additional utils. Furthermore, since A and B are paying \$1 of increased taxes, the highest marginal tax rate, applicable to E, does not have to be increased to 64.58% to avoid a deficit. Only \$219, instead of \$220, needs to be collected from E. As a result of the increased marginal rate being slightly less than a jump from 62% to 64.58%, E could be expected not to decrease productivity by the full 4%. Assuming that E's productivity decreased by almost 4%, from \$500 to \$481 (instead of \$480), the distribution of after-tax income and utility is as shown in Table 11.

TABLE 11
MODEL SOCIETY WITH PROGRESSIVE INCOME TAX
AND SUBSTITUTION EFFECT THROUGHOUT
RATES: 0/20/30/40/64.58

170. This is a reasonable assumption because empirical data show that responsiveness, if it exists at all, is not strong. See *infra* notes 189-190, 195-96 and accompanying text.

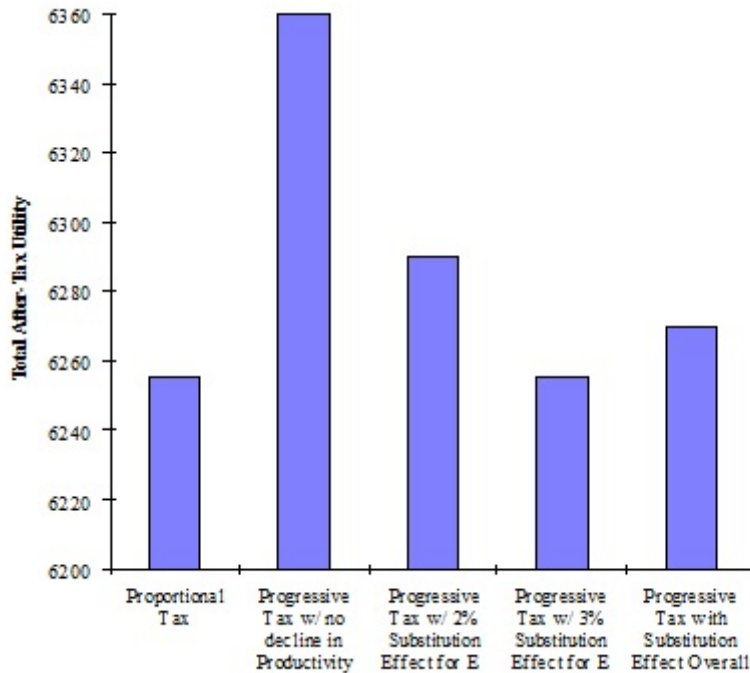
<u>Individual</u>	<u>Before-Tax</u>		<u>After-Tax</u>	
	<u>Income</u>	<u>Tax</u>	<u>Income</u>	<u>Utility</u>
A	52	0.4	51.6	534.4
B	103	10.6	92.4	901.6
C	150	25	125	1,170
D	200	45	155	1,410
E	<u>481</u>	<u>219</u>	<u>262</u>	<u>2,254</u>
Totals:	985	300	685	6,270

With 6,270 after-tax utils distributed among the taxpayers, the progressive tax is still more efficient than the proportional tax, its perpetual foil, which results in 6,255 aggregate after-tax utils.

The relationship between the rate structure and overall after-tax utility in the Model Society can be summarized as follows:

FIGURE 5
TOTAL AFTER-TAX UTILITY IN THE WINNER-TAKE-ALL SOCIETY WITH VARIOUS TAX STRUCTURES

The comparison, of course, could be reversed if E's productivity dropped even more, but then perhaps, the incentives to A and B also were understated in the example. Likewise, whether any particular graduated progressive rate schedule is more or less efficient than a proportional rate schedule depends on the



number of utils assigned to dollars at different income levels. If the marginal utility of money declines more rapidly than in the examples, then the progressive rate structure continues to be more efficient than the proportional rate structure even though E decreases productivity somewhat more. Conversely, if the marginal utility of money does not decline as rapidly as in the examples, then the proportional rate structure will be more efficient than the progressive tax structure at a lesser level of reduced productivity by E.

The point of these examples is not that a graduated progressive rate structure always is more efficient than a proportional rate structure. The point is that if money has diminishing marginal utility and we measure efficiency in utility rather than in dollars, a graduated progressive rate structure easily might be more efficient than a proportional rate structure. Which structure is more efficient depends on relative tax rates, the rate at which the marginal utility of money declines and the impact of income and substitution effects at various income levels. Theory provides a framework for analysis, empirical evidence is helpful, but it is unlikely that any precise mathematical answer respecting efficiency maximization can be found.

Impossibility of precise quantification, however, does not imply that we should not make public policy judgments respecting the rate at which the marginal utility of money diminishes. The model only very roughly approximates the distribution of incomes across quintiles in the United States, and is not detailed enough to deal with the concentration of incomes in the top 5% or top 1%. In the model, the highest income was only ten times the lowest income. In the real world, the average income of the 91st through 95th percentiles is twelve times the average income of the lowest quintile; the average income of the 96th through 99th percentiles is 18.5 times the average of the lowest quintile; and the average income of the top 1% is 74 times that of the lowest quintile.¹⁷¹ The average income for the top 1% is twenty-nine times the average income of the second quintile. With disparities of this magnitude, there is some margin for error in deciding that the aggregate individual utility from money incomes will be maximized by graduated progressive taxation even though the productivity of the high income earners may fall.

C. The Importance of Income Distribution

Despite its limitations, our model provides important insight into the ways in which the proliferation of winner-take-all markets strongly supports the argument for progressive taxation. Comparing the aggregate after-tax private utility produced by a progressive rate structure in winner-take-all market with the aggregate after-tax private utility produced by a progressive rate structure

171. See 1993 Greenbook, *supra* note 7, at 1505 tbl. 15, 1506 tbl. 17.

in a market that distributes income more incrementally, reveals that progressivity, efficiency, and winner-take-all markets are curiously intertwined. In a more incrementalist income distribution, the relative efficiency advantages of progressive taxation over proportional taxation are less extreme than in a winner-take-all market. It is the winner-take-all market that dramatically eliminates the equity/efficiency tradeoff.

In our model, a more incrementalist market would be one where income rises in increments of just \$75. Holding all other factors constant—the total output of the society (\$1,000), the revenue to be raised (\$300), the tax rate structure, and the rate at which the marginal utility of money declines—permits some important observations. The following table illustrates the effect of changing just the before-tax income distribution.

TABLE 12
INCREMENTAL INCOME DISTRIBUTIONS, PROGRESSIVE TAX
RATES: 0/20/30/40/62

<u>Individual</u>	<u>Before-tax</u> <u>Income</u>	<u>Before-tax</u> <u>Utility</u>	<u>Tax</u>	<u>After-tax</u> <u>Income</u>	<u>After-tax</u> <u>Utility</u>
A	50	520	0	50	520
B	125	1,170	17	108	1,006
C	200	1,770	44.1	155.9	1,417.2
D	275	2,345	79.6	195.4	1,733.2
E	350	2,870	126.1	223.9	1,961.2
Totals:	1,000	8,675	266.8	733.2	6,637.6

As the foregoing table reveals, using the progressive rate structure that raised \$300 of revenue in the winner-take-all market in the incrementalist market fails to raise the requisite amount of revenue, because there is less income to tax at the top marginal rates. The shortfall, \$33.20, is significant: over 10% of the society's revenue needs.

To raise the requisite amount of revenue in the incrementalist market, then, rates must be more steeply progressive than they would have to be in the winner-take-all market. The following rate structure, for example, would raise the requisite amount of revenue in an incrementalist market, but its top rate must be a full 10 percentage points higher for it to do so.

<u>Income</u>	<u>Rate</u>
\$0 - \$50	0%
\$51 - \$100	20%
\$101 - \$150	35%
\$151 - \$250	45%
\$251 or more	72%

The following table illustrates the effect of applying such a rate

structure in a market in which income is distributed incrementally.

TABLE 13
INCREMENTAL INCOME DISTRIBUTIONS, PROGRESSIVE TAX
RATES: 0/20/35/45/72

<u>Individual</u>	<u>Income</u>	<u>Utility</u>	<u>Tax</u>	After-Tax <u>Income</u>	After-Tax <u>Utility</u>
A	50	520	0	50	520
B	125	1,170	18.75	106.25	1,025
C	200	1,770	50	150	1,370
D	275	2,345	90.5	184.5	1,646
E	<u>350</u>	<u>2,870</u>	<u>144.5</u>	<u>205.5</u>	<u>1,814</u>
Totals:	1,000	8,675	303.75	696.25	6,375

Not surprisingly, such an incrementalist income distribution generates greater overall utility, 6,375 utils, than the winner-take-all distribution (which generated total utility of 6,360 utils with a progressive rate structure),¹⁷² because more of the after-tax income goes to individuals who value it more.¹⁷³ Nevertheless, it does so by taxing those at the highest end of the income distribution at a much higher rate than is necessary to raise the same amount of revenue in a winner-take-all market.

Applying the proportional rate (30%) to this more incremental income distribution also produces greater overall utility than applying that rate to the winner-take-all distribution. The following table illustrates the effect of applying the 30% proportional rate structure in a market where income is distributed more incrementally.

TABLE 14
INCREMENTAL INCOME DISTRIBUTIONS, PROPORTIONAL
TAX
OF 30%

<u>Individual</u>	<u>Income</u>	<u>Utility</u>	<u>Tax</u>	After-tax <u>Income</u>	After-tax <u>Utility</u>
A	50	520	15	35	385
B	125	1,170	37.5	87.5	857.5
C	200	1,770	60	140	1,290
D	275	2,345	82.5	192.5	1,710
E	<u>350</u>	<u>2,870</u>	<u>105</u>	<u>245</u>	<u>2,130</u>

172. See supra Table 9.

173. This increase in overall utility results from the shape of the income distribution, however, not from the rate structure.

1998]	Winner-Take-All Markets				65
Totals:	1,000	8,675	300	700	6,372.5

The total utility remaining after taxes when the proportional rate is applied to the incrementally distributed market (6,372.5 utils) is greater than that produced by applying such a rate to a winner-take-all market (6,255 utils), again simply because the incrementalist distribution gives more of the income to the individuals

who value it more. More importantly, however, even the steeply progressive rate structure did not reduce aggregate after-tax utility. The progressive rate structure generated 6,375 utils, while the proportional rate structure produced 6,372.5 utils.

Following is a graphic presentation of the relationship between the progressive and proportional tax rate structures, each designed to produce an identical amount of revenue, applied to the winner-take-all market and applied to the incrementalist market.

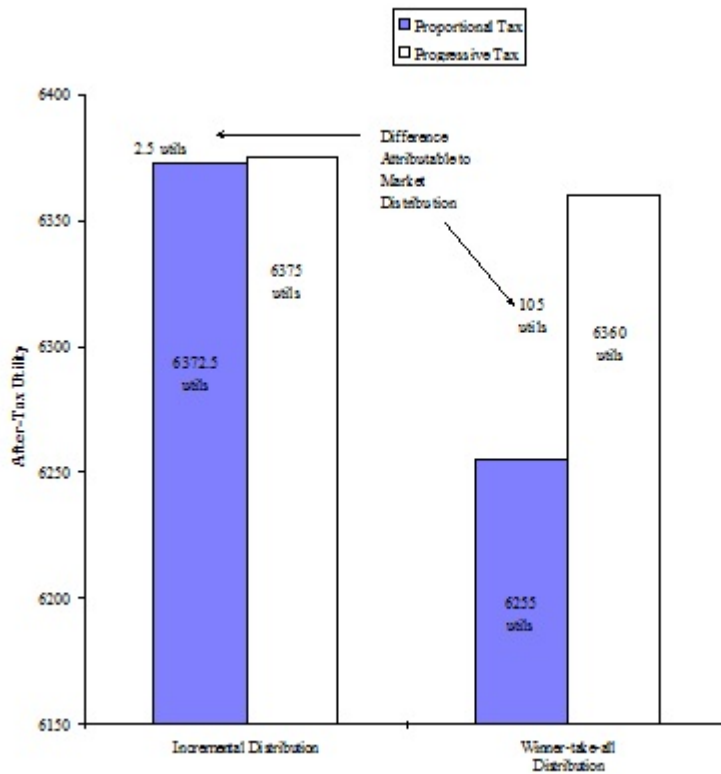
FIGURE 6
OVERALL UTILITY AS AFFECTED BY THE RELATIONSHIP
BETWEEN INCOME DISTRIBUTION AND RATE STRUCTURE¹⁷⁴

174. The data for this Figure are derived from Tables 8, 9, 12 and 13 presented earlier in the text.

The models presented in this Part reveal several lessons. First, rates must rise more steeply in an incrementalist market than in a winner-take-all market in order to raise equivalent revenue. In the winner-take-all market, the top two rates in our model were 40% and 62%; in the incrementalist market, they were 45% and 72%.

Second, for a given income distribution, even steeply progressive rates result in greater aggregate private utility than does a proportional rate. This is important. It proves that reducing the top rates and increasing the other rates would not increase aggregate private utility in the incrementalist model. The steep progressivity necessary to produce adequate revenues also increased aggregate private utility relative to less steeply progressive alternatives.

Third, the efficiency advantages of progressive tax rates over proportional tax rates are greater in a winner-take-all market than in an incrementalist market. In the winner-take-all market the more mildly progressive rate structure yielded total after-tax utility of 6,360 utils, as

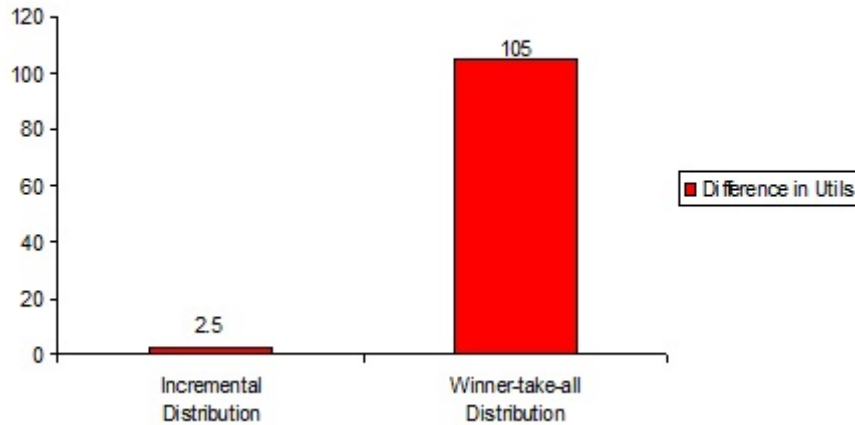


compared to 6,255 utils for the proportional rate structure. By contrast, in a society where income is more incrementally distributed, the steeply progressive rate, which was needed to raise the same amount of revenue, left 6,375 utils

after taxes, compared with 6,372.5 utils for the proportional rate. Although the progressive rate structure is more efficient than the proportional rate structure in this market as well,¹⁷⁵ the significant point is that in the incrementalist market the progressive rate structure is just barely more efficient than the proportional one—a difference of 2.5 utils is nearly negligible. In the winner-take-all market the increase in overall utility produced by the progressive rate structure was 105 utils, or more than 40 times greater than the difference in utility produced by the progressive rate structure in the incremental market. As Figure 7, below, demonstrates, in a winner-take-all income distribution, progressive taxation results in significantly greater overall utility than in an incrementalist distribution.

175. That progressive rates are more efficient than proportional rates follows directly from the diminishing marginal utility of money. A progressive rate structure takes more from those who value it less and so results in greater overall utility.

FIGURE 7
DIFFERENCE IN AFTER-TAX UTILITY
PRODUCED BY A PROGRESSIVE RATE STRUCTURE



As the income distribution in our society becomes more and more skewed in favor of the economic elite—as it has over the past two decades—increased progressivity should become relatively more, not less, important for maximizing aggregate private utility.¹⁷⁶

D. Progressive Taxation and Efficiency in the Winner-Take-All Society

Frank and Cook's work provides yet another argument for the efficiency of progressive taxation. Indeed, their argument makes increased marginal rates on winner-incomes a win/win proposition. Frank and Cook's thesis is premised on the responsiveness of the labor *supply*, rather than on the responsiveness of the productivity of specific participants in the labor

176. That both proportional and progressive taxation result in greater overall after-tax utility in the incrementalist market than in the winner-take-all market follows from the diminishing marginal utility of money. Because an incrementalist market has more people with higher levels of income than a winner-take-all market, it also has more people whose utility declines less as a result of any system of taxation. Therefore, any form of taxation is likely to reduce overall utility more in a winner-take all market than in an incrementalist market.

market.¹⁷⁷ They argue that the labor supply in winner-take-all markets is inefficient because it attracts more participants than the market can accommodate, causing the losers to squander talents that might have contributed to the general welfare.¹⁷⁸ Higher rates of taxation on the winners, they argue, would reduce the attraction of winning and might therefore reduce the inefficiency produced by excess market participation.¹⁷⁹

It is easy to see why Frank and Cook's thesis makes taxation that is steeply progressive at the very top of the income scale a win/win proposition. If they are right, we get greater overall efficiency in the marketplace because there will be less waste. If they are wrong, we get reduced disparities in after-tax income, increased aggregate utility, and we generate additional revenue without reducing productivity. Efficiency becomes equity either way.

Frank and Cook's thesis is based on the similarities between winner-take-all markets and lotteries. They posit that high income labor markets present a winner-take-all payoff, somewhat like a lottery.¹⁸⁰ The exceedingly high payoff for success in winner-take-all markets attracts an excessively high number of entrants, who abandon participation in labor markets in which the payoff bears a more direct relationship to absolute effort and success rather than relative effort and success. Participants who abandon a lower payoff labor market for the winner-take-all market act in what they believe to be a rational manner, but their actions are inefficient because the losers in the winner-take-all market will be consigned to a labor market in which the maximum payoff is less than the payoff in the market that they abandoned. A simple example explains the problem.

Suppose an individual, B, has talents that would permit that individual to be either a professional baseball player or a civil engineer. B has a 100% probability of success as a civil engineer with a payoff of \$40,000, but only one contestant in the baseball lottery will make the major leagues. All others will fail. No entrant in the contest has full knowledge of the probability of success of the other entrants.¹⁸¹ Notwithstanding these odds, at age 18 B might elect to

177. See Frank & Cook, *supra* note 2, at 8-11, 101-15.

178. See discussion at *supra* note 5.

179. See Frank & Cook, *supra* note 2, at 121.

180. Indeed, Frank and Cook's collaboration arose out of their realization that their separate research interests—the economics of status competition, for Frank, and the economics of participation in lotteries, for Cook—converged during the 1980s when “it became apparent that the competition for society's top positions was becoming more and more like participation in a lottery.” Frank & Cook, *supra* note 2, at ix.

181. This sounds like it presents much the same quandaries as the

pursue a career in baseball instead of going to college, knowing that he has a 1% chance of a \$6,000,000 payoff as a major league player and a 99% chance of a \$10,000 payoff as a minor league player.

Although there would be room in the engineering labor market for B and the other contestants who fail to reach the major leagues if they had all chosen to enter the engineering market at age 18, that will not necessarily be the case when they become losers in the baseball lottery. Often the point at which success or failure in baseball is determined is far removed from the initial point in time when baseball was chosen over engineering; consequently, the choice of the baseball option effectively forecloses the engineering option. Nevertheless, given the reward structure just posited, it is rational for B to follow the baseball career because the statistical value of the baseball payoff exceeds the value of the engineering payoff.¹⁸²

Eventually, only one contestant will become a major league baseball star at a \$6,000,000 payoff, and 99 baseball players each will earn \$10,000. The total product will be \$6,990,000. If, however, B had foregone the baseball career, B would have earned \$40,000 as an engineer. The total product of B and the remaining 99 entrants in the baseball career lottery would then have gone up by \$30,000 (B made \$40,000 rather than \$10,000), to \$7,020,000. Thus, B's decision to pursue a baseball career, while individually rational, nevertheless reduced the total social product by \$30,000. Moreover, since the payoff to the winner of the baseball lottery is based only on that person's productivity as a player, the diminution in the number of contestants does not reduce the winner's payoff, so that B's increased productivity as an engineer produces only an increase in overall productivity.¹⁸³ If 50 of the 100 potential baseball

classic prisoner's dilemma, and the similarity is no accident. Frank and Cook draw on those similarities explicitly, noting that "The prisoner's dilemma captures the essence of an important class of problems in which actions that seem compellingly attractive to individuals yield results that are unattractive to the group as a whole." *Id.* at 127.

182. The undiscounted statistical value of entering the baseball market is \$69,900 ($(\$6,000,000 \times .01) + (\$10,000 \times .99)$) compared to \$40,000 in the engineering market.

183. Since the payoffs in winner-take-all markets are based on relative performance, not on absolute performance, the results we describe would obtain even if our one entrant (B) otherwise would have been the winner in the baseball market, since other entrants would have been individually better off pursuing careers in engineering than in baseball and the total product of the participants in the labor market

players chose engineering, the total product of the 100 participants in the labor market would increase from \$6,990,000 to \$8,490,000.

For Frank and Cook, progressive taxation of high income earners will increase economic efficiency because it will reduce the attraction of the high salaries.¹⁸⁴ Individuals like B would be more likely to choose engineering over baseball if the reward structure were less disparate.¹⁸⁵ For Frank and Cook, a

would have increased had they done so.

184. Frank and Cook made this point in an op-ed article in the Washington Post. See Robert H. Frank & Phillip J. Cook, *The Superstar Economy: Why a Flat Tax Would Make America Less—Not More—Efficient*, Wash. Post, Nov. 12, 1995, at C2; see also Frank & Cook, *supra* note 2, at 101-46, 213.

185. Frank and Cook do not endorse the enactment of provisions like § 162(m), which prevents publicly held corporations from deducting executive compensation in excess of \$1 million per year, unless the compensation is shown to be based on performance and meets specific criteria. Frank and Cook believe such provisions are ill-advised because they single out a particular type of winner, possibly distorting the incentives among markets. See Frank & Cook, *supra* note 2, at 218-19.

We agree with Frank and Cook that restrictions on deductions for compensation are ill advised for still another reason: They attempt to address the problem from the wrong side and can result in tax burdens that are borne by individuals very different from those for whom they were intended. Provisions like § 162(m) produce a situation in which executives who have the market power to demand and obtain compensation in excess of the proscribed amount still demand and obtain it. Their employers spend additional sums seeking the legal advice that will allow them to behave in ways that avoid the limitation, thereby diverting funds either from the pockets of shareholders or workers to those of tax advisors, and deducting the resulting expense. The result is that the only losers are the owners of capital, who end up bearing the economic burden of the increased corporate tax. While there is much debate among economists on the question of who bears the economic burden of the corporate income tax, government economists, whose work is critical to enactment of tax legislation, assign the burden to the owners of capital. Redbook, *supra* note 28, at 49; James R. Nunns, *Distributional Analysis at the Office of Tax Analysis*, in *Distributional Analysis of Tax Policy* 111, 112 (David F. Bradford ed., 1995); Thomas A. Barthold,

proportional tax will have the converse effect, decreasing efficiency as well as increasing economic inequality because reducing the tax rates on the highest income earners “will exacerbate the glut of aspiring superstars.”¹⁸⁶ Frank and Cook favor progressive over proportional taxation because proportional taxation cannot alter the relative statistical values of the career choices faced by B in the example in the preceding paragraphs.¹⁸⁷ Graduated progressive taxation, however, can reduce the expected payoff for the major league player position to the point that B's rational choice will be to pursue an engineering degree. The remaining contestants for the major league baseball position, who have an alternative payoff of less than the \$40,000 available in the engineering market, say, \$15,000 in the taxi-driver market, will not decrease productivity as a result of the higher marginal rates because of the danger of a rank reversal—falling from number one to number two—results in falling from a \$6,000,000 payoff to a \$10,000 payoff. Thus, Frank and Cook maintain, taxation that is steeply progressive at the top can cure the inefficiencies of winner-take-all labor markets.¹⁸⁸

Distributional Analysis at the Joint Committee on Taxation, in *Distributional Analysis of Tax Policy* 128, 131 (David F. Bradford ed., 1995); but cf. Richard A. Kasten & Eric J. Toder, *Distributional Analysis at the Congressional Budget Office*, in *Distributional Analysis of Tax Policy* 120, 121 (David F. Bradford ed., 1995) (noting that while some Congressional Budget Office studies have assumed that half of the corporate income tax falls on income from capital and half falls on income from labor, the CBO assigned the burden of 1993 changes in the corporate income tax to families in proportion to their income from capital). While increasing the tax burden on capital may not necessarily be a bad thing, it is nevertheless not the thing that the provision was designed to accomplish. In the real world of imperfect markets and incomplete information, it is unlikely that the owners of capital would act to change the situation, particularly since it would be impossible to isolate the effect of this one provision.

186. Frank & Cook, *The Superstar Economy*, *supra* note 184, at C2.

187. Graduated flat rate progressive taxation, such as that advocated by champions of the “flat tax,” progressive only through a standard deduction, will not alter the relative values of the choices because the progression is too gentle, as the marginal rate above what is essentially a zero bracket is the same.

188. Like Frank and Cook, we believe that progressive taxation

Examination of the distribution of income data in Figure 3 and the Tables in Part II.C.,¹⁸⁹ strongly supports Frank and Cook's winner-take-all thesis with respect to distributions of incomes in the United States. Their theory regarding the incentives that operate in such markets provides strong support for progressive taxation. Most importantly, their theory has the virtue of costing nothing, since if Frank and Cook are wrong about the responsiveness of the labor supply, then much good results anyway because of decreased inequality and increased revenue that would result from adoption of the progressive rate structure they advocate.¹⁹⁰

Of course, one could rationally worry that the labor supply will be so elastic that an income tax that is steeply progressive at the top will cause all of the contestants in the baseball lottery to drop out. We just don't think that is a realistic concern. Not only do we believe that many winners respond to incentives other than the economic payoff,¹⁹¹ but neither we nor Frank and Cook are proposing a confiscatory tax. Furthermore, outside of the world of theory, not everyone enjoys the same statistical payoff, even if most individuals overestimate their own payoff. Individuals should consider not only the size of

is a more effective and appropriate way to reduce the incentive for wasteful entry into winner-take-all markets than tax penalty provisions like § 162(m). For a discussion of tax penalties generally, see McDaniel et al., *Federal Income Taxation* 391-92 (3d ed., 1997) and Eric M. Zolt, *Deterrence Via Taxation: A Critical Analysis of Tax Penalty Provisions*, 37 *UCLA L. Rev.* 343 (1989).

189. See also the discussion of income distributions at note 61.

190. It merits repeating that we favor progressive taxation because of our view of the fairness of the resulting system, not because we aim to provide particular incentive or disincentive effects, as do Frank and Cook. For us, if a fair system offers such desirable collateral effects, that is great, but it is gravy. See *infra* Part V.

191. While this may appear to contradict Frank and Cook's thesis, we believe the question is one of degree, not of kind. We subscribe to a view of human motivation that is more nuanced than that posited by an economic theory that ascribes most human endeavor to a pursuit of economic gain. It is possible to believe both that a reduction in the payoff will affect the number of entrants into the market while believing that other factors—love of the game, desire for fame—will ensure a healthy number of entrants despite the reduction in the payoff, unless the payoff drops to close to zero. Since neither we nor Frank and Cook are proposing confiscatory taxation, we need not worry about that.

the payoff but also, after assessing the abilities of others, the likelihood that their ability will give them a realistic chance to obtain it.¹⁹² While winner-take-all markets do not account for small differences in talent, neither are they unresponsive to vast differences in talent.

E. *Lessons From Optimal Tax Theory*

While we agree with Frank and Cook's analysis of the operation of winner-take-all markets and share their distress over the disparities in income that such markets produce, we do not advocate heightened levels of taxation for the winners as a cure for the expansion of winner-take-all markets.¹⁹³ We simply do not believe that the labor supply as a whole is responsive to changes in tax rates, because we do not believe productivity is responsive to such changes in tax rates generally,¹⁹⁴ nor do we believe that high income earners have a peculiar response to changes in tax rates.¹⁹⁵ Moreover, even if the labor supply is responsive to tax rates at the margin, there is nothing to suggest that the performance of those who actually become winners is affected by the level at which they are compensated, and much to suggest otherwise.¹⁹⁶ Thus, as

192. For example, if there are 10 contestants for a \$1 million payoff based at least in part on skill or some other individually variable attribute, they do not all have a 10% chance of winning a \$100,000 payoff. Instead, five of the contestants may have a 15% chance of winning, while the other five may have only a 5% chance of winning. Statistically, then, the top five have a chance worth \$150,000, while the bottom five have a chance worth \$50,000. If taxes reduce the \$1 million to \$600,000, the statistical payoff for the top five will go down to \$90,000 while that for the bottom five will go down to \$25,000. In that case, if an alternative market would offer a 100% chance of a \$30,000, after taxes, the top five contestants would remain in the game, but the bottom five would drop out in favor of the sure thing.

193. We thus differ from Frank and Cook in our reasons for advocating progressive taxation in the winner-take-all society. See Frank & Cook, *supra* note 2, at 213-14.

194. See *infra* notes 207-08, 213-14 and accompanying text.

195. See *infra* notes 236-243 and accompanying text.

196. See Thomas H. Sanders, *Effects of Taxation on Executives* 17-32 (1951) (Harvard Business School study concluded that executive work effort was unaffected by tax rates at a time when maximum rates exceeded 90%); see also Slemrod, *supra* note 56, at 203-09 (concluding

Frank and Cook point out, CEOs of German and Japanese companies “earn much lower salaries and face much higher tax rates than do their American counterparts . . . [a]nd yet the companies they manage have provided much of America’s stiffest competition in recent years.”¹⁹⁷ Factors other than taxes are at work.

If Frank and Cook are right in their conclusion that winners will not work less if the rewards of winning shrink as a result of higher taxation, then taxing winners at proportionately higher rates is a no-lose proposition. Optimal tax theory reinforces that conclusion. Optimal tax theory holds that the best (“optimal”) tax is one imposed on an activity with relatively low elasticity, so that imposition of the tax will increase productivity (produce an income effect by causing people to work harder, if it affects their behavior at all), but will not have a substitution effect (causing people to substitute leisure for additional work because of the diminished after-tax value of the work).¹⁹⁸ Optimal tax

that tax rates affect the form of compensation, but not its total amount).

197. Frank & Cook, *supra* note 2, at 217. Of course, there are cultural differences between American and Japanese executives, but economists don’t generally take those into account anyway. At any rate, Frank and Cook do not claim that incentive compensation is irrelevant, nor do they seek to abolish it. Their claim is that “there is reasonably clear evidence that CEO performance does not strongly depend on the extent to which pay varies with profitability.” *Id.*

198. Optimal tax theory proceeds from utilitarianism. James Mirrlees, a British economist, is generally credited with developing it through the publication of an article in 1971. J.A. Mirrlees, *An Exploration in the Theory of Optimum Income Taxation*, 38 *Rev. Econ. Stud.* 175 (1971). Bankman and Griffith provided a blueprint for applying optimal tax theory in the formulation of American tax policy. Bankman & Griffith, *supra* note 127. In a recent book, Ed McCaffery provides a clear, but not simplistic, explanation of optimal tax theory and uses it to argue for increased taxation of male labor. Edward J. McCaffery, *Taxing Women* 163-84 (1997). In a recent article, Nancy Staudt discusses Mirrlees’ work and uses optimal tax theory to argue for taxation of the poor, combined with demogrants designed to ensure the poor share the responsibilities of citizenship. Nancy C. Staudt, *The Hidden Costs of the Progressivity Debate*, 50 *Vand. L. Rev.* 919 (1997). An optimal tax then, would be imposed in inverse relation to the elasticity of the activity taxed. Lawrence Zelenak, *Marriage And The Income Tax*, 67 *S. Cal. L.*

theory suggests that imposing higher rates of taxation on winners will produce the greatest overall good by increasing revenue while not decreasing productivity.

F. *The Failure of the Rising Tide*

Proponents of proportional taxation likely will argue that the preceding analysis ignores their claim that the income level of higher income individuals affects the income level of everyone; “a rising tide lifts all boats.” The response is simple: Look at the 1980s. The empirical data prove that a rising per capita income does not necessarily result in a proportionate increase in incomes across all income classes. A small percentage of the population can, and in the past two decades largely has, captured all of the benefits. From 1979 to 1992, average income in the United States, as a multiple of the poverty level, increased.¹⁹⁹ But for the bottom three quintiles, 60% of the population, average income by this measure decreased.²⁰⁰ Only the top two quintiles saw any significant increase, and even that increase was highly concentrated at the very

Rev. 339, 366 (1994). The modern theory of optimal tax was set out in mathematical detail in J.A. Mirrlees, *An Exploration in the Theory of Optimal Income Taxation*, *supra*, and while subsequent scholars have debated Mirrlees’ quantitative formula, see Bankman & Griffith, *supra* at 1964, the theory has received substantial attention in recent years, has served to support arguments in favor of a tax structure that imposes comparatively lower taxes on groups whose labor supply is thought to be highly elastic, like married women, see Edward J. McCaffery, *Taxation and the Family: A Fresh Look at Behavioral Gender Biases in the Code*, 40 *UCLA L. Rev.* 983, 1044-46 (1993), and immigrants, see Howard F. Chang, *Liberalized Immigration as Free Trade: Economic Welfare and the Optimal Immigration Policy*, 145 *U. Pa. L. Rev.* 1147, 1169 (1997), and comparatively higher taxes on groups whose labor supply is thought to be largely inelastic, like married men, see McCaffery, *Taxing Women*, *supra* at 200-01. Cf. Zelenak, *supra* at 366; Eric M. Zolt, *The Uneasy Case for Uniform Taxation*, 16 *Va. Tax Rev.* 39, 42 (1996). For a general overview of the early literature on optimal taxation, see Agnar Sandmo, *Optimal Taxation: An Introduction to the Literature*, 6 *J. Pub. Econ.* 37 (1976).

199. See discussion at *supra* note 76.

200. See discussion at *supra* note 76.

top few percentiles.²⁰¹ For the bottom quintile, real income, measured in constant dollars, has only been as high as it was in 1979 once.²⁰² Likewise, the real income for the second quintile only exceeded the 1979 level in 1986 through 1990 and also in 1997, but even then only marginally, while the median real income for the third quintile has increased little since 1979, and was less than its 1979 level in ten of the seventeen years between 1980 and 1996, including the period from 1991 through 1994.²⁰³ In other words, a rising tide does not necessarily lift all boats;²⁰⁴ it swamps those boats with too short an anchor line. Perhaps more importantly, cross-national data indicate a statistically significant negative correlation between the growth rate of the economy and inequality.²⁰⁵ Inequality holds back the rising tide.

G. *The Elasticity of the Labor Supply*

As the foregoing discussion has demonstrated, views about the desirability of progressive tax rates are affected by views on the behavioral effect of such rates. We have shown that in a winner-take-all society progressive taxation can produce greater overall after-tax efficiency than proportional taxation even assuming some negative behavioral response from those subjected to higher marginal rates.²⁰⁶ Nevertheless, the most dramatic differences between progressive and proportional taxation in winner-take-all markets occur if progressive taxation does not produce significant adverse behavioral effects. The relationship between progressive taxation and decreased productivity therefore merits additional discussion.

Many economists conclude that the level of tax rates does affect the labor supply.²⁰⁷ They reach this conclusion from models based on the idea that

201. See discussion at supra note 76.

202. See United States Census Bureau Internet Site, Historical Income Tables-Households, Table H-3 (visited Jan. 5, 1997) <<http://www.census.gov/hhes/income/historic/h03.html>>.

203. *Id.*

204. See Historical Trends in Poverty and Family Income: Hearing Before the Subcomm. on Human Resources of the Comm. on Ways and Means, 103d Cong., 39 (1993)(statement of Lynn A. Karoly).

205. See Robert H. Frank, Progressive Taxation And The Incentive Problem 7-9, presented at Atlas Shrug Conference, supra note 81.

206. See supra Part IV.A.

207. See, e.g., Jerry A. Hausman, Labor Supply, in *How Taxes Affect Economic Behavior* 27-83 (Henry J. Aaron & Joseph A. Pechman

the substitution effect, substituting leisure for labor when the yield to labor decreases, predominates over the income effect, an increase in labor to maintain income levels when wages fall.²⁰⁸ Indeed, some of these models lead to the conclusion that to maximize efficiency, rates ought to be regressive, that is, marginal rates ought to decrease as income increases.²⁰⁹ Economic theory alone, however, does not explain which effect will predominate.²¹⁰ The models that predict that work effort will increase if tax rates are decreased are based on assumptions regarding responsiveness of the labor supply to wages.²¹¹ However, empirical studies indicate that the labor supplied by primary wage earners does not respond significantly to after-tax pay changes;²¹² secondary wage earners, in contrast, generally have appeared to be responsive to changes in after-tax pay.²¹³ Recent work suggests that male labor supply is not very

eds., 1981); Andrew B. Lyon, Individual Marginal Tax Rates Under the U.S. Tax and Transfer System, in *Distributional Analysis of Tax Policy* 214, 224 (David F. Bradford ed., 1995)(collecting references to such studies); *Replacing the Federal Income Tax: Hearings Before the House Comm. on Ways & Means (Vol. II)*, 104th Cong, 2d Sess. 123, 129 (1996)(statement of Prof. Alan J. Auerbach); see also Joel Slemrod, Professional Opinions About Tax Policy: 1994 and 1934, 48 *Nat'l Tax J.* 121, 131 (1995)(71% of surveyed economics professors who were members of the NTA-TIA believed that lower marginal tax rates reduce leisure and increase work efforts).

208. See Joseph J. Minarik, *Making Tax Choices*, 52-54 (1985); Musgrave, *supra* note 121, at 241-46; Robert K. Triest, *Fundamental Tax Reform and Labor Supply*, in *Economic Effects of Fundamental Tax Reform* 247, 259-64 (Henry J. Aaron & William G. Gale eds., 1996)(modeling the labor response to replacement of the corporate and individual income taxes by a 14.3% VAT).

209. See Lyon, *supra* note 207, at 225; Slemrod et al., *supra* note 150.

210. See Musgrave, *supra* note 121, at 241-46; James M. Bickley, *Flat Tax: An Overview of the Hall-Rabushka Proposal*, 72 *Tax Notes* 97, 102-03 (July 1, 1996).

211. See *supra* notes 189-208 and accompanying text.

212. See Eric Engen & Jonathan Skinner, *Taxation and Economic Growth*, 49 *Nat'l Tax J.* 617, 631 (1996).

213. Benjamin M. Friedman, *Day of Reckoning, The Consequences of American Economic Policy* 242-43 (1988); Jane G.

responsive to wage rates except at the lower wage levels, and may be negative; female responsiveness for females already in the work force might not be as great as previously estimated, and may resemble the responsiveness of males.²¹⁴

Historically, the long term trend in this country has been that increasing real wages have led to shorter work weeks, longer vacations, and earlier retirement.²¹⁵ In other words, the income effect predominates over the substitution effect.²¹⁶ The empirical evidence indicates that economists, and others, who predict that lower tax rates will increase work effort make a wildly erroneous assumption about human behavior. On balance, the most reasonable conclusion is that although there are theories that predict that the labor supply in general varies inversely with tax rates, these theories are unproven and, in all likelihood, erroneous. Significantly, much tax policy analysis is grounded on the inelasticity of the labor supply—all three governmental agencies that conduct distributional analyses of changes in the tax system treat social security taxes as economically borne by workers because of the presumed inelasticity of the labor supply²¹⁷—and in the absence of evidence to the contrary, it seems sensible to craft rate policy on that basis as well.

Gravelle, Behavioral Responses to Proposed High-Income Tax Rate Increases: An Evaluation of the Feldstein-Feenberg Study, 59 *Tax Notes* 1097 (May 24, 1993); Triest, *supra* note 208, at 256-57; see also Jane G. Gravelle, Behavioral Feedback Effects and the Revenue-Estimating Process, 48 *Nat'l Tax J.* 463, 468-70 (1995). For a provocative application of this finding, see McCaffery, *supra* note 198 (using optimal tax theory to propose a higher tax on men than on women).

214. William C. Randolph & Diane Lim Rogers, The Implications For Tax Policy of Uncertainty About Labor-Supply and Savings Responses, 48 *Nat'l Tax J.* 429 (1995); Nada Eissa, Tax and Transfer Policy And Female Labor Supply, Proceedings of the Eighty-Eighth Annual National Tax Association Conference on Taxation 160 (1996); Minarik, *supra* note 208, at 52-54. But see McCaffery, *supra* note 198.

215. See Robert Eisner, The Proposed Sales and Wages Tax—Fair, Flat or Foolish?, in *Fairness and Efficiency in the Flat Tax* 42, 79 (1996); Randolph & Rogers, *supra* note 214, at 435.

216. Randolph & Rogers, *supra* note 214.

217. Redbook, *supra* note 28, at 41 (citing Joseph A. Pechman & Benjamin A. Okner, Who Bears the Tax Burden? 24-37 (1974)); Nunns, *supra* note 185, at 111; Kasten & Toder, *supra* note 185, at 120.

H. *The Responsiveness of the Savings Rate*

While many winners gain entry into the winner's circle by dint of their labor, once there they increase the size of their winnings through investment. Any discussion of the impact of higher marginal tax rates for winners must therefore consider the potential behavioral effects of such rates on both the supply of labor and the supply of capital.

As with the responsiveness of the labor supply, theories on the responsiveness of the savings rate to changes in tax rates abound.²¹⁸ Many economists believe that income taxation discourages savings and investment.²¹⁹ Many politicians agree, and have called for the abandonment of income taxation and the adoption of consumption taxation instead.²²⁰ Other economists believe that the increase in savings would be relatively small,²²¹ or would

218. For a clear and concise explanation of the relationship between the taxation of capital and the resulting economic behavioral response, see Slemrod & Bakija, *supra* note 8, at 110-17.

219. Hall & Rabushka, *supra* note 31, at 84-87; Michael J. Boskin, Taxation, Saving, and the Rate of Interest, 86 *J. Pol. Econ.* S3-S27 (1978); see also Slemrod, *supra* note 207, at 131 (67% of surveyed economics professors who were members of the NTA-TIA believed that lower tax rates on the return to savings increase private saving).

220. See, e.g., Kemp Commission Report, *supra* note 51, at 67. A review of the "flat tax" movement that this belief has spawned and the considerable literature that it has generated is, of course, well beyond the scope of this article. For one analysis of the two most serious legislative proposals that have emerged from this movement, see Alice G. Abreu, Untangling Tax Reform: Simple Taxes, Complex Choices, 33 *San Diego L. Rev.* 1355 (1996).

221. In the mid 1960s, when the maximum marginal income tax rate was 70%, Richard Goode, using a variety of statistical yardsticks, estimated that the effect on savings of shifting from a progressive income tax to a flat rate consumption tax would be "unimpressive." Richard A. Goode, *The Individual Income Tax* 67-68 (1964). More recently, Diane Lim Rogers has estimated that the efficiency gains of shifting to a flat rate consumption tax would be less than 1% of lifetime income. Diane Lim Rogers, *Sorting Out the Efficiency Gains From a Consumption Tax*, Proceedings of the Eighty-Eighth Annual National Tax Association Conference on Taxation 40 (1995). William Gale has estimated that the long term efficiency gains of shifting to a consumption tax could be only

quickly dissipate when transition relief is provided.²²² Still others remain

\$200 per capita per year. William G. Gale, *Building a Better Tax System: Can a Consumption Tax Deliver the Goods?*, 13 *Brookings Rev.* 18 (1995); see also Roundtable Discussion on Tax Reform and Economic Growth: Hearing Before the Joint Econ. Comm., 104th Cong., 134 (1996)(testimony of William G. Gale). Alan Auerbach and Lawrence Kotlikoff have estimated the long run gains from shifting to a consumption tax to be only about \$60 per capita per year. See Speech of Brookings Institution's Gale at Tax Reform Commission Hearing, *Tax Notes Today (Tax Analysts)* July 28, 1995, 95 TNT 147-65, available in LEXIS, FEDTAX library, TNT file. Similarly, Henry Aaron has estimated that a 50% cut in taxation of all capital income would at most increase the national capital stock by .08% in five years. Review of Congressional Budget Cost Estimating Joint Hearing Before the House Comm. on the Budget and the Senate Comm. on the Budget, 104th Cong., 149 (1995)(testimony of Henry J. Aaron).

While a model developed by Eric Engen, a Federal Reserve Board economist, suggests that the savings rate would increase about 10% (from 5% to 5.5%), see William Gale, *Building a Better Tax System*, *supra*, this growth may be overstated because pension savings may decrease, see Eric M. Engen & William G. Gale, *Comprehensive Tax Reform and the Private Pension System*, 72 *Tax Notes* 345 (July 15, 1996). Furthermore, much of this gain could be realized by reform to the income tax system, including a more comprehensive tax base. Jane G. Gravelle, *The Economic Effects of Taxing Capital Income* 49-50, 245-52 (1994); Louis Lyons, *Hubbard: Income Tax Reform Offers Same Promise as Consumption Tax*, 74 *Tax Notes* 560 (Feb. 3, 1997)(reporting on comments by Columbia University economist R. Glenn Hubbard, at an American Enterprise Institute conference, that integration of the corporate and individual income taxes could achieve substantially the same efficiency gains as replacing the income tax completely with a consumption tax).

222. Some economists who predict shifting to a consumption tax could significantly increase output conclude that providing any transition relief to "old capital" and any progressivity, including a zero bracket on wages, would significantly reduce or eliminate completely the potential efficiency gains. See *Replacing the Federal Income Tax: Hearings Before*

unconvinced.²²³

The effect of the tax rate on the savings rate depends on whether the income or substitution effect predominates.²²⁴ Under the substitution effect, if the yield to capital increases, future consumption, i.e., savings, becomes more attractive relative to present consumption. Under the income effect, if the yield to capital increases, a target saver can reduce savings and still have the same “nest egg” in a future year. Which of these two effects predominates depends on the motivation for saving.²²⁵ Various economists, employing different models, reach different results. While some economists conclude that personal savings responds significantly to the interest rate,²²⁶ other economists conclude

the House of Representatives Comm. on Ways & Means (Vol. II), 104th Cong, 2d Sess. 123, 129 (1996)(statement of Prof. Alan J. Auerbach); Alan J. Auerbach, *Tax Reform, Capital Allocation, Efficiency, and Growth*, in *Economic Effects of Fundamental Tax Reform 29-73* (Henry J. Aaron & William G. Gale eds., 1996).

223. See Albert Ando et al., *The Structure and Reform of the U.S. Tax System* 67-71 (1985). Furthermore, in the aggregate, income from capital already might be taxed at near an average zero rate due to combination of deduction of nominal interest, accelerated depreciation, and arbitrage. See Joel Slemrod’s Testimony Before Bipartisan Commission, Hearing on Entitlements and Tax Reform, *Tax Notes Today* (Tax Analysts) Oct. 7, 1994, 94 TNT 198-41, available in LEXIS, FEDTAX library, TNT file. Recalling the 1980 Presidential campaign, the Economic Recovery Tax Act of 1981, and the failure of supply-side economics to deliver the promised growth, Larry Summers, a respected economist and Secretary of the Treasury during President Clinton’s second term, simply refers to the claimed economic efficiencies of the flat tax as “deja voodoo economics.” Lee A. Sheppard, *Flat Tax and Politics* at NYSBA, 70 *Tax Notes* 488 (Jan. 29, 1996).

224. See Eisner, *supra* note 215, at 78.

225. In addition, some saving—much household saving—may be precautionary, the proverbial “saving for a rainy day.” Such saving may not be affected one way or another by the yield to capital. See Eric M. Engen & William G. Gale, *The Effects of Fundamental Tax Reform on Saving*, in *Economic Effects of Fundamental Tax Reform* 83, 93-94 (Henry J. Aaron & William G. Gale eds., 1996).

226. See, e.g., Boskin, *supra* note 219.

that there is little if any response.²²⁷ Many econometric models predict that shifting to a consumption tax (which does not tax savings) would at best lead to only modest increases in the savings rate.²²⁸ As useful as it may be, however, economic theory cannot offer clear and certain predictions.²²⁹ Empirical work must supply the answer.

Empirical evidence suggests that eliminating the taxation of capital would lead to efficiency effects that are small and ambiguous as to direction. Some empirical evidence even suggests that the rate of saving decreases as the rate of return increases.²³⁰ Other data corroborate this by showing that over the long term the United States personal savings rate has varied inversely with the yield to capital.²³¹ The most recent experience with attempts to increase the

227. See E. Philip Howrey & Saul H. Hymans, *The Measurement and Determination of Loanable-Funds Saving*, in *What Should Be Taxed: Income or Expenditure?* 1, 29-30 (Joseph A. Pechman ed., 1980).

228. See, e.g., Don Fullerton & Diane Lim Rogers, *Lifetime Effects of Fundamental Tax Reform*, in *Economic Effects of Fundamental Tax Reform* 321-47 (Henry J. Aaron & William G. Gale eds., 1996); Alan J. Auerbach, *Tax Reform, Capital Allocation, Efficiency, and Growth*, in *Economic Effects of Fundamental Tax Reform* 29-73 (Henry J. Aaron & William G. Gale eds., 1996).

229. Alan J. Auerbach, *Measuring the Impact of Tax Reform*, 49 *Nat'l Tax J.* 665, 666 (1996).

230. See Gravelle, *supra* note 221, at ch. 2; Benjamin M. Friedman, *Day of Reckoning: The Consequences of American Economic Policy* 252-55 (1989); Slemrod & Bakija, *supra* note 8, at 110-11 (Figure 4.4, based on a study done by Jane Gravelle of the Congressional Research Service, shows that "the saving rate fell when the incentive to save increased. In the period 1968 to 1980, the average return to saving was 3.5 percent, and the saving rate averaged 13 percent. From 1981 to 1993, the rate of return averaged 5.9 percent, but the saving rate averaged only 10 percent.").

231. See Jonathan Skinner & Daniel Feenberg, *The Impact of the 1986 Tax Reform on Personal Savings*, in *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, at 50, 58-63 (Joel Slemrod ed., 1990); see also Joseph Bankman, *The Structure of Silicon Valley Start-Ups*, 41 *UCLA L. Rev.* 1737 (1994)(empirical analysis indicates that venture capitalists and entrepreneurs in Silicon Valley start-ups, surely high risk ventures, operate in almost complete oblivion of taxation issues);

savings rate in the United States by reducing tax rates indicates that the effort is counterproductive: During 1980s, when real interest rates increased and marginal tax rates, particularly the rates on the income from capital, decreased and produced a significant increase in after-tax yield, the savings rate fell.²³²

Moreover, even if lower tax rates did influence saving behavior, increased savings might not result in greater GDP, because GDP would increase only if the savings were invested domestically. Yet, there is no way to know that savings will be so invested. Financial markets are international.²³³ Thus, although United States wealth would increase, domestic labor productivity would not necessarily increase.²³⁴

I. *Might Winners be Specially Responsive?*

Much of the empirical work on responsiveness of labor supply and of savings to tax rates has excluded high-income taxpayers, and the suggestion often is made that high income taxpayers respond differently—that they are on the upper half of the famous Laffer Curve.²³⁵ But the suggestion has not gone

Slemrod & Bakija, *supra* note 8, at 266-67 nn.26-27 (providing additional authority for and discussion of the empirical evidence of the inverse relationship between personal savings and yield to capital).

232. See Gravelle, *supra* note 221, at 26; Flat Tax Proposals: Hearings Before the Senate Comm. on Finance, 104th Cong., 21 (1995)(testimony of Alan J. Auerbach); Roundtable Discussion on Tax Reform and Economic Growth: Hearing Before the Joint Econ. Comm., 104th Cong., 134 (1996)(testimony of William G. Gale); Ando et al., *supra* note 223.

233. See *States Against Markets* (Robert Boyer & Daniel Drache eds., 1996); John H. Friedland, *The Law And Structure of the International Financial System: Regulation in the United States, EEC, And Japan* (1994). See generally, Charles L. Schultze, *Memos to the President 107-19* (1992)(discussing the growing mobility of international capital and its consequences). For a discussion of the possibility that additional domestic savings might be invested abroad, see Gravelle, *supra* note 221, at 14 and Engen & Gale, *supra* note 225, at 102.

234. See Auerbach, *supra* note 228, at 63-65; Minarik, *supra* note 208, at 63.

235. The Laffer curve illustrates that the amount of revenue collected by the government is a function of the tax rate. This curve is represented by placing the tax rate on the vertical axis and tax revenue on

unchallenged. Thus, although Feenberg and Poterba concluded that after the Tax Reform Act of 1986, the top one-tenth of the top 1% of taxpayers (by AGI class) significantly increased reported income in response to lower rates,²³⁶ Slemrod concluded that this increase in reported income resulted from shifting the form of income, not from increased labor supply, and thus did not represent an increase in national income.²³⁷ Notably, a very recent empirical study actually found that for high income earners there is a significant negative elasticity between lower income tax rates and hours worked—cutting taxes reduces the work effort of the rich.²³⁸ With respect to the importance of capital

the horizontal axis. The graph assumes that there is a tax rate beyond which supply response is so great that tax revenues will fall. “It . . . shows that when tax rates are very high, any increase in the tax rate could actually cause tax revenues to fall.” Case & Fair, *supra* note 154, at 863 (explanation of Figure 35.2). For a more thorough explanation of the Laffer curve, see Alfred L. Malabre, Jr., *Lost Prophets* 181-82 (1994).

236. Feenberg & Poterba, *Income Inequality and the Incomes of Very High Income Taxpayers: Evidence From the Returns*, *Tax Notes Today* (Tax Analysts) Nov. 25, 1992, 92 TNT 236-15, available in LEXIS, FEDTAX library, TNT file.

237. Joel Slemrod, *Income Creation or Income Shifting? Behavioral Responses to the Tax Reform Act of 1986*, *Tax Notes Today* (Tax Analysts) Jan. 9, 1995, 95 TNT 5-74, available in LEXIS, FEDTAX library, TNT file; Austan Goolsbee, *It’s Not About the Money: Why Natural Experiments Don’t Work on the Rich*, presented at Atlas Shrug Conference, *supra* note 81. There is, however, a revenue impact issue that must be considered if high income earners respond to higher tax rates by shifting compensation from a taxable form, i.e., current salary, to a tax preferred form, i.e., fringe benefits, stock options, etc. This is not a rate problem, however, so much as a base problem. A more comprehensive tax base, such as mark-to-market, see David J. Shakow, *Taxation Without Realization: A Proposal for Accrual Taxation*, 134 U. Pa. L. Rev. 1111 (1986), and elimination of capital gains preferences, would eliminate or reduce the revenue problem.

238. See Robert A. Moffitt & Mark Wilhelm, *Taxation and the Labor Supply Decisions of the Affluent*, presented at Atlas Shrug Conference, *supra* note 81; Austan Goolsbee, *supra* note 237. See also Gerard Brannon, *Taxes and Progressivity*, 77 *Tax Notes* 543 (Nov. 3, 1997). That this finding could perhaps be explained by a shift from

income generally, as previously discussed, there is no convincing evidence (and little evidence at all) of a behavioral response to changes in the marginal rate.²³⁹ Indeed, there is good reason to believe that for the very rich accumulation of wealth is an end in itself and not merely consumption deferred or bequests amassed; it is the accumulation of power and prestige.²⁴⁰ The proposition that a high income Laffer Curve actually exists lacks any empirical support.²⁴¹

earned income to other forms of income, see Slemrod & Bakija, *supra* note 8, or by a realization that reduced taxes means that reduced work effort does not result in a decline in after-tax income, see Eisner, *supra* note 215, does not detract from its significance, which is that the dreaded decline in productivity that theorists so often assert will attend an increase in marginal rates, just does not seem to occur in the real world

239. See *supra* Part III; see also Andrew A. Samwick, *Portfolio Responses to Taxation: Evidence From the End of the Rainbow*, presented at the Atlas Shrug Conference, *supra* note 81; Brannon, *supra* note 238 (discussing Atlas Shrug Conference papers). Nevertheless, capital gains realizations are thought to be responsive to changes in rates, and recent tax legislation was enacted on that premise. See Staff of the Joint Comm. on Taxation, *General Explanation of Tax Legislation Enacted in 1997*, 516 app. (reduction in capital gains rates projected to produce revenue increases of \$1,254 million in 1997, \$6,371 million in 1998, and \$171 million in 1999, followed by revenue losses totaling almost \$29,000 million in 2000 through 2007). For a very good discussion of the impact of increased realizations, see Gravelle, *supra* note 105, at 283 (discussing differences in distributional methodologies employed by the Joint Committee on Taxation and the Treasury Department's Office of Tax Analysis).

240. Christopher D. Carroll, *Why Do The Rich Save So Much?*, presented at Atlas Shrug Conference, *supra* note 81.

241. See Slemrod, *supra* note 56, at ch. 6; Triest, *supra* note 208, at 247, 257, 261, 269 (rate reductions in 1986 resulted, at best, in only a small increase in the labor supply of high income men; although an econometric model indicates that switching from an income tax to a flat rate consumption tax results in most significant hourly work increases for highest-income decile, empirical evidence supporting the theory of a high-income Laffer curve is "scant"); see also Samwick, *supra* note 239 (marginal tax rates provide a limited explanation for the actual portfolio changes of households at all points in the income distribution); Eisner,

Frank and Cook would not be surprised. Indeed, the absence of any effect on the performance of the winners follows from the operation of winner-take-all markets.²⁴² Winners know only too well that in the market they have conquered, the very high incomes they enjoy accrue to a limited number of competitors whose performance is rank-ordered at the top, above a cut-off point. In such a market, very small differences in performance at the margin can result in falling below the cut-off point and experiencing a decline in compensation that is disproportionately large when compared with the decline in performance. Therefore, winners who want to remain in the winner's circle will not reduce their work effort in response to lower taxes; they will not risk falling out of the circle and experiencing a decrease in earnings that cannot be made up by any conceivable decrease in tax rates.

Moreover, there is evidence that the very individuals who become winners—the high-income lawyers, doctors, entertainers, major league athletes, investment bankers, and corporate CEOs who receive the winners' compensation—may respond more to nonpecuniary factors, such as personal gratification and prestige, than to changes in their after-tax compensation.²⁴³ For such individuals, the loss of personal gratification and prestige that would attend a fall from the ranks of the anointed would not be made up for by any decrease in taxes.

supra note 215, at 79 (high income earners actually may reduce work effort in the face of lower tax rates because with lower taxes they can maintain or improve after-tax incomes notwithstanding lesser work effort). But see Robert Carroll et al., *Entrepreneurs, Income Taxes, and Investment*, presented at Atlas Shrug Conference, supra note 81 (estimating that a 5% marginal tax increase would reduce sole proprietor entrepreneurial investment by 9%).

242. While Frank and Cook would use the tax system to diminish the attractiveness of winning and thus curb wasteful competition for the few winner's slots, Frank & Cook, supra note 2, at 121-23, diminishing the attraction of entering is different from affecting performance by those who have won.

243. See Richard A. Musgrave & Peggy B. Musgrave, *Public Finance in Theory and Practice* 300 (5th ed. 1989); Sanders, supra note 196, at 17-32 (Harvard Business School study concluding that executive work effort was unaffected by taxes; the maximum tax bracket at that time exceeded 80%); Carroll, supra note 240. Frank and Cook acknowledge the importance of the status motive, as well as that of personal gratification. Frank & Cook, supra note 2, at 112-15.

V. THE EQUITIES OF PROGRESSIVE TAXATION

Equity is at the core of the concept of progressive income taxation.²⁴⁴ Progressive income taxation can be regarded as equitable because it can require sacrifices proportional to the ability of people to make them.²⁴⁵ Nevertheless, some critics of progressive income taxation have questioned the proportionality of the sacrifice required.²⁴⁶ Others who might agree with its equitable goals have objected to the price of progressivity, arguing that progressive taxation impedes economic efficiency by distorting production decisions at the margin.²⁴⁷ The discussion in the preceding Part attempted to show that progressive taxation can be efficient. We will now explain why we think it is also equitable, even if in implementation it results in the imposition of a more than proportionate burden on relatively higher income earners because of the

244. In his famous work, *Personal Income Taxation*, Henry Simons summarized his argument for progressivity quite simply: “The case for drastic progression in taxation must be rested on the case against inequality—on the ethical or aesthetic judgment that the prevailing distribution of wealth and income reveals a degree (and/or kind) of inequality which is distinctly evil or unlovely.” Henry Simons, *Personal Income Taxation* 18-19 (1938). Although Simons may have been somewhat flippant in his articulation of the justification for progressivity, egalitarian arguments for progressive taxation can rest on a solid philosophical basis, such as the philosophy of John Rawls. See Byrne, *supra* note 119, at 774-78.

245. See *supra* Part III.A.

246. See sources cited at *supra* note 144 and accompanying text.

247. See, e.g., Byrne, *supra* note 119, at 749 (“In short, progressive rates are criticized because they create economic efficiency” and distort economic decision making.); Bruce Anderson, Note, *Strategic Choice Taxation: A Solution to the Federal Revenue Crisis*, 1995 *Colum. Bus. L. Rev.* 281, 311 (1995)(asserting that “[i]nefficiency arises because individual economic decisions are increasingly distorted as a function of marginal tax rates and large scale investors are usually subject to the high-end of progressive rate structures”); Martin J. McMahon, Jr., *Individual Tax Reform for Fairness and Simplicity: Let Economic Growth Fund For Itself*, 50 *Wash. & Lee L. Rev.* 459, 463 (1993)(explaining that one of the main arguments against progressive taxation is the idea that progressivity stifles economic growth).

difficulty of measuring utility and making interpersonal utility comparisons.²⁴⁸ Indeed, we believe that progressive taxation is a good idea even if it is inefficient.

An efficient market may result in extreme poverty for many and extraordinary wealth for a few.²⁴⁹ Thus, even if those who claim that progressive taxation reduces productivity are correct, a society very well may chose to provide for relatively more equality, at a lower level of aggregate output and utility. Efficiency is an economic concept, and economics “is of no help in determining when one distribution is better or worse than another.”²⁵⁰ The long-term preservation of many of the values that our society holds dear very well may require a somewhat more proportional distribution of incomes (and wealth) than is produced in the winner-take-all market. If it were necessary, we would make that trade-off. The model we discussed in Part IV, will help to illustrate why.

Consider what would happen if we assume that progressive taxation is inefficient and causes E, the winner, to decrease her productivity by \$50 (so that E’s productivity drops to \$450, instead of being \$500), under a system in which the highest marginal rate is again adjusted to assure that E still pays \$220 of tax. When these results are compared with the results under the proportional tax in Table 12, it becomes apparent that the inefficient graduated progressive tax regime results in a \$50 dollar diminution in the aggregate social product and a reduction in aggregate after tax utility of 235 utils. When distributional effects are considered, however, 80% of society is still better off after taxes.

The operation of a market that functions as we just described is illustrated in Table 15.

248. Absent from our explanation will be any reliance on the notion that progressive taxation is redistributive. Although some supporters of progressive taxation laud its redistributive potential, we are skeptical of that potential and believe that the attraction of progressive taxation lies in its ability to fund the cost of government, or of civilized society, as Holmes put it, from the assets of those who will least miss them. The arguments we will make regarding the ability of progressive taxation to reduce large concentrations of wealth and political power are grounded in the merits of the reduction itself, not in the notion that the tax dollars collected from one person will be redistributed to another.

249. See Amartya Sen, *On Ethics and Economics*, 32-33 (1987).

250. Harrison, *supra* note 139, at 2.

TABLE 15
MODEL SOCIETY WITH PROGRESSIVE INCOME TAX
AND SUBSTITUTION EFFECT THAT REDUCES TOTAL UTILITY

<u>Individual</u>	<u>Income</u>	<u>Tax</u>	<u>After-tax Income</u>	<u>After-Tax Utility</u>
A	50	0	50	520
B	100	10	90	880
C	150	25	125	1,170
D	200	45	155	1,410
E	<u>450</u>	<u>220</u>	<u>230</u>	<u>2,010</u>
Totals:	950	300	650	5,990

Only E is worse off under the progressive tax system, but even this is only true if we assume that E reduced productivity without substituting anything in its place. To make this true, then, we have to assume that E reduced productivity but did not increase the utility received from leisure. The problem with such an assumption is that it defies reason: If E received no utility from leisure, E would not have any reason to substitute leisure for productivity. The patent irrationality of such an assumption should cause us to be skeptical of the claim that E enjoys less total utility, rather than simply less utility from material goods. Difficulties in measuring the utility of leisure do not suggest its absence.

Our thesis, however, does not require agreement with the proposition that leisure has utility. Assume that our only concern is utility from material goods, that E clearly receives less utility from material goods, and that the society in the aggregate thus receives less utility from material goods. Might a society nevertheless rationally opt for such a system? Our answer is: Absolutely. If values other than maximization of aggregate material utility are important, the decision to impose such a tax system can make perfect sense.

Purely from a static economic welfare perspective, most individuals, particularly the worst off, are better off under the graduated progressive system than under the proportional tax even if we consider only material utility. Individual E remains substantially better off than the remainder of society, although E's relative superiority has been reduced. There have been no rank reversals. If the social economic values of the society are based on a maximin welfarist theory of distributive justice, the society should reject the economically efficient proportional tax system in favor of the less efficient progressive tax system because the latter is fairer under the society's notions of

justice.²⁵¹ This is really a philosophical argument, not an economic argument,²⁵² and is based on the positions of philosophers like John Rawls and Ronald Dworkin.²⁵³

Furthermore, the society might find this after-tax distribution of income under the progressive structure better preserves the survival of a democratic form of government. In a democracy, the most important argument for egalitarianism might be reducing the concentrations of political power that could be derived from concentrations of wealth.²⁵⁴ To the extent that they prevent such concentrations of power and wealth, progressive rates preserve the liberty and freedom of the greatest number of the citizenry.²⁵⁵ In the end, maximizing economic efficiency is not necessarily a society's paramount desirable. It is but one element of the overall calculus, which must take into account other societal values.²⁵⁶ Those values include the value of the goods provided by governments to all members of the society.

Concern for all members of a society is not grounded only in humanistic values but proceeds from a pragmatic, almost contractarian,

251. See Bankman & Griffith, *supra* note 127, at 1949-50. But see O'Kelley, *supra* note 31.

252. In fact, all economic models implicitly accept social choices that have distributional effects. Valuing efficiency as a factor influencing public policy choices in construction of legal rules, including the tax system, in and of itself inherently favors the wealthy. See Bailey Kuklin, *The Gaps Between the Fingers of the Invisible Hand*, 58 *Brook. L. Rev.* 835, 871-72 (1992).

253. See John Rawls, *A Theory of Justice* 278-79 (1971); Ronald M. Dworkin, *Is Wealth a Value?*, 9 *J. Legal Stud.* 191 (1980).

254. See Marjorie E. Kornhauser, *Equality, Liberty, and a Fair Income Tax*, 23 *Fordham Urb. L. J.* 607, 625 (1996); William Vickrey, *Agenda For Progressive Taxation* 375 (1947). This idea is hardly new, however. For a discussion of the belief that great extremes of wealth and poverty were incompatible with freedom in eighteenth century Britain, and its influence on the Founders, see Lance Banning, *The Sacred Fire of Liberty: James Madison and the Founding of the Federal Republic* 40 (1995).

255. See Rawls, *supra* note 253, at 277-79; Kevin Phillips, *Arrogant Capital* (1994).

256. See generally Jane B. Baron & Jeffrey L. Dunoff, *Against Market Rationality: Moral Critiques of Economic Analysis in Legal Theory*, 17 *Cardozo L. Rev.* 431 (1996).

assessment of the relationship between the winners, the government, and the wanna-bes. In a modern democratic industrialized society, the market that produces and nurtures the winners is created by society collectively. While capital may be crucial for modern economic productivity and growth, the most important factors in significant increases in the rate of growth of the GDP historically have been increases in educational level and advances in technology.²⁵⁷ Common goods provided by government, such as the highway system and public education, are an important factor of production. Sam Walton could not have implemented Wal-Mart's inventory strategy, or, for that matter, had any shoppers in his stores or salesclerks who could count money, without public roads and public schools. Oprah Winfrey could not have her successful show without the regulation of the airwaves and the existence of a general standard of living that gives people the time to watch an hour of television in the afternoon or the resources to develop, sell, and eventually purchase, a VCR. Laws protect private property and rights under contracts, the means of production. Without the protection of the patent, trademark and copyright laws, multi-millionaires from Michael Jackson to Bill Gates could not have earned the incomes from which they amassed their fortunes, and Martha Stewart would not have become a household name. Thus, in the model, E's earnings were not acquired in a vacuum, they were acquired in the market in transactions with A, B, C, and D.²⁵⁸

This analysis rejects, as abstractly unrealistic, the neoconservative philosophy, epitomized by Robert Nozick,²⁵⁹ that individuals are morally entitled to keep the fruits of their labor and have a claim superior to the societal claim.²⁶⁰ Without A, B, C, and D, and the society, market, and government that they created along with E, E might not have had any productivity. There is no way of knowing what E would have produced as a hermit. It is not important to know what E might have produced under other circumstances, because E did not produce anything under any circumstances other than in the society together

257. See Schultze, *supra* note 233, at 227-35, 290-306.

258. See James Tobin, *Considerations Regarding Taxation and Inequality*, in *Income Redistribution* 127, 131-32 (Colin D. Campbell ed., 1977); see also Bruce A. Ackerman, *Social Justice in the Liberal State* 53-59 (1980)(individuals have no natural right to keep the fruits of extraordinary beneficial endowments).

259. See Robert Nozick, *Anarchy, State, and Utopia* (1974).

260. See Kornhauser, *supra* note 165, at 498-504 (explaining and criticizing Nozick's position); Byrne, *supra* note 119, at 782-86 (demonstrating that Nozick's theory logically disallows all taxation, not merely progressive taxation).

with A, B, C, and D.

Indeed, in many cases there is substantial certainty that E's income has been significantly enhanced by participation in societally created markets that are regulated through government in a manner that benefits high income earners like E. The monopoly rights conferred by the patent and copyright laws are prime examples of collective action that could have contributed significantly to E's income. Society at large owns the market, because it has created the market, including the legal infrastructure that facilitates E's participation in that market. In levying taxes, society is, in effect, charging rent for the privilege of participating in the market—rent which will be plowed back into maintaining that market in the form of public goods.

From this perspective, no individual has a right to any particular price, that is, tax rate, for the use of public goods, just like no individual has a right to buy an automobile at the lowest price at which the dealer has sold it to another individual.²⁶¹ Everybody must pay the price that the market will bear. Thus there is no need to justify progressive taxation as redistributive. It is no more redistributive than the difference in price between a Cadillac and a Ford Escort. The purchaser of a luxury car, who exercises a claim on a greater share of resources than does the purchaser of a modest car, must pay more—however much more the seller wants to charge. If the buyer doesn't like the price of the Cadillac, she can purchase the Escort. A high income earner, like a low income earner, must pay more for the use of those public goods—however much more the seller, the citizenry acting through its government, wants to charge.²⁶² If she doesn't like the price, she can choose a lower income level.

Finally, egalitarian arguments for progressive taxation also can be

261. Individuals do, of course, have the right to be free from discrimination on a variety of grounds, and our hypothesis assumes that price distinctions would not proceed from invidiously discriminatory animus.

262. As we noted earlier, in Part II.E., nothing provides reliable information to support an argument to the effect that the very highest income earners, taking into account income from all sources, capital as well as labor, are not at the apex for many years and that it is therefore appropriate to treat these individuals as winners. To the extent high income earners do ascend or slide down the income scales, as they might in the case of fluctuations in wage income, if the effects of progressive taxation warrant mitigation, that can be accomplished through an income averaging mechanism.

based on the fundamental American value of equal opportunity.²⁶³ This point is concisely captured by Professor Robert Eisner in the following passage:

An old joke runs, “I have been poor and I have been rich, and rich is better.” And it is better not merely because the rich can enjoy higher lifetime consumption than the poor. Riches convey prestige and power and the ability to add to future income for oneself and one’s children.²⁶⁴

There is no doubt that many individuals’ wealth, power, and consequent income are derived from their, or their parents’, wealth and connections. Vast concentrations of wealth inhibit equality of economic opportunity,²⁶⁵ and a progressive income tax can be a tool for mitigating the ability to accumulate vast fortunes.²⁶⁶ Thus, a progressive income tax can help to preserve equality of opportunity for successive generations of Americans. It can do so not by redistributing wealth—by taking from Peter to pay Paul—but by reducing the disparities in after-tax income that dampen opportunity and perhaps, as Frank and Cook claim, even inhibit large numbers of people from maximizing their potential by pursuing endeavors likely to produce the highest payoff in the long run.²⁶⁷

263. See Kornhauser, *supra* note 254, at 635.

264. Eisner, *supra* note 215, at 48.

265. See Lester C. Thurow, *Generating Inequality: Mechanisms of Distribution in the U.S. Economy* 129, 142-54 (1975).

266. We believe that the distribution of income and wealth is so important to the social fabric of the nation that no practical debate over the most socially optimal tax base and rate structure can ignore the distribution of income and wealth in our society. See Harold M. Groves, *Toward a Social Theory of Progressive Taxation*, 9 *Nat’l Tax J.* 27 (1956).

267. See Frank & Cook, *The Superstar Economy*, *supra* note 184, at C2. In the end, Frank and Cook do not advocate progressive income taxation because they worry about the impact of income taxation on the incentive to save. Frank & Cook, *supra* note 2, at 213. Therefore, they conclude by advocating progressive consumption taxation. *Id.* As they point out, “[A] progressive tax on consumption makes entry into winner-take-all tournaments less attractive for the same reasons that a progressive tax on income does. And by effectively reducing the prizes received by winners, a progressive consumption tax also reduces the

Our analysis might be considered to proceed from a communitarian view of the appropriate balance between equity and efficiency in the design of the rate structure. We suggest a balancing of individual economic rights reflecting the obligations to the greater community of the winners in the winner-take-all market.²⁶⁸ We do not claim that communitarianism compels the conclusions reached by our analysis, but only that communitarian principles support those conclusions. What we present here might be termed a normative extension of socio-economic analytical principles, in opposition to a normative application of neo-classical economic principles. In the end, human behavior, and thus society, is governed by more than economic principles. Societal values reflect a complex balancing of principles and interests.²⁶⁹ The current income tax is not really an income tax; it is a hybrid income/consumption tax.²⁷⁰ The tax base reflects a balancing of differing values.²⁷¹ The rate structure should

incentives to engage in positional arms races.” *Id.* at 214. Unlike Frank and Cook, we favor progressive income taxation over progressive consumption taxation, but further discussion of the choice of base must await another time.

268. See generally Richard M. Coughlin, *Whose Morality? Which Community? What Interests? Socio-Economic and Communitarian Perspectives*, 25 *J. Socio-Econ.* 135, 143 (1996)(discussing how communitarianism balances individual rights and individual responsibilities). For a discussion on communitarianism generally, see Amitai Etzioni, *The Spirit of Community: The Reinvention of American Society* (1993). Our analysis balances individual economic rights against the rights of the community because it rests on the insight that progressive taxation need not result in a decline in aggregate utility. We acknowledge that progressive taxation will require a greater proportionate sacrifice from some members of the society than others. See *supra* Part IV.

269. See Robert Ashford, *Socio-Economics: What is its Place in Law Practice?*, 3 *Wisc. L. Rev.* 611, 613-15 (1997)(summarizing principles of socio-economic analysis).

270. See David F. Bradford, *Untangling the Income Tax* 7 (1986); *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax* 1-3 (Henry J. Aaron et al., eds., 1988); Edward J. McCaffery, *Tax Policy Under a Hybrid Income-Consumption Tax*, 70 *Tex. L. Rev.* 1145 (1992).

271. See Boris I. Bittker, *A “Comprehensive Tax Base” as a Goal of Income Tax Reform*, 80 *Harv. L. Rev.* 925 (1967); Edward A.

also reflect a balancing of multiple values.²⁷²

VI. DESIGNING THE RATE STRUCTURE

A. *Evaluating the Current Rate Structure*

The current rate structure is progressive.²⁷³ Indeed, many feel that it is too progressive and would like to make it less so.²⁷⁴ We don't. While there are many things wrong with the current system,²⁷⁵ excessive progressivity is not one of them. The magnitude of the differences in incomes revealed by the data and the trend toward increasing income inequality suggest that changing the rate structure to make it less progressive is a move in the wrong direction. The principles of ability to pay, equal sacrifice, and mitigation of socio-economic inequality, all suggest that a winner-take-all society should have a tax system that is more progressive at the very top than for an incrementalist society. The rate schedule should parallel the distribution of income. The important question is not whether to have progressivity, but how progressive the rates should be.

Although the current rate schedule distinguishes the top quintile from the first four quintiles, the current rate structure fails adequately to account for the gap between the top 5% and the rest of the population as well as for the vast disparities of income within the top 1%. The approximate distribution of returns by marginal tax bracket for taxable returns for 1993 is shown in Table 16.

TABLE 16
DISTRIBUTION OF TAX RETURNS BY MARGINAL RATE, 1993²⁷⁶

Zelinsky, *Efficiency and Income Taxes: The Rehabilitation of Tax Incentives*, 64 *Tex. L. Rev.* 973 (1986).

272. See Kornhauser, *supra* note 254.

273. Indeed, the current system attempts to introduce progressivity not only through the front door of the rate structure in § 1, but also through the back door, with a variety of phaseouts and other limitations on tax benefits. See, e.g., IRC §§ 67, 68, 151(d).

274. See, e.g., Kemp Commission Report, *supra* note 51; O'Kelley, *supra* note 31; Hall & Rabushka, *supra* note 31.

275. For an excellent and very entertaining discussion of the many ills that plague the current system, see Michael J. Graetz, *The Decline (and Fall?) of the Income Tax* (1997).

276. Derived from Statistics of Income Division, Internal Revenue Service, Pub. No. 1304, *Individual Tax Returns 1993*, at 25 tbl.

<u>Marginal Tax Rate</u>	<u>Percent of Returns</u>	<u>Quintile Covered</u>
Nontaxable	20.82%	1st (Bottom)
15%	57.21%	2nd-4th (Middle)
28%	18.80%	5th (Top)
31%	1.89%	5th (Top)
36%	0.66%	5th (Top)
39.6%	0.40%	5th (Top)

Since some households in the bottom quintile are neither required to file a return, nor file to obtain the earned income credit, the actual percentage of nontaxable returns understates the percentage of households with no tax liability. After taking into account households that do not file returns, the current rate structure thus basically exempts the first quintile and part of the second quintile, provides a flat rate for the remainder of the second quintile and the third and fourth quintiles, and begins to apply graduated progressive rates only in the top quintile, reserving all rates above the 28% bracket, the second positive rate, for the top 3% of households by income class.²⁷⁷

1.1, 99 tbl. 3.4 (1996). The percentages do not total 100% because 0.22% of returns were for minors subject to the “kiddie tax” in § 1(g) and were not classified by marginal tax rate.

277. The actual curve of progressivity is nowhere near as smooth as the statutory rates set forth in § 1 make it seem. Due to numerous special rules, including phase-outs of itemized deductions and personal exemptions, rate “bubbles” are created and actual marginal rates at income levels beyond the bump may be lower than the stated marginal rates at the lower income levels within the bubble area. In addition, if total tax burden, including social security taxes (FICA), is considered, the highest marginal tax rates are imposed at income levels significantly below the income level at which the highest marginal income tax rate applies. See Elliot T. Manning & Laurence M. Andress, *The 1996 Marginal Federal Income Tax Rates: The Image and the Reality*, 73 *Tax Notes* 1585 (Dec. 30, 1996); Staff of the Joint Comm. on Taxation, *105th Cong., 2d Sess., Present Law and Analysis Relating to Individual Effective Marginal Tax Rates* (Comm. Print 1998); see also, Daniel Shaviro, *The Minimum Wage, the Earned Income Tax Credit, and Optimal Subsidy Policy*, 64 *U. Chi. L. Rev.* 405, 423 (1997)(observing that “phaseouts of social welfare programs often cause [the poor] to face the very highest marginal tax rates, sometimes at astonishing levels that approach or even exceed 100 percent”); supra note 67 (graphically

Within the top half of the top 1%, however, the current rate structure fails to take into account the dramatic difference in income. Under current law, the top half of the top 1%, by taxable income, includes everyone with more than \$250,000 of taxable income. That group is subject to a marginal tax rate of 39.6%. The differences between those with taxable income of \$250,000 and those with taxable income of \$1,000,000 or more are so vast as to warrant differences in their marginal tax rates on the grounds of ability to pay, diminishing marginal utility of money, and mitigation of economic power.

B. Suggestions for the Design of the Rate Structure—Forward to the Past

The shape of the pre-1964 rate structure, if not the exact rates, provides some guidance for allocating the tax burden in a way that more closely reflects the disparities in income. The pre-'64 rate structure provided an essentially flat rate of tax for the overwhelming bulk of the population. In 1961, individuals in the bottom quintile faced a zero rate due to personal exemptions and the standard deduction. The first three positive rates, 20, 22, and 24%, applied to the next 70% of taxpayers, and the steeply graduated rates, which at that time went up to 90%, applied to 10% or fewer of individuals at the top of the income distribution.²⁷⁸ The marginal rates above 38% applied to less than 1% of all return filers, about 1.1% of taxable returns.²⁷⁹

1. *The First Four Quintiles.*—The distribution of incomes revealed by the data suggests that the income differences across the second, third, and fourth, quintiles are not so great as to warrant significantly different rate brackets.²⁸⁰

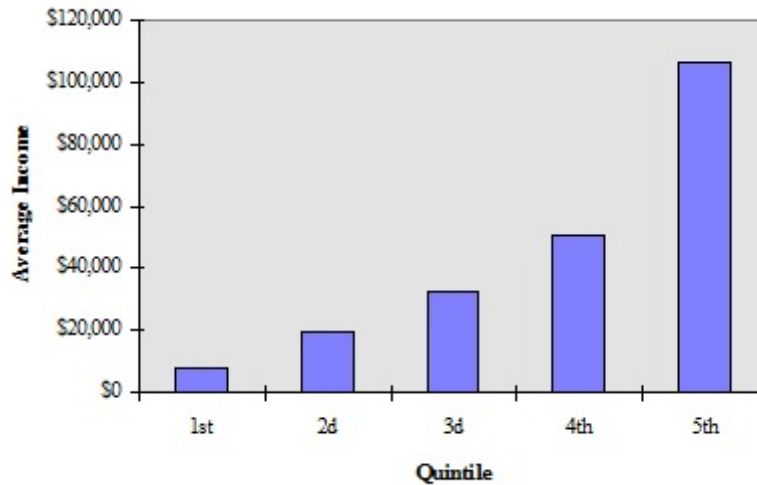
depicting changes in average adjusted pre-tax and after tax income).

278. See Steuerle, *supra* note 34, at 23.

279. Derived from Statistics of Income Division, Internal Revenue Service, Pub. No. 79, Individual Income Tax Returns, 1962, at 110-13 tbl. 20 (1965).

280. See *supra* Table 5.

FIGURE 8
DISTRIBUTION OF AVERAGE INCOME²⁸¹



Given this distribution, we believe that the first quintile should be excluded from the tax system by personal exemptions or a standard deduction, and probably a portion of the second quintile ought to be excluded as well.²⁸² The remainder of the second quintile and the third and fourth quintiles easily could be subjected to a single flat rate or to two or three fairly similar stair-stepped rates. This is very close to the current rate structure.²⁸³ Although the differences within any 20- or 30-percentage point range within the first four quintiles might not seem too great, the income of individuals in the 30th percentile differs sufficiently from that of individuals in the 70th percentile to warrant different marginal rates between them. Nevertheless, given the vicissitudes of income

281. The data for this figure are derived from Table 5 presented earlier in the text.

282. For a recent proposal to impose a positive tax on individuals in the lowest quintile, combined with cash demogrants, as a way of allowing those individuals to feel like full, contributing and responsible members of society, see Staudt, *supra* note 198.

283. We express no opinion on the appropriateness of any particular rate within the existing range, as we feel that the choice of specific rate from within that range will proceed from revenue and political constraints. As a matter of theory, there is no difference between a rate of, say, 15% and a rate of 16%.

measurement and reporting from year to year, the differences between the individuals in these quintiles are not significant enough to warrant more than two or three rate brackets more than a few percentage points apart.

Concluding that rates should not vary greatly over the middle of the income distribution invites questioning whether rates should vary at all for this segment of the population. There are at least three reasons for supporting a rate structure that provided a single rate for the great mass of people in the second, third and fourth quintiles. First, the economic differences between the people in these quintiles are not so great as to warrant mitigation of those differences. The delicate fine-tuning that would be required to have a rate structure that mirrors the differences between the individuals in these quintiles might not be either possible or desirable.²⁸⁴ Second, the differences in income between individuals in the middle quintiles are not sufficient to provide the requisite certainty that the value of their marginal dollars has diminished enough to warrant a higher rate of tax. Average income does not differ as greatly over the second through fourth quintiles as it does in the top quintile.²⁸⁵ Third, it assuages public concerns—unwarranted but nevertheless real concerns—that progressivity is a cause of complexity for the average taxpayer. Although all serious students of taxation recognize that complexity proceeds from base issues, not from the number of rates, the American people seem to have been convinced otherwise. The political attractiveness of flat tax schemes and the success of the bracket reduction rhetoric in '86 are testimony to that. Providing for a single rate of tax for over 80% of taxpayers, might have the political appeal of the recently proposed “flat taxes” without the distributional mischief those taxes would wreak.²⁸⁶

284. Attempts to fine tune aspects of the tax laws to specific personal and economic circumstances are responsible for much of the complexity in the current law. For a vivid illustration of this, see Graetz, *supra* note 275, at 68-88. Although the rate structure does not, of itself, add complexity, we feel that we should eschew attempts to fine tune wherever possible. We simply lack the tools to do it well and fine distinctions that must necessarily be imprecise are as likely to do harm as good. As a matter of policy, we shouldn't even try to make them.

285. See *supra* Table 5 and Figure 8.

286. For discussion of the distributional impact of recent “flat-tax” proposals, see William G. Gale et al., *Distributional Effects of Fundamental Tax Reform*, in *Economic Effects of Fundamental Tax Reform* 281, 305 (Henry J. Aaron & William G. Gale eds., 1996)(predicting a very substantial decrease in the tax burden of the top

Nevertheless, while a structure that provided for a single rate for those below the fifth quintile has much to commend it and can be reconciled with our analysis, we believe that neither fairness nor administrability demand a single rate for this group. We agree with Nobel laureate William Vickrey, who observed that, “[t]o imply that simplicity requires a small number of brackets is essentially a ruse designed to inhibit progression at the top of the scale.”²⁸⁷ Administrability is not really the issue. Although we feel that the overwhelming majority should face an essentially flat rate structure, it is for reasons of fairness, not administrability. An essentially flat rate structure, however, need not be perfectly flat. If money really does have diminishing marginal utility, the difference between a \$30,000 income and a \$60,000 income is significant enough to warrant a somewhat higher marginal tax rate on the higher income.

2. *The Fifth Quintile.*—The fifth quintile is an entirely different matter. When we examine that top quintile, and particularly the top 5% and smaller subgroups within that top 5%, the case for more steeply graduated progressive rates begins to look significantly better and the attraction of a single flat tax rate quickly dims.²⁸⁸

FIGURE 9
AVERAGE INCOME FOR FAMILIES IN THE 5th QUINTILE²⁸⁹

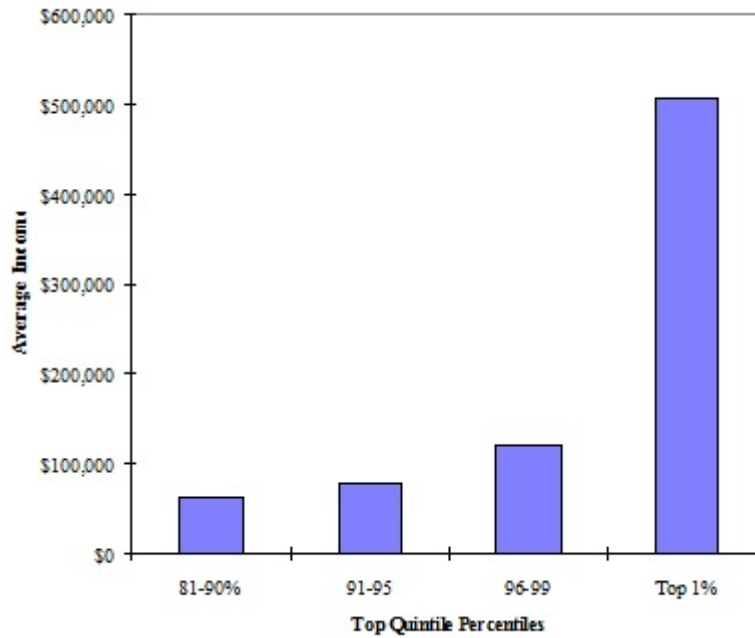
1%, increased tax burdens on the bottom 50%, and relatively little change for the 50%-99% group); Office of Tax Analysis, United States Department of the Treasury, ‘New’ Arney-Shelby Flat Tax Would Still Lose Money, Treasury Finds, 70 Tax Notes 451 (Jan. 22, 1996)(using a revenue neutral rate (20.8%) and the exemption levels proposed in the Arney-Shelby bill, only taxpayers in the highest quintile would receive a tax cut, everyone else would have an increased tax burden).

287. William Vickrey, Simplification, Progression, and a Level Playing Field, 73 Tax Notes 711, 713 (Nov. 11, 1996).

288. See *supra* Table 5.

289. The data for this graph are derived from Table 5 presented earlier in the text. While we recognize the limitations inherent in our comparison of the data from Tables 4 and 5, since the data within the fifth quintile (Table 5) come from a different source, and a different year, than the overall data (Table 4), we do not think that those limitations detract from the import of the picture the data paint given the wealth of Greenbook data consistent with the distribution we derive.

For the bottom of the top quintile, the 81st to 95th percentile, average income



is only between three and four times the average income of the second quintile.²⁹⁰ This difference is not so great as to compel a significantly higher rate on the grounds of ability to pay, i.e., the diminishing marginal utility of money, or mitigation of economic inequality. But it is sufficient to warrant a slightly higher rate on those grounds. Moreover, if a single flat rate were imposed on all taxpayers (other than those in the zero bracket) below the fifth quintile, a higher rate for the bottom of the fifth quintile might provide enough revenue to help to keep the rate on the second through fourth quintiles low enough so as not to extract too much from those quintiles, which include households barely above the poverty level.

Families at the top of the fifth quintile, however, are truly different from the rest. If families in the 30th to 95th percentiles are apples, those in the last half of the top decile have metamorphosed into oranges. It is improper to treat them like apples. Families in the group from the 96th to the 99th percentile have average incomes measured in six figures, which are more than double the average incomes of families in the ninth decile (81-90th percentile). A

290. See *supra* Table 4.

somewhat higher graduated bracket may be warranted for this group.

But it is in the top 1% where the greatest disparities lie. The bottom of the top 1% looks a lot more like the 96th through 99th percentile than it does the top of the top 1% but the differences in the top 1% as a whole are nevertheless striking. The same can be said for each income group as we move through subcategories within the top 1%. Each group is closer to those below it than to those ahead of it, but the differences, not only in dollars but in multiples of income, are sufficient to warrant increasing steepness in the graduation of rates, whether graduated progressivity is based on the diminishing marginal utility of money or on the mitigation of economic power.

At this juncture we want to stop short of prescribing the actual rates that should apply to this top group, for prescribing a given rate is really not our project.²⁹¹ Nevertheless, we are confident that for the really big winners, marginal rates in excess of the current 39.6% top rate are warranted, and again suggest that history can provide a useful model.²⁹²

In 1962, the top one-half of 1% of filers, by AGI class, was subject to marginal tax rates of 50% or more; slightly less than four tenths of 1% of filers were in marginal tax brackets higher than 50%.²⁹³ Even after the 1964 rate reduction, high income taxpayers continued to face marginal rates of up to 70%. In 1995 dollars, applying the 1964 rate schedule, a joint return reporting \$1,000,000 of taxable income would be in the 70% marginal rate bracket; a joint return reporting \$750,000 of income would be in the 66% marginal rate bracket; a joint return reporting \$500,000 would be in the 62% marginal tax

291. Neither is it our project to prescribe the mechanism for achieving the level of progressivity we advocate. Thus, we have deliberately refrained from engaging in a discussion of whether the progressivity we advocate should be achieved through the front door of the positive rate schedule or through the back door of phaseouts and floors. For now, we feel compelled to leave that discussion to others, or to other articles.

292. Although higher rates at the top would also raise revenue, that is not the reason we favor them. See McMahon, *supra* note 247, at 465-67. The primary objective of our proposal is not to increase general revenues, but to reallocate the tax burden so as to relieve the burdens on those below the 95th percentile, and allocate more of the burden to those in the top 1% of the income distribution.

293. Derived from Statistics of Income Division, *supra* note 279, at 110-13 tbl. 20.

bracket; and a joint return reporting \$250,000 would be in the 50% marginal tax bracket.²⁹⁴ The early 1960s rate schedules thus took into account the diminishing marginal utility of money at the top of the income scale more appropriately than any rate structure we've had since.

The continued growth of winner-take-all markets has amplified the disparities in the income distribution and clearly supports a return to a rate structure that more closely matches tax rates to the marginal utility of money. Raising marginal rates on the higher income earners within the top one-half of 1%, using the early 1960s rate schedules as a model, but perhaps using \$500,000, \$1,000,000, \$5,000,000 and \$10,000,000 as taxable income break points, would enhance the equity of the tax system, better taking into account the diminishing marginal utility of money.²⁹⁵ While we do not advocate a return to the specific rates of the early 60's and recognize that other concerns might militate against the adoption of rates as high as those of the early 60's, we nevertheless feel that the outline of the rate structure in effect during the early 60's better fits the current distribution of income than any other.²⁹⁶ It would effect more than poetic justice for an economy with an income distribution like that of the Arthurian Camelot to have an income tax rate structure like that which existed during the time of the American Camelot.

294. Derived from IRC § 1, as in effect for 1964, and Bureau of the Census, Statistical Abstract of the United States: 1996, 483 tbl. 745 (CPI-U, All Items) (116th ed., 1996).

295. As one of us has argued elsewhere, tax systems can give, even as they are taking away, and what tax systems can give is power to control the size of the tax burden. Abreu, *supra* note 91. A tax system designed like the current income tax gives those at the top of the income scale a degree of power over their ultimate tax liability that is simply not available to others further down. The ability to defer compensation, receive favorably taxed stock options rather than unfavorably taxed salary, relish the fruits of borrowed, and untaxed, money, while deducting the cost of obtaining that money, and to set the time of taxation by controlling realization, are reserved for those at the top. Imposing a higher positive rate on the winners can be seen simply as compensating for the power the tax system gives to them but withholds from others.

296. See Dan Throop Smith, *High Progressive Tax Rates: Inequity and Immorality?* 20 Fla. L. Rev. 451 (1968).

VI. CONCLUSION

Over 45 years ago, Walter Blum and Harry Kalven concluded their now-classic treatment of progressive taxation with the observation that,

[I]n the end it is the implications about economic inequality which impart significance and permanence to the issue and institution of progression. Ultimately a serious interest in progression stems from the fact that a progressive tax is perhaps the cardinal instance of the democratic community struggling with its hardest problem.²⁹⁷

Those who were infants when Blum and Kalven made that observation are now staunchly middle-aged, and yet the struggle continues. The growth of winner-take-all markets over the last 45 years has served to make the struggle even harder, and that trend shows little indication of imminent abatement.²⁹⁸ As winner-take-all markets continue to expand, the differences between those at the top and those at the bottom of the income distribution are likely to become greater still. It is time for tax policy to confront head on the implications of the expansion of winner-take-all markets.

It has long seemed axiomatic that to choose progressive taxation was to choose economic inefficiency. What we have tried to do in this Article is show that the expansion of winner-take-all markets renders the choice

297. Blum & Kalven, *supra* note 22, at 520.

298. This is perhaps not surprising. Arguably, the winner-take-all phenomenon in the economy identified by Frank and Cook is but one illustration of a penchant for winner-take-all systems that is manifested in other parts of our society. Some political scientists, for example, have observed that our system of selecting government officials—our elections—also follows a winner-take-all paradigm. Douglas J. Amy, *Real Choices/New Voices* 22 (1993). Like the economic winner-take-all markets that Frank and Cook identified, the electoral winner-take-all system produces an environment in which the rewards of winning can eclipse the differences in talent between those who win and those who don't. It is telling that we have maintained the winner-take-all model in something so fundamental as our electoral process, even though we stand with only a minority of industrialized nations in doing so. *Id.* at 2-4. See also David Kairys, *Why Not Democracy?, Poverty & Race* (Poverty and Race Research Action Council, Washington, D.C.) May-June 1995, at 13.

unnecessary. When income is distributed in the manner typical of winner-take-all markets, even conservative assumptions about the rate at which the marginal utility of money declines make it simple to show that a system of progressive taxation can result in greater aggregate utility, and therefore greater efficiency, than a system of proportional taxation. In other words, the old equity/efficiency trade-off need not be made. We can have both.

Fundamentally, our claim is that efficiency should be measured by maximization of aggregate private utility rather than by the dollar amount of the GDP. For us, the determination of whether a progressive or proportional tax structure is more efficient depends on the distribution of after-tax incomes and on the rate at which the marginal utility of money declines. The problem with our claim is that while the after-tax distribution of incomes is empirically measurable, nobody has yet devised a mechanism for measuring the actual rate at which the marginal utility of money declines. We simply have to guess, so we can offer no empirical proof of our claim.

Nevertheless, we believe we have offered a valuable heuristic. We have offered a model based on very conservative assumptions about the rate at which the marginal utility of money declines. If the marginal utility of money declines more rapidly than we assume, the case for progressive taxation becomes even stronger. While we do not believe that tax rates have a significant effect on productivity, under our model the case for progressive taxation on efficiency grounds remains strong even if tax rates do cause productivity to decline.

In narrative form, our claim is that when efficiency is measured by after-tax private utility, rather than by absolute dollars, a progressive rate structure can be more efficient than a proportional structure even if it reduces total productivity, measured in absolute dollars. The reason is that if a progressive rate structure reduces productivity, it will do so by reducing the productivity of those at the top of the income scale. Yet, those are the very people for whom money has the least marginal utility. Thus, the reduction in productivity would come at the cost of a minimal reduction in utility. If progressivity at the very top makes it more feasible to apply lower rates to those at the bottom of the income scale—those for whom money has the greatest marginal utility—it is easy to see how a progressive rate structure could result in no decline in aggregate private utility. The loss of productivity at the top reduces aggregate after-tax utility only a little, but the resulting low tax rates at the bottom increase aggregate after-tax utility a lot. A relatively smaller dollar value GDP that is more equally distributed therefore results in greater after-tax aggregate utility than a relatively larger dollar value GDP that is distributed in a highly skewed manner.

Winner-take-all markets produce highly skewed distributions of pre-tax income. Given such distributions of income, a progressive rate structure can produce a result that is not only efficient, but that is equitable as well. Such a rate structure takes more from those who not only have greater ability to pay

but who also derive less utility from each marginal dollar, while taking less from those who have less ability to pay and who derive greater utility from each marginal dollar. The rate structure we have proposed would produce precisely these effects. It would exempt those at the bottom and treat the remainder of those below the 95th percentile in substantially the same way, with only a few rate brackets, which would reflect the general similarity of their economic positions. Such a rate structure would reflect our view that the families in the middle are essentially all apples; they may come in different sizes and varieties, but they are fundamentally similar and ought therefore to be treated in substantially the same way by the tax system. It is families in the top 5%, and especially those in the top 1%, the winners, who are the juicy oranges. They are really different from the rest of us, and the significantly higher graduated rates that we propose are saved for them.²⁹⁹

In its progressivity, the rate structure we propose simply mirrors the distribution of pre-tax income. The winner-take-all market that produces highly skewed distributions of pre-tax income prescribes the distribution of tax burdens that we propose. Such a distribution of the tax burden is equitable, and, as we have shown, is also efficient. We don't have to choose.

If we did have to choose, what we would choose is clear. Economic efficiency is not everything. Other values count. Progressive taxation shortens the economic distances that divide us. It comports with egalitarian values important to us. Equality fosters social and political cohesion.³⁰⁰ Progressive taxation may have endured at least in part because it reflects these values, just as other features of our tax system reflect fundamental values.³⁰¹

A society can choose to be concerned about the distribution of income, or it can choose to ignore that distribution. But nothing in economics dictates whether or not the distribution of income is a valid societal concern or whether that concern should trump others. If there is a trade-off between equity and efficiency, equity should not be the loser. Efficiency and justice are not the same thing.

299. F. Scott Fitzgerald was right when he had a character quip, "Let me tell you about the very rich. They are different from you and me." F. Scott Fitzgerald, *The Rich Boy* (1926), reprinted in *The Short Stories of F. Scott Fitzgerald* 318 (Matthew J. Bruccoli ed., 1989).

300. See Michael Keen, *Peculiar Institutions: A British Perspective on Tax Policy in the United States*, 50 *Nat'l Tax J.* 779, 783 (1997).

301. Kornhauser, *supra* note 30, at 121. For a discussion of the way in which our tax system reflects the value we place on personal autonomy, see Abreu, *supra* note 91.