The Journal of Private Enterprise 25(1), 2009, 141-150

Income Tax Rates from 1913 to 2006

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Abstract
Since being enacted in 1913, the tax code constantly has been changing with rates on personal income ranging from less than 5 percent to more than 90 percent over the years. This paper highlights these changes by examining periods of historic high and low rates for taxpayers with varying levels of income. This paper looks at the marginal and average income tax rates that would have been faced by typical households of today using tax rates from 1913 to 2006. Representative levels of gross income are adjusted for average levels of deductions and exemptions to obtain typical levels of taxable income for 2006. After adjusting for inflation using the CPI, the tax tables for married couples filing jointly are applied for each year from 1913 to 2006. The results are presented in graphs for representative levels of gross income – today's median income, the 95th percentile, minimum wage, and $2,600,000.

JEL Code: H24
Keywords: Income taxation; Historic tax rates; Progressive income tax

"In this world nothing can be said to be certain, except death and taxes."
- Benjamin Franklin (1789)

Although almost everyone believes taxes are inevitable, many people miss the fact that the amount of taxes paid and collected has varied widely over time. Within the past 100 years, taxes have ranged from less than 5 percent to more than 90 percent of income. The purpose of this article is to put changes in the income tax rates over the past century into perspective and to highlight the fact that, even if

* The authors wish to thank the editor and two anonymous referees for helpful suggestions.

one accepts that taxes may be inevitable, high tax rates are not. Comparison of effective tax rates over time enables taxpayers to better evaluate current rates compared to earlier ones and to understand the effects of a tax code that is constantly in flux.

The combination of the top marginal income tax rate and the income to which it applies is one of the components of the Economic Freedom of the World index (Gwartney and Lawton, 2008, p.4). Textbook public finance analysis shows that, like other taxes, it creates a wedge between the prices buyers pay and sellers receive, distorting incentives and creating a deadweight loss as well as transferring income from the taxpayers to the government. Given the broad nature of an income tax, the shift away from labor toward leisure and from future consumption to present consumption has macroeconomic consequences – decreased aggregate supply and potential income.

The adverse impact of the income tax is exacerbated because of its progressive structure, with marginal tax rates being greater than average tax rates. The marginal tax rates determine the wedge on the margin and, thus, the distortion created by the tax. The average tax rate determines the amount of funds transferred from taxpayers to the government. This, at least, suggests that a progressive income tax should be found wanting on the ground of efficiency because it will create a large distortion relative to the amount of tax collected.

However, the progressive structure allows lower income households to pay at a lower average tax rate than higher income households, thereby shifting the financial burden of government to higher income households. The more traditional "ability to pay" defense involves fairly dividing the cost of a given burden of government. However, a more grandiose vision of the progressive income tax that promotes social justice by leaving a more equal distribution of after-tax income appears to motivate some defenders. In textbook terminology, these involve questions of equity.

The 25 percent reduction in income tax rates during the Reagan administration of the early eighties was at least partly defended on grounds of efficiency, though the rhetoric emphasized increased production rather than reducing the welfare loss from distortion. These supply-side arguments continue to be marshaled in support of income tax rate cuts and in opposition to rate increases. The rhetoric of the critics, emphasizing supposed tax giveaways to the rich, is roughly related to the claims of equity.

Determining the impact of income tax rate cuts on employment, savings, and productive capacity is difficult and controversial, as is accounting for the deadweight loss. Yet, many seem willing to express an opinion about what is, or is not, fair. To make an informed judgment about whether or not the progressive income tax has been more or less a force for economic justice during various historical periods, it is important to have some notion of what levels of marginal and average tax rates have applied in the past.

Looking at the tax tables from past years provides some information and a glimpse of how chaotic rate changes can appear to have been over the past century. For example, in 1913, the top tax rate was 7 percent, and it applied to taxable income greater than $500,000. The pre-Reagan tax code imposed a 70 percent tax rate on investment income greater than $215,000. Before the Kennedy tax cuts of the 1960s, the top tax rate was 91 percent for incomes more than $400,000. The typical high school or college economics student is appropriately shocked and dismayed by the 1963 tax table, showing a married couple earning $36,000 being faced with a 53 percent tax rate.

That many people find such figures appalling is presumably due to some notion that people deserve the incomes they earn in the market, and extremely high tax rates are an inequitable restriction on economic freedom. Of course, some of the shocking nature of those figures comes from a confusion of average and marginal tax rates. Further, those rates applied to taxable rather than gross income. The family making $36,000 in 1963 may have been overtaxed, but they were not paying 53 percent of their gross income in personal income tax. Most importantly, the purchasing power of money has fallen over time, so these past incomes are equivalent to substantially higher incomes today.

The purpose of this paper is to give a more accurate picture of the types of tax burdens imposed in the past. The point of comparison, however, is the real incomes of today's taxpayers. While it is impractical to report the tax rates that would have been faced by each and every person, it is possible to look at the situation of various "typical" Americans. Given some rough knowledge of how people in various income groups live today, the data presented will show what kind of tax burden those people would have faced given the higher or lower and more or less progressive tax rate schedules of past years.

These results apply the tax rate schedules of the past to the income, deductions, and exemptions available today. This paper seeks to give a rough idea about what it would mean to return to the tax rate schedule of 1981, 1963, 1945, or the original of 1913.

The average deductions and exemptions that apply to representative gross incomes from 2006 are used to calculate the taxable incomes in each year. The resulting gross and taxable incomes were adjusted for changes in the price level. Historical tax tables were then used to calculate average and marginal tax rates.

For example, in 2006, the median income for households was $48,200 (Denavas-Watt, Protcor, and Smith, 2007, p.5). On average, those earning that amount of income were able to use deductions and exemptions to shelter 34 percent of their gross income (IRS Statistics of Income, 2004), reducing their taxable income to $30,944. Using the tax table from 2006 for married couples, that level of taxable income results in a 15 percent marginal tax rate (Tax Foundation, 2008) (i.e., the 30,944th dollar of income is taxed at 15 percent). However, part of the income is taxed at a 10 percent rate. Based on gross income, the average tax rate would be 8.06 percent (of the gross income of $48,200.) The government would take a bit more than 8 percent of this average couple's income, but it would take 15 percent of any increase (any additional dollars) earned.

The 8.06 percent average tax rate is the best measure of the cost of government to the couple – at least for the portion of government financed by the personal income tax. The 15 percent marginal tax rate, however, shows how much the personal income tax reduces incentives to earn more income by working more or harder or saving and investing. The 15 percent tax rate creates the deadweight loss of the income tax.

What were these burdens when the income tax was first imposed? Suppose that this median income household instead faced the income tax rates first imposed in 1913. Using the consumer price index as a deflator, an annual income of $2,367 earned in 1913 would be equivalent to $48,200 earned in 2006 (Bureau of Labor Statistics, 2007). After applying the average deductions and exemptions available for an income of $48,200 today, taxable income would have been $1,520. The marginal tax bracket rate for this household would have been 1 percent with an average tax rate of .64 percent. The disincentive for earning more was only 1 percent, compared to 15 percent in 2006.

The highest tax burden on today's median income household was imposed in 1945. Using consumer prices for that year, a gross income of $4,304 would be equivalent to an income of $48,200 in 2006. Again, using the current rate of deductions and exemptions would leave a taxable income of $2,763. This income was subject to a 25 percent marginal tax rate, far greater than the marginal rate of 1 percent for 1913 and even the 15 percent rate for 2006. Because much of the income would be taxed lower than the 25 percent marginal rate, the average tax rate would have been 15.12 percent, more than 23 times the 1913 rate of .64 percent and nearly twice the 8.06 percent rate of 2006.

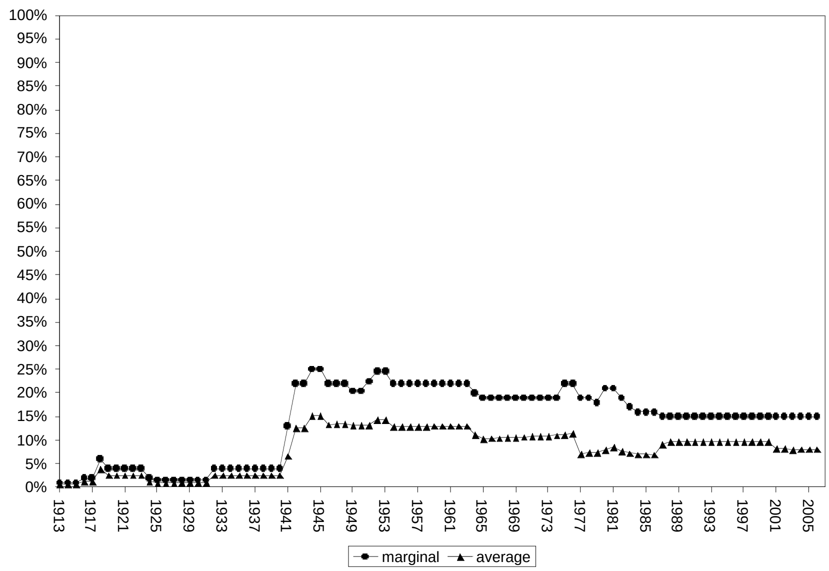

Figure 1. Marginal and average tax rates for median income ($48,000).

Taxpayers whose income was similar to that of the average American today paid a small percentage of income tax from 1913 until the late 1930s. Rates increased slightly at the beginning of World War I. That tax rate decreased during the 1920s but increased to the same earlier wartime level during the Great Depression. Tax rates, not surprisingly, increased substantially at the beginning of World War II. Although tax rates since WWII have fallen gradually from those wartime peaks, they remain much higher than they were before 1941.

What about "the rich?" Consider a household at the 95th percentile of income earners in 2006. Those taxpayers would earn $174,000 per year. Claiming the average deductions and exemptions available at that level, taxable income for 2006 would be $131,698. Tax tables show a 28 percent marginal tax rate. However, because most of that income would be taxed at lower rates, the average tax rate would be 15.10 percent.

When the income tax code was first imposed, the rates applied to a couple with an equivalent income would have been much lower. Because of lower prices in 1913, today's $174,000 and a 1913 income of $8,544 would be roughly equivalent. Using today's exemptions and deductions would result in a 1913 taxable income of $6,467 with a marginal tax rate of 1 percent and an average tax rate of only .76 percent, rates not unlike those for median incomes.

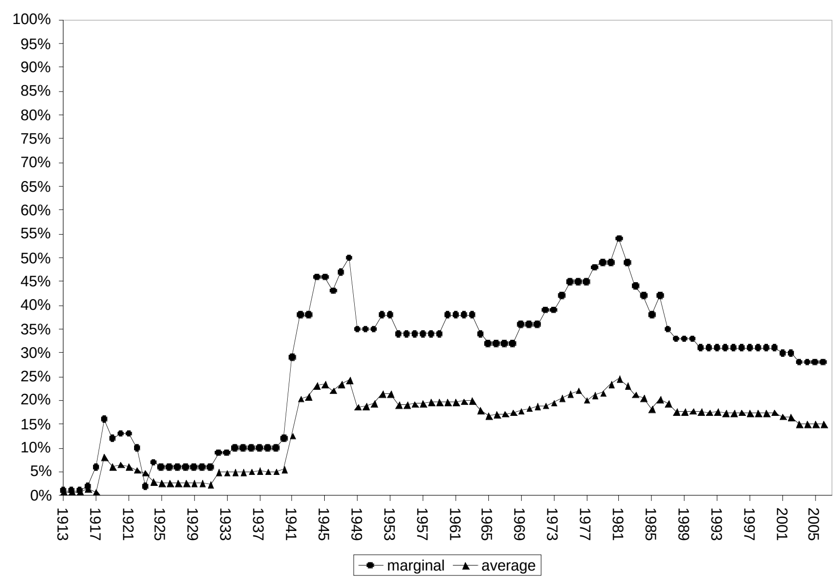

Figure 2. Marginal and average tax rates for 95th percentile ($174,000).

The peak burden for individuals in the 95th percentile income bracket came in 1981. The equivalent gross income in 1981 was $78,455. Again, using today's average deductions and exemptions, the 1981 taxable income of $59,381 was subject to a marginal tax rate of 54 percent and an average tax rate of 24.66 percent. This was only slightly higher than the World War II era peak in 1948, when these households would have faced a top marginal tax rate of 50 percent applied to income over $20,800. The average tax rate of 24.38 percent in 1948, on an equivalent taxable income of $15,744, differed only .28 percent from the 1981 average tax rate. As with median income households, while the tax burden did fall during the post-WWII years, it began to rise again during the sixties, largely due to bracket creep. Inflation raises the dollar value of income and pushes individuals into higher tax brackets. By 1981, bracket creep had pushed the average and marginal tax rates for the typical individual in this group past the WWII-era highs.

What about households in the lowest ranks of income earners? A full time worker earning the minimum wage in 2006 of $5.15 per hour, would be a bit below the 10th percentile of households, with an annual income of $10,300, assuming 2000 working hours each year. Exemptions, deductions, and the earned income tax credit should reduce the burden for a family to zero. Because many minimum wage earners file as single taxpayers, however, the average amount taxed for all such returns today is 23%. Using that figure, the taxable income would be $2,519, resulting in a marginal tax rate of 10 percent and an average tax rate of 2.31 percent.

The tax code included a zero bracket during the late seventies and early eighties, presumably to benefit low income taxpayers who had no dependents.

In 1913, the equivalent of a $5.15 minimum wage would have been 25 cents per hour. Gross income would have been $505; taxable income would have been $117. The marginal tax rate would have been 1 percent, and the average tax rate would have been .23 percent.

The peak income tax period for today's minimum wage worker would have been 1945. The equivalent wage would have been 45 cents an hour, resulting in a gross income of $900 and a taxable income of $208 dollars. The marginal tax rate would have been 23 percent, with an average tax rate of 5.31 percent. These rates are 23 times greater than in 1913 and more than double the rates in 2006.

The highest marginal tax rate for any group was imposed in 1944 and 1945 at 94 percent and was applied to taxable income above $200,000. The equivalent amount of taxable income today would be $2,290,209, which would typically be associated with a married couple earning approximately $2.6 million per year before

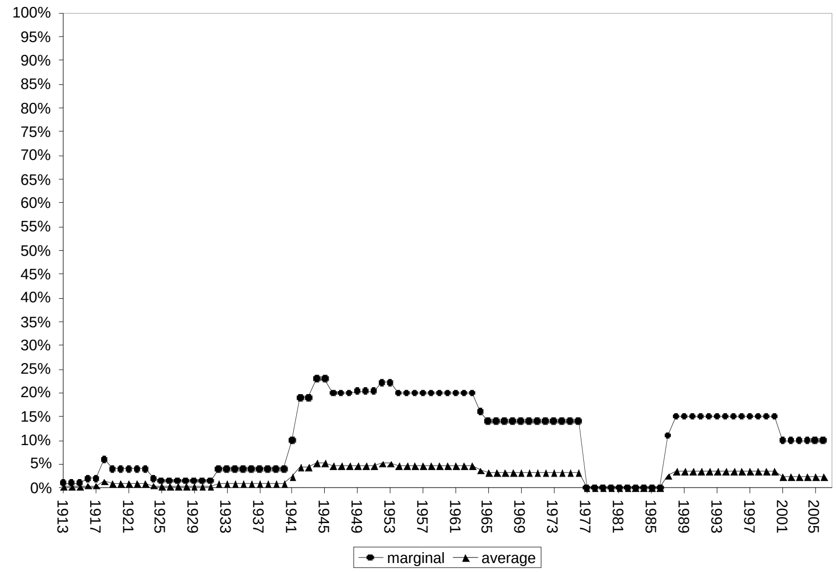

Figure 3. Marginal and average tax rates for minimum wage earner ($5.15 per hour).

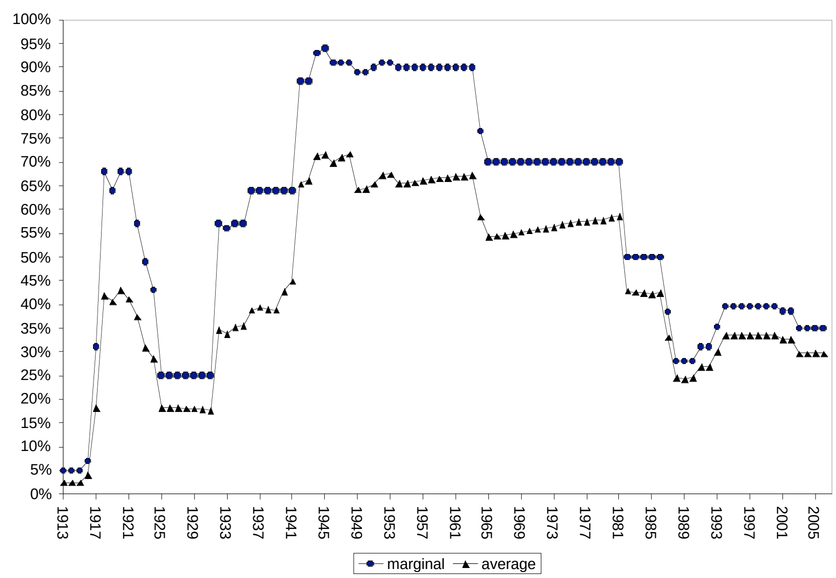

Figure 4. Marginal and average tax rates for a gross income of $2,600,000.

exemptions and deductions. While the peak marginal tax rate was 94 percent, the average tax rate in 1944 and 1945 would have been somewhat less, at 71.62 percent.

A 2006 income of $2,600,000 would have been equivalent to $127,678 when the income tax was first imposed in 1913. Using today's tax deductions and exemptions, taxable income would have been $112,016. The marginal tax rate in 1913 would have been 5 percent with an average tax rate of 2.47 percent.

Table 1. Comparison of Income and Tax Rates

Gross Income and Taxable Incomes Adjusted by Consumer Price Indices Based on Average 2006 Income, Deduction, and Exemption Amounts

Income Level	1913	Highest Year(s)	2006
2006 – 95th Percentile		**1981/1948**	
Gross Income	$8544	$78,455/$20,800	$174,000
Taxable Income	$6,467	$59,381/$15,744	$131,698
Marginal Tax Rate	1%	54%/50%	28%
Average Tax Rate	.76%	24.66%/24.38%	15.1%
2006 – Median Income		**1945**	
Gross Income	$2,367	$4,304	$48,200
Taxable Income	$1,520	$2,763	$30,944
Marginal Tax Rate	1%	25%	15%
Average Tax Rate	.64%	15.12%	8.06%
2006 – Minimum Wage		**1945**	
Minimum Wage (h)	app. $0.25/hr	app. $0.45/hr	$5.15/hr.
Gross Income	$505	$900	$10,300.00
Taxable Income	$117	$208	$2,519
Marginal Tax Rate	1%	23%	10%
Average Tax Rate	.23%	5.31%	2.31%

Clearly, today, marginal and average tax rates for all groups, as well as the average of 35 percent and 29.68 percent, respectively, are much lower than the peak in 1944, but much higher than in 1913.

When the income tax was first introduced, marginal and average tax rates were low. After being increased to substantially high levels during World War II, they gradually decreased, but never again reached the lower pre-war rates. The marginal tax rates remained high, even for people of quite modest incomes. While marginal and average tax rates are lower than their peaks, they remain high relative to the levels existing when the income tax was introduced.

The political controversies associated with changes in tax rates involve appeals to both efficiency and equity. Deflating to roughly equivalent gross and taxable incomes of earlier periods and examining tax burdens gives a clearer comparative view of the level of tax paid by Americans past and present. Empowered with a rough idea of how taxes have burdened economic freedom, it is hoped citizens will be better able to evaluate claims about the alleged greater equity provided by a more progressive income tax structure.

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