

**Families Benefiting from Major Family and Education Tax Credits  
and from their Expansion under the American Recovery and  
Reinvestment Act (ARRA)  
Tax Year 2016**



**Office of Tax Analysis  
July 23, 2015**

The first two tables show the number of families that benefit from or claim the key family and education tax credits for 2016 estimated using Treasury’s Individual Tax Model. The provisions examined are the earned income tax credit (EITC), the child credit and the additional child credit (CTC and ACTC respectively), the child and dependent care credit (CDCTC), the American opportunity tax credit (AOTC), and the lifetime learning credit (LLTC).

Table 1 answers the question, “How many families benefit from the provision(s) and what is the total amount of benefit and the average benefit per return?” for the key family and education tax credits and their expansion under ARRA. The benefits are explored individually and in combination.

Table 2 answers the question, “How many families claim the provision(s) and what is the total amount claimed and average claimed per return?” for the key family and education tax credits.

For any given provision, the amount of benefit in Table 1 is calculated by comparing estimated tax liability to what estimated tax liability would be in absence of the provision. In some cases, the number of families thus benefiting from a credit and the amount of the benefit is less than the number claiming the credit and the amount of the credit. For example, the benefit to families from the AOTC is calculated by measuring the difference between estimated tax liability with the AOTC in place, and estimated tax liability if the AOTC were “repealed” and the Hope credit restored. In absence of the AOTC, some families would no longer be eligible for any education credit. However, other families would switch to the Hope credit or the LLTC and still receive a benefit; most families would receive a smaller credit, although a few families would receive a Hope credit of exactly the same size as their AOTC. The number of families that benefit and the amount of benefit estimated from the AOTC presented in Table 1 is therefore less than the number of families that claim the AOTC and the amount claimed presented in Table 2. In other cases, benefits will be much closer to claims.

Tables 3 to 6 present the estimated benefit from the expansion of the family credits in ARRA by adjusted gross income. The total benefit of the ARRA expansion of all family and education credits is shown in Table 3. The benefit from the EITC expansions is shown in Table 4. The benefit from the ACTC expansion is shown in Table 5. The benefit from the replacement of the Hope credit with the AOTC is shown in Table 6.



**Table 1**  
**Estimated Benefit from Key Tax Credits for Families with Children and Education Expenses Totals**  
**and Portion due to the American Recovery and Reinvestment Act<sup>1</sup>**  
**Tax Year 2016**

Counts and Amounts of Families that benefit from the ...	Number of Families (millions)	Amount of Benefit (\$billions)	Average Benefit (\$)
Family and Education Credits (sum of EITC, CTC, ACTC, CDCTC, AOTC and LLTC)	55.6	144.6	2,601
Expansion of Family and Education Benefits under ARRA (sum of EITC 3+ child and ARRA MPR, lower ACTC floor, AOTC) <sup>2</sup>	24.4	24.6	1,010
Family Credits (sum of EITC, CTC, ACTC and CDCTC)	47.4	124.1	2,620
Largest Family Credits (sum of EITC, CTC and ACTC)	46.0	120.7	2,623
Expansion of Family Benefits under ARRA (EITC 3+ child and ARRA MPR, lower ACTC floor)	16.1	14.8	916
Earned Income Tax Credit (EITC)	27.8	66.3	2,380
Expansion of EITC under ARRA (sum of EITC 3+ child and ARRA MPR)	6.4	3.4	537
Third Child Schedule in ARRA	3.2	2.0	633
Marriage Penalty Relief in ARRA	4.2	1.5	360
Total Marriage Penalty Relief (sum of ARRA & EGTRRA MPR) <sup>3</sup>	4.8	3.7	780
Child Tax Credit and Additional Child Tax Credit (CTC, ACTC)	35.2	54.4	1,547
Expansion of ACTC under ARRA (lower ACTC floor)	12.0	11.3	941
Total ACTC	19.8	27.1	1,364
Child and Dependent Care Tax Credit (CDCTC)	6.2	3.4	553
Education Credit (AOTC/Hope and LLTC)	13.4	20.4	1,516
American Opportunity Tax Credit (expand Hope credit to AOTC) <sup>4</sup>	9.5	9.9	1,042
Refundability of AOTC (allow 40% of AOTC to be refunded) <sup>5</sup>	5.3	4.3	814



Notes:

<sup>1</sup> The tax benefits included in this table are the earned income tax credit (EITC), the child credit (CTC), the additional child tax credit (ACTC), the child and dependent care tax credit (CDCTC), the American opportunity tax credit (AOTC) and the lifetime learning credit (LLTC). The American Recovery and Reinvestment Act of 2009 (ARRA) expanded the family credits in the following ways: the earnings floor for claiming the ACTC decreased to \$3,000 (not indexed) from \$10,000 (indexed); a fourth schedule was added to the EITC, expanding the credit for families with three or more children; EITC marriage penalty relief (MPR), that is, the increase in the phase-out threshold for married couples, was increased to \$5,000 from \$3,000 (both indexed); and, the Hope credit was temporarily replaced by the AOTC, which has higher phase-outs, is partially refundable, and is worth up to \$2,500 (not indexed). Although the ARRA expansions were initially effective for only two years, the American Taxpayer Relief Act of 2012 (ATRA) kept the changes in place through Tax Year 2017.

<sup>2</sup> The 2016 estimated values of changes due to the ARRA are as follows: EITC MPR is increased from \$3,360 to \$5,590; ACTC earnings floor is reduced from \$14,050 to \$3,000; and, the education credit maximum is \$2,500 for an AOTC under ARRA and \$2,100 for a Hope credit without ARRA.

<sup>3</sup> This line estimates the benefit of the full \$5,000 of EITC MPR, which consists of the \$3,000 first introduced in the Economic Growth and Tax Relief and Reconciliation Act (EGTRRA) of 2001 and an additional \$2,000 expansion in ARRA. ATRA made the EGTRRA MPR permanent and extended the ARRA expansion through 2017. In 2016, estimated total MPR is \$5,590.

<sup>4</sup> ARRA temporarily replaced the Hope credit with the more generous AOTC. The maximum AOTC is \$2,500 (compared to an estimated maximum Hope credit of \$2,100 for 2016) and 40% of the otherwise allowable AOTC is refundable (the Hope credit is not refundable). ARRA also increased the beginning of the phase-out range to \$80,000 (not indexed) from \$56,000 (2016 indexed value). The phase-out ranges begin at \$160,000 (AOTC) and \$112,000 (Hope) for joint filers.

<sup>5</sup> Even though all 10 billion families claiming an AOTC claim the 40% of the credit that is refundable, only families with insufficient tax liability to offset their full credit benefit from this refundability. Families that have sufficient tax liability would receive their full credit even without refundability, and are therefore not included among the 5.3 million families benefiting from refundability.



**Table 2**  
**Number of Families and Amounts Claimed for Key Family Credits<sup>1</sup>**  
**Tax Year 2016**

Tax Credit	Number of Families (millions)	Amount Claimed (\$billions)	Average Claimed (\$)
Total EITC, CTC & ACTC, CDCTC and Education Credits	55.6	144.8	2,606
Total EITC	27.8	66.3	2,380
EITC for workers without children	7.3	2.2	299
EITC for workers with children	20.5	64.1	3,126
Total CTC and ACTC	35.2	54.5	1,547
CTC	22.6	27.4	1,212
ACTC	19.8	27.1	1,364
Total CDCTC	6.4	3.5	555
Total Education Credits	13.5	20.5	1,524
LLTC	3.7	2.5	671
Total AOTC <sup>2</sup>	10.0	18.1	1,809
AOTC nonrefundable portion	7.8	9.1	1,165
AOTC refundable portion	10.0	9.0	898

Notes:

<sup>1</sup> The tax benefits included in this table are the earned income tax credit (EITC), the child credit (CTC) and the additional child tax credit (ACTC) the child and dependent care tax credit (CDCTC), the American opportunity tax credit (ACTC) and the lifetime learning credit (LLTC).

<sup>2</sup> As written in the statute, the AOTC is calculated in two pieces: 40% of the otherwise allowable AOTC is refundable and the remaining 60% is not refundable. Thus, all families claiming an AOTC receive the refundable portion of the AOTC but only those families with tax liability to offset are able to claim all or part of the nonrefundable portion of the AOTC. Of the 10 million families claiming an AOTC, 5.3 million would receive a smaller credit, or none at all, if the AOTC were not refundable.



**Table 3**  
**Estimated Benefit from Expansion of the Earned Income Tax Credit (EITC), Additional Child Tax Credit (ACTC), and the Replacement of Hope Tax Credit with American Opportunity Tax Credit (AOTC) due to the American Recovery and Reinvestment Act (ARRA)**  
**Tax Year 2016**

Adjusted Gross Income (\$)	Families Benefiting from ARRA expansion (thousands)	Total Benefit (\$millions)	Average Benefit (\$)
0 <= 15,000	7,496	7,432	991
15,000 <= 30,000	8,343	8,536	1,023
30,000 <= 40,000	2,501	2,006	802
40,000 <= 50,000	1,838	1,310	713
50,000 <= 60,000	718	501	697
60,000 <= 75,000	748	946	1,266
75,000 <= 100,000	926	786	848
100,000 <= 200,000	1,719	3,030	1,762
200,000 and over	0	0	0
<b>Total<sup>2</sup></b>	<b>24,410</b>	<b>24,649</b>	<b>1,010</b>

Notes:

<sup>1</sup> The ARRA temporarily replaced the Hope credit with the more generous AOTC. The maximum AOTC is \$2,500 (compared to an estimated maximum Hope credit of \$2,100 for 2016) and 40% of the otherwise allowable AOTC is refundable (the Hope credit is not refundable). ARRA increased the beginning of the phase-out range to \$80,000 (not indexed) from \$56,000 (2016 indexed value). The phase-out ranges begin at \$160,000 (AOTC) and \$112,000 (Hope) for joint filers. ARRA also increased the number of years a taxpayer can claim the credit to four years from two years. The ARRA expansions expire after 2017.

<sup>2</sup> Families with negative income are excluded from the lowest income class but included in the total line.



**Table 4**  
**Estimated Benefit from Expansion of the Earned Income Tax Credit (EITC) due to the**  
**American Recovery and Reinvestment Act (ARRA)**  
**(Additional Marriage Penalty Relief and Introduction of Third Child Schedule)<sup>1</sup>**  
**Tax Year 2016**

<b>Adjusted Gross Income (\$)</b>	<b>Families Benefiting from EITC Expansion (thousands)</b>	<b>Total Benefit (\$millions)</b>	<b>Average Benefit (\$)</b>
0 <= 15,000	947	403	425
15,000 <= 30,000	2,462	1,300	528
30,000 <= 40,000	1,552	918	592
40,000 <= 50,000	1,256	745	593
50,000 <= 60,000	115	39	337
60,000 <= 75,000	0	0	0
75,000 <= 100,000	0	0	0
100,000 <= 200,000	0	0	0
200,000 and over	0	0	0
<b>Total<sup>2</sup></b>	<b>6,365</b>	<b>3,417</b>	<b>537</b>

Notes:

<sup>1</sup>The ARRA temporarily expanded the EITC by adding a more generous fourth schedule for families with three or more children and by increasing EITC marriage penalty relief from \$3,000 (indexed) to \$5,000 (indexed). The 2016 estimated values for the marriage penalty relief parameters are \$3,360 and \$5,590, respectively. The ARRA expansions expire after 2017.

<sup>2</sup>Families with negative income are excluded from the lowest income class but included in the total line.



**Table 5**  
**Estimated Benefit from Expansion of the Additional Child Tax Credit (ACTC) due to the**  
**American Recovery and Reinvestment Act (ARRA)**  
**(Decrease the Income Floor on Refundability to \$3,000)<sup>1</sup>**  
**Tax Year 2016**

<b>Adjusted Gross Income (\$)</b>	<b>Families Benefiting from ACTC Expansion (thousands)</b>	<b>Total Benefit (\$millions)</b>	<b>Average Benefit (\$)</b>
0 <= 15,000	5,636	5,264	934
15,000 <= 30,000	5,752	5,546	964
30,000 <= 40,000	473	373	789
40,000 <= 50,000	81	65	805
50,000 <= 60,000	25	22	864
60,000 <= 75,000	7	9	1,211
75,000 <= 100,000	6	4	673
100,000 <= 200,000	2	2	1,189
200,000 and over	0	0	0
<b>Total<sup>2</sup></b>	<b>12,039</b>	<b>11,332</b>	<b>941</b>

Notes:

<sup>1</sup> The ARRA temporarily expanded the ACTC by decreasing the earnings floor for claiming the credit to \$3,000 (not indexed) from \$10,000 (indexed). The 2016 estimated values for the pre-ARRA income floor is \$14,050. The ARRA expansions expire after 2017.

<sup>2</sup> Families with negative income are excluded from the lowest income class but included in the total line.





**Table 6**  
**Estimated Benefit from Expansion of the American Opportunity Tax Credit (AOTC) due to the**  
**American Recovery and Reinvestment Act (ARRA)**  
**(Replacement of Hope Tax Credit with AOTC)<sup>1</sup>**  
**Tax Year 2016**

Adjusted Gross Income (\$)	Families Benefiting from AOTC Expansion (thousands)	Total Benefit (\$millions)	Average Benefit (\$)
0 <= 15,000	2.0	1,774	870
15,000 <= 30,000	1.9	1,684	874
30,000 <= 40,000	0.9	706	820
40,000 <= 50,000	0.7	479	730
50,000 <= 60,000	0.5	420	770
60,000 <= 75,000	0.7	939	1,263
75,000 <= 100,000	0.9	781	848
100,000 <= 200,000	1.7	3,028	1,763
200,000 and over	0.0	0	0
<b>Total<sup>2</sup></b>	<b>9.5</b>	<b>9,853</b>	<b>1,042</b>

U.S. Department of the Treasury  
Office of Tax Analysis

July 23, 2015

Notes:

<sup>1</sup> The ARRA temporarily replaced the Hope credit with the more generous AOTC. The maximum AOTC is \$2,500 (compared to an estimated maximum Hope credit of \$2,100 for 2016) and 40% of the otherwise allowable AOTC is refundable (the Hope credit is not refundable). ARRA increased the beginning of the phase-out range to \$80,000 (not indexed) from \$56,000 (2016 indexed value). The phase-out ranges begin at \$160,000 (AOTC) and \$112,000 (Hope) for joint filers. ARRA also increased the number of years a taxpayer can claim the credit to four years from two years. The ARRA expansions expire after 2017.

<sup>2</sup> Families with negative income are excluded from the lowest income class but included in the total line.

