

# FEDERAL TAX REFORM: LESSONS FROM THE STATES

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## Introduction

Federal tax reform has been a major subject of contemporary debate. Certainly the current system is severely deficient with respect to the trinity of public finance criteria usually applied in evaluating taxes: administrative costs, economic efficiency, and equity. In this article, evidence from the historical experience of state and local governments is examined. Have states with relatively flat rate income taxes fared better economically than those with highly progressive income taxes similar to the federal tax? The answer, generally, is "yes," adding impetus to the calls for radical federal tax reform. Additional evidence is presented suggesting that "equity" is far less associated with the word "progressivity" in the eyes of the public than conventional political wisdom has it. The notion that support of a radical, flat rate tax would be suicidal politically is also questioned.

The great tax debate is taking place amidst \$200 billion budget deficits, so the issue of deficit reduction inevitably has blunted much of the discussion of tax reform. Nevertheless, most of the major tax proposals have been condemned on the grounds that they are not even "revenue neutral," much less revenue enhancing (and, by implication, deficit reducing). It is probably true that the various flat rate proposals seriously underestimate the impact that marginal rate reductions have on the shift of activity from the nontaxable to the taxable sector. Several studies suggest that the elasticity of the tax base with respect to marginal rate reductions is quite high, even exceeding unity for some classes of income and taxpayers.<sup>1</sup>

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<sup>1</sup>See, for example, Gwartney and Long (1984, 1985), Vedder and Watel (1984), and Vedder (1985).

Let me cite just one example. In the midst of the worst recession in 40 years, 1982, the top marginal tax rate was reduced from 70 to 50 percent and, lo and behold, the largest explosion of millionaires in the history of the Republic occurred. The number of Americans reporting an adjusted gross income in excess of \$1 million instantly grew by almost 60 percent, and recent analysis by Vedder and Watel (1984) suggests that fully three-fourths of that growth reflected rate reductions rather than bracket creep or other factors.<sup>2</sup> Although the elasticity of the tax base is less in lower income brackets, the present flat tax proposals may be more "revenue enhancing" and less "revenue neutral" than their advocates suggest, meaning, of course, that enactment of a Bradley-Gephardt/Kemp-Kasten/Treasury type bill at rates currently discussed might actually assist in meeting deficit-reduction objectives.

On the other hand, there is considerable historical quantitative evidence that the major fiscal effect of increased tax revenues is increased government spending; when federal revenues rise as a percent of GNP, other things equal, the deficit does not typically fall, conventional wisdom notwithstanding. This assertion is backed by regression analysis. I regressed the federal deficit (D), expressed on a national income accounts basis as a percent of GNP, against the federal individual income tax (T), expressed as a percent of GNP. The unemployment rate (U) was introduced as a variable to control for deficit variation related to business cycle developments. The results for the years from 1948 to 1983 are as follows:

$$D = -9.191 + .592 T + .785 U,$$

$$(4.27) \quad (2.802) \quad (6.553)$$

$$\bar{R}^2 = .60, D-W = 1.54.$$

These results suggest that increased income tax revenues are associated with increased deficits. One can argue about the direction of causality, special wartime factors, and the like, but the historical evidence suggests that increasing income tax revenues is not a useful weapon in reducing deficits. In my judgment, those wanting to take up tax increases to eliminate the deficit before considering tax reform are making a big mistake.

<sup>2</sup>The number of persons reporting adjusted gross income in excess of \$1 million grew more than 40 percent in 1983, in part a lagged effect of the 1981 tax cut. All told, the number of returns filed from this income class grew by 118 percent from 1981 to 1983, nearly three times the average two-year growth in the past decade.

## Flatness of Marginal Income Tax Rates and Economic Growth

Considerable research has been done on the impact of changes in marginal federal individual income tax rates on economic activity, but a richer and comparatively neglected body of historical experience exists. Specifically, our state and local governments have a varied experience with income taxes. Some states levy taxes with highly progressive marginal rates, other states levy taxes that are moderately progressive, still others levy pure flat rate taxes, while a fourth group of states levies no income taxes at all. Table 1 summarizes the progressivity of state individual income taxes for 1963, 1973, and 1983. As the measure of "progressivity" or "flatness," I simply subtracted the lowest statutory rate from the maximum marginal rate levied; that range for flat rate states is zero.

In 1963 half the states either did not levy individual income taxes at all (a zero rate flat tax) or had flat or near-flat marginal rate schedules. The remaining half of the states had moderate to highly progressive marginal rate schedules. By 1973 the proportion of moderate to highly progressive rate states rose to nearly two-thirds, and the average range of rates increased by 50 percent over 1963, from 3.22 to 4.83 percent. Since 1973 the move to more progressivity has sharply slowed but not reversed. Even now, some 30 percent of the states still may be viewed as flat rate states (with zero being the rate in many cases), 40 percent are states with high marginal rate progressivity, and 30 percent are states with little to moderate amounts of marginal rate progressivity.

There is similar diversity in the way individual states changed the progressivity in marginal tax rates in the two decades after 1963. In

*TABLE 1*  
MARGINAL RATE PROGRESSIVITY OF STATE INCOME TAXES,  
1963-83

Tax Category	No. of States		
	1963	1973	1983
No Tax (Ultimate Flat Rate Tax)	19	10	10
Flat Rate Tax (Positive Marginal Rate)	2	5	5
Little Progressivity (Rate Range 0.1-3.0)	4	3	3
Moderate Progressivity (Rate Range 3.1-5.9)	15	14	12
High Progressivity (Rate Range 6.0 or more)	10	18	20
Average Range of Marginal Tax Rates	3.22	4.83	4.89

SOURCE: U.S. Department of Commerce.

half the states the flatness of the rate structure stayed the same or (in six cases) decreased. In 14 other states, however, the progressivity of the rate structure increased substantially (three or more percentage points). In the remaining 11 states, progressivity increased moderately (the range of marginal rates rose less than three percentage points).

At the same time that state fiscal policy regarding the progressivity of marginal income tax rates varied considerably, the level of economic performance also diverged greatly. The most comprehensive and accepted measure of overall economic performance is the growth in real personal income per capita. In the 1963–83 period the variation in real income growth per capita among the states ranged from 20 percent to over 92 percent, averaging slightly under 52 percent.

If owners of labor and capital are responsive to the after-tax return on services they provide, then marginal income tax rates are indeed relevant to the determination of the amount of resource usage in a given geographic area and thus the level of income and output. The higher marginal rates are, the lower the after-tax return for additional labor and capital activity, and thus presumably the lower the rate of economic growth. Moreover, a tax with marginal rates ranging from, say, 1 to 7 percent should be more destructive of resource usage than, say, a 4 percent flat rate, if it is true that upper income groups have relatively higher sensitivity to changes in rates of return with respect to the provision of labor and capital services. Also, to the extent that a flat rate tax has a broader base and fewer resource-distorting tax preferences, one would expect greater efficiency and growth from such a tax than from a highly progressive tax with many such preferences.

Is there any relationship between the sharply divergent experience with regard to changes in income tax “flatness” and the similar diverse change in real per capita income observed between the states? Table 2 relates the mean growth rate of states to the changes occurring in the progressivity in the marginal rate structure of the income tax. States reducing the progressivity of their income tax grew substantially more than states that made their income tax less flat.

The pattern of Table 2 is reinforced by some individual case studies. New Hampshire and Vermont, for instance, are relatively small neighboring New England states. Vermont has long had a highly progressive income tax, whereas New Hampshire is well known for having the ultimate in flat rate income taxes, that is, no income tax at all. New Hampshire has always been slightly more prosperous than Vermont. For example, in 1929 its per capita income was about 10 percent higher than Vermont’s. By 1983, however, the income

TABLE 2  
STATE INCOME TAX PROGRESSIVITY AND GROWTH, 1963-83

Change in Rate Structure	No. of States	Mean Growth Rate <sup>a</sup>
Rates Became Less Progressive	6	66.41
No Change in Progressivity	19	52.64
Rates Became Moderately More Progressive <sup>b</sup>	11	44.24
Rates Became Considerably More Progressive <sup>c</sup>	14	48.08

<sup>a</sup>Mean percentage change in real per capita income.

<sup>b</sup>The range in marginal income tax rates in 1983 was 3.0 (or less) percent greater than in 1963.

<sup>c</sup>The range in marginal income tax rates in 1983 was more than 3.0 percent greater than in 1963.

SOURCE: Tabulated from U.S. Department of Commerce data.

differential had more than doubled to over 20 percent, at a time when interstate income differentials were tending to narrow nationwide. A similar, though less dramatic, picture emerges with Oregon (progressive tax) and Washington (no tax).

Throughout the 1963-83 period New York had a highly progressive rate structure; moreover, progressivity increased over time. By contrast, neighboring Connecticut had no income tax throughout the period, and New Jersey moved from no tax to a tax with very little progressivity. In the two decades New York grew less than 33 percent, New Jersey more than 46 percent, and Connecticut by 48 percent. Finally, consider California and Florida, perhaps our two premier Sun Belt states. In the last 20 years California's highly progressive tax rate has increased. Florida, however, has been a "zero flat rate" tax state. From 1963 to 1983 California's real personal income per capita grew 37 percent, markedly less than the national average, whereas Florida's grew 67 percent, one of the highest growth rates of any state. Although there are exceptions to the rule, the evidence tends to support those who argue that increased marginal rate progressivity is associated with reduced rates of economic growth and, conversely, that reduced progressivity is associated with enhanced growth.

### The Tax Rate-Growth Relationship: Additional Evidence

The evidence to this point can be sharply criticized for failing to take into account other determinants of economic growth. Excluding

such variables imparts “omitted error bias” into the analysis. Moreover, it is difficult to evaluate the growth implications of moving from a state with a progressive income tax to a state with a flat tax of 3 percent. These problems largely can be eliminated by introducing regression analysis. Before proceeding to that analysis, however, some comments on state income taxes are appropriate.

### *Data Problems*

No two states with an income tax have identical tax systems. The definition of the taxable base differs considerably among states, even on such a fundamental question as whether federal taxes are deductible against the state income tax base. Not only do the patterns of rates vary, but also the income level at which the top bracket applies varies enormously. Some states have adjusted the brackets over the years to account for inflation-related bracket creep, and others have not. In New York, for example, the top income tax bracket begins at \$23,000, whereas in Ohio it begins at \$100,000. The New York situation illustrates another point: As nominal income rises, the tax begins to resemble a modified flat tax because a majority of taxpayers face the same marginal rate. Other tax comparability problems abound. For example, some states exclude all social security earnings from the tax base, while others follow federal rules. Given the complexity of differences in state practices, it is nearly impossible to standardize all the diverse tax codes for comparative purposes. As a consequence, any simplified measure of marginal rate progressivity—such as the range of rates from low to high—may in fact not reflect the relative progressivity in rates. A 1 to 7 percent marginal rate range in state A might impart more progressivity than the same rate structure in state B, which has different income brackets and different definitions of the taxable base. Accordingly, some caution must be used in interpreting the results reported below.

There are alternative ways of measuring the flatness of a given individual income tax. The simplest one, and the one followed here, is simply to take the difference between the highest and lowest marginal rates. Some states had different marginal rates for so-called earned and unearned income. Generally, the marginal rate applicable to work-related earnings was used. A few states have a tax that is a flat percentage of the federal tax liability; the range of federal rates was used to calculate the appropriate marginal rates at the state level.

### *The Regression Model*

In analyzing the flatness-growth relationship, it is important to hold constant at least a few other major factors that might contribute to

growth differentials. Economic theory, as exemplified by Samuelson's (1948) factor price equalization theorem, suggests income differentials between regions should narrow over time. And although transport costs and nonpecuniary amenity considerations might prevent money income differentials from fully being eliminated, interstate differentials have narrowed in accord with the theory.<sup>3</sup> Thus in the last generation it would be expected that lower income Southern states would grow relatively faster than higher income Northern states for reasons unrelated to taxes. The per capita personal income of each state at the beginning of the period examined (1963) is an appropriate variable to introduce; this variable is called INCOME in the regression results.

Similarly, the soaring relative price of petroleum and other minerals in the 1970s improved "terms of trade" for mineral-exporting states, raising their relative incomes. Just as Saudi Arabia's per capita income rose dramatically in the 1970s relative to other nations, so Alaska, Wyoming, Texas, and several other states prospered from the oil and gas price inflation. Accordingly, the second independent control variable, ENERGY, was derived by figuring the average of mineral receipts as a percent of personal income for the beginning and mid-point years (1963 and 1973).

On the fiscal side, there is a considerable literature that suggests the overall level of tax burden is negatively correlated with economic growth.<sup>4</sup> Taxes on property and corporate income may inhibit growth, and, with regard to individual income taxes, a "revenue neutral" tax with a range of 6 to 11 percent could be expected to have a more adverse effect on economic growth than one with a range of 1 to 6 percent. The overall tax burden is therefore a relevant consideration. It was introduced as an additional independent variable, denoted TAX, and measured by total state and local generated revenues per \$1,000 of personal income at the beginning of the period.

The key independent variable, called CHFLATNESS, measures the change in the flatness of each state's individual income tax between 1963 and 1983. The lowest marginal rate was subtracted from the highest marginal rate to get the range, and the 1963 range was subtracted from the 1983 range to obtain the change in tax flatness. For the dependent variable, GROWTH, the real percent growth in real

<sup>3</sup>The state with the highest per capita income in 1929, New York, had 4.08 times the per capita income of the lowest income state, Mississippi. In 1970 the highest income state, Connecticut, had but 1.88 times the income of the lowest income state, Mississippi. For historical data on interstate income differentials, see U.S. Department of Commerce (1975).

<sup>4</sup>Representative studies include Genetski and Chin (1978) and Vedder (1982).

personal income per capita for the last 20 years for which state data are available (1963 to 1983) was used.<sup>5</sup>

The analysis of a shorter time period than 20 years raises problems, mainly because interstate variations in responsiveness to business cycle fluctuations become important. The longer the time horizon, the greater the likelihood the dependent variable reflects true long-term growth rather than factors associated with temporary variations in income levels in the beginning or end year. On the other hand, the longer time horizon also introduces some problems. The data, for example, may reflect economic conditions and structures that are no longer relevant. The 20-year period seemed to be a reasonable compromise that minimized the problem associated with evaluating growth over either too long or too short of a time horizon.

The results of the linear regression analysis in Table 3 are generally impressive. The model as a whole explains a large part of the wide variation in observed growth rates. The hypothesis that economic growth varies inversely with changes in the range of marginal income tax rates is confirmed, with the results statistically significant at the 5 percent level. Even controlling for initial income levels, the beginning overall tax burden, and energy endowments, the findings suggest that states that increased their marginal rate progressivity tended to have less growth than ones that did not.

TABLE 3  
THE TAX RATE--GROWTH RELATIONSHIP:  
REGRESSION RESULTS

Term	Coefficient or Value	T-Statistic
Constant	122.7703	7.61 <sup>a</sup>
CHFLATNESS	-0.9433	-1.98 <sup>a</sup>
INCOME	-0.0227	-6.86 <sup>a</sup>
TAX	-0.1170	-1.20
ENERGY	0.0016	3.188 <sup>a</sup>
R <sup>2</sup>	.6048	
$\bar{R}^2$	.5697	
Average GROWTH	51.9442	
F-Statistic	17.2160	

<sup>a</sup>Significant at the 5 percent level.

<sup>5</sup>Data for all the aforementioned variables were obtained in various publications of the U.S. Department of Commerce, Bureau of the Census, particularly the *Statistical Abstract of the United States* (various years) and *Governmental Finances* (various years.)



The results also indicate that per capita income grew almost 1 percent less for each percentage point increase in the prevailing range in the income tax. Is that significant? Consider two states, both with \$7,000 per capita income (in 1983 dollars) in 1963. Suppose one state had a flat rate tax of 3 percent throughout the period, while the other state moved from an income tax with little progressivity (a 1 percent range) to one with substantial progressivity (a 9 percent range) by 1983. Suppose the first state grew at the national average, 52 percent. If the second state, identical to the first except with regard to tax policy, conformed to the average suggested by the model, its growth rate (other things equal) would have been between 44 and 45 percent. The flat rate tax state would have had an income of \$10,640 in 1983, while the state moving toward more progressivity would have had income per capita of only \$10,115—\$525 less. Put another way, the progressive tax state would have grown only 85 percent as fast after 1963 as the flat tax state. Thus a single policy decision—the flatness of individual tax rates—can have a considerable influence on variations in economic growth.

To what extent are these findings transferable to changes in taxes at the federal level? One might argue that “a tax is a tax” and human behavior is not influenced by whether the tax is initiated at the federal or state level. Opponents of flat taxes, however, might argue that these results, even if valid, would overstate the impact of similar changes nationally, since if a state *A* raises its tax progressivity, individuals or companies in state *A* can simply move to state *B*; if a nation raises its tax, however, internal resource mobility will not be available to permit tax avoidance, and international mobility is too costly. Although there is some truth to this criticism, it is overstated for two reasons. First, international mobility increasingly is not more expensive than domestic mobility. Second, in some cases, higher taxes lead to the nonoccurrence of an activity rather than simply shifting its location.

Beyond that, however, there is an argument that suggests the tax rate–growth relationship may be even stronger at the federal level. State income taxes have been deductible against the federal tax base, so the true marginal tax effect of any state tax rate is less, often considerably so, than the stated amount for those who itemize deductions at the federal level. At the state level, for example, a \$20 tax on each additional \$1,000 of income really means an additional tax liability of perhaps \$12 for a high income taxpayer, whereas at the federal level that \$20 tax typically means a full \$20 in additional tax

liability.<sup>6</sup> It is therefore difficult to imagine that the tax rate–growth relationship would be materially weaker at the federal level.

Turning to the other control variables in the model, the expected relationships were obtained. The variable measuring the relationship between the overall tax burden in 1963 and subsequent growth has the expected sign but is only significant at about the 12 percent level. The ENERGY and INCOME variables are highly robust statistically.

### *Sensitivity Analysis*

Observed statistical relationships are occasionally somewhat unstable, that is, they are highly sensitive to changes in the specified model. The addition or deletion of a single variable will dramatically change the observed relationship between the key independent and dependent variables. In those instances, confidence in evaluating hypotheses is sharply reduced.

Accordingly, the model presented in Table 3 was adjusted in various ways—adding and subtracting variables, and even redefining the time horizon of the dependent variable, GROWTH, to cover only the 1973–83 period. Alaska was excluded on the ground that one could argue the Alaskan experience is a special case that may bias results in the direction initially hypothesized.<sup>7</sup> In all the various models, the expected negative relationship between changes in the flatness of the tax base and the growth rate was obtained, usually at a statistically significant level.

A detailed exposition of all the model variations is unnecessary here, but some illustrations of the point are worthwhile. I modified the basic model by adding an additional nonfiscal variable, namely, the proportion of the workforce in manufacturing in 1970 (using Census data), or MANUF. There is a structuralist explanation of growth differentials that says the manufacturing-intensive “rust belt” states have grown less because they have not adapted to changing patterns of demand. Looking at state development strategies, some have argued that public expenditures for human and physical capital formation—

<sup>6</sup>The current federal income tax law subsidizes individuals in states with relatively high state income taxes. Thus the removal of the state and local tax deduction against the federal tax base, which is desirable for general reasons relating to the trade off of lower marginal rates for a broader tax base, is also highly desirable as a means of removing incentives for growth-retarding fiscal policies at the state and local level. The Bradley-Gephardt proposal worsens things in one respect in that it removes sales tax deductibility but retains income tax deductibility, providing some incentive for states to switch from growth-neutral sales taxation to growth-inhibiting income tax levies.

<sup>7</sup>Alaska dropped its income tax near the end of the period as oil revenues surged. The direction of causation appears clearly to be the reverse of that hypothesized in this paper.

infrastructure—have a growth payoff. As a proxy for state spending on infrastructure, state and local expenditures for highways and higher education per \$1000 in personal income in 1963 and 1973 were obtained, and the average of those figures formed the basis of an additional variable, *INFRASTRUCT*. Other variables previously included were retained in the model.

The results in Table 4 show that the overall explanatory power of the regression model rose somewhat, but the critical relationship between *FLATNESS* and *GROWTH* is essentially unchanged. The *TAX* variable changes signs, but is not statistically significant; there is clear evidence that some multicollinearity is present. The infrastructure argument seems totally without foundation. The sign on the variable representing higher education and highway spending is the opposite of what is anticipated: relatively heavy spending on public higher education and on highways is negatively associated with the rate of growth, other things equal. Similarly, the structuralist argument is rejected, although the expected negative sign is obtained. There is no statistically significant association between the manufacturing intensity of a state and the rate of economic growth over the 1963–83 period.

In another regression analysis, confined to the 1973–83 period, only two income tax variables were included: *CHFLATNESS*, now defined as the change in the range of marginal tax rates over the 1973–83 period; and *TOPRATE*, defined as the top marginal rate prevailing on the income tax on individuals in 1973. The results

*TABLE 4*  
TAX RATES AND ECONOMIC GROWTH:  
REGRESSION RESULTS

Term	Coefficient or Value	T-Statistic
Constant	141.7586	6.27 <sup>a</sup>
CHFLATNESS	-0.8540	-1.91 <sup>a</sup>
INCOME	-0.0278	-7.68 <sup>a</sup>
ENERGY	0.0028	4.45 <sup>a</sup>
TAX	0.0489	0.38
MANUF	-0.1351	-0.64
INFRASTRUCT	-0.3718	-2.89
R <sup>2</sup>	.6665	
$\bar{R}^2$	.6286	
F-Statistic	17.5888	

<sup>a</sup>Statistically significant at the 5 percent level.

are interesting:

$$\text{GROWTH} = 5.2689 - 1.2804 \text{ CHFLATNESS} - 0.3315 \text{ TOPRATE},$$

$$(2.8844) \quad (2.5807) \quad (1.4170)$$

$$R^2 = .13, \text{ F Statistic} = 3.4873,$$

where the numbers in parentheses are t-values. The negative relationship between the change in the range of individual income tax rates and economic growth is statistically significant at the 1 percent level. The results also suggest that the higher the maximum marginal individual income tax rate was in 1973, the lower the growth in income in the subsequent decade, although that finding is only significant at the 10 percent level. The low  $R^2$  suggests that these fiscal factors were only an important secondary explanation of growth variation in that decade; other factors, such as changing relative energy prices, were presumably even more important. However, the tax variables were subject to state policy manipulation, whereas other variables (for example, energy prices) are exogenous to state policymaking.

Finally, the original model in Table 3 was modified to exclude Alaska, which had the largest growth rate over the 1963–83 period and moved from being a progressive income tax state to one with no income tax. Even the most ardent supply-sider would probably admit that the tax change was a consequence of the Prudhoe Bay oil discovery and oil's price rise rather than a cause of the economic growth. Rerunning the model without Alaska does not substantially alter the critical relationship; the coefficient on CHFLATNESS remains negative and is statistically significant at the 5 percent level (t-value = 1.72). The observed negative relationship between increases in marginal income tax progressivity and economic growth therefore appears to be stable, enhancing confidence in the initial hypothesis.

## Equity and the Flat Tax

Equity is a subjective concept rooted in human values. What is fair to one person may well be unfair to another. Although theorists have used the concept of utility to talk about equity in an objective fashion, our inability to measure utility with any precision prevents any verifiable scientific judgments being made about fairness. Economists and other so-called experts readily will oppose or support fiscal measures on equity grounds, yet their perceptions of equity merely reflect individual values that may or may not coincide with that of most of the population.

Given all this, there is a limit to what can be said about the equity of any given tax proposal. Nevertheless, it is possible to show what changes have occurred in the tax burden for different income groups over time. Many people, most notably Walter Mondale in the 1984 presidential campaign, have argued that the 1981 income tax cut was "unfair" because it lowered taxes for the "rich" more than for the "poor." An examination of actual tax revenues for 1983 (based on preliminary IRS data) shows that with all of the 1981 tax cut in place for high income Americans (and with much of it in place for other taxpayers), tax payments for the rich had *risen* substantially relative to the poor (Table 5). This does not prove the 1981 tax cut was fair, since fairness is a normative concept, but it does suggest that the critics of the cut were arguing on the basis of erroneous information, ignoring the impact that reduced tax rates had on incentives to work and invest.

**TABLE 5**  
FEDERAL INDIVIDUAL INCOME TAX PAYMENTS, 1981-83

Adjusted Gross Income (\$ thousands)	Taxes Paid, 1983 (\$ billions)	Change in Taxes Paid, 1981-83 (percent)
0 to 9.99	6.1	-29
10 to 19.99	31.6	-23
20 to 49.99	129.1	-12
50 to 99.99	53.9	3
100 to 499.99	38.4	11
500 to 999.99	6.7	63
1,000 or more	10.2	108

SOURCE: Internal Revenue Service.

The 1981 tax cut was a modest but real move in the direction of a flat rate tax; it reduced the difference between average and marginal tax rates, and certainly reduced them from what otherwise would have existed. The disparity between average and marginal rates dropped for anyone maintaining a constant real income at a near poverty level (one half the 1980 median income), at the 1980 median income level, or at a high income level (twice the 1980 median). This is verified in the first two columns and first three rows of Table 6, drawing on the recent research of Tatom (1984). Without the 1981 tax cut, the disparity between marginal and average rates would have increased for persons with the 1980 median income or above (column 3, Table 6). This is a by-product of inflation-related bracket creep.

**TABLE 6**  
**CHANGING FLATNESS OF THE FEDERAL INCOME TAX, 1980-84**

Real Income Class	Marginal Minus the Average Applicable Rate <sup>a</sup>		
	1980	1984	1984 <sup>b</sup>
One-Half Median for 1980	11.7	8.6	11.0
1980 Median	12.1	10.7	13.2
Twice 1980 Median	20.7	17.3	22.1
One-Half Median for Year	11.7	12.0	NA
Median for Year	12.1	11.9	NA
Twice Median for Year	20.7	16.0	NA

<sup>a</sup>Lower values imply increased flatness in the federal income tax rate structure.

<sup>b</sup>With 1980 tax law.

SOURCE: Author's calculations from tables in Tatom (1984).

The last three rows of Table 6 account for the bracket creep effects of real income growth, which was 8 percent from 1980 to 1984. Persons whose relative income remained unchanged at one-half the median or at the median faced a disparity between average and marginal rates in 1984 similar to those in 1980, although for higher income Americans that disparity continued to grow.

On balance, Table 6 suggests the 1981 law was a modest move in the direction of flatness. Also, the 1981 and 1983 data suggest that the move toward flatness was also accompanied by an increase in the relative tax burden of the rich. Therefore the assumption that sharp reductions in marginal tax rates benefit upper-income Americans is likely fallacious. Such an assumption ignores the high elasticity of the tax base with respect to rate changes at the higher income levels (and the lower elasticity at lower income levels). In this regard, the experience of the early 1980s is similar to the experience with tax cuts in the 1920s and 1960s.<sup>8</sup>

Perhaps the best way to measure the "fairness" of a tax policy is to ask people whether they view it as fair or unfair. Between March 1972 and May 1984, the nonpartisan Advisory Commission on Intergovernmental Relations (ACIR) conducted 12 polls on attitudes toward a variety of topics in public finance. One question always asked is:

<sup>8</sup>See Frenze (1982) and Bartlett (1981) for an analysis of these earlier tax cuts.

"Which do you think is the worst tax—that is, the least fair?" In five of the first six polls, conducted through May 1978, the local property tax was viewed "least fair"; in the six polls since 1979 the federal individual income tax has been viewed as least fair. The proportion viewing the income tax as least fair was 19 percent in the first poll, between 28 and 30 percent on the next five polls, and has been between 35 and 37 percent on all polls since 1979. While the proportion has stabilized, it rose significantly from the early 1970s to the present (ACIR 1984).<sup>9</sup> The 1984 results are presented in Table 7.

To many people, "equity" is largely vertical equity, or the treatment accorded to individuals in different economic circumstances. The previous discussion of the shifting tax burden since 1980 dealt with vertical equity concerns. According to the "ability to pay" principle of taxation, a progressive tax may be a fairer tax because it is borne disproportionately by those with higher incomes better able to pay. Yet the results shown in Table 7 do not fit that generalization about progressivity. The federal income tax, which is relatively progressive, is considered far more unfair than a tax that is clearly regressive, namely, the state sales tax. This is not to say that the public is unconcerned about the tax burden of the "rich" relative to the "poor." In another question in 1983, nearly half the respondents thought making "the upper income taxpayers pay more" was "the single most important change that would make the nation's tax system more fair."

TABLE 7

"WHICH DO YOU THINK IS THE WORST TAX—THAT IS,  
THE LEAST FAIR?"  
MAY 1984 POLL

Tax	Percent
Federal Income	36
State Income	10
State Sales	15
Local Property Tax	29
Don't Know	10

SOURCE: ACIR (1984).

<sup>9</sup>There was little variation in the dislike for the income tax across age, sex, racial, geographic, and occupational groups. Americans over 65 did have a slightly greater dislike (32 percent vs. 29 percent) for the property tax; blacks considered the income tax "least fair" slightly more than whites (36 percent vs. 35 percent). Dislike of the income tax was highest in the West (44 percent liked it least) and lowest in the Northeast (27 percent considered it "least fair").

Is it inconsistent to show relative preference for regressive-type taxes (for example, sales taxes) on the one hand and call for more taxation of the rich on the other? Not necessarily. One possibility is that the public is more concerned about horizontal equity—the tax treatment of individuals in similar economic circumstances. It may well be that the public is furious that some rich people pay almost no income taxes, hence explaining the call for more taxation of the rich. At the same time, the public may not want a tax that “soaks the rich,” hence the preference for relatively regressive taxes. In other questions this preference for regressive taxes is confirmed. In 1983 respondents indicated a more than 2 to 1 preference for a national sales tax over higher income taxes; the same ratio applied with respect to new state and local taxes. People even preferred higher property taxes to higher income taxes.

On another, even more revealing question asked in 1984, respondents showed a preference for raising more federal revenue by expanding the tax base and reducing special treatment for capital gains (47 percent) over raising individual income tax *rates* (7 percent); the other option well received (32 percent) was a national sales tax (ACIR 1984). The public seems to want to widen the tax base and is averse to high tax rates. In short, people seem to want a tax similar to the current proposals for a flat rate tax and a modified flat rate tax.

Two other pieces of evidence suggest that a move toward a flat rate tax would be perceived as a move toward greater equity, even if the flat tax involved less progressivity on average than is presently the case. According to Vedder and Frenze (1983), the rise in dissatisfaction with the federal income tax came at a time when the tax itself strayed further and further from the flat tax ideal (see Table 8).

Table 8 includes a “flatness index,” which is one divided by the ratio of marginal to average tax rates applicable for a given income level. If marginal and average rates are equal (a pure flat rate tax with zero deductions), then the index number is 1.00. If there were wide marginal rate variations and substantial deductions, the ratio will tend to be much smaller. The table shows that (1) tax progressivity rose sharply in the 1970s, in accord with “ability to pay” notions of equity; (2) the flatness index fell, particularly for middle income Americans; and (3) the federal income tax was perceived to be increasingly unfair. The more the income tax deviated from the flat tax ideal, the more unfair it was perceived to be.

One final piece of evidence is also consistent with the notion that flat taxes are considered fairer. The 1984 ACIR poll indicates the portion of the respondents who consider state income taxes the least fair, categorized by four broad census regions. The two regions with



TABLE 8  
U.S. TAX EQUITY, PROGRESSIVITY, AND FLATNESS

Indicator	1970	1980
Progressivity Index I <sup>a</sup>	4.02	8.43
Progressivity Index II <sup>b</sup>	2.04	2.76
Flatness Index I <sup>c</sup>	.585	.472
Flatness Index II <sup>d</sup>	.559	.549
Percent Saying Federal Income Tax Is Least Fair Tax	19	36

<sup>a</sup>Average tax rate at \$75,000 income in 1980 dollars divided by the average tax rate at \$10,000 income in 1980 dollars.

<sup>b</sup>Average tax rate at \$75,000 income in 1980 dollars divided by the average tax rate at \$20,000 income in 1980 dollars.

<sup>c</sup>At \$20,000 income in 1980 dollars; see text for method of calculation.

<sup>d</sup>At \$50,000 income in 1980 dollars; see text for method of calculation.

SOURCES: U.S. Department of Commerce, Internal Revenue Service, Advisory Commission on Intergovernmental Relations.

the greatest dissatisfaction with state income taxes, the Northeast and the West, also had the two highest weighted (by population) mean range in marginal tax rates from low to high, while the two regions showing the least dissatisfaction with state taxes—the North Central states and the South—had the lowest weighted mean range in marginal rates (ACIR 1984, p. 19).<sup>10</sup> The correlation between weighted mean rate range and the proportion viewing the state income tax as the least fair was 0.39.

### Equity, Efficiency, and Politics: Opportunities for Political Entrepreneurship

The evidence shows that economic growth is positively associated with the flatness of the income tax and also with the public's notion of fair play and equity. Yet there are powerful special interests opposed to the move toward a flat tax. What role does the above evidence suggest for the political entrepreneur?

Public choice theory shows how the concentrated benefits and dispersed costs of most tax preferences result in more extensive

<sup>10</sup>A strong preference for broadening the tax base, as opposed to increasing tax rates, prevailed in all income, racial, age, sexual, geographic, and occupational categories, with few differences among them. With respect to the regional groupings, caution should be used in interpreting the finding, given the small sample size used for the groups.

lobbying on the part of the special interests than the general public.<sup>11</sup> Most people remain "rationally ignorant" of the details of tax legislation because the possible benefits are usually small in relation to the costs of learning and acting on the details. Not so for special interest groups that stand to gain from tax preferences. The proposed flat tax bills, however, are *not comparatively minor* acts of tax fine-tuning. Instead, they constitute major changes that have the potential for conferring such large benefits on individuals that a threshold may be crossed where the expected future benefits from knowledge and political action with respect to flat rate tax reform will exceed the costs of information and action. The public, therefore, may become sufficiently aroused to battle the special interests and win meaningful reform.

Enter the political entrepreneur. There would seem to be many political gains to be obtained from pushing for a flat rate tax. The tax itself is inherently popular, promises to foster economic growth, and is something that seems feasible politically.

At the level of the political party, the Democrats have lost four of the last five presidential elections, lost control of the Senate for six years, and, when Southern Democratic "boll weevils" allied with President Reagan are taken into account, have only a precarious hold on the House of Representatives. Their image is a party of special interests and old ideas, personified by Walter Mondale. The flat tax issue could help revitalize the party as a serious force in American politics. Invoking concerns about America's future, economic growth, and the injustices caused by vertical inequities, the Democrats could launch a "new idea," dilute the "special interest" labeling, and remain true to the philosophic concern over injustice and unfairness. The first Democratic political entrepreneurs to fight the Old Guard on these issues are likely to win national recognition and a place in the party's future.

As for the Republicans, the political potential for exploiting the flat tax issues is at least as great. Aggressive exploitation of the issue by President Reagan could have the impact of making the GOP a majority party for the first time since Herbert Hoover. The flat tax issue is a chance for the Republicans to recast themselves in a conservative populist image, and to dispense of their image as a party dominated by plutocratic businessmen unconcerned about fairness and the poor.

<sup>11</sup>See, for example, Buchanan and Tullock (1962), Buchanan (1968), and Buchanan, Tollison, and Tullock (1980).

The economic arguments for a true flat tax are compelling, and the public would support such a tax. With good packaging and communications, political entrepreneurs could achieve electoral victories by urging sound tax reform. Nevertheless, Congress and the Reagan administration are so far dodging real tax reform; hence the public has not taken much interest in the ongoing tax debate. Legislation proposed by the Treasury has failed to take advantage of the public's underlying preference for a flat tax. The Treasury's "modified" flat tax simply opens the door for special interest pleading that is more likely to succeed than if all deductions and tax preferences were eliminated. The tax bills receiving attention in Congress are even less likely to capture the imagination and active support of the public. Consequently, while the case for a true flat tax is strong, it is not clear that the tax debate of 1985 will lead to a simpler, fairer, and more efficient tax system that would promote the general welfare.

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## NEW EVIDENCE FOR FLAT TAX REFORM

*Randall G. Holcombe*

### The Wrong Side of the Laffer Curve

The paper by Alan Reynolds (1985) is primarily concerned with the effects of high marginal tax rates on economic activity in various countries rather than with the flat tax proposals in the United States. His basic theme is that the deterioration of tax policy over the past *decade has been most significant with respect to individual tax rates on both capital and labor earnings, and that it is not that rates have risen, but that the highest rates now apply to much lower income levels.* Reynolds examines data from 42 countries to illustrate his case and argues that most countries are close to or beyond the *downward sloping portion of the Laffer curve.*

Reynolds presents a large array of interesting evidence and undoubtedly the reader who sympathizes with his thesis will find this evidence reassuring. However, it is not clear that this evidence would convince a skeptic. Reynolds makes a number of insightful observations, including the observation that if asked to describe a favorable tax code for investment, many businessmen would probably describe something closer to the tax code of Sweden or Britain rather than a tax code such as Japan's. Britain does not tax distributed earnings or new corporate investment and allows an immediate write-off of most equipment. In comparison, Japan has depreciation periods of from 6 to 45 years and a 56 percent tax rate.

Reynolds notes that in 1982 corporate tax revenues were 5.4 percent of GDP in Japan, 2.1 percent in the United States, and 1.7 percent in Sweden. His explanation is that in Japan corporations are very profitable, a result of low taxation of individual stockholders, bondholders, workers, and customers. This suggests that it is the

marginal personal income tax rate that influences productivity rather than the corporate rate. Looking at all of his evidence Reynolds decides, as his title suggests, that the world is on the wrong side of the Laffer curve.

This conclusion raises a significant question: why would a country enact tax rates so high that it is placed on the downward sloping part of the Laffer curve? The answer and some implications will be discussed after some comments on Richard Vedder's paper.

## Equity, Efficiency, and Exuberance

Vedder (1985) examines the state income tax structures in the United States and turns up some interesting evidence, namely, more progressive tax structures reduce economic growth. The key variable in his analysis is the change in the flatness of the state's tax rate over time. There are some problems with the empirical work in the paper, and he readily acknowledges this. Indeed, for this type of study data is hard to come by. The big question in his paper, though, is why he predicts a state's growth using the change in the flatness of the income tax structure rather than the progressivity itself. If the highest marginal tax rate in a state is reduced from 10 percent to 7 percent should that state have a higher rate of growth than a state that always had a 5 percent rate? Perhaps the state will have a spurt of growth after reducing the progressivity, but it is not clear that the empirical work captures everything that is going on here. What would the results look like, for example, if he had used the average marginal tax rate instead of "change in flatness" as an explanatory variable? Even though more empirical work needs to be done to reveal everything that Vedder's data set has to say about progressivity and economic growth, his results are still interesting and suggestive.

Some of Vedder's analysis is based on the factor price equalization theorem. The idea that factors of production seek employment so as to equalize the after-tax returns in various locations has important implications for tax policy, and will be explored below.

The equity issues surrounding the flat tax are of interest to Vedder; he finds that people generally view the progressive income tax to be unfair. Equity is a normative concept, but Vedder sees an opportunity for political entrepreneurship here since he views the progressive income tax as both inequitable and inefficient. It is also possible that people misperceive the positive effects of progressive taxation; this notion will be examined further along with the political entrepreneurship issue.

## The Downward Sloping Part of the Laffer Curve

An important issue if Reynolds's thesis is to be accepted is how a country could enact tax rates high enough to put them on the downward sloping part of the Laffer curve. The answer lies in the differences in the short-run and long-run responses to a change in the tax structure.<sup>1</sup> The supply-side response to a tax change will be more elastic the longer the period of adjustment. In the short run, therefore, it will be difficult for people to avoid paying the new tax and tax revenues will rise. However, in the long run people will move to lower-tax (or nontaxable) activities and tax revenues will fall. Therefore, even with high tax rates on the downward sloping part of the long-run Laffer curve, an increase in tax rates still could increase tax revenue in the short run. Politicians are short sighted, so there will always be the temptation to raise tax rates for short-run revenue enhancement even when this means a long-run decline in revenues.

The full benefits of a tax cut will take some time to show up as an increase in revenues even if a country is on the wrong side of the Laffer curve. People cannot adjust instantaneously to a tax cut, which means that even though there is some evidence of a supply-side response to Reagan's tax cuts, the real evidence may not come until individuals can make their longer-run adjustments to the lower marginal tax rates.

## Progressive Taxes and Redistribution

Although Vedder gives evidence that people view the progressive income tax as unfair, the main justification cited by supporters for the use of a progressive tax is that it is an equitable way to redistribute income. The issue, however, deserves careful examination because redistribution through progressive taxation may not work the way people think.

Workers are interested in their after-tax compensation, not their pre-tax compensation, so if workers are mobile across jobs they will have to be compensated for changes in the tax structure. An increase in progressivity will cause people to shift out of higher paying jobs into lower paying jobs at the margin, which will require employers to raise the wages of high income people and to lower the wages of low income individuals, thereby maintaining the structure of after-tax wages following a change in the progressivity of taxes. In this way adjustments in wages will at least partially offset the redistri-

<sup>1</sup>Buchanan and Lee (1982a, 1982b) have explained this idea in detail; only a brief review is presented here.

butive efforts of progressive taxation.<sup>2</sup> As Friedman (1976, p. 24) points out:

... if all differences in income were equalizing ... an income tax would have no redistributive effects at all, no matter how steeply graduated. The reason is that people would leave occupations especially affected by the steeply graduated tax (occupations that are highly paid to compensate for extreme nonpecuniary disadvantages, or that offer highly variable returns, etc.) and enter those less affected by it, until this pattern of relative wage rates was attained. The same relative wage rates after tax would, of course, mean higher wage rates before tax in the occupations affected by the steeply graduated tax, and this would curtail the quantity demanded to match the reduced quantity supplied.

Some evidence that this is the case is provided by Reynolds and Smolensky (1977) who compare income distributions before government taxes and expenditures (pre-fisc) with distributions after taxes and expenditures (post-fisc). They note that despite an increasing progressivity of taxes since 1950, the post-fisc distribution of income has remained approximately the same in the United States, but that there has been greater inequality in the pre-fisc distribution. It appears that market adjustments have tended to offset attempts to redistribute income through progressive taxation. One reason that high wage earners earn such high wages is to compensate them for the high taxes they have to pay.

There are two important lessons from this analysis. First, progressive taxation is probably less able to redistribute income than is commonly thought, and second, if this fact were generally known there would be greater public support for the flat tax. Additional evidence favoring the flat tax on distributional grounds is presented by Hall and Rabushka (1985). They argue that their flat tax proposal would produce approximately the same distribution of the tax burden as under present tax law.

### Political Entrepreneurship and the Flat Tax

Both Vedder and Reynolds argue that the current progressive income tax is inefficient compared to a flat tax. There is a good deal of popular sentiment on their side, as attested to by the many tax reform proposals urging a flatter tax. The opportunity to establish a flat tax is certainly greater today than any time in recent history, and the challenge for its supporters is to make it politically feasible. The key to implementing any political change with wide political support is, in

<sup>2</sup>See Holcombe (1985, chap. 5) for a discussion of this point.



the jargon of economists, to make it a Pareto superior move. In other words, the flat tax must be presented as a proposal that would benefit most people but would cause significant harm to almost nobody. If a tax reform is truly efficient, it must be possible to redistribute the gains from efficiency so that no one is made worse off. When this happens, everyone, once they understand the proposal, will have to be in favor.

In the real world, of course, some people would be harmed under the introduction of a flat tax, but properly packaged, the tax appears to benefit the vast majority of taxpayers. A flat tax would benefit almost every individual because of the efficiency gains inherent in it, and any political entrepreneur who tries to sell the idea must sell it on this basis. Otherwise, it will be too easy for special interests to erode a flat tax proposal by altering one item at a time until any proposal for tax reform looks almost like the current tax code. Congress, therefore, must be convinced that voters as a group would favor wiping the slate clean and starting over with a tax code that does not cater to special interests. Regretably, efficient tax reform cannot occur one step at a time—the political process grants benefits to special interest groups on a piecemeal basis but does not provide a mechanism for removing them.

All of the current flat tax proposals favor a modified flat tax with some progressivity rather than a true flat rate tax. A completely flat rate tax, however, is far superior to a mildly progressive one. Once progressivity is built into the “flat tax” it is far too easy to introduce additional progressivity, so that the tax structure eventually reverts to its prereform condition. A single marginal tax rate provides a kind of contract that can help prevent the return of creeping progressivity into the tax structure.

The undue influence of special interests means there always will be a tendency for piecemeal tax reform to erode the tax base by providing tax preferences. A slight increase in progressivity can then make up for the lost revenue. A tax structure with no special interest preferences and a single marginal tax rate can guard against such an occurrence to some degree by eliminating tax preferences along with progressivity.

Political reality is important, to be sure, but the principles behind the flat tax movement will in the long run be more important. Despite the current proposals, which retain various tax preferences and progressivity, a truly flat tax system is within the realm of possibility. If in the late 1970s someone had said that the next president would enact a tax package that would cut tax rates 25 percent over three years, drop the top marginal rate from 70 percent to 50 percent, and

index tax brackets, most people would have scoffed at the idea. Yet it happened. Some people might view the possibility of a true flat tax as farfetched, but it is certainly not impossible. Indeed, the studies by Reynolds and Vedder are laying the foundation for a change in that direction.

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