2009 Poverty Levels and Federal Tax Thresholds

By Jonathan Barry Forman

The tax provisions in the recently-enacted American Recovery and Reinvestment Act of 2009 were particularly generous to low-income working Americans.1 As a result, hardly any low-income workers will owe federal taxes in 2009, and most low-income workers with children will receive substantial subsidies via refundable tax credits. Many readers will applaud these antipoverty results. Some may not. In any event, most will certainly wonder if these subsidies could be simplified and better designed.2

At the outset, Table 1 compares the 2009 federal tax thresholds and poverty income guidelines for selected households.3 Consider a family of four consisting of a married couple and two children. Row 1 of Table 1 shows that this family unit’s poverty income guideline for 2009 is $22,050.4

Row 2 of Table 1 shows the simple income tax thresholds for family units of different sizes. These are determined by summing each family unit’s standard deduction and its personal exemptions. For 2009, a married couple with two children can file a joint tax return and claim an $11,400 standard deduction and four $3,650 personal exemptions.5 Consequently, the couple

3The table reflects the assumptions that all family income consists of wages earned by a single worker, that all family members are under age 65 and not blind, that all family units are eligible for the earned income and Making Work Pay tax credits, and that all children qualify for the child tax credit. Also, only the employee’s portion of Social Security and Medicare payroll taxes is considered.
5Rev. Proc. 2008-66, 2008-45 IRB 1107, Doc 2008-22101, 2008 TNT 202-9. For 2009, the basic standard deduction amounts are $11,400 for married couples filing jointly and surviving spouses, $8,350 for heads of households, and $5,700 for unmarried individuals and married individuals filing separately. Aged or blind individuals generally are entitled to claim additional standard deduction amounts of $1,100, except that aged or blind

(Footnote continued on next page.)
will not have to pay any income tax unless its income exceeds its $26,000 simple income tax threshold.\textsuperscript{6}

Row 3 of Table 1 shows each family unit’s income tax threshold after taking into account the effects of the earned income tax credit,\textsuperscript{7} the new Making Work Pay credit,\textsuperscript{8} and the child tax credit.\textsuperscript{9} For example, for 2009, a typical married couple with two young children can claim an EITC of up to $5,028, a Making Work Pay tax credit of up to $800, and two child tax credits worth up to $1,100 per child. Consequently, taking into account the earned income, Making Work Pay, and child tax credits, a typical married couple with one worker and two children will not actually owe any income tax until the couple’s income exceeds $50,233.\textsuperscript{10}

In contrast, because the payroll tax system has no standard deductions or personal exemptions, family units must pay Social Security and Medicare payroll taxes starting with their first dollar of earned income.\textsuperscript{11}

<table>
<thead>
<tr>
<th>Row</th>
<th>Unmarried individual</th>
<th>Single parent with one child</th>
<th>Married couple with two children</th>
<th>Married couple with three children</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Poverty levels</td>
<td>$10,830</td>
<td>$14,570</td>
<td>$22,050</td>
<td>$25,790</td>
</tr>
<tr>
<td>2. Simple income tax threshold (before credits)</td>
<td>$9,350</td>
<td>$15,650</td>
<td>$26,000</td>
<td>$29,650</td>
</tr>
<tr>
<td>3. Income tax threshold after the earned income, Making Work Pay, and child tax credits</td>
<td>$13,391</td>
<td>$32,317</td>
<td>$50,233</td>
<td>$60,550</td>
</tr>
<tr>
<td>4. Employee Social Security and Medicare payroll tax threshold</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>5. Combined income and payroll tax threshold (i.e., net federal tax threshold)</td>
<td>$9,336</td>
<td>$25,667</td>
<td>$38,592</td>
<td>$43,743</td>
</tr>
</tbody>
</table>

unmarried individuals can claim additional standard deduction amounts of $1,400. The personal exemption amount is $3,650.\textsuperscript{6}

\textsuperscript{6}$26,000 = $11,400 + (4 \times $3,650).

\textsuperscript{7}Section 32 (as modified by the American Recovery and Reinvestment Act of 2009 (ARRA), P.L. 111-5, section 1002). The EITC is a refundable credit available to some low- and moderate-income workers.

For 2009, a family with three or more qualifying children is entitled to claim an EITC of up to $5,657. The credit is computed as 45 percent of the first $12,570 of earned income. For married couples filing joint returns, the maximum credit is reduced by 21.06 percent of earned income (or adjusted gross income, if greater) in excess of $21,420 and is entirely phased out at $48,279 of income. Internal Revenue Service, ARRA and the Earned Income Tax Credit (Mar. 27, 2009), http://www.irs.gov/newsroom/article/0,,id=205666,00.html. For heads of household, the maximum credit phases out over the range from $16,420 to $43,279.

A family with two or more qualifying children is entitled to claim an EITC of up to $5,028. The credit is computed as 40 percent of the first $12,570 of earned income. For married couples filing joint returns, the maximum credit is reduced by 21.06 percent of earned income (or AGI, if greater) in excess of $21,420 and is entirely phased out at $45,295 of income. For heads of household, the maximum credit phases out over the range from $16,420 to $40,295.

Similarly, a family with one child is entitled to an EITC of up to $3,043. The credit is computed as 34 percent of the first $8,950 of earned income. For married couples filing joint returns, the maximum credit is reduced by 15.98 percent of earned income (or AGI, if greater) in excess of $21,420 and is entirely phased out at $40,463 of income. For heads of household, the maximum credit phases out over the range from $16,420 to $35,463.

Childless individuals between the ages of 25 and 65 are entitled to an EITC of up to $457. The credit is computed as 7.65 percent of the first $5,970 of earned income. For married couples filing joint returns, the maximum credit is reduced by 7.65 percent of earned income (or AGI, if greater) in excess of $12,470 and is entirely phased out at $18,440 of income. For heads of household and unmarried individuals, the maximum credit phases out over the range from $7,470 to $13,440.

\textsuperscript{8}Section 36A (added by ARRA section 1001). The Making Work Pay credit is a refundable credit computed as 6.2 percent of earned income, up to a maximum credit of $400 per individual ($800 per couple), and couples can claim the full $800 credit even if only one spouse works. These Making Work Pay credits are phased out once the taxpayer’s modified AGI exceeds $150,000 for married couples filing joint returns and $75,000 for other taxpayers.

\textsuperscript{9}Section 24 (as modified by ARRA section 1003). Taxpayers with qualifying children under the age of 17 can claim a tax credit of up to $1,100 per child. The child tax credit is first applied to offset a taxpayer’s income tax liability and, for taxpayers with earned income in excess of $3,000 in 2009, a portion of the credit is refundable: The credit is refundable to the extent of 15 percent of the taxpayer’s earned income in excess of $3,000. These child tax credits are phased out once the taxpayer’s AGI reaches $110,000 for married couples filing joint returns, $55,000 for married couples filing separately, and $75,000 for all other taxpayers.

\textsuperscript{10}Each computation in Row 3 involved determining the appropriate equation for computing each family unit’s income tax liability after its earned income, Making Work Pay, and child tax credits and solving for the income level at which that income tax liability is equal to zero. For example, for 2009, for a married couple with one worker, two children, and income (I) in excess of the $42,700 level at which the couple enters the 15 percent income tax bracket and in excess of the $45,295 level at which the couple’s EITC disappears, the couple’s income tax liability (T) can be determined by the following formula:

\[ T = 1,670 + 0.15 \times (I - $42,700) - $800 \cdot (2 \times x \times 1,000) \]

Setting T equal to zero and solving for I shows that this couple’s income tax threshold after the earned income, Making Work Pay, and child tax credits is $50,233.33.

Hence, Row 4 of Table 1 shows that zero is the payroll tax threshold for all family units.

Finally, Row 5 of Table 1 shows the combined income and payroll tax threshold (that is, net federal tax threshold) for various family units. Each threshold occurs at the income level at which the taxpayer’s preliminary income tax liability plus employee payroll tax liability minus income tax credits equals zero. For example, a typical married couple with one worker and two children will not actually have a net federal tax liability for 2009 unless its income exceeds $38,592.12

12Each computation in Row 5 involved determining the appropriate equation for computing each family unit’s combined income and employee payroll tax liability after its earned (Footnote continued in next column.)

Table 2 shows the federal tax liabilities of various family units with earnings exactly equal to their respective poverty income guidelines. Again, consider a hypothetical family of four consisting of a married couple with income, Making Work Pay, and child tax credits, and solving for the income level at which that tax liability is equal to zero. For example, for 2009, for a married couple with two children with income (I) in excess of its $26,000 simple income tax threshold and less than the $42,700 level at which the couple enters the 15 percent income tax bracket, the couple’s combined income and employee Social Security tax liability (T) can be determined by the following formula:

\[ T = 0.10 \times (I - $26,000) + 0.0765 \times I - ($5,028 - 0.2106 \times [I - $21,420]) - $800 - (2 \times $1,000). \]

(Footnote continued on next page.)
two children. Row 1 again shows that the couple’s poverty income guideline in 2009 is $22,050.

Assuming that the couple has exactly that much earned income in 2009, Row 2 shows that the couple will be entitled to an income tax refund of $7,695.13

Row 3 of Table 2 shows that the couple’s payroll tax liability for 2009 will be $1,687.14 Because the couple’s income tax refund in Row 2 will be greater than its payroll tax liability in Row 3, the couple will be entitled to receive a net refund of $6,008 from the federal government, as shown in Row 4.15 Finally, Row 5 expresses the couple’s net federal tax liability as a percentage of income: For 2009, the couple will have a net federal tax liability equal to -27.2 percent of its poverty-level income.16

Finally, the figure on the previous page shows how net federal tax liability changes as household income for selected households increases from $0 to $50,000.

All in all, hardly any low-income workers will owe federal taxes for 2009. Quite simply, the EITC, the new Making Work Pay tax credit, and the child tax credit will offset the income and payroll tax liabilities of millions of low-income workers. In fact, these refundable credits will provide significant subsidies to most low-income workers and their families.

Setting T equal to zero and solving for I shows that the couple’s combined income and employee Social Security tax threshold after the earned income and child tax credits is $38,592.23.

Each computation in Row 2 involved determining the appropriate equation for computing each family unit’s income tax at the poverty level after taking into account its earned income, Making Work Pay, and child tax credits. For example, for 2009, for a married couple with two children with income (I) less than its $26,000 simple income tax threshold but in excess of the $21,420 level at which the EITC begins to phase out, the couple’s income tax refund (R) can be determined by the following formula:

$$ R = 5,028 - 0.2106 \times (I - 21,420) + 800 + (2 \times 1,000). $$

Setting I equal to $22,050 and solving for R shows the couple will be entitled to an income tax refund of $7,695.32.

Each computation in Row 3 involved multiplying the family unit’s poverty-level income times the 7.65 percent employee portion of the Social Security and Medicare payroll tax. For example, a married couple with two children and poverty-level wages of $22,050 will owe $1,687 in payroll taxes for 2009 ($1,686.83 \times 0.0765 \times 22,050).

Each computation in Row 4 involved adding the income tax in Row 2 to the payroll tax in Row 3. For example, a married couple with two children and a poverty-level income of $22,050 will receive a refund of $6,008 ($6,008.497 = -7,695.322 + 1,686.825).

Each computation in Row 5 involved dividing the net tax liability in Row 4 by the poverty-level income in Row 1. For example, a married couple with two children will receive a refund equal to 27.2 percent of its poverty-level income (-0.2724 = -$6,008 divided by $22,050).