The earned income tax credit

by Eugene Steuerle and Paul Wilson

Introduction

Within the tax and welfare systems in the United States, the earned income tax credit (EITC) plays an important, but ambiguous, role. The credit has several purposes, and while it serves each well, it serves none perfectly. Perhaps more than any other governmental provision, the EITC displays the overlap between tax and transfer programs: even in budget accounting, the cost of the credit is counted in part as an offset to the individual income tax (a tax expenditure for the amount of the credit that offsets income taxes otherwise due) and in part as an outlay (the refundable portion). In addition, although Congress and the executive branch have usually treated the tax and welfare systems as separable, almost every major welfare or tax reform initiative since 1975 has sought to modify the EITC.

Eugene Steuerle, Director of Finance and Taxation Projects at the American Enterprise Institute, was the Economic Staff Coordinator in charge of the original coordination and design of the Treasury's recent tax reform effort. The government's top-ranking tax policy official has stated, "Frankly, I think it fair to say that Treasury I [the reform] would not have moved forward had it not been for [his] early leadership." Paul Wilson, Professor of Economics at Bethel College, was the principal economic analyst for many parts of that effort, including provisions affecting the poor and elderly.
A brief history of the earned income tax credit

The EITC is a relative newcomer to the fiscal scene. When begun in 1975, the credit was 10 percent of earned income up to $4,000, yielding a maximum credit of $400. The credit was reduced by 10 cents for each dollar by which adjusted gross income (AGI) exceeded $4,000, so no credit was available for anyone whose income exceeded $8,000. Only taxpayers with dependent children have been eligible for the EITC.

The credit has always been “refundable”: an eligible individual can receive a payment from the Internal Revenue Service (IRS) if the credit exceeds the amount of tax due. By one method of accounting, such an individual faces a negative income tax rate. This refundability feature is unique in the tax code. The Treasury Department traditionally has opposed hiding expenditures in the code, while the Internal Revenue Service has fought against administering expenditure-equivalent programs. The Congress in turn has used a minimum tax of zero as a mechanism to limit its generosity in providing tax incentives or tax relief. This combination of opposing forces is one reason why no other major credit or deduction—investment credit, childcare credit, charitable deduction, and so forth—is refundable.

Outside of dollar amounts and rates, the only significant structural changes to the EITC were made in the Revenue Act of 1978. At that time, two of us at the Treasury Department worked with the Ways and Means Subcommittee on Oversight to make minor modifications to simplify the credit and, more important, to permit calculation of both eligibility for and amount of the credit through information that was already reported on the tax return. In 1985 the IRS was able to use the information on tax returns to pay a credit to approximately 620,000 filers who failed to claim the credit themselves.

Changes in actual dollar amounts and rates, on the other hand, have occurred frequently and are summarized in Table 1. While each change has resulted in a higher maximum credit, prices and incomes were often increasing at an even faster rate. Consequently, from 1975 to 1984 the maximum credit fell by 35 percent in real terms. The Tax Reform Act of 1986 has offset almost all of this decline and restored the maximum credit to the real level first set in 1975 (see Table 2). This latest increase in the maximum credit is due mainly to a higher rate of credit (14 percent) and only slightly to a greater amount of income eligible for the credit, which has fallen from three-fourths of the poverty level (for a family of four) in 1975 to about one-half of the poverty level by 1988.

For some purposes, comparison to a constant real measure of poverty can be misleading. The maximum credit has clearly declined in value relative to the growth in average income, as measured by per capita personal income. While the maximum credit will have almost doubled between 1975 and 1990, per capita personal income will have more than tripled. A family of four at one-half the median income has never qualified for the credit.

Because of the income levels at which the credit phases out, it has been especially important to part-time or part-year workers. The recent expansion of the phase-out range (see last column of Table 1) should shift a greater proportion of the credit to full-time workers. Still, many full-time workers, even those with modest wage rates, earn enough to be in (or just beyond) the phase-out range of the credit.

![Table 1](Image)

**Table 1**

**The Earned Income Tax Credit**

**1975-1990**

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Maximum Amount Eligible</th>
<th>Phase-in Rate</th>
<th>Maximum Credit</th>
<th>Phase-out Rate</th>
<th>Phase-out Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-78</td>
<td>$4,000</td>
<td>0.10</td>
<td>$400</td>
<td>0.10</td>
<td>$4,000-8,000</td>
</tr>
<tr>
<td>1979-84</td>
<td>5,000</td>
<td>0.10</td>
<td>500</td>
<td>0.10</td>
<td>6,000-10,000</td>
</tr>
<tr>
<td>1985-86</td>
<td>5,000</td>
<td>0.11</td>
<td>550</td>
<td>0.12</td>
<td>6,500-11,000</td>
</tr>
<tr>
<td>1987</td>
<td>6,000</td>
<td>0.14</td>
<td>840</td>
<td>0.10</td>
<td>6,830-15,230</td>
</tr>
<tr>
<td>1988</td>
<td>6,214</td>
<td>0.14</td>
<td>870</td>
<td>0.10</td>
<td>9,840-18,540</td>
</tr>
<tr>
<td>1989</td>
<td>6,500</td>
<td>0.14</td>
<td>910</td>
<td>0.10</td>
<td>10,240-19,340</td>
</tr>
<tr>
<td>1990</td>
<td>6,786</td>
<td>0.14</td>
<td>950</td>
<td>0.10</td>
<td>10,640-20,140</td>
</tr>
</tbody>
</table>

Note: Estimated for years after 1986 when the EITC is indexed for inflation. All figures are in current dollars.
A tax credit on earnings was supported as a way to reduce the work disincentives faced by welfare recipients.

Considered as part of the welfare system, the EITC has several problems. Eligibility for the EITC does not depend on a recipient’s assets or on other criteria common to welfare programs. Eligibility is also unaffected by the receipt of nontaxable income. Thus, a few recipients of the credit are millionaires with large amounts of tax-shelter income. Other recipients may have significant amounts of Workers’ Compensation or other transfer payments excluded from AGI. Although the tax system has advantages as a means for promoting welfare policy goals—no new administrative apparatus is necessary and participants can be identified easily on the basis of tax data already filed—one major disadvantage is that not all relevant information is reported on tax forms. Moreover, the definition of a household for tax purposes may differ from that which is most appropriate for a welfare program. The latter, for example, may count several tax units as a single household.

Whereas the EITC uses an annual accounting period, welfare programs normally use monthly or quarterly accounting periods. The EITC is thus not usually available to help meet emergency needs. Although the credit can be received during the year through adjustments in income tax withholding rates, few taxpayers have taken advantage of that option. The IRS estimates that in 1983, for instance, over 5 million filers received an earned income tax credit, but advanced credit payments were received by only about 5,700 of these.

Despite this difference from normal welfare programs, longer accounting periods are a useful mechanism for targeting a greater proportion of assistance to the longer-term poor. A longer accounting period also targets benefits in a manner similar to an assets test in a welfare program, especially when comparisons are made across a nonelderly, nonretired population. This comparison is appropriate in the case of the EITC, since other requirements—dependents must be present and the credit is based on earnings, not income—generally exclude most elderly and retired persons.

The material in this article is an expansion of the authors’ section on the earned income tax credit in their chapter, “The Taxation of Poor and Lower Income Workers,” Chapter 4 in Jack A. Meyer, ed., Ladders Out of Poverty (Washington, D.C.: American Horizons Foundation, 1986). Sandra Danziger (see “Teenaged Childbearing and Welfare Policy” in this issue) also has a chapter in the book. Ladders Out of Poverty is the report of the Project on the Welfare of Families, chaired by Bruce Babbitt and Arthur Fleming.

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### Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Max Credit In 1986 Dollars</th>
<th>% of 1975 Amount</th>
<th>Max Eligible Earnings In 1986 Dollars</th>
<th>As % of Poverty Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>$816</td>
<td>100%</td>
<td>$8,160</td>
<td>73%</td>
</tr>
<tr>
<td>1978</td>
<td>673</td>
<td>83%</td>
<td>6,730</td>
<td>60%</td>
</tr>
<tr>
<td>1979</td>
<td>757</td>
<td>93%</td>
<td>7,570</td>
<td>67%</td>
</tr>
<tr>
<td>1981</td>
<td>604</td>
<td>74%</td>
<td>6,040</td>
<td>54%</td>
</tr>
<tr>
<td>1984</td>
<td>529</td>
<td>65%</td>
<td>5,290</td>
<td>47%</td>
</tr>
<tr>
<td>1986</td>
<td>550</td>
<td>67%</td>
<td>5,000</td>
<td>45%</td>
</tr>
<tr>
<td>1988</td>
<td>805</td>
<td>99%</td>
<td>5,746</td>
<td>51%</td>
</tr>
<tr>
<td>1990</td>
<td>813</td>
<td>100%</td>
<td>5,801</td>
<td>52%</td>
</tr>
</tbody>
</table>

Note also the important interaction with other tax provisions. Under current law, those who work part year, but receive Unemployment Compensation in other parts of the year, are less likely to be eligible for the credit than are other part-year workers with the same amount of earnings from employment. As explained above, the credit is phased out on the basis of adjusted gross income. Since three recent tax acts together have resulted in the full inclusion of Unemployment Compensation in adjusted gross income, receipt of such compensation is likely to result in the phase-out of EITC benefits.
For those with incomes below $6,214 (in 1988), the amount of the credit will rise as income increases. The EITC is closer to an earnings subsidy than to a welfare benefit, which usually declines with rising income. The annual accounting period, however, means that working part time (or for only part of the year) may increase and cannot decrease the effective rate of credit per hour. Thus, someone earning $3.50 per hour full time receives the same credit as someone earning $10.50 per hour one-third time. The subsidy per hour is higher for the higher-wage worker—$1.25 per hour in contrast to $0.42 per hour for the lower-wage worker.

As a work incentive for low-wage workers, the credit also is imperfect. Although it will provide a 14 percent subsidy for each of the first $6,214 of earned income in 1988, thus increasing the payoff from working, it actually provides no marginal incentive to any full-time, full-year worker, since the annual minimum wage ($6,968) is in excess of the $6,214 cap.

Moreover, the credit creates marginal work disincentives over the phase-out range. In 1988, the credit phases out over the range from $9,840 to $18,540. Consider the incentives facing a family of four with income of $13,000—just above the poverty level (estimated to be $12,127 in 1988). By earning one more dollar, the family’s income tax rises by 15 cents and their tax credit falls by 10 cents. The effective marginal income tax rate is therefore 25 percent.\(^5\) Thus the credit raises the effective marginal tax rate on earned income by 10 percentage points over the phase-out range. The net effect of the credit on work incentives—in particular, the choice to work or not work—is likely to be positive, but a trade-off is inevitably created. Greater work incentives for the first $6,214 of earnings result in reduced work incentives for earnings at the poverty level and slightly above it. Such trade-offs are a familiar feature of welfare programs, and the tax system unfortunately has no magic wand to make them disappear.

The EITC as a low-cost way to raise tax thresholds and lower taxes for the poorest income classes

In describing major tax reform proposals, two items of information are almost invariably presented: (1) a table displaying tax thresholds for various types of households, and (2) a table showing the distribution of tax cuts (or tax increases) by income class. Higher tax thresholds are obviously good, but attempts to raise the thresholds encounter a problem: significant revenues could be lost to the Treasury, thereby requiring higher tax rates on other income classes. There are two traditional ways to raise tax thresholds: increase the personal exemption or raise the standard deduction. But if tax schedules remain unchanged, each of these reduces taxes for the wealthy as well as the poor unless it is phased out once middle-income levels are reached. (Actually, for most purposes a phase-out is simply a backdoor way of raising rates.) Because it is phased out at relatively low levels of income, the EITC is a less expensive way to raise tax thresholds. Moreover, it can substantially lower taxes for the poorest income groups. Thus it both makes distributional tables more progressive and involves only modest costs to the Treasury. The recent changes in the EITC are best viewed as satisfying tax reform goals rather than welfare system goals.

Table 3 demonstrates the increases in tax thresholds achieved in the Tax Reform Act of 1986. These changes generally were successful at moving tax thresholds beyond the federal government’s measure of the poverty level.\(^6\) While the increases were due primarily to increases in the size of the personal exemption and (to a lesser extent) the standard deduction, the EITC gave an additional, significant boost for families with dependents. The second column of the table shows how high the tax threshold would be if all changes except an increase in the EITC had been enacted. A comparison with the other columns then demonstrates that the expanded EITC was responsible for 44 percent of the total increase in tax threshold for a married couple with two children and 60 percent of the increase for a single parent with two children.\(^7\)

As a means to raise tax thresholds, the EITC in its present form is handicapped by the fact that, while taxpayers with

<table>
<thead>
<tr>
<th>Table 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax-Exempt Level of Income as a Percentage of Poverty Threshold under Old and New Tax Laws (Estimated for 1988)</td>
</tr>
<tr>
<td>Taxpayer Description</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Married couple</td>
</tr>
<tr>
<td>no dependents</td>
</tr>
<tr>
<td>2 dependents</td>
</tr>
<tr>
<td>4 dependents</td>
</tr>
<tr>
<td>Head of household</td>
</tr>
<tr>
<td>2 dependents</td>
</tr>
<tr>
<td>4 dependents</td>
</tr>
<tr>
<td>Single</td>
</tr>
</tbody>
</table>

Note: Assumes full use of the EITC for those with dependents. Second column assumes current rates and standard deduction but no change in pre-1986 EITC.
dependents are eligible, the size and rate of credit are independent of the number of dependents. Thus, the EITC is inferior to the personal exemption in accommodating family size or to welfare programs that use equivalency scales to try to measure the needs of families of different size. Making either the income level at which the credit phases out, or the amount of the credit, increase with family size would further the goals of both the tax and welfare systems.

The EITC as an offset to social security taxes for low-income workers

A third rationale for the earned income tax credit is that it represents an offset to social security taxes. We believe that this view is in many ways compelling. The EITC largely eliminates the burden of social security taxes for many low-income workers. Since the credit is refundable, it offsets more than income tax liability for some households. No other credit generates a negative income tax liability. The rate of earned income credit, however, has always remained near the combined (employer plus employee) social security tax rate, and one could argue that there still are few taxpayers with negative taxes within the combined income/social security tax systems.

Expanding the EITC by raising the credit rate above the social security tax rate would run counter to the tendency to avoid negative tax rates. To be fully consistent with the social security offset rationale, the credit rate (now 14 percent) should be increased slightly once the social security tax rate (employer plus employee) rises to 15.02 percent in 1988. On the basis of this rationale, it is also somewhat difficult to justify limiting eligibility for the credit to those with dependent children (as in current law) or making the credit vary by family size (a recent proposal, as noted above). However, limiting the credit to earnings subject to social security taxes (which is not true in current law) would be consistent with this interpretation.

Note that while the credit increases over the first $6,214 of earnings in 1988, the EITC should not be viewed as providing a zero rate of social security taxation on the first $6,214 of social security earnings. Because the credit is phased out at modest income levels, it provides no such “zero bracket” to most workers. Also, eligibility is limited to those with dependents, so single workers, most teenage workers, and many young married couples fail to qualify for the credit. Even for someone with dependents, a low wage is insufficient to guarantee eligibility. A secondary worker with low wage rates will seldom benefit from the credit unless both spouses work a very short period of time at low wage rates. A couple with two earners at the minimum wage ($6,968 per year) would receive a smaller credit ($460 in 1988) than a couple with only one earner at the minimum wage ($870). Note also that two single parents, each with one child and working full time at the minimum wage, would lose $1,280 in credits if they married. Their tax “bill” would rise by $1,450, from $1,740 to $2,290. This results from a loss in total earned income credits and from the difference between the standard deduction for a married couple ($5,000) and the standard deductions for two single heads of households (2 x $4,400). So their after-tax income would fall by 9 percent—a hefty marriage penalty, particularly for a family at only 117 percent of the poverty level.

Toward a consensus

Which perspective should guide policy regarding the EITC? We believe the emphasis should be on understanding the competing perspectives and looking for areas of agreement among them. Proposals to increase with household size the amount of earned income eligible for the credit, as well as the income level at which the credit begins to phase out, would be largely consistent with two of the three perspectives. The income level at which phase-out begins should be coordinated with welfare programs so as to avoid creating combined implicit marginal tax rates that are unreasonable. Such coordination would probably require variations in the phase-out of the EITC according to family size. Solutions should also be sought for the marriage penalty problems introduced by the credit, and, again, adjustment by family size suggests itself as a mechanism.

Another useful reform of the credit would be to target better its availability. We would prefer that the credit apply at least to earnings slightly in excess of the full-time minimum wage level. The credit might also be phased out on the basis of adjusted gross income less any negative statements of income from businesses and partnerships. The addition of certain excluded forms of income to adjusted gross income would also better target the credit, although this type of tax reform has additional far-reaching implications.

There are several features that we would not change. At the present time we would not raise the rate of credit beyond the combined (employer plus employee) social security tax rate. That is, if a true wage credit is desired, the EITC may be an inadequate mechanism: at a minimum, a full analysis of alternatives is necessary. Other features of the EITC—its availability to two-parent families, its bias toward the longer-term poor through an annual accounting period, and its basic orientation toward workers—are valuable because they help ameliorate some of the adverse tendencies of other welfare programs. Finally, the IRS should be allowed to maintain its ability to calculate eligibility from data on tax returns, as a desirable feature of any tax or transfer program should be a low-cost mechanism to find the targeted population.

Combined marginal tax rates for lower-income families

In order to better assess the impact of the earned income tax credit on incentives, this section presents data on combined marginal tax rates from all direct taxes. Any future welfare reform should consider how these direct marginal tax rates integrate with the implicit rates in the phase-out ranges of welfare programs. We believe that our successful efforts to
expand the EITC, to move its phase-out range beyond poverty and full-time minimum wage levels, and to index the phase-out range for the future, may provide a reasonable, although imperfect, level of integration with existing welfare programs. Reform of the entire welfare system, however, will require a much more thorough examination of this issue.

We have also expressed some concern about the extent to which low-income workers just beyond the range of both welfare programs and the EITC—for example, working families with earnings at one-half median income—over time have paid higher and higher average and marginal tax rates. Perhaps one difficulty is that this group often receives little attention in either tax or welfare debates. Nonetheless, advocates of tax and welfare changes should be aware of how various trade-offs have affected and will affect this group.

Combined marginal tax rates are shown for two different types of taxpayers in Figures 1 and 2. These figures also contrast the combined marginal rates of taxation faced by poor and near-poor households under the old and new law. The combined marginal tax rates are found by summing the

Figure 1. Combined Marginal Tax Rates from Direct Taxation in 1988 for a Family of Four Filing Jointly
effective tax rates for the federal income tax, social security
tax, earned income tax credit, and a representative state
income tax (Virginia) in 1988.\textsuperscript{12} Note that while there are
some increases in the "marginal" tax rates—the tax on an
additional dollar of earned income—the average tax rate
decreases at all points in the income distribution.

Figure 1a presents the combined marginal tax rate for a
family of four under current law and under the pre-1986 law.
The tax rate under current law starts out close to zero. No
federal income taxes are paid, and the earned income tax
credit largely offsets the social security tax on the first
$6,214 of earnings. Only state, not federal, income taxes
begin at income levels well below poverty. At the poverty
level ($12,127), the family is paying social security taxes (at
15.02 percent), state income taxes (at 3 percent), and is
already in the phase-out range for the earned income tax
credit, thus losing 10 cents of credit for each additional
dollar earned. The poverty-level family therefore faces a
combined marginal tax rate of 28 percent.\textsuperscript{13} This tax rate
jumps abruptly by 15 percentage points (to 43 percent) when
income exceeds $12,800 (106 percent of the poverty level).
At this point the family begins paying federal income taxes,
exclusive of the EITC. Soon thereafter, the state tax rate

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1a.png}
\caption{Combined Marginal Tax Rates from Direct Taxation in 1988 for a Single Head of Household with Two Dependents.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1b.png}
\caption{Change in Marginal Tax Rate resulting from Tax Reform Act of 1986.}
\end{figure}
climbs to 5 percent and the maximum marginal tax rate of 45 percent is reached. The rate stays approximately unchanged until income reaches $18,540, at which time the EITC is fully phased out and the combined tax rate falls by 10 percentage points. The next abrupt change in the tax rate (not shown in Figure 1) occurs when the family enters the 28 percent federal income tax bracket at an income of $42,550.

The rates under the old law would have had a similar pattern, with increased marginal rates during the phase-out of the lower EITC. This would have occurred at a lower rate of income, however—between $6,500 and $11,000 rather than between $9,840 and $18,540.

Figure 1b shows the change in marginal tax rates as a result of the Tax Reform Act of 1986. Note that marginal tax rates fell at all levels of income up to and very slightly beyond the poverty threshold. For those with marginally higher incomes, the marginal tax rate rose by more than 10 percent. The expansion of the EITC is responsible for the net increase in this range.14

Figure 2 shows similar data for a single head of household with two dependents. The effective rate structure and the changes in that structure follow a pattern similar to that for the family of four. The change from Figure 1 reflects primarily a different number of personal exemptions.

For single workers with no dependents, of course, no EITC is available, and their combined marginal tax rates follow a more normal step-like function (not shown on a graph). Single workers begin paying the federal income tax at income levels below the poverty level, but there is no 10 percentage point rise in the combined tax rate due to the phase-out of the EITC, as with households with dependents.

The figures show combined marginal tax rates of 45 percent for families only slightly above the poverty level and of about 35 percent for families at one-half the median family income. Although a marginal tax rate of 45 percent may not seem especially high, note that it exceeds the rate that applies to the highest income households (whose incomes also exceed the social security cap). More important, when these marginal tax rates are combined with the implicit tax rates in welfare programs, the sum of the implicit plus explicit tax rates could become quite large. Given the costs of working, including transportation, meals, and child care, many of the poor and near-poor may find that additional work provides only limited financial benefit. A comprehensive examination of this important issue, however, is beyond the purview of this article.15

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1 Lack of refundability, of course, limits the marginal incentive effect of many tax provisions. It raises as well equity issues between those who benefit and those who do not benefit from the incentives.


5 Note that this 25 percent marginal tax rate occurs even though this family will receive a tax credit of $554 and pay an average income tax rate of negative 4.0 percent.

6 The tax threshold (assuming full use of the EITC) was raised above the poverty threshold for a family of four filing jointly in 1975-80. By 1984, however, as a result of inflation and an unindexed tax system, a family of four at the poverty level paid 3.43 percent of its income in federal income taxes. As also shown in Table 3, however, the tax threshold for single taxpayers continually remains below the poverty threshold.

7 The percentages are computed as follows: $100 \times (col. 3 - col. 2) / (col. 3 - col. 1).

8 One interesting aspect of the tax/welfare debate is that many analysts, including economists, support the notion of equivalency scales when dealing with welfare programs, but not when dealing with tax provisions such as the personal exemption. This inconsistency is noted in Steuerle, “The Tax Treatment of Households of Different Size,” in Taxing the Family, Rudolph G. Penner, ed. (Washington, D.C.: American Enterprise Institute, 1983). This article has been acknowledged as the source of the so-called Presidential “family initiative” to increase the size of the personal exemption, as well as behind the successful effort to give an additional, separate adjustment in the standard deduction for heads of households whose household size affects their ability to pay taxes.

9 One concern has been raised that the EITC could weaken support for the social security system by increasing the portion of social security paid out of general revenues. See Colin D. Campbell and William L. Peirce, “The Earned Income Tax Credit: A Special Analysis” (Washington, D.C.: American Enterprise Institute, 1980).

10 Among the most recent advocates of adjusting by family size is Robert D. Reischauer. See “Tax Reform: The Nitty Gritty; It Can Help the Poor Even More,” Washington Post, Outlook Section, June 1, 1986.


12 It is assumed that the incidence of the social security tax falls entirely on the employee. In calculating the effective tax rates under this assumption, income should include the employer’s 7.51 percent social security contribution. If income is defined correctly, the effective tax rates at all levels of income (up to the social security cap) would equal 1/1.10751 = 0.93 times the reported tax rates. To simplify the explanation of the figures, we have not made this adjustment.

13 See footnote 12.

14 Note that average tax rates fall at all income levels; the reduction in marginal tax rates at incomes below the poverty level outweighs the impact of higher marginal rates on income just above the poverty level.