Treasury's New Distribution Presentation

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The Department of the Treasury recently released the attached table, Table l, which shows how income tax liabilities would change under President Bush's tax plan. This release, a positive step, represents the Administration's acknowledgment that the distribution of tax burdens is important in assessing the merits of a tax proposal. However, Treasury departed from previous practice in presenting this information. This note discusses the implications of those changes, and presents an alternative interpretation of the data.

As always, the nonpartisan professional staff of the Office of Tax Analysis prepared Treasury's distribution estimates. There is no reason to think that the estimates themselves are biased. However, the presentation of the data and the exclusion of certain information cast the President's proposal in the best possible light and create a misleading impression of the distribution of benefits from the proposed tax cuts.

Substantive Changes in Presentation

Compare the presentation in Table 1 with the format Treasury used last summer in Table 2 when it released an analysis of a set of bills that had passed tax-writing committees. Table 2 shows the effect of repealing the estate and gift tax, whereas Table 1 shows only the effect of income tax provisions.[2] This is an important omission since estate tax repeal would amount to a $58 billion tax cut in 2011, when all of the President's tax proposals would be fully phased in. In short, beneficiaries of this repeal would get nearly one quarter of the total $250 billion tax cut in that year. Since repealing the estate tax applies only to the largest 2 percent of estates, high-income people gain much more than middle- or lower-income families from the estate tax provision. Treasury estimated in 1999 that 99 percent of the estate and gift taxes are paid by the wealthiest 20 percent of families, and 91 percent by the best off 5 percent. (See Table 3.)

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[1] Len Burman was Deputy Assistant Secretary for Tax Analysis from 1998 to 2000. In that capacity, he was responsible for Treasury's estimates of the distributional effects of tax proposals. The author is grateful for helpful suggestions from Kathleen Courrier, Richard Kogan, Robert Reischauer, and Isaac Shapiro. A version of this paper was published in *Tax Notes*, ©Tax Analysts, March 26, 2001. It is reprinted by permission. The views expressed in this note are the author's alone and do not necessarily reflect the views of the Urban Institute, its board, or its funders.

[2] Treasury's methodology is described in detail in Julie-Anne Cronin, "U.S. Treasury Distributional Methodology," Office of Tax Analysis Working Paper #85, Department of the Treasury, September 1999. (Available on the web at http://www.ustreas.gov/ota/ota85.pdf.)

Compared with previous distribution tables, Table 1 divides up families in a new way—by broad income categories. In the past, Treasury showed statistics in quintiles—for the bottom 20 percent of families, the next 20 percent, and so on. It also showed detail for the top 10, 5, and 1 percent of families. (See Table 2.) The new analysis shows groups of greatly differing size. For example, the $0-$30,000 income range includes 39 percent of families.[3] This group includes a large number of families—most of the bottom 20 percent—that would get little or no benefit from the proposal because they have no income tax liability.[4] The next income categories include 11, 10, 17, 10, 11, and 3 percent of the population, respectively. With unequal categories, evaluating the distributional equity of the tax reductions is very difficult. Presenting distributional estimates in terms of fixed dollar thresholds rather than quintiles also makes it hard to compare distributional estimates from one year to the next, since the percentage of taxpayers in each income category will change as incomes rise over time.[5]

Table 1 focuses on the change in individual income tax liabilities. The Treasury press release that accompanied the table implies that the proposal is progressive because high-income taxpayers receive a tax cut that is less than proportional to their income tax liability. That claim is misleading for several reasons. As already mentioned, it ignores the effect of repealing the most progressive tax in the federal tax system—the estate tax. It also ignores several corporate tax breaks, the largest of which is the permanent extension of the research and experimentation (R&E) tax credit. Studies suggest that owners of capital assets—disproportionately high-income people—bear virtually all of the corporate tax. Specifically, Treasury's standard methodology assumes that the top 20 percent of taxpayers pays 71 percent of the corporate tax. (See Table 3.) For that reason, omitting the corporate tax cuts makes the package seem more progressive.

The actual effect of omitting corporate taxes from the distribution of the President's proposal is relatively small, because permanent extension of the R&E credit accounts for less than 4 percent of the revenue loss in 2011. But the omission of corporate income taxes could loom quite large if corporate lobbyists are successful in advancing proposals to provide more accelerated depreciation deductions, energy tax incentives, and other investment incentives.

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[3] The Treasury table does not show the percentage of families in each income group (it should), but the percentage can be inferred from the data in the 4th and 5th columns of Table 1. The distribution of total individual income taxes with proposed change (column 4) equals the change in income taxes for category divided by the total income taxes. If we denote the number of families in the category as N_i and the total number of families as N, then the ratio equals [average tax change (column 5) times N_i] divided by [$6,322 times N]. Rearranging terms to solve for N_i/N, the ratio equals $6,322 x (column 4) / (column 5). Isaac Shapiro pointed this method out to me.

[4] They would qualify for the unspecified new refundable health insurance tax credit, but are likely to receive very little benefit from it because few uninsured poor families could afford insurance even with a substantial tax subsidy.

[5] Treasury is still presenting its tables in terms of 2000 levels of income, as it did last year, so the current tables can be compared to last year's estimates.

The new analysis ignores the fact that the tax proposals would have no effect at all on regressive payroll and excise taxes. Individual income taxes will account for less than half of all federal tax collections in 2001, according to Treasury estimates. Payroll taxes contribute more than one third of revenues. Most taxpayers pay more in payroll taxes than income taxes. Cutting the income tax without cutting the payroll tax would increase the relative reliance of the tax system on regressive taxes, and thus make the *overall* tax system less progressive. Thus, the combined effect of even a slightly progressive income tax reduction, repeal of the estate tax, corporate tax reductions, and no change in regressive taxes could significantly reduce tax progressivity.[6]

Other Changes in Presentation

Treasury staff gave a great deal of thought to the clearest way to present the distributional effects of tax policy changes, and that thought is well represented in Table 2. First, it shows the average change in tax liability on a fully phased in basis. The average change in tax provides a good measure of the impact of the tax change on families in each income category, but it is missing from Table 1. It is clearly relevant that the proposed tax cut would provide an average income tax cut of about $260 for families with under $30,000 of income, and about $9,900 per family with income over $200,000 (not counting the effect of estate tax repeal), but those statistics can only be inferred indirectly from Table 1.[7]

Instead, Table 1 shows a new statistic—the percentage change in income taxes. This statistic inevitably makes the tax changes of low-income families appear large, because their baseline tax liability is small. Is a $10 tax reduction for a family with $10 of income tax liability more significant than a $1,000 tax reduction for a family with $10,000 of income tax liability? The former is a 100-percent income tax cut, whereas the latter is *only* 10 percent, but neither family would prefer $10 to $1,000.

A more appropriate way to scale the benefit of the tax cut is to compare it to each family's income. That statistic is shown in the last column of Table 2, but omitted from the new Treasury table. The tax change as a percentage of income shows how the change in tax affects families' average effective tax rates—that is the share of income paid in taxes.

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[6] A report by the Center on Budget and Policy Priorities discusses these and other presentational issues, and provides estimates of the distributional consequences of ignoring taxes other than the income tax based on estimates from the Citizens for Tax Justice for the distribution of income and income taxes, and on Treasury data for the distribution of estate and corporate income taxes. See Isaac Shapiro, "New Treasury Distributional Table Departs Sharply From Previous Treasury Methodology," March 8, 2001.

[7] The change in income taxes equals (5) * {(6)/[1+(6)]}, where (i) refers to the number in column (i) of Table 1. Thus, the change in tax for families with over $200,000 of income equals 103,931*[-.087/(1-0.087)] = -9,903.61. Note that the percentage change for families with under $30,000 should be 136.2 percent (rather than –136.2) because their average initial tax liability is negative and their tax liability under the proposal would be a larger negative number.

Finally, the new tables show the distribution of individual income taxes before and after the tax change, and the average tax liability by income bracket. By comparing the distribution of taxes to the distribution of income, one can get a sense of the progressivity of the tax system. Unfortunately, the distribution of income is not shown in Table 1. A complete comparison was made in Table 3, which was produced by the Treasury Department last year. Comparing Table 3 with Table 1, the new table omits the effect of other taxes, which makes it impossible to evaluate the effect of the proposed changes on the overall distribution of tax liability. As mentioned above, a progressive cut in income taxes, combined with other regressive changes, could make the tax system less progressive.[8]

The next section considers the most important omission of the Treasury analysis, the exclusion of the effect of repeal of the estate tax.

Adding Back Estate Taxes

Table 4 augments Treasury's recent analysis with 1999 information from Treasury on the distribution of estate taxes. Although it is only an approximation of what a complete Treasury analysis would show, it illustrates the potential importance of omitting estate taxes from the calculation of tax burden distribution. Table 4 reflects the distribution of income and estate taxes in 2011, after the provisions of the Bush plan have been fully phased in, assuming that the income tax is distributed as shown in Table 1 and that the estate tax is distributed as shown in Table 3.[9] Calculating the combined distribution of income and estate taxes requires an estimate of the relative weights of the income and estate tax components.

Treasury's distributional estimates are based on the largest proposed individual income tax changes: increasing the child credit, lowering of marginal tax rates, and adding a two-earner deduction, a charitable deduction for non-itemizers, and the refundable tax credit for health insurance. OMB published estimates of the revenue loss associated with all of these provisions except for the health tax credit, which is subsumed in a line labeled

[8] These issues are discussed and evaluated more fully in the Center on Budget and Policy Priorities paper. (See footnote 6.)

[9] The estate tax distribution in Table 3 is shown in terms of family economic income (FEI), a comprehensive measure of income used by the Treasury Department to categorize taxpayers since the mid-1980s. Cash income is a narrower measure, but Treasury has found that the choice of income classifier rarely has a significant effect on the measured distribution. For example, Treasury last year also distributed the Congressional tax cut proposals, shown in Table 2, by FEI. The following table compares the estimated percentage of tax by quintiles for the two different income measures. The only noticeable divergence is at the very top of the income distribution—where the top 1 percent received 28 percent of the tax benefit under FEI, but 25.3 percent measured by cash income.

Income Measure	Income Quintile					Top 1 percent
	Lowest	Second	Third	Fourth	Highest	
FEI	0.4	2.6	7.3	15.1	74.5	28.0
Cash Income	0.6	2.9	6.4	14.8	75.1	25.3

"additional tax incentives." The individual and corporate income tax cuts proposed by the President will reduce revenues by $192 billion in 2011, when fully phased in. Repeal of the estate and gift tax will cost $58 billion. Assuming that the income tax components are distributed as shown in Table 1, and that the estate tax is distributed as shown in Table 3, the income and estate tax cut for each income group can be estimated.[10] The distribution of the combined income and estate tax reduction is shown in the last column of Table 4.

Including the estate tax in the analysis would materially affect the distribution of tax benefits. Families with incomes over $200,000 (the top 3 percent) would receive 39 percent of the benefit of the Administration's tax cut, including estate taxes, compared with 25 percent in the tables published by Treasury. Families with incomes over $75,000 (the top 23 percent) would receive 68 percent of the benefit. By comparison, Table 1 shows a 59 percent share for that group.

Conclusion

The distribution of the benefits and costs of a tax change is only one factor in the evaluation of a tax policy, and that evaluation is necessarily subjective based on people's perceptions of fairness. However, clear and accurate information is essential and the presentational changes in Treasury's distribution tables exclude important pieces of information needed to assess overall distributional changes accurately. The implicit assumption is that the only taxes that matter are income taxes, even though the political support for repealing estate taxes argues otherwise.

The policy making process and the public would be better served if Treasury practiced full disclosure—and showed *all* of the distributional effects of tax changes, not just selective dimensions.

[10] This procedure implicitly assumes that the roughly $20 billion in income tax provisions not considered by Treasury would be distributed the same way as those they analyzed. The largest of those provisions ($9 billion) is the permanent extension of the R&E credit, which primarily benefits higher-income taxpayers. Assuming that R&E extension is distributed like other income tax provisions thus attributes slightly more of the tax cut to low- and middle-income taxpayers. Explicitly modeling the R&E credit provision and eliminating the other provisions Treasury did not consider would add one to two percentage points to the share of the tax cut received by the top income group. (The exact amount is uncertain because OMB did not break out the health tax credit estimate.)

Table 1.

Major Individual Income Tax Provisions of the President's Tax Proposal[1]

(2000 Income Levels)

Cash Income Class[2]	Distribution of Proposed Changes in Individual Income Taxes (%)	Distribution of Total Individual Income Taxes[3]		Average Individual Income Taxes With Proposed Changes ($)	Percent Change in Individual Income Taxes (%)
		Current Law (%)	With Proposed Changes[4] (%)		
0 - 30	9.3	-1.0	-2.8	-457	-136.2
30 - 40	6.5	2.5	1.8	993	-38.3
40 - 50	7.8	4.1	3.4	2,210	-28.0
50 - 75	17.2	12.2	11.3	4,279	-20.8
75 - 100	13.6	12.2	12.0	7,848	-16.3
100 - 200	19.8	27.1	28.3	16,625	-10.7
200 & over	25.4	42.9	45.9	103,931	-8.7
Total[5]	100.0	100.0	100.0	6,322	-14.6

Department of the Treasury
Office of Tax Analysis

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[1] The major individual income tax provisions are: i) lower individual income tax rates (lower 39.6 and 36 percent rates to 33 percent, lower 31 and 28 percent rates to 25 percent, and introduce a new 10 percent rate bracket for taxable income (in 2006) under $6,000 for single filers, $10,000 for head of household filers, and $12,000 for joint filers); ii) increase the child credit to $1,000, raise the income level at which it phases out, and allow the child credit against the AMT; iii) allow a 10% deduction for the earnings of the lower earning spouse (up to $30,000) in two-earner families; iv) allow taxpayers who do not itemize to deduct charitable contributions up to the amount of the taxpayer's standard deduction; and v) provide a refundable tax credit for individually-purchased health insurance.

[2] Cash Income consists of wages and salaries, net income from a business or farm, taxable and tax-exempt interest, dividends, rental income, realized capital gains, cash transfers from the government, and retirement benefits. Employer contributions for payroll taxes and the federal corporate income tax are added to place cash on a pre-tax basis. Cash income is shown on a family rather than on a tax return basis. The cash incomes of all members of a family are added to arrive at a family's cash income used in the distributions.

[3] The refundable portions of the earned income tax credit (EITC) and the child credit are included in the individual income tax. Federal taxes are estimated at 2000 income levels but assuming fully phased in law and, therefore, exclude provisions that expire prior to the end of the Budget period and are adjusted for the effects of unindexed parameters.

[4] The change in Federal taxes is estimated at 2000 income levels assuming fully phased in law.

[5] Families with negative incomes are excluded from the lowest income class but included in the total line.

Table 2.

Very Preliminary

Major Provisions Passed by the House Ways and Means Committee (1)

(2000 Income Levels)

Cash Income Quintile[2]	Number of Families (millions)	Average Tax Change ($)	Total Tax Change		Tax Change as a Percent of Cash Income (%)
			Amount[3] ($M)	Percent Distribution (%)	
Lowest[4]	22.4	-19	-437	0.6	0.21
Second	23.0	-93	-2,134	2.9	0.39
Third	23.0	-205	-4,714	6.4	0.51
Fourth	23.0	-471	-10,854	14.8	0.73
Highest	23.0	-2,388	-54,998	75.1	1.41
Total[4]	115.2	-636	-73,198	100.0	1.04
Top 10%	11.5	-3,685	-42,433	58.0	1.53
Top 5%	5.8	-5,790	-33,339	45.5	1.65
Top 1%	1.2	-16,050	-18,489	25.3	1.75

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(1) This table distributes the estimated change in tax burdens due to the following major provisions passed by the House Ways and Means committee in H.R.7, H.R. 8, H.R.2990, H.R.3832, H.R.3916, H.R.4810 and H.R.4843: i) repeal estate and gift taxes; ii) increase standard deduction for joint filers to twice the level allowed single filers; iv) widen the 15 percent income tax bracket for joints to double the width of the brackets for singles; v) increase the beginning point of the EITC phase-out range by $2,000 for joint filers; vi) increase the dollar limit on annual elective deferrals for 401(k) type plans from $10,500 to $15,000 and increase in the dollar limit on traditional IRA contributions from $2,000 to $5,000; vii) increase the business meals deduction from 50% to 60%; viii) increase the contribution limit for education IRAs from $500 to $2,000; ix) allow an exclusion for distributions from state pre-paid tuition plans; x) allow an above-the-line deduction for health insurance for which taxpayers pay 50% of the premium; xi) repeal of the communications excise tax; and xii) repeal of the 85 percent inclusion rate for Social Security benefits.

(2) Cash Income consists of wages and salaries, net income from a business or farm, taxable and tax-exempt interest, dividends, rental income, realized capital gains , cash transfers from the government, and retirement benefits. Employer contributions for payroll taxes and the federal corporate income tax is added to place cash on a pre-tax basis. Cash income is shown on a family rather than on a tax return basis. The cash incomes of all members of a family are added to arrive at a family's cash income used in the distributions.

(3) The change in Federal taxes is estimated at 2000 income levels assuming fully phased in law. Current and proposed taxes are estimated using FY2000 Budget assumptions. The tax benefit of the increase in retirement contribution limits is measured as the present value of tax savings on one year's contributions.

(4) Families with negative incomes are excluded from the lowest quintile but included in the total line.

NOTE: Quintiles begin at cash income of: Second $16,426; Third $30,964; Fourth $49,862; Highest $81,967; Top 10% $115,239; Top 5% $154,900; Top 1% $346,555.

Table 3.

Percent Distribution of Income and Federal Taxes Under Current Law

(2000 Income Levels)

Family Economic Income Quintile	Family Economic Income (1) (%)	Federal Taxes Under Current Law (2)						Addendum: Families	
		Total (%)	Individual Income (%)	Corporate Income (%)	Payroll (%)	Excises (3) (%)	Estate and Gift (%)	Number (millions)	Percent Distribution (%)
Lowest (4)	2.7	0.7	-0.6	1.1	2.3	2.0	0.0	22.4	19.4
Second	7.2	3.9	0.5	4.3	7.9	6.7	0.0	23.0	20.0
Third	12.6	10.2	6.9	9.2	14.9	12.8	0.0	23.0	20.0
Fourth	21.3	19.9	16.3	14.9	26.4	22.1	0.8	23.0	20.0
Highest	56.7	65.1	76.6	70.6	48.3	56.3	99.2	23.0	20.0
Total (4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	115.2	100.0
Top 10%	40.5	48.5	61.3	59.1	28.2	39.6	96.2	11.5	10.0
Top 5%	29.4	36.5	49.1	49.7	15.4	28.4	91.0	5.8	5.0
Top 1%	14.8	20.1	29.5	30.3	4.0	13.9	64.2	1.2	1.0

Department of the Treasury
Office of Tax Analysis

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(1) Family Economic Income (FEI) is a broad-based income concept. FEI is constructed by adding to AGI unreported and underreported income; IRA and Keogh deductions; nontaxable transfer payments, such as Social Security and AFDC; employer-provided fringe benefits; inside build-up on pensions, IRAs, Keoghs, and life insurance; tax-exempt interest; and imputed rent on owner-occupied housing. Capital gains are computed on an accrual basis, adjusted for inflation to the extent reliable data allow. Inflationary losses of lenders are subtracted and of borrowers are added. There is also an adjustment for accelerated depreciation of noncorporate businesses. FEI is shown on a family, rather than on a tax return basis. The economic incomes of all members of a family unit are added to arrive at the family's economic income used in the distributions.

(2) The taxes included are individual and corporate income, payroll (Social Security and unemployment), excises, customs duties, and estate and gift taxes. The individual income tax is assumed to be borne by payors, the corporate income tax by capital generally, payroll taxes (employer and employee shares) by labor (wages and self-employment income), excises on purchases by individuals in proportion to relative consumption of the taxed good and proportionately by labor and capital and excises on purchases by businesses and customs duties proportionately by labor and capital, and the estate tax by decedents. Federal taxes are estimated at 2000 income levels but assuming 2009 law and, therefore, exclude provisions that expire prior to the end of the Budget period and are adjusted for the effects of unindexed parameters.

(3) Includes customs duties.

(4) Families with negative incomes are excluded from the lowest quintile but included in the total line.

NOTE: Quintiles begin at FEI of: Second $17,988; Third $34,844; Fourth $59,019; Highest $100,767; Top 10% $140,581; Top 5% $189,835; Top 1% $462,053.

Table 4.
How Distribution of Tax Benefits Changes When the Estate Tax is Included[1]
(2011 Levels of Income)

Cash Income Class (Thousands of Dollars)	Cumulative Percentage of Families	Income Tax		Estate Tax		Income and Estate Tax (Percent)
		Total Tax Change (billions of dollars)[2]	Percentage of Total (Treasury)	Total Tax Change (billions of dollars)[2]	Percentage of Total	
0-30	39	-18	**9.3**	0	0	**7**
30-40	50	-13	**6.5**	0	0	**5**
40-50	60	-15	**7.8**	0	0	**6**
50-75	77	-33	**17.2**	0	0	**13**
75-100	86	-26	**13.6**	-1	2	**11**
100-200	97	-38	**19.8**	-8	14	**18**
200 & over	100	-49	**25.4**	-49	85	**39**
All Families		-192	**100.0**	-58	100	**100**

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[1] See footnotes to Table 1. Estate tax distribution was estimated by Treasury in terms of family economic income (See Table 3). I put that distribution in terms of cash income, using the percentile breaks shown by Treasury in Table 2 and interpolating to match the income levels shown in Table 1.

[2] Total tax change is relative to 2011 revenue estimate published by OMB. That is the fully phased in revenue cost, similar to Treasury's methodology, but it is not adjusted to reflect 2000 levels of income. That adjustment would require use of an income and estate tax model. To the extent that estates are expected to grow faster than other income, this will tend to overstate the share of the tax cut going to the highest income families. However, assuming that the total income tax change is distributed as shown in Table 1 would understate the share at the top. (See text footnote 10.)