**Tax Policy Center**

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## The Distribution of Federal Taxes, 2008–11
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Overall, the federal tax system is highly progressive. On average, households with higher incomes pay taxes that are a larger share of their income. The tax cuts passed since 2001 have reduced the overall progressivity of the federal tax system with the notable exception of the stimulus package passed in early 2008. The tax rebates in the stimulus legislation are in effect for 2008 only, however, and so the progressivity of the tax system will decline markedly in 2009 and 2010 as effective tax rates rise substantially for lower and moderate-income households. At the same time, effective rates will fall for high-income households as the repeal of the limitations on itemized deductions and personal exemptions and the complete repeal of the estate tax become fully phased in. Finally, almost all provisions of the 2001–06 tax cuts are set to expire at the end of 2010. Barring legislative action, effective tax rates will therefore rise across the income spectrum in 2011. The largest increases will be in the upper income classes and so the tax system will become more progressive in 2011 unless the tax cuts are made permanent.

This paper summarizes the Tax Policy Center's latest estimates of the distribution of federal taxes for 2008 through 2011. We do not include state or local taxes in the analysis. All estimates come from the recently updated Tax Policy Center (TPC) Microsimulation model of the federal tax system. The model is based on the 2004 Public Use File of tax return information released by the Statistics of Income Division of the Internal Revenue Service.[1] Additional tables showing the distribution of federal taxes are available on the TPC website at http://www.taxpolicycenter.org/numbers/index.cfm.

**Current-Law Distribution in 2008**
The average effective federal tax rate—federal taxes paid as a percentage of cash income—will be 20.9 percent in 2008. The effective tax rate (ETR) will increase with income, rising from 1.1 percent for households in the bottom quintile (the lowest-earning 20 percent of the population) to 26.2 percent for those in the top quintile (table 1).[2] Within the top quintile, ETRs will climb

[1] All estimates are derived from Version 0308-4 of the TPC Microsimulation Model. Appendix A describes the tax model. See Rohaly, Carasso, and Saleem (2005) for a more complete description of an earlier version of the model.
[2] We include the following federal taxes: individual and corporate income tax; payroll taxes for Social Security and Medicare; and the estate tax. We exclude customs and excise duties, which accounted for less than 5 percent of total

sharply from 21.8 percent for households in the 80th to 90th percentiles to 30.0 percent for those in the top 1 percent of the population.[3] The top 0.1 percent—the richest 1 in 1,000—will pay an average ETR of 31.6 percent.

**Table 1**

**Average Effective Tax Rates under Current Law, by Cash Income Percentile, 2008**

| Cash Income Percentile[a] | Average Effective Tax Rate | | | | |
|---|---|---|---|---|---|
| | Individual Income Tax[b] | Payroll Tax[c] | Corporate Income Tax | Estate Tax | All Federal Tax[d] |
| Lowest Quintile | -8.1 | 8.4 | 0.9 | 0.0 | 1.1 |
| Second Quintile | -3.1 | 10.4 | 1.0 | 0.0 | 8.3 |
| Middle Quintile | 3.3 | 10.9 | 0.9 | 0.0 | 15.1 |
| Fourth Quintile | 6.6 | 10.7 | 1.2 | 0.0 | 18.6 |
| Top Quintile | 15.0 | 5.7 | 5.1 | 0.4 | 26.2 |
| All | 9.5 | 7.9 | 3.3 | 0.2 | 20.9 |
| **Addendum** | | | | | |
| 80-90 | 9.8 | 10.2 | 1.7 | 0.1 | 21.8 |
| 90-95 | 13.1 | 8.6 | 2.2 | 0.1 | 24.0 |
| 95-99 | 16.8 | 5.3 | 4.1 | 0.4 | 26.5 |
| Top 1 Percent | 18.3 | 1.5 | 9.6 | 0.7 | 30.0 |
| Top 0.1 Percent | 18.0 | 0.7 | 12.2 | 0.8 | 31.6 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

*Notes:* Data are for calendar year 2008.

a. Tax units with negative cash income are excluded from the lowest quintile but are included in the totals. Includes both filing and non-filing units but excludes those that are dependents of other tax units. For a description of cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm

b. After tax credits (including refundable portion of earned income and child tax credits).

c. Includes both the employee and employer portion of Social Security and Medicare tax.

d. Excludes customs duties and excise taxes.

The overall ETR for the individual income tax will be 9.5 percent in 2008. This tax is the most progressive of the major revenue sources. Refundable credits such as the Earned Income Tax Credit (EITC) and the refundable child tax credit will lead to negative average effective rates for the bottom two quintiles. Rates will increase from 3.3 to 15.0 percent for the three higher quintiles and to 18 percent for the top 1 percent of income earners.

The overall ETR for the corporate income tax is about one-third that of the individual income tax, or 3.3 percent in 2008. There is uncertainty among economists about who bears the burden

federal revenue in fiscal 2007. We are currently expanding the TPC microsimulation model to include the burden of excise taxes. Appendix B describes our incidence assumptions.

[3] For 2008 the second quintile begins at cash income of $18,725; the middle quintile at $37,257; the fourth quintile at $65,634; the 80th percentile at $110,346; the 90th percentile at $159,187; the 95th percentile at $224,850; the 99th percentile at $601,906; and the 99.9th percentile at $2,906,959. All values are in 2008 dollars. Quintiles contain equal numbers of people, not tax units.

of the corporate income tax. We follow the Congressional Budget Office (CBO) and assume that the corporate tax falls on all capital. Thus, we assign corporate tax to individual taxpayers in proportion to their capital income (interest, dividends, capital gains, and rents). Since the distribution of capital income is progressive, so is the corporate income tax. In 2008, the lowest four income quintiles will all face roughly the same ETR of about 1 percent. The top quintile—which gets much more of its income from capital—will incur a 5.1 percent rate.[4] Within the top quintile, effective corporate tax rates will rise to 9.6 percent for the top 1 percent and to more than 12 percent for the richest 1 in 1,000 individuals.

The estate tax is also very progressive. But since only about 1 percent of taxpayers die in any year and most of them have no estate tax liability, the tax raises only a small fraction of overall revenue and thus its effective rates are low. The overall ETR for the estate tax will be 0.2 percent in 2008. Virtually all of the estate tax is borne by the top quintile, which will face an ETR of 0.4 percent in 2008. For the top 0.1 percent of individuals, that rate will double to 0.8 percent.

Payroll taxes for Social Security and Medicare have the second-highest overall ETR. In 2008, taxpayers will pay an average of 7.9 percent of their income in payroll taxes. In sharp contrast to other federal taxes, payroll taxes for Social Security and Medicare are regressive. The ETR will rise from 8.4 percent for the bottom quintile to 10.9 percent for the middle quintile, but then fall to 5.7 percent for the top fifth of the income distribution. The rate will fall even more dramatically within the top quintile: to 1.5 percent for the top 1 percent; and to 0.7 percent for the richest 1 in 1,000 individuals. That regressivity occurs because the share of income subject to the taxes falls off as income increases. That occurs in part because higher income households get more income from non-wage sources such as capital gains and dividends that are not subject to payroll taxes and in part because wages and salaries subject to the Social Security tax are capped (at $102,000 in 2008).[5]

The share of federal taxes paid by households at the top of the income scale exceeds their share of total income. The top quintile, for example, will earn 55 percent of total cash income in 2008 but will pay 69 percent of all taxes (table 2). The top 1 percent of taxpayers will earn 19 percent of total income and pay 28 percent of total taxes. In contrast, households in the middle quintile earn nearly 14 percent of total income but pay less than 10 percent of taxes.

The tax and income shares differ even more for the individual income tax. The top quintile will pay 88 percent of the tax from their 55 percent share of total income, and the top 1 percent will pay 37 percent, almost double their 19 percent income share. In contrast, the bottom two quintiles will collect a net subsidy of almost 6 percent of individual income tax revenue. The stimulus payments explain part of the differences; they constitute a one-time reduction in tax liability for 2008 only and primarily benefit lower- and moderate-income earners.[6] But even

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[4] We project that in 2008, capital income will represent about 4 percent of cash income for those in the bottom four quintiles. For the top quintile, capital income will represent 18 percent of cash income and for those at the very top of the income scale, the top 0.1 percent, more than 42 percent of cash income will consist of income from capital.
[5] The Medicare tax equals 1.45 percent of all wage and salary income for both employers and employees. The Social Security tax is 6.2 percent of wage and salary income below the cap, also for both employers and employees.
[6] The stimulus plan (H.R. 5140) provided a refundable basic credit equal to the greater of: (1) income tax liability net of non-refundable credits (other than the child tax credit) not to exceed $600 ($1,200 for joint returns); and (2) $300 ($600 for joint returns) if the individual has: (a) at least $3,000 of earned income plus Social Security benefits;

without the stimulus plan, the top quintile would have paid 81 percent of individual income taxes, and the bottom two quintiles would have received a 2 percent net subsidy (not shown in the table).

**Table 2**
**Share of Federal Taxes under Current Law, by Cash Income Percentile, 2008**

| Cash Income Percentile | Share of Total | | | | | |
|---|---|---|---|---|---|---|
| | Cash Income | Individual Income Tax | Payroll Tax | Corporate Income Tax | Estate Tax | All Federal Tax |
| Lowest Quintile | 3.7 | -3.2 | 3.9 | 1.0 | 0.0 | 0.2 |
| Second Quintile | 8.1 | -2.7 | 10.7 | 2.4 | 0.6 | 3.2 |
| Middle Quintile | 13.8 | 4.7 | 19.0 | 3.8 | 1.4 | 9.9 |
| Fourth Quintile | 19.5 | 13.6 | 26.4 | 7.1 | 4.5 | 17.3 |
| Top Quintile | 55.2 | 87.5 | 39.9 | 85.2 | 93.0 | 69.2 |
| All | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Addendum | | | | | | |
| 80-90 | 13.3 | 13.8 | 17.2 | 6.8 | 3.7 | 13.9 |
| 90-95 | 9.2 | 12.7 | 10.0 | 6.2 | 3.4 | 10.5 |
| 95-99 | 13.4 | 23.8 | 9.1 | 16.5 | 25.1 | 17.1 |
| Top 1 Percent | 19.3 | 37.2 | 3.6 | 55.8 | 60.7 | 27.7 |
| Top 0.1 Percent | 9.3 | 17.7 | 0.8 | 34.2 | 33.4 | 14.1 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

The top 1 percent of the income distribution (with 19 percent of total income) will pay more than half of the corporate income tax and the federal estate tax, but less than 4 percent of payroll taxes for Social Security and Medicare. In contrast, the bottom three quintiles—who will receive just over a fourth of income—incur just 7 percent of the corporate income tax and 2 percent of the estate tax, but will pay a third of total payroll taxes.

**Current-Law Distribution in 2010**
The distribution of federal taxes will be noticeably less progressive in 2010 than in 2008 for several reasons: (1) the one-time 2008 stimulus payments that primarily benefited lower- and moderate-income households do not recur in 2010; (2) further reductions in the individual income tax that primarily benefit upper-income households phase in between 2008 and 2010; and (3) the estate tax is completely repealed for 2010.[7]

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or (b) income tax liability net of non-refundable credits, other than the child tax credit (CTC), of at least $1 and gross income greater than the sum of the applicable basic standard deduction and one personal exemption (2 exemptions for joint returns). For any tax unit with at least $1 of basic credit, the law provided an additional, refundable, $300 credit for each child eligible for the child tax credit. The total value of the credit (basic plus child credit) is reduced by 5 percent of adjusted gross income in excess of $75,000 for singles, $150,000 for couples.
[7] For example, the repeal of the limitation on itemized deductions and personal exemptions is complete in 2010, but in 2008, the reduction in these deductions and exemptions is still one-third of its pre-EGTRRA value. In addition, the 2008 estate tax rate is 45 percent of an estate's value in excess of an effective exemption of $2 million.

The average effective federal tax rate for all households in 2010 will be 21.5 percent, up from 20.9 percent in 2008 (table 3). The ETRs for the bottom four quintiles will all be higher in 2010 than in 2008, but the ETR for the top quintile will fall slightly from 26.2 percent in 2008 to 25.7 percent in 2010.[8] Thus, those at the bottom of the income scale will pay a higher share of their income in taxes in 2010 whereas those at the top of the income scale will pay a lower rate. For example, the lowest quintile will see an increase in their ETR from 1.1 percent in 2008 to 4.6 percent in 2010. Those in the middle of the income distribution will experience an increase from 15.1 percent to 17.1 percent. In contrast, those in the top 0.1 percent will see a decrease in their ETR from 31.6 percent to 29.3 percent. The pattern for the bottom four quintiles is driven almost exclusively by changes in the ETR for the individual income tax. For the lowest quintile, that rate will rise from –8.1 percent in 2008 to –4.5 percent in 2010, a result of the absence in 2010 of the 2008 stimulus payments.

**Table 3**

**Effective Federal Tax Rates under Current Law, by Cash Income Percentile, 2010**

| Cash Income Percentile | Average Effective Tax Rate | | | | |
|---|---|---|---|---|---|
| | Individual Income Tax | Payroll Tax | Corporate Income Tax | Estate Tax | All Federal Tax |
| **Lowest Quintile** | -4.5 | 8.4 | 0.8 | N/A | 4.6 |
| **Second Quintile** | -0.4 | 10.3 | 0.8 | N/A | 10.8 |
| **Middle Quintile** | 5.4 | 10.9 | 0.8 | N/A | 17.1 |
| **Fourth Quintile** | 8.5 | 10.6 | 1.0 | N/A | 20.2 |
| **Top Quintile** | 15.7 | 5.8 | 4.3 | N/A | 25.7 |
| **All** | 10.9 | 7.9 | 2.8 | N/A | 21.5 |
| **Addendum** | | | | | |
| **80-90** | 11.5 | 10.2 | 1.4 | N/A | 23.1 |
| **90-95** | 14.1 | 8.7 | 1.9 | N/A | 24.6 |
| **95-99** | 17.2 | 5.4 | 3.4 | N/A | 26.0 |
| **Top 1 Percent** | 18.3 | 1.5 | 8.1 | N/A | 27.9 |
| **Top 0.1 Percent** | 18.2 | 0.7 | 10.4 | N/A | 29.3 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

Another driving force behind the changing distribution of the federal tax burden between 2008 and 2010 is the continued expansion of the alternative minimum tax (AMT).[9] Under current law, the AMT will affect an estimated 26.9 million taxpayers in 2008 and 33.4 million in 2010, while AMT revenue is projected to grow from $87.7 billion to $124 billion over that period. The expanding reach of the AMT is the primary reason that taxpayers in the 80th to 90th percentiles

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[8] For 2010 the second quintile begins at cash income of $19,263; the middle quintile at $38,201; the fourth quintile at $67,714; the 80th percentile at $114,257; the 90th percentile at $165,007; the 95th percentile at $232,495; the 99th percentile at $620,441; and the 99.9th percentile at $2,957,751. All figures are in 2008 dollars. As for 2008, quintiles contain equal numbers of people, not tax units.
[9] For more on the AMT, see Burman et al (2007) and Leiserson and Rohaly (forthcoming).

will see their ETR rise from 21.8 percent in 2008 to 23.1 percent in 2010. Those in the 90th to 95th percentiles will see a slightly smaller increase. Because the highest-income taxpayers typically do not owe AMT and benefit most from estate tax repeal and the repeal of the limitation on itemized deductions and personal exemptions, the average ETR for those in the top 1 percent will fall from 30.0 percent in 2008 to 27.9 percent in 2010.

Tax units in the top 0.1 percent will actually pay a slightly lower effective individual income tax rate in 2010 than those in the top 1 percent, 18.2 vs. 18.3 percent. Those at the very highest income levels typically receive much more of their income in the form of lightly-taxed capital gains and thus pay a lower effective tax rate. Because of this reliance on capital gains, however, the top 0.1 percent pays an effective corporate tax rate of 10.4 percent vs. only 8.1 percent for the top 1 percent and so their overall effective federal tax rate stands at 29.3 percent.

The shares of the federal tax burden paid by various income classes will also shift markedly between 2008 and 2010. The top quintile's share of overall income is essentially unchanged at 55 percent, but their share of federal taxes will fall from 69 percent in 2008 to 66 percent in 2010 (table 4). That is driven largely by a fall in the top quintile's share of individual income taxes from 88 percent in 2008 to less than 80 percent in 2010. In contrast, the share of federal taxes paid by the bottom three quintiles will rise from 13 percent in 2008 to 16 percent in 2010. Again, this is largely due to a shift in the share of individual income tax paid: the bottom three quintiles will receive an average net income tax subsidy in 2008, but by 2010 will pay 5 percent of total individual income taxes.

**Table 4**
**Share of Federal Taxes under Current Law, by Cash Income Percentile, 2010**

| Cash Income Percentile | Share of Total | | | | | |
|---|---|---|---|---|---|---|
| | Cash Income | Individual Income Tax | Payroll Tax | Corporate Income Tax | Estate Tax | All Federal Tax |
| Lowest Quintile | 3.7 | -1.5 | 3.9 | 1.0 | N/A | 0.8 |
| Second Quintile | 8.1 | -0.3 | 10.5 | 2.4 | N/A | 4.0 |
| Middle Quintile | 13.8 | 6.8 | 19.0 | 3.8 | N/A | 10.9 |
| Fourth Quintile | 19.6 | 15.3 | 26.3 | 7.3 | N/A | 18.3 |
| Top Quintile | 55.1 | 79.7 | 40.2 | 84.9 | N/A | 65.8 |
| All | 100.0 | 100.0 | 100.0 | 100.0 | N/A | 100.0 |
| Addendum | | | | | | |
| 80-90 | 13.5 | 14.3 | 17.4 | 6.7 | N/A | 14.5 |
| 90-95 | 9.3 | 12.1 | 10.1 | 6.3 | N/A | 10.6 |
| 95-99 | 13.4 | 21.3 | 9.1 | 16.5 | N/A | 16.2 |
| Top 1 Percent | 19.0 | 32.0 | 3.6 | 55.5 | N/A | 24.6 |
| Top 0.1 Percent | 9.1 | 15.2 | 0.8 | 34.1 | N/A | 12.3 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

**Current-Law Distribution in 2011**

Virtually all individual income and estate tax provisions of the 2001-06 tax cuts expire at the end of 2010.[10] In 2011, the individual income tax will essentially revert to the system that existed in 2000 and the estate tax will return with a $1 million exemption and a 55 percent top statutory rate. As a result, the ETR for all tax units will be 23.9 percent in 2011, up from 21.5 percent in 2010 (table 5).[11] ETRs will rise across the income distribution but the increase will be proportionately greater for those at the very top.

For the bottom quintile, the ETR will be 5.2 percent in 2011, up from 4.6 percent in 2010 (table 5). That increase is driven primarily by a rise in the effective individual income tax rate to –3.9 percent from –4.5 percent, which results from the elimination of the refundable portion of the child tax credit and the expiration of the EITC expansion for married couples.[12]

**Table 5**

**Effective Federal Tax Rates under Current Law, by Cash Income Percentile, 2011**

| Cash Income Percentile[2,3] | Average Effective Tax Rate | | | | |
|---|---|---|---|---|---|
| | Individual Income Tax | Payroll Tax | Corporate Income Tax | Estate Tax | All Federal Tax |
| Lowest Quintile | -3.8 | 8.3 | 0.8 | 0.0 | 5.3 |
| Second Quintile | 1.8 | 10.2 | 0.8 | 0.1 | 13.0 |
| Middle Quintile | 7.2 | 10.9 | 0.8 | 0.1 | 19.1 |
| Fourth Quintile | 10.2 | 10.6 | 1.0 | 0.2 | 22.1 |
| Top Quintile | 17.8 | 6.1 | 4.3 | 0.5 | 28.6 |
| All | 12.7 | 8.1 | 2.8 | 0.3 | 23.9 |
| **Addendum** | | | | | |
| 80-90 | 12.9 | 10.2 | 1.5 | 0.2 | 24.8 |
| 90-95 | 15.0 | 8.8 | 1.8 | 0.2 | 25.9 |
| 95-99 | 18.4 | 5.6 | 3.4 | 0.6 | 28.0 |
| Top 1 Percent | 22.6 | 1.7 | 8.5 | 0.8 | 33.5 |
| Top 0.1 Percent | 23.2 | 0.8 | 11.4 | 0.9 | 36.3 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

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[10] Provisions relating to select retirement savings incentives were made permanent by the Pension Protection Act of 2006 (P.L. 109-280).

[11] For 2011 the second quintile begins at cash income of $19,360; the middle quintile at $38,327; the fourth quintile at $68,150; the 80th percentile at $115,070; the 90th percentile at $165,863; the 95th percentile at $231,785; the 99th percentile at $603,133; and the 99.9th percentile at $2,735,939. All figures are in 2008 dollars. Again, quintiles contain equal numbers of people, not tax units.

[12] After 2010, certain families with three or more children will still be eligible for the partially refundable child tax credit that was in place before EGTRRA was passed. This provision affects relatively few families, however.

The ETR for the middle quintile in 2011 will be 18.9 percent, substantially higher than the 17.1 percent average for 2010. Again, this is driven by an increase in the effective individual income tax rate from 5.4 percent in 2010 to 7.0 percent in 2011. Those in the middle quintile are typically affected by the elimination of the 10 percent income tax bracket and EGTRRA's marriage-penalty relief, along with the halving of the per-child amount for the CTC from $1,000 to $500.

The effective individual income tax rate for the top 1 percent of the income distribution will climb by more than a fifth from 18.3 percent in 2010 to 22.6 percent in 2011. In addition to the impact from the statutory rate increase for the top bracket from 35 to 39.6 percent, upper-income tax units will be hit hard by the increase in the capital gains rate from 15 to 20 percent and by the increase in the rate on qualified dividends from 15 percent to as high as 39.6 percent.

**Table 6**
**Share of Federal Taxes under Current Law, by Cash Income Percentile, 2011**

| Cash Income Percentile | Share of Total | | | | | |
|---|---|---|---|---|---|---|
| | Cash Income | Individual Income Tax | Payroll Tax | Corporate Income Tax | Estate Tax | All Federal Tax |
| Lowest Quintile | 3.7 | -1.1 | 3.8 | 1.0 | 0.5 | 0.8 |
| Second Quintile | 8.3 | 1.2 | 10.5 | 2.5 | 1.5 | 4.5 |
| Middle Quintile | 14.0 | 8.0 | 18.9 | 4.0 | 6.0 | 11.2 |
| Fourth Quintile | 20.0 | 16.1 | 26.2 | 7.5 | 12.2 | 18.5 |
| Top Quintile | 54.2 | 75.9 | 40.5 | 84.2 | 79.3 | 64.9 |
| All | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Addendum | | | | | | |
| 80-90 | 13.8 | 14.0 | 17.3 | 7.3 | 8.5 | 14.3 |
| 90-95 | 9.4 | 11.2 | 10.2 | 6.2 | 5.2 | 10.2 |
| 95-99 | 13.4 | 19.4 | 9.2 | 16.6 | 23.5 | 15.7 |
| Top 1 Percent | 17.6 | 31.3 | 3.7 | 54.1 | 42.0 | 24.7 |
| Top 0.1 Percent | 8.1 | 14.9 | 0.8 | 33.5 | 21.4 | 12.3 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

The expiration of the tax cuts will have very little impact on the shares of the federal tax burden paid by various income classes despite the dramatic increase in effective rates. For the top quintile, the share of federal taxes paid will rise slightly from 65.8 percent in 2010 to 66.0 percent in 2011 (table 6). The share paid by the top 1 percent of the income distribution will remain unchanged at 24.6 percent. For both groups, a drop in the share of individual income taxes paid will be offset by an increase in the share of individual income tax as a percentage of all federal revenue and the return of the estate tax.

**Adjusting for Family Size**
We need to rank households on the basis of some measure of their economic status to determine who bears the burden of federal taxes and to assess the progressivity of the federal tax system. The analysis above ranks tax units by their cash income, a measure that includes all sources of income reported on tax returns plus some non-taxable transfers such as welfare, child support,

and food stamps.[13] But households with equivalent cash incomes might still differ in their economic status—their ability to consume or to save—based on other factors. One such factor is the number of people living in the household. A family of four earning $50,000 is less well off than a single individual with the same income. The larger family would need more food, live in a larger—and thus presumably more expensive—house or apartment, and so on. That is, the family of four would need more income to be just as well off as the single individual.

The following distribution tables classify tax units on the basis of income adjusted for size using the methodology employed by the Congressional Budget Office (CBO): divide cash income by the square root of the number of members of the tax unit. Thus, a family of four with $100,000 in cash income has an adjusted income of $50,000 and is classified in the same percentile category as a single individual with a cash income of $50,000. The family-size adjusted income level is used only to sort tax units into income categories; unadjusted cash income is still used to calculate effective tax rates and income shares.[14]

An examination of the distribution of tax burdens in 2010—when all EGTRRA provisions are fully phased in—shows the impact of the adjustment for family size.[15]

**Table 7**

**Effective Federal Tax Rates under Current Law**

**by Unadjusted Cash Income and by Cash Income Adjusted for Family Size, 2010**

| Cash Income Percentile | Average Effective Tax Rate | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Individual Income Tax | | Payroll Tax | | Corporate Income Tax | | All Federal Tax | |
| | Unadjusted Income | Adjusted Income | Unadjusted Income | Adjusted Income | Unadjusted Income | Adjusted Income | Unadjusted Income | Adjusted Income |
| Lowest Quintile | -4.5 | -5.1 | 8.4 | 8.4 | 0.8 | 0.8 | 4.6 | 4.1 |
| Second Quintile | -0.4 | -3.2 | 10.3 | 8.9 | 0.8 | 0.9 | 10.8 | 6.6 |
| Middle Quintile | 5.4 | 2.0 | 10.9 | 10.9 | 0.8 | 0.7 | 17.1 | 13.7 |
| Fourth Quintile | 8.5 | 6.7 | 10.6 | 10.7 | 1.0 | 0.8 | 20.2 | 18.3 |
| Top Quintile | 15.7 | 14.8 | 5.8 | 6.6 | 4.3 | 3.8 | 25.7 | 25.1 |
| All | 10.9 | 10.9 | 7.9 | 7.9 | 2.8 | 2.8 | 21.5 | 21.5 |
| Addendum | | | | | | | | |
| 80-90 | 11.5 | 10.0 | 10.2 | 10.9 | 1.4 | 1.0 | 23.1 | 21.9 |
| 90-95 | 14.1 | 12.7 | 8.7 | 9.8 | 1.9 | 1.5 | 24.6 | 24.0 |
| 95-99 | 17.2 | 16.4 | 5.4 | 6.5 | 3.4 | 2.8 | 26.0 | 25.7 |
| Top 1 Percent | 18.3 | 18.2 | 1.5 | 1.7 | 8.1 | 7.7 | 27.9 | 27.7 |
| Top 0.1 Percent | 18.2 | 18.3 | 0.7 | 0.7 | 10.4 | 10.2 | 29.3 | 29.2 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to table 1.

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[13] In order to put the measure on a pre-tax basis, cash income also includes the employer portion of payroll taxes and imputed corporate tax liability. For a complete definition of cash income, see http://www.taxpolicycenter.org/numbers/displayatab.cfm?DocID=574. Although we tend to use the terms "tax unit" and "household" interchangeably, they are not the same concept. A tax unit is an individual, or a married couple who file a tax return jointly, along with all dependents of that individual or married couple. A tax unit therefore differs from a family or a household in certain situations. For example, a cohabiting couple constitutes one household but, if not legally married, would file separate tax returns and thus be considered two tax units.

[14] See CBO (2001) for a description of their methodology.

[15] Appendix Tables 1 through 4 provide information for 2008 and 2011.

Adjusting for family size does not change the general pattern of progressivity but does affect the actual values of effective rates among quintiles. When adjusting for family size, effective tax rates rise from 4.1 percent for those in the bottom quintile to 25.1 percent for taxpayers in the top quintile compared to a range of 4.6 percent to 25.7 percent in the unadjusted case (table 7).[16] But ETRs are significantly lower for the second through fourth quintiles when income is adjusted for family size. The second quintile, for example, faces an ETR of 6.6 percent in the adjusted case vs. 10.8 percent in the unadjusted case.

Most of this difference in overall ETRs is because of the individual income tax since the distributions of payroll taxes and the corporate income tax differ little from the unadjusted case. Adjusting for family size moves larger families—typically married couples with children but also heads of household—into lower quintiles, leaving more single individuals without dependents in the upper quintiles. Larger families tend to benefit from more individual income tax breaks—the child tax credit, dependent exemptions, and wider tax brackets—so the effective tax rate in the bottom quintiles drops significantly with the adjustment for family size. For example, households in the second income-adjusted quintile face an effective individual income tax rate of –3.2 percent, compared with –0.4 percent for the unadjusted second quintile. This difference leads to an effective overall federal tax rate of 6.6 percent for the second quintile in the family-size-adjusted table compared to 10.8 percent in the unadjusted table.[17]

**Differences among Demographic Groups**
Average effective tax rates differ among demographic groups for two primary reasons: (1) the tax code provides targeted benefits to certain groups such as taxpayers with children; and (2) different demographic groups have different income profiles, which are subject to different taxes under a progressive tax system.

Among the three primary filing statuses, heads of household face the lowest average effective tax rate—14.5 percent (table 8). Single filers and married couples filing jointly pay average rates of 20.8 and 22.6 percent, respectively.

Heads of household face the lowest ETR in every quintile and on average actually receive subsidies in each of the bottom two quintiles.[18] Single filers pay the highest effective tax rates in

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[16] For 2010 the second adjusted quintile begins at adjusted cash income of $13,175; the middle quintile at $24,896; the fourth quintile at $42,909; the 80th percentile at $69,481; the 90th percentile at $99,405; the 95th percentile at $140,766; the 99th percentile at $369,601; and the 99.9th percentile at $1,787,257. All figures are in 2008 dollars. Quintiles contain equal numbers of people, not tax units.

[17] Note that adjusting for family size lowers the effective federal tax rate for all five quintiles. This is a consequence of defining quintiles to contain equal numbers of people rather than equal numbers of tax units. The size adjustment moves larger families—who face lower tax rates because of multiple exemptions, the child credit, and other tax benefits—down the income scale, where they displace multiple smaller families with lower unadjusted income. Some smaller families consequently move into higher quintiles, bringing with them their ETRs that are less than other, similar families in the new quintile. As a result, the ETR for the higher quintile falls. Similarly, the larger family that moved down to a lower quintile brings its low ETR and lowers the average ETR for its new quintile. Thus, adjusting incomes for family size results in lower effective tax rates for all quintiles as tax units move differentially up and down the income distribution.

[18] Note that we define quintiles for the population as a whole, not for individual subgroups. Thus, for example, these are figures for single individuals in the bottom quintile of the entire population, not the bottom 20 percent of single individuals.

all but the top quintile (where couples filing jointly pay just slightly more) but their overall average falls below that for couples because relatively more of them fall into the lower quintiles and face lower tax rates.

**Table 8**

**Effective Current-Law Federal Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2010**

| Cash Income Percentile[a] | Average Effective Federal Tax Rate | | | | | |
|---|---|---|---|---|---|---|
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children[b] | Elderly[c] |
| **Lowest Quintile** | 4.1 | 7.2 | 3.3 | -6.9 | -10.0 | 2.3 |
| **Second Quintile** | 6.6 | 10.4 | 5.7 | -2.6 | -3.1 | 3.8 |
| **Middle Quintile** | 13.7 | 17.5 | 12.1 | 8.8 | 10.1 | 6.2 |
| **Fourth Quintile** | 18.3 | 20.9 | 17.2 | 16.7 | 17.4 | 12.3 |
| **Top Quintile** | 25.1 | 25.0 | 25.2 | 23.4 | 25.7 | 22.6 |
| **All** | 21.5 | 20.8 | 22.6 | 14.5 | 21.7 | 17.7 |
| **Addendum** | | | | | | |
| **80-90** | 21.9 | 23.6 | 21.5 | 21.1 | 21.8 | 16.9 |
| **90-95** | 24.0 | 24.5 | 23.9 | 23.8 | 24.5 | 19.4 |
| **95-99** | 25.7 | 24.6 | 26.0 | 25.3 | 26.7 | 22.6 |
| **Top 1 Percent** | 27.7 | 27.1 | 27.7 | 26.9 | 28.6 | 26.5 |
| **Top 0.1 Percent** | 29.2 | 29.1 | 29.2 | 29.1 | 29.7 | 28.1 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

See notes to table 1.

a. Quintiles are defined for the population as a whole, not the various subgroups.

b. Children are defined as exemptions taken for children living at, or away from, home.

c. Elderly tax units are those in which the head (or spouse, if applicable) is age 65 or older.

Similar patterns hold for the individual income tax. Overall, head of household tax units pay an average effective individual income tax rate of only 2.6 percent (table 9). In contrast, married couples pay an individual income tax rate of 12.2 percent. Much of the aggregate difference derives from the fact that married couples tend to have much higher incomes on average than do heads of household. For 2010, we project that average cash income for married couples filing jointly will be $125,645 in 2008 dollars; for heads of household it will be only $40,390.

Single individuals and head of household tax units have roughly the same average cash incomes (the figure for singles is $42,056 in 2008 dollars) but effective individual income tax rates differ substantially: 9.8 percent for singles vs. 2.6 percent for heads of household. This primarily reflects the targeted tax breaks that head of household families are more likely to receive, particularly the EITC and the child tax credit. It is also a reflection of the more generous individual income tax brackets that heads of household face.

Overall, tax units with children face an effective individual income tax rate (21.7 percent) that is slightly higher than that for the population as a whole (21.5 percent). That is primarily because, overall, tax units with children have higher average incomes than the population as a whole ($97,253 in 2008 dollars for those with children vs. $77,354 for the entire population) so there are more households with children in the upper income percentiles paying higher ETRs. But the

impact of the individual income tax breaks aimed at lower-and moderate income households with children can be seen in the ETRs for the bottom quintiles. Tax units with children in the bottom two quintiles receive large net individual income tax subsidies of 22.8 and 16.2 percent of cash income. Even those in the middle quintile receive, on average, a net subsidy of more than 3 percent.

**Table 9**

**Effective Current-Law Individual Income Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2010**

| Cash Income Percentile | Average Effective Individual Income Tax Rate | | | | | |
|---|---|---|---|---|---|---|
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children | Elderly |
| Lowest Quintile | -5.1 | -1.5 | -6.7 | -17.4 | -22.8 | -0.3 |
| Second Quintile | -3.2 | 1.7 | -4.1 | -14.6 | -16.2 | 0.6 |
| Middle Quintile | 2.0 | 5.7 | 1.0 | -3.8 | -3.1 | 1.9 |
| Fourth Quintile | 6.7 | 9.2 | 5.9 | 4.2 | 4.3 | 6.8 |
| Top Quintile | 14.8 | 14.0 | 15.1 | 12.3 | 15.3 | 12.9 |
| All | 10.9 | 9.8 | 12.2 | 2.6 | 10.4 | 9.8 |
| **Addendum** | | | | | | |
| 80-90 | 10.0 | 11.8 | 9.6 | 8.7 | 8.8 | 10.0 |
| 90-95 | 12.7 | 13.0 | 12.6 | 11.8 | 12.6 | 11.3 |
| 95-99 | 16.4 | 14.6 | 16.8 | 15.7 | 17.5 | 13.5 |
| Top 1 Percent | 18.2 | 16.4 | 18.6 | 18.2 | 20.1 | 14.6 |
| Top 0.1 Percent | 18.3 | 17.1 | 18.5 | 18.8 | 19.6 | 15.2 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).
See notes to tables 1 and 8.

Elderly tax units face an average effective individual income tax rate of 9.8 percent, about 1 percentage point lower than that for the entire population. The elderly typically have no children or other dependents and thus generally receive none of the targeted tax breaks aimed at those segments of the population. Seniors do receive some individual income tax benefits, however. Those at the bottom of the income scale benefit from the exclusion of most Social Security benefits from adjusted gross income. For upper-income seniors, the lower tax rates for capital gains and dividends relative to wages and salaries tends to lower their effective tax rates when compared to younger individuals who work. Within the bottom quintiles, however, seniors tend to pay higher effective tax rates than the population as a whole. Seniors in the second quintile, for example, pay an average effective individual income tax rate of 0.6 percent; the population as a whole receives a net subsidy of 3.2 percent.

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**Appendix A: Description of TPC Microsimulation Model**

A large-scale microsimulation model of the U.S. federal tax system produces the Tax Policy Center's revenue and distribution estimates. The model we have developed is similar to those used by the Congressional Budget Office (CBO), the Joint Committee on Taxation (JCT), and the Treasury's Office of Tax Analysis (OTA).

The model is based on data from the 2004 public-use file (PUF) produced by the Statistics of Income (SOI) Division of the Internal Revenue Service (IRS). The PUF contains detailed information from 150,047 federal individual income tax returns filed in the 2004 calendar year. We add information on demographics and sources of income that are not reported on tax returns using a constrained statistical match of the public-use file with the March 2005 Current Population Survey (CPS) of the U.S. Census Bureau. The statistical match with the CPS also generates a sample of individuals who do not file income tax returns ("non-filers"). Combining the dataset of filers from the PUF (augmented by demographic and other information from the CPS) with the dataset of non-filers generated by the statistical match with the CPS allows us to conduct distributional analysis for the entire population rather than just the segment that files individual income tax returns.

The tax model consists of two components: a statistical routine that "ages" or extrapolates the 2004 data to create a representative sample of both filers and non-filers for future years; and a detailed tax calculator that computes the individual income tax liability for all filers in the sample under current law and under alternative policy proposals. The calculator also computes the employee and employer shares of payroll taxes for Social Security and Medicare.

**Aging and Extrapolation Process**

For the years from 2005 to 2019, we "age" the 2004 data based on Congressional Budget Office (CBO) forecasts and projections for the growth in various types of income, IRS projections of the growth in the number of tax returns, and Bureau of the Census data on the composition of the population. We use actual 2005 through 2006 data when they are available. A two-step process produces a representative sample of the filing and non-filing population in years beyond 2004. First, we first inflate the dollar amounts for income, adjustments, deductions, and credits on each record by their appropriate per capita forecasted growth rates. We use the CBO's forecast for per capita growth in major income sources such as wages, capital gains, and non-wage income (interest, dividends, social security income and others). Most other items are assumed to grow at CBO's projected growth rate for per capita personal income. In the second stage of the extrapolation, we adjust the weights on each record using a linear programming algorithm to ensure that the major income items, adjustments, and deductions match aggregate targets. For years beyond 2004, we do not target distributions for any item; wages and salaries, for example, grow at the same per capita rate for tax units at every income level.

**Tax Calculator**

We can simulate policy options using the extrapolated data set and a detailed tax calculator that captures most features of the federal individual income tax system, including the alternative minimum tax (AMT). The model reflects major income tax legislation enacted through early 2008, including the Economic Stimulus Act of 2008. We also calculate payroll taxes for Social

Security and Medicare, impute corporate income tax to records based on their share of capital income (interest, dividends, capital gains, and rents), and calculate expected estate tax liability for each record based on mortality rates and imputations of wealth.

**Recent Model Enhancements**

In early 2008, the Tax Policy Center completed a major update of its microsimulation model to use more recent data and to expand the model's capabilities. We shifted the database underlying the model from the 2001 public-use file (PUF) of tax returns produced by the IRS to the 2004 file. At the same time, we performed a new statistical match with the March 2005 Current Population Survey. We updated the tax model's estate tax module to incorporate the latest IRS data on estate tax filers. We expanded the retirement module to model the revenue and distributional implications of implementing automatic enrollment in IRAs and 401(k) retirement plans and updated the module to incorporate 2004 data. We also refined the model's imputations of itemized deductions, such as charitable contributions and home mortgage interest, for "non-itemizers" (i.e., those who claim only the standard deduction on their tax return). These imputations allow us to model the distribution and revenue implications of proposals to replace certain credits with deductions.

The updated microsimulation model also incorporates a completely overhauled and expanded education module. Using data from the October 2003 and October 2004 CPS, as well as the National Postsecondary Student Aid Study (NPSAS), we impute student status, characteristics, and education expenditures on to the tax model database. This allows us to model current tax incentives for education, such as the HOPE and Lifetime Learning Credits and the deduction for higher education expenses, as well as to examine the revenue and distributional implications of combining or modifying these tax programs. We can also model current spending programs such as Pell Grants, and examine the revenue and distributional effects of changes to program rules.

**Appendix B: Incidence Assumptions**

A key insight from economics is that taxes are not always borne by the individual or business that writes the check to the IRS. Sometimes taxes are shifted. For example, most economists believe that the employer portion of payroll taxes translates into lower wages and is thus ultimately borne by workers. There is no consensus, however, on the economic incidence of other taxes, such as the corporate income tax.

The Tax Policy Center's incidence assumptions follow those adopted by the Congressional Budget Office and the Department of the Treasury. In particular, our tables assume the following: (1) the individual income tax is borne directly by individual income taxpayers; (2) both the employee and employer share of payroll taxes are borne by the employee; (3) the corporate income tax is borne by recipients of capital income (interest, dividends, capital gains, and rents) in proportion to the amount of capital income they receive; and (4) the estate tax is borne by decedents.

**Appendix Table 1**

**Effective Current-Law Federal Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2008**

| Cash Income Percentile | Average Effective Federal Tax Rate | | | | | |
|---|---|---|---|---|---|---|
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children | Elderly |
| **Lowest Quintile** | 0.1 | 4.0 | -1.6 | -13.4 | -17.2 | -0.5 |
| **Second Quintile** | 3.6 | 8.1 | 2.5 | -6.7 | -7.8 | 2.0 |
| **Middle Quintile** | 11.3 | 15.9 | 9.3 | 5.6 | 6.5 | 5.0 |
| **Fourth Quintile** | 16.4 | 19.7 | 15.0 | 14.5 | 14.8 | 10.8 |
| **Top Quintile** | 25.3 | 26.8 | 25.0 | 22.9 | 25.1 | 24.7 |
| **All** | 20.9 | 20.8 | 21.9 | 12.3 | 20.3 | 18.6 |
| **Addendum** | | | | | | |
| **80-90** | 20.4 | 23.1 | 19.6 | 19.4 | 19.4 | 16.3 |
| **90-95** | 23.0 | 24.7 | 22.5 | 22.9 | 22.9 | 19.5 |
| **95-99** | 25.9 | 26.1 | 25.9 | 25.0 | 26.4 | 24.2 |
| **Top 1 Percent** | 29.7 | 32.4 | 29.2 | 28.8 | 29.8 | 30.8 |
| **Top 0.1 Percent** | 31.6 | 35.0 | 31.0 | 31.2 | 31.3 | 32.8 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

See notes to tables 1 and 8.

**Appendix Table 2**

**Effective Current-Law Individual Income Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2008**

| Cash Income Percentile | Average Effective Individual Income Tax Rate | | | | | |
|---|---|---|---|---|---|---|
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children | Elderly |
| **Lowest Quintile** | -9.3 | -4.7 | -11.8 | -23.9 | -30.0 | -3.4 |
| **Second Quintile** | -6.3 | -0.8 | -7.6 | -18.8 | -20.9 | -1.6 |
| **Middle Quintile** | -0.6 | 3.9 | -1.9 | -7.1 | -6.7 | 0.2 |
| **Fourth Quintile** | 4.6 | 7.7 | 3.5 | 2.0 | 1.6 | 4.8 |
| **Top Quintile** | 14.0 | 13.5 | 14.2 | 11.2 | 14.3 | 12.2 |
| **All** | 9.5 | 8.5 | 10.9 | 0.1 | 8.8 | 8.6 |
| **Addendum** | | | | | | |
| **80-90** | 8.2 | 10.8 | 7.5 | 6.9 | 6.5 | 8.4 |
| **90-95** | 11.4 | 12.5 | 11.1 | 10.8 | 10.9 | 10.1 |
| **95-99** | 15.8 | 14.1 | 16.2 | 15.1 | 16.9 | 12.6 |
| **Top 1 Percent** | 18.2 | 16.3 | 18.5 | 18.1 | 20.1 | 14.4 |
| **Top 0.1 Percent** | 18.1 | 16.9 | 18.3 | 18.6 | 19.4 | 15.0 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

See notes to tables 1 and 8.

**Appendix Table 3**

**Effective Current-Law Federal Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2011**

| Cash Income Percentile | Average Effective Federal Tax Rate | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children | Elderly |
| **Lowest Quintile** | 4.5 | 7.4 | 4.0 | -6.8 | -9.5 | 2.5 |
| **Second Quintile** | 8.4 | 11.5 | 8.4 | -0.2 | 0.8 | 4.6 |
| **Middle Quintile** | 15.9 | 18.8 | 14.6 | 12.0 | 13.7 | 7.5 |
| **Fourth Quintile** | 20.2 | 22.6 | 19.1 | 18.8 | 19.7 | 14.5 |
| **Top Quintile** | 27.9 | 29.4 | 27.6 | 25.1 | 27.8 | 27.3 |
| **All** | 23.9 | 23.5 | 24.9 | 16.6 | 23.9 | 21.1 |
| **Addendum** | | | | | | |
| **80-90** | 23.8 | 25.9 | 23.2 | 22.5 | 23.4 | 19.8 |
| **90-95** | 25.5 | 27.2 | 25.0 | 24.8 | 25.3 | 22.4 |
| **95-99** | 27.3 | 28.5 | 27.1 | 26.0 | 27.5 | 26.3 |
| **Top 1 Percent** | 33.1 | 36.0 | 32.5 | 31.6 | 33.5 | 34.0 |
| **Top 0.1 Percent** | 36.0 | 40.0 | 35.3 | 35.8 | 35.9 | 37.1 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

See notes to tables 1 and 8.

**Appendix Table 4**

**Effective Current-Law Individual Income Tax Rates for Various Demographic Groups**

**by Cash Income Adjusted for Family Size, 2011**

| Cash Income Percentile | Average Effective Individual Income Tax Rate | | | | | |
|---|---|---|---|---|---|---|
| | All Tax Units | Single Individuals | Married Couples Filing Jointly | Heads of Household | Tax Units with Children | Elderly |
| Lowest Quintile | -4.8 | -1.3 | -6.0 | -17.3 | -22.2 | -0.3 |
| Second Quintile | -1.3 | 2.7 | -1.3 | -12.3 | -12.3 | 1.2 |
| Middle Quintile | 4.1 | 6.9 | 3.5 | -0.5 | 0.5 | 2.9 |
| Fourth Quintile | 8.5 | 10.4 | 7.8 | 6.3 | 6.6 | 8.4 |
| Top Quintile | 16.8 | 16.0 | 17.1 | 13.6 | 17.1 | 15.2 |
| All | 12.7 | 11.2 | 14.2 | 4.6 | 12.5 | 11.6 |
| **Addendum** | | | | | | |
| 80-90 | 11.7 | 13.4 | 11.4 | 10.0 | 10.4 | 12.0 |
| 90-95 | 13.9 | 14.7 | 13.7 | 12.7 | 13.3 | 13.3 |
| 95-99 | 17.3 | 16.1 | 17.6 | 16.1 | 18.1 | 14.9 |
| Top 1 Percent | 22.2 | 19.9 | 22.7 | 21.7 | 24.5 | 18.0 |
| Top 0.1 Percent | 23.2 | 21.8 | 23.5 | 23.7 | 24.8 | 19.5 |

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0308-4).

See notes to tables 1 and 8.