

# DISTRIBUTIONAL EFFECTS OF INDIVIDUAL INCOME TAX EXPENDITURES: AN UPDATE

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## INTRODUCTION

**T**HIS PAPER UPDATES ESTIMATES OF THE distributional effects of tax expenditures in the individual income tax previously reported in Burman et al. (2008). Compared to that previous paper, our estimates include a more comprehensive group of individual income tax expenditure provisions.

The paper discusses issues in measuring and interpreting distributional effects of tax expenditures. Subject to these caveats, we then present estimates of the distributional effects of all tax expenditures estimated simultaneously and of separate categories of tax expenditures: exclusions from income, special rates, itemized deductions, above-the-line deductions, nonrefundable credits, and refundable credits. We then display information on how interactions among provisions affect the total cost of all tax expenditures.

## ISSUES IN MEASURING THE DISTRIBUTIONAL EFFECTS OF TAX EXPENDITURES

The overall distributional burden of federal taxes depends on all provisions of the tax law – the choice of a conceptual tax base, the definition of the taxpaying unit, the tax rate schedule, and tax preferences. The Tax Policy Center (TPC) and the Congressional Budget Office (CBO) (2010) have estimated that the current federal tax system is moderately progressive, taking account of all provisions and tax sources (individual and corporate income taxes, payroll taxes, estate and gift taxes, and federal excise taxes).<sup>1</sup> This moderately progressive system results from a combination of highly progressive tax sources (the individual income tax, the corporate income tax, and estate and gift taxes) and regressive tax sources (payroll and most excise taxes). Beyond this, the distributional effect of the entire fiscal system also depends on who benefits from federal outlays, but estimating this distribution is challenging because of the need to assign benefits from public goods to income groups, such as defense spending, medical research, and

environmental protection. (For an example of a study that estimates the overall distribution of government fiscal policies, see Chamberlain and Prante, 2007).

To estimate the distributional effect of tax expenditures in the federal income tax, an analyst needs to divide the tax system into two sets of provisions: 1) Those provisions that are part of the “normal” or baseline tax system; 2) Those that are labeled tax expenditures because they are “special” provisions, or exceptions to the general rules, that benefit selected taxpayers or encourage selected activities.

For the estimates in this paper, we use the Office of Management and Budget (OMB) definition of tax expenditures (Office of Management and Budget, 2012). Therefore, for this paper, we do not address the question of which departures from income measurement should be viewed as a general feature of the federal income tax and which provisions should be viewed as a disguised spending program administered through the income tax (Marron and Toder, 2011). Instead, we simply estimate the effects of the subset of tax provisions that OMB, and in most cases the Joint Committee on Taxation (JCT), calls tax expenditures.

Nonetheless, it is important to recall that progressivity reflects *all* provisions of federal taxes. For example, the same steeply graduated rates that make the distribution of the federal income tax very progressive also make tax exemptions conveyed in the form of a reduction in taxable income (exemptions, deductions, deferrals of income recognition) regressive, because with rising marginal rates upper-income taxpayers receive the biggest benefits from these provisions.

The estimates in this paper include only the effects of losses in revenue from individual income taxes, although exclusion of some forms of income from the individual income tax base also reduces payroll tax liability. One reason for omitting the distributional effects of provisions that affect payroll tax liability is that they are difficult to interpret. Provisions that reduce taxable earnings reduce both payroll tax liability and incremental future Social

Security retirement and disability benefits associated with additional taxable earnings. But incremental Social Security benefits associated with any given increase in a single year's taxable earnings differ greatly among individuals, depending on their lifetime earnings, years of covered earnings, marital status, and earnings of their current, former, or future spouses. This makes it difficult to assess the net effect on any individual of preferences that reduce their payroll tax liability.

There are a number of reasons to interpret distributional estimates of tax expenditures with caution. Toder et al. (2011) discuss five issues in interpreting the estimates. First, as noted above, the choice of some components of the baseline tax system is arbitrary, so that the definition and size of tax expenditures can vary depending on how one defines the baseline tax law. Second, the revenue loss from a tax expenditure provision in any single year does not accurately measure its benefit to taxpayers for those tax expenditures that alter the timing of tax payments. Third, the tax expenditure estimate for a provision may overstate the burden on taxpayers from eliminating the provision if they can change their behavior to escape a portion of the additional tax. Fourth, the economic incidence of tax expenditures may differ from the incidence assumed in the estimates. Finally, the net effect of eliminating tax expenditures depends on how the revenue gain is used. The last two issues are worth some additional discussion.

#### **Incidence Assumptions**

The Tax Policy Center and the government agencies that perform distributional estimates (the Office of Tax Policy at the U.S. Treasury Department, the Joint Committee on Taxation, and the Congressional Budget Office) all assume that individuals bear the burden of individual income taxes in proportion to their tax liability. This means that pretax earnings and market prices of different consumption goods are assumed to be unaffected by changes in individual income tax provisions.

For some provisions, however, this assumption might be questionable. For example, estimators assume that eliminating the exemption of interest on tax-exempt bonds would raise tax burdens only on current holders of tax-exempt securities. But tax exemption in current law makes the pretax interest rates on exempt securities lower than the yields on taxable securities of comparable maturity and risk. If tax exemption were eliminated, relative pretax

yields on tax-exempt securities would rise and yields on taxable securities would fall, shifting some of the burden of the tax change from current holders of tax-exempt bonds to all capital income recipients. There would also be changes in relative prices facing users of capital services – costs to state and local borrowers would increase and costs to private sector borrowers would decline. But these user side effects of relative price changes are typically ignored in estimates of the distributional effects of individual income tax changes.<sup>2</sup>

A more complex incidence issue is how to treat exemption of employee fringe benefits that must be provided on a uniform basis to all or a given group of employees. TPC follows the assumption estimators typically use that fringe benefits substitute for cash wages on a dollar-for-dollar basis so that, for example, the benefit employees receive from tax-free employer-provided benefits is equal to the tax that would otherwise be paid if those benefits were taxed as wages. If, however, the tax-free status of fringe benefits causes employers to change the distribution of pretax compensation among workers (because, for example, high tax bracket workers value tax-free fringe benefits more than low tax bracket workers), then estimators may overstate the relative net benefits that high-income workers receive from employer-provided fringe benefits. For example, Smith and Toder (2011) report evidence that employers reduce wages of high-income employees more per dollar of employer contributions to 401(k) plans than they reduce wages of low-income employees.

#### **Uses of Revenue**

Whether tax expenditures make the tax law more or less progressive depends on how the revenue from eliminating tax expenditures might be used. The additional revenue from eliminating tax breaks could be used to reduce marginal tax rates – either uniformly or in some other pattern – or could be used to fund new spending programs that benefit all taxpayers uniformly or benefit low-income households relatively more. Without knowing how an increase in revenue would be spent (or a reduction financed), one cannot definitively estimate the distributional effects of any policy change that is not budget neutral.

TPC presents as its main distributional metric the percentage change in after-tax income for

each income group that a tax law change would produce. This measure would correctly identify as net losers from eliminating tax expenditures, or net winners from existing tax expenditures, those with a larger-than-average decline in after-tax income if the additional revenue from eliminating tax expenditures were used to fund tax cuts or benefits that were proportional to after-tax income for all taxpayers. An alternative metric is the percentage change in tax liability associated with a particular proposal. This metric would correctly identify as net winners from existing tax expenditures those with a larger-than-average percentage increase in taxes paid if the revenue raised were used to finance proportional across the board tax cuts for all taxpayers. A third possible metric is the absolute increase in tax liability associated with eliminating tax expenditures. This metric would correctly identify as net winners from existing tax expenditures those with a larger-than-average absolute increase in tax liability if the revenue raised were used to finance spending programs that provide the same absolute dollar benefit to all taxpayers.

With these qualifications and cautions duly noted, we forge ahead and present our latest estimates of the distributional effects of individual income tax expenditures

#### ESTIMATES OF DISTRIBUTIONAL EFFECTS OF INDIVIDUAL INCOME TAX EXPENDITURES

Taxpayers at all income levels receive benefits from tax expenditures, but high-income taxpayers receive larger benefits, on average, as a share of after-tax income from tax expenditures than do

low-income taxpayers. The distribution of benefits, however, differs widely across different forms of tax benefits.

#### Overall Distributional Effect of Eliminating Tax Expenditures

Overall, eliminating tax expenditures would reduce after-tax income by 12.3 percent (table 1) in tax year 2011, but reduce after-tax income by less than the average amount for all income groups in the bottom 90 percent of the population and reduce after-tax income by more than the average amount for all groups in the top 10 percent. Eliminating tax expenditures would reduce after-tax income by 19.8 percent for taxpayers in the top 1 percent of the distribution, compared with only 7.5 percent in the bottom quintile. The percentage decline in after-tax income rises as income rises, except for the second quintile where taxpayers would see a larger tax increase as a share of after-tax income than those in the third and fourth quintiles in the distribution. These taxpayers currently receive substantial benefits as a share of their income from the child credit and earned income credit.

Similarly, taxpayers in the top income groups would receive a larger share of tax increase from eliminating tax expenditures than their shares of pretax income (compare columns 2 and 3 of table 1). Taxpayers in the top 1 percent receive about 17 percent of income, but would bear 24 percent of the cost of eliminating tax expenditures. Taxpayers in the top fifth of the distribution receive about 55 percent of income, but would pay 66 percent of the increase in taxes. This means that a reform that eliminated tax expenditures and gave the money

Table 1  
Effect of Eliminating Non-Business Individual Income Tax Expenditures, 2011

<i>Cash Income Percentile</i>	<i>Percent Change in After-Tax Income</i>	<i>Share of Tax Change</i>	<i>Share of Income, Current Law</i>	<i>Share of Tax Liability, Current Law</i>
Lowest quintile	-7.5%	2.8%	3.8%	0.2%
2 <sup>nd</sup> quintile	-9.8%	7.8%	8.5%	2.7%
3 <sup>rd</sup> quintile	-8.1%	9.5%	13.5%	9.3%
4 <sup>th</sup> quintile	-8.4%	13.8%	19.9%	18.2%
80-90 <sup>th</sup> percentiles	-12.2%	14.1%	14.3%	15.1%
90-95 <sup>th</sup> percentiles	-15.0%	11.5%	9.7%	11.3%
95-99 <sup>th</sup> percentiles	-15.9%	16.7%	13.8%	17.5%
Top 1%	-19.8%	23.9%	16.8%	25.6%
<b>Total</b>	<b>-12.3%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

back to taxpayers as a tax cut (or grant) equal to a constant proportion of income would make the tax system more progressive.

The picture looks a little bit different, however, if one compares shares of tax increases from eliminating tax expenditures with shares of taxes paid under current law (compare columns 2 and 4 of table 1). High-income taxpayers would bear a slightly lower share of the cost of eliminating tax expenditures than the share of taxes they currently pay (24 percent of the tax increase vs. 26 percent of current taxes paid for the top 1 percent; 66 percent of the tax increase vs. 70 percent of current taxes paid for the top quintile). Taxpayers in the fourth quintile would also pay a lower share of the tax increase than the share of taxes they currently pay. In contrast, taxpayers in the bottom two quintiles would pay about 12 percent of the increase in taxes, but currently pay less than 3 percent of federal income taxes. This means that a tax reform that removed all tax expenditures and gave the revenue back in the form of an equal proportional marginal rate cut for all taxpayers would make the tax system less progressive.<sup>3</sup>

**Distribution by Categories**

The distributional effect among income groups of eliminating tax expenditures varies widely among tax expenditure categories, with the categories based on the form in which the subsidy is conveyed (Appendix 1 lists the provisions in each

category). Relative to the population as a whole, high-income taxpayers would lose the most from eliminating special rates for capital gains and dividends, but also bear disproportionate costs as a share of after-tax income from eliminating exclusions and itemized deductions (table 2). In contrast, low-income taxpayers would lose the most from elimination of refundable credits.

Exclusions are those provisions that exempt some income from tax and represent the largest category of tax expenditures. The largest five exemptions are those for 1) employer sponsored health insurance benefits and health benefits under section 125 cafeteria plans, 2) income accrued within qualified retirement plans, 3) net imputed rental income on owner-occupied homes, 4) capital gains transferred at death (step-up in basis), and 5) capital gains on home sales. The benefits of exclusions are widely distributed, reflecting different effects of different provisions, but, on average, upper middle-income taxpayers (those in the 90<sup>th</sup> - 99<sup>th</sup> percentile of the distribution) receive the largest proportional benefits from exclusions. These taxpayers benefit most from the tax preferences for retirement saving. In contrast, taxpayers in the middle of the distribution benefit most in proportion to their income from the exclusion of employer sponsored health insurance benefits. The very highest-income taxpayers receive less than proportional benefits from the health insurance exclusion (because premiums do not rise much at

*Table 2*  
**Percentage Changes in After-Tax Income from Eliminating Various Categories of Individual Income Tax Expenditures**

<i>Cash income percentile</i>	<i>Exclusions</i>	<i>Capital gains and dividends</i>	<i>Itemized deductions</i>	<i>Above the line deductions</i>	<i>Non-refundable credit</i>	<i>Refundable credits</i>	<i>Other</i>	<i>All</i>
Lowest quintile	-0.9	*	*	*	*	-6.0	-0.1	<b>-7.5</b>
2 <sup>nd</sup> quintile	-4.2	*	-0.1	-0.1	-0.2	-5.5	-0.3	<b>-9.8</b>
3 <sup>rd</sup> quintile	-4.7	-0.1	-0.4	-0.1	-0.2	-2.0	-0.4	<b>-8.1</b>
4 <sup>th</sup> quintile	-4.4	-0.1	-1.2	-0.1	-0.1	-1.0	-0.5	<b>-8.4</b>
80-90	-7.0	-0.2	-2.2	-0.1	-0.1	-0.6	-0.7	<b>-12.2</b>
90-95	-8.9	-0.4	-2.8	-0.1	-0.1	-0.2	-0.8	<b>-15.0</b>
95-99	-9.4	-0.9	-2.6	-0.1	*	*	-1.1	<b>-15.9</b>
Top 1	-6.4	-4.5	-3.0	-0.1	-0.1	*	-1.6	<b>-19.8</b>
<b>ALL</b>	<b>-6.0</b>	<b>-0.9</b>	<b>-1.7</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-1.4</b>	<b>-0.8</b>	<b>-12.3</b>

\*=less than -0.005 percent

Note: Totals for a row may not add up to the sum for the row because of interactions among provisions.

the highest incomes) and from qualified retirement plans (because contributions to defined contribution plans and benefits from defined benefit plans are capped), but gain a major share of the benefits from the exclusion of capital gains transferred at death.

Net long-term capital gains and qualified dividends are taxed at rates of 0 and 15 percent, compared to ordinary income rates that range from 10 to 35 percent. The very highest-income taxpayers receive a large share of capital gains and dividends and gain the most from the rate differential. As a result, eliminating these preferences would reduce after-tax income by an average of 4.5 percent in the top 1 percent of the distribution, but by less than 1 percent on average for taxpayers in all other income groups, including those in the 95<sup>th</sup> - 99<sup>th</sup> percentiles.

Itemized deductions provide the largest percentage benefit as a share of after-tax income to taxpayers in the top 1 percent of the income distribution, largely due to the concentration of large charitable donations in this group. Taxpayers in the 80-99<sup>th</sup> percentiles are the largest beneficiaries of the mortgage interest deduction (Toder et al., 2010). Taxpayers in the lowest income groups benefit little from itemized deductions because most of them claim the standard deduction, and those that do itemize are in lower tax brackets and receive relatively less benefit from a deduction than those in high tax brackets.

Above-the-line deductions and nonrefundable credits account for a relatively small share of all tax expenditures. The largest above-the-line deductions that are tax expenditures are the deduction for medical insurance premiums for the self-employed and the additional standard deduction for the blind and elderly.<sup>4</sup> The benefit from above-the-line deductions is distributed fairly evenly across income groups, except for the bottom quintile. In that group, many have no tax liability and therefore do not benefit from additional deductions. The largest nonrefundable credits are the child and dependent care credit, the savers' credit, the general business credit, and the lifetime learning credit. Some of these credits either phase out or phase down with income and capped credits in general decline as a share of income as income rises. But nonrefundable credits cannot be used by taxpayers who have no tax liability. As a result, the largest proportional benefit from these credits goes to taxpayers in the second and third quintiles of the

income distribution. Many taxpayers in the bottom quintile cannot use them, and taxpayers in the highest income quintiles receive reduced benefits from some credits and no benefits from others.

Refundable credits, in contrast, provide the largest proportional benefits as a share of after-tax income to taxpayers in the bottom two quintiles of the income distribution. The three largest refundable credits in tax year 2011 are the earned income tax credit, the child tax credit, and the American opportunity tax credit. The benefits we show include both the refundable portion (counted as spending in budgetary presentations) and the portion that reduces tax liability to zero (counted as a tax reduction in budgetary presentations). Middle-income taxpayers do receive substantial benefits from the child credit and the American opportunity tax credit, but the benefit as a share of after-tax income falls as income rises because the credit per child is a fixed amount, the American opportunity tax credit is capped, and because both credits phase out at higher income levels.

The final category – miscellaneous tax expenditures – consists mostly of small provisions that TPC estimated off-model by using OMB figures for the size of the tax expenditure and distributing the benefit in proportion to the income source or sources affected (capital gains, interest income or earnings) multiplied by the applicable marginal tax rate on the income source or sources. The provisions in this category are shown in appendix 1. Eliminating them would generally raise taxes by a larger share of income for higher income taxpayers than for lower income taxpayers.

In summary, the distribution of benefits from tax expenditures varies substantially among types of provisions (table 3). Taxpayers in the top 1 percent of the distribution pay 26 percent of federal taxes, but would pay 75 percent of the additional taxes from elimination of the special rates for capital gains and dividends. They would pay about 26 percent of the increased taxes from elimination of itemized deductions, about the same as the share of the taxes they currently pay. For all other forms of tax expenditures, they would pay a lower share of the increased taxes from elimination of the provisions than the share of federal taxes they currently pay. Other taxpayers in the top quintile of the distribution (80-99<sup>th</sup> percentiles) pay 44 percent of federal taxes, but would pay 55 percent of the higher taxes from elimination of itemized

*Table 3*  
**Distribution of Benefits of Various Categories of Individual Income Tax Expenditures**

<i>Cash income percentile</i>	<i>Exclusions</i>	<i>Capital gains and dividends</i>	<i>Itemized deductions</i>	<i>Above the line deductions</i>	<i>Non-refundable credit</i>	<i>Refundable credits</i>	<i>Other</i>	<i>Taxes Paid</i>
Lowest quintile	0.7%	*	*	0.4%	1.2%	19.7%	0.4%	<b>0.2%</b>
2 <sup>nd</sup> quintile	6.8%	0.2%	0.7%	5.7%	16.4%	38.6%	3.4%	<b>2.7%</b>
3 <sup>rd</sup> quintile	11.2%	0.9%	3.8%	17.5%	26.4%	20.4%	8.0%	<b>9.3%</b>
4 <sup>th</sup> quintile	14.8%	2.8%	14.2%	24.3%	25.8%	14.1%	14.0%	<b>18.2%</b>
80-90	16.5%	3.5%	18.6%	18.1%	12.5%	5.7%	12.4%	<b>15.1%</b>
90-95	13.9%	4.2%	15.9%	9.4%	5.7%	1.0%	10.2%	<b>11.3%</b>
95-99	20.3%	13.3%	20.4%	16.3%	3.8%	0.2%	19.4%	<b>17.5%</b>
Top 1	15.9%	75.1%	26.4%	8.3%	8.3%	*	32.2%	<b>25.6%</b>

\*=less than -0.005 percent

Note: Totals for a row may not add up to the sum for the row because of interactions among provisions.

deductions and 51 percent of the higher taxes from elimination of exclusions. Their share of the higher taxes from elimination of above-the-line deductions and other miscellaneous provisions is about the same as the share of taxes they currently pay. But they would pay relatively less additional tax, in relation to the taxes they currently pay, from the elimination of nonrefundable credits, special rates for capital gains and dividends, and refundable credits. Taxpayers in the third and fourth quintiles combined would pay relatively more tax from elimination of credits (both nonrefundable and refundable) and above-the-line deductions than the taxes they currently pay, about the same as their share of current taxes from elimination of exclusions, and a smaller share relative to their current share of taxes from elimination of other provisions. Taxpayers in the bottom two quintiles pay a very small share of federal taxes. They would lose the most from elimination of refundable credits, but would also pay more than their current share of taxes of the costs of elimination of nonrefundable credits, exclusions, and above-the-line deductions. But the lowest-income taxpayers would pay virtually none of the increased taxes from the elimination of itemized deductions and the special rates for capital gains and dividends.

**EFFECTS OF INTERACTIONS**

The Tax Policy Center (TPC) estimates presented in this paper show the effects of eliminating all individual tax expenditures simultaneously.

OMB and JCT, however, do not report this information. What they do report is an estimate of the revenue loss from each separate tax expenditure provision, assuming all other provisions of the income tax law remain in effect. But if some tax expenditures were eliminated, the revenue effect of eliminating other tax expenditures would differ from those reported by OMB and JCT. The separate tax expenditure estimates cannot be added up to obtain a total cost of tax expenditures, and OMB and JCT therefore do not add them up.

Nonetheless, many analysts are interested in the total cost of tax expenditures and how those costs have changed over time (for example, see Rogers and Toder, 2011). These analysts do add up tax expenditures, while acknowledging that the totals are inexact because they ignore interactions among provisions. Burman et al. (2008) used the TPC model to compare estimates of the total cost (including interactions) of tax expenditure provisions to the sum of the individual costs (ignoring interactions) of all provisions under alternative assumptions about what the alternative minimum tax provisions for 2007 would turn out to be; they found that interactions raised the cost of the tax expenditures they included in their paper by between 5 and 8 percent.<sup>5</sup>

For tax year 2011, TPC now estimates that interactions raised the total revenue gain from eliminating all individual income tax expenditures by 9.6 percent, compared with the sum of the gains from eliminating all provisions separately (table

Table 4  
Effects of Interactions on Tax Expenditure Estimates (in billions of dollars)

<i>Type of Provision</i>	<i>Total Cost without Interactions</i>	<i>Total Cost with Interactions</i>	<i>Percentage Change due to Interactions</i>
Exclusions	502.3	525.7	4.7%
Above-the-line deductions	8.8	8.8	0.2%
Special rates for capital gains and dividends	76.4	77.7	1.7%
Itemized deductions	202.2	147.0	-27.3%
Nonrefundable credits	7.9	8.0	1.2%
Refundable credits	121.9	122.0	0.1%
Miscellaneous provisions	66.4	66.4	n.a.
Sum of all Categories	985.9	955.6	-3.2%
<b>Total, all Provisions</b>	<b>985.9</b>	<b>1080.6</b>	<b>+9.6%</b>

4). The effects of interactions among provisions differ among types of provisions. For all provisions except itemized deductions, interactions raise or leave unchanged the revenue gain from eliminating tax expenditures. The largest effect among these provisions is for exclusions; interactions raise the revenue gain from eliminating exclusions by 4.7 percent because eliminating an exclusion of some income pushes taxpayers into higher marginal rate brackets, thereby increasing the gain from eliminating other exclusions. But interactions have a dramatically different effect for itemized deductions, reducing their total cost by 27.3 percent. This negative interaction occurs because eliminating any one itemized deduction pushes more taxpayers onto the standard deduction, thereby reducing the revenue gain from eliminating other itemized deductions.

Across all categories, the sum of the individual revenue gains from eliminating tax expenditures, without considering interactions, is \$985.9 billion. After including interactions *within categories*, the total revenue gain becomes \$955.6 billion, about 3.2 percent *less* than the sum of the separate provisions. However, incorporating interactions *across categories* increases the total revenue gain from eliminating tax expenditures to \$1,080.6 billion, about 9.6 percent *more* than the sum of the separate provisions. This is driven primarily by the interaction of special capital gains rates with the capital gains exclusion on home sales and step-up basis of capital gains at death, as the elimination of the special capital gains

rates significantly increases the value of these exclusions.

### CONCLUSIONS

This paper presents new estimates of the distributional burden of tax expenditures in the individual income tax. Taxpayers in all income groups benefit from tax expenditures, but we find that, on average, tax expenditures raise after-tax incomes more for upper-income taxpayers than for lower-income taxpayers. Taxpayers in the second quintile of the distribution, however, receive larger proportional benefits from tax expenditures than middle-income taxpayers in the third and fourth quintiles of the distribution.

The benefits of tax expenditures vary substantially by type of provision. Special rates for capital gains and dividends provide much larger proportional benefits for taxpayers in the top 1 percent of the distribution than for others. Itemized deductions also provide the largest proportional benefit for taxpayers in the top 1 percent of the distribution, but provide substantial benefits as well for other taxpayers in the top quintile. Exclusions and exemptions benefit taxpayers in the upper middle-income groups the most, but also provide substantial benefits to the taxpayers in the middle and at the very top of the income distribution. Above-the-line deductions and nonrefundable credits are relatively small, but their benefits are widely spread and are larger as a share of after-tax income for those in the middle of the income dis-

tribution. Finally, refundable credits – principally the earned income tax credit and the child tax credit – provided the largest benefits as a share of income to those in the bottom two quintiles of the income distribution.

In spite of the regressive overall distribution of tax expenditures, it is worth emphasizing that the overall federal tax system is moderately progressive. One reason that many tax expenditures provide relatively larger benefits to those in upper-income groups is that taxpayers in these groups face higher marginal tax rates under the “baseline” tax system against which the tax expenditure provisions are measured.

Finally, we find that the revenue gain from eliminating all individual income tax expenditures simultaneously is almost 10 percent larger than the sum of the gains from eliminating separate tax expenditure provisions. The aggregate figures reflect large differences within tax expenditure categories. While the gain from eliminating all tax expenditures exceeds the sum of gains from individual provisions within most tax expenditure categories, eliminating all itemized deductions raises less than 75 percent of the revenue from summing the estimates of the gains from the separate itemized deductions. This anomalous result for itemized deductions occurs because each time an itemized deduction is eliminated, more taxpayers move onto the standard deduction, thereby reducing the gain from eliminating remaining deductions. In spite of this, however, combining all the tax expenditures raises the estimated gain above the sum of the gains from all the separate items, largely because eliminating some tax expenditures pushes taxpayers into higher rate brackets for both ordinary income and capital gains, making the pickup from eliminating others larger. This means that estimates of the total cost of tax expenditures derived by adding up individual provisions understate their total budgetary cost.

## Notes

- <sup>1</sup> TPC currently does not include excise taxes and customs duties in its estimates of the distribution of the burden of federal taxes, but excise taxes and customs duties comprise a small share of total federal tax receipts.
- <sup>2</sup> While user side effects on particular economic sectors are significant, their effects on the distribution of tax burdens across income groups may be secondary. But we cannot assert that for certain.

- <sup>3</sup> In contrast, replacing tax expenditures with an equal percentage point rate cut for all taxpayers (and a subsidy of the same percent of income for those with no tax liability) would make the tax system somewhat more progressive, and replacing them with an equal per-capita refundable credit for all taxpayers would make the tax system much more progressive. For illustrations of the effects of replacing tax expenditures with alternative forms of tax cuts, see Toder et al. (2011).
- <sup>4</sup> We count the deductions for contributions to retirement plans in the exclusions line because the largest net component of the retirement preference is the exemption of income accrued within qualified plans.
- <sup>5</sup> At the time the estimates for the Burman et al. (2008) paper were made the temporary increase in exemptions under the individual alternative minimum tax (the AMT patch) had expired for tax year 2007, but Congress was considering a last minute fix before taxpayers filed their 2007 income tax returns (which they eventually enacted). The paper’s estimates were made using two extreme assumptions: 1) current law AMT, meaning the patch was not extended, and 2) no AMT. The simulations for this paper assume that the AMT is eliminated as part of the simulation that eliminates all tax expenditures, but the estimates of specific provisions and groups of provisions assume the 2011 patched AMT remains in effect. Also, Burman et al. did not include all the tax expenditure provisions that we estimate in this paper.

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## APPENDIX

### Tax Expenditures by Category Included in TPC Estimates of Total Cost of Tax Expenditures

#### Exclusions

- Exclusion of net imputed rental income
- Exclusion of interest on tax-exempt bonds
- Exclusion of Social Security benefits in excess of 15 percent
- Exclusion of workers' compensation benefits
- Exclusion of inside buildup on life insurance and annuities
- Exclusion of income earned abroad by U.S. citizens
- Exclusion of employer-sponsored health insurance benefits and benefits under Section 125 cafeteria plans
- Tax-deferred IRAs and exclusion of inside buildup in defined benefit and defined contribution retirement plans
- Step-up in basis of capital gains at death
- Capital gains exclusion on home sales

#### Above-the-line Deductions

- Student loan interest deduction
- Self-employed medical insurance premium deduction
- Health savings account deduction
- Deduction for certain education expenses
- Educator expense deduction
- Additional standard deduction for the elderly and blind

#### Capital Gains and Dividends

- Preferential tax rates on long-term capital gains
- Preferential tax rates on qualified dividends

#### Itemized Deductions

- Deductibility of mortgage interest on owner-occupied homes
- Deductibility of state and local real estate taxes and income or sales taxes
- Deductibility of charitable contributions
- Deductibility of medical expenses

#### Nonrefundable Credits

- Lifetime learning credit
- Child and dependent care credit
- Saver's credit
- Credit for the elderly or disabled
- General business credit

#### Refundable credits

- Child tax credit
- Earned income credit
- American opportunity tax credit

#### Other Exclusions and Miscellaneous Tax Expenditures

- Exclusion of veterans' death benefits and disability compensation
- Exclusion of premiums on group term life insurance
- Exclusion of scholarship and fellowship income
- Exclusion of unreimbursed employee parking expenses
- Exclusion of capital gains on small corporate stock
- Deferral of income from installment sales
- Exception from passive loss rules for \$25,000 of rental loss
- Education individual retirement accounts
- State prepaid tuition plans
- Other exclusions and miscellaneous tax expenditures