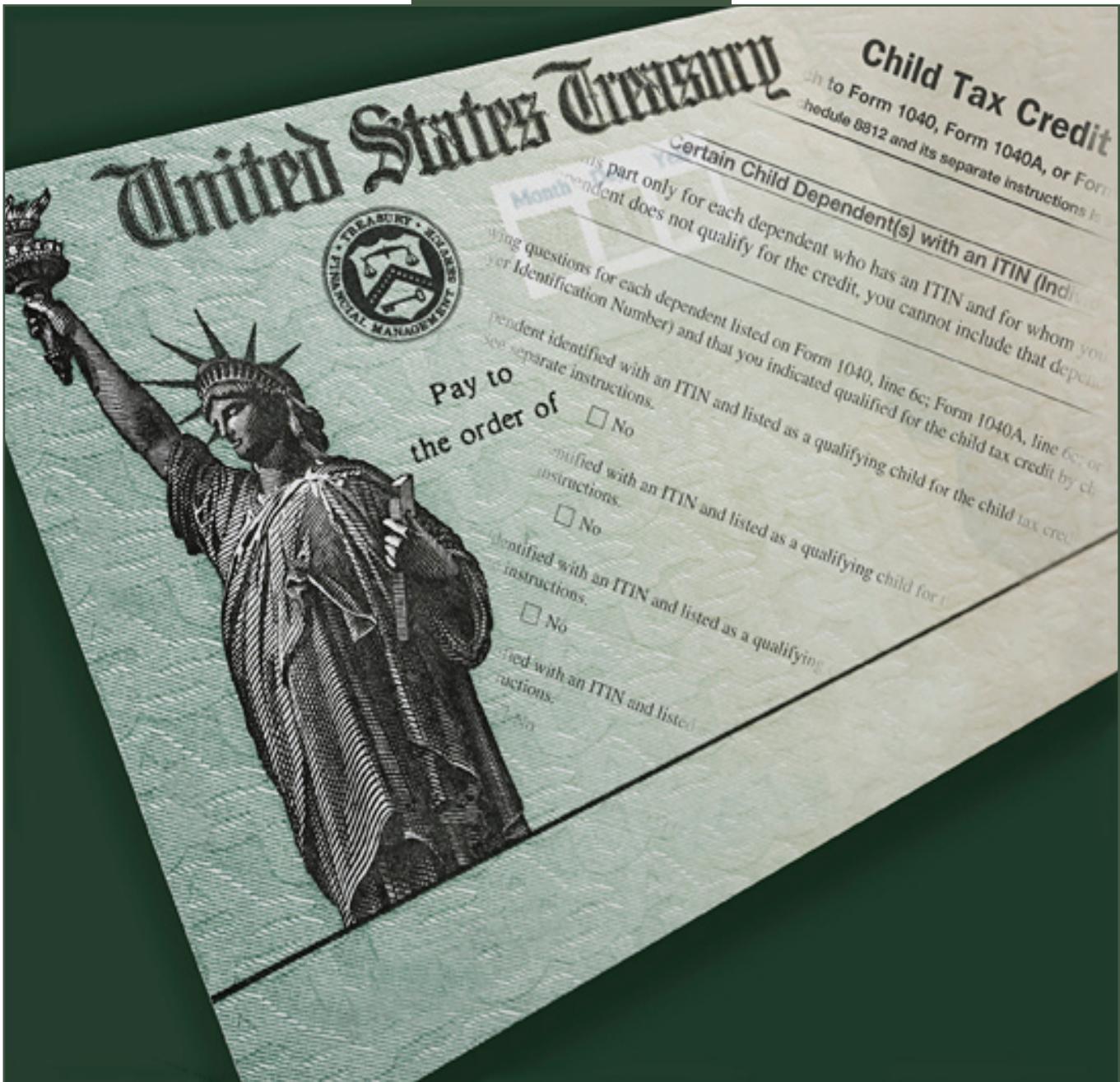


CBO

Refundable Tax Credits



JANUARY 2013

Notes

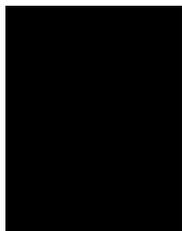
Numbers in the text and tables may not add up to totals because of rounding.

Unless otherwise indicated, all years referred to in this study are calendar years.

Federal tax liabilities are the amount of federal taxes people owe on the basis of their annual income, regardless of when the taxes are paid. The portion of refundable tax credits that reduces the amount of federal tax liabilities is counted as a reduction in revenue. The portion that exceeds people's tax liabilities is treated as an outlay.

Throughout this report, the costs of refundable tax credits are given in 2013 dollars. The Congressional Budget Office (CBO) used the price index for personal consumption expenditures to convert nominal costs into real (inflation-adjusted) costs.

Historical data on the effect of most refundable tax credits on the federal budget (including the reduction in tax liabilities and the increase in outlays) are based on a sample of tax returns. The data are available through 2009 from Internal Revenue Service (IRS), Statistics of Income, *Individual Income Tax Returns*, Publication 1304 (various years), and, for 2010, from "SOI Tax Stats - Individual Income Tax Returns Publication 1304 (Complete Report)," www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-Complete-Report (December 18, 2012). Data on a refundable tax credit for corporations are available through 2009 from IRS, "SOI Tax Stats - Corporation Complete Report," www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report (November 29, 2012). Projections are based on estimates from the staff of the Joint Committee on Taxation.



Contents

Summary	1
Changing Nature of Refundable Tax Credits	1
Effects on the Economy and the Tax System	1
Administrative Challenges in Providing Subsidies	2
Transparency of Refundable Tax Credits	3
The Structure of Tax Preferences	3
Costs of Refundable Tax Credits	6
Sharp Increase in Costs from 1975 to 2010	6
Declining Costs from 2010 to 2013	6
Rising Costs After 2013	8
The Evolution of Refundable Tax Credits	9
Earnings-Based Credits	9
Expenditure-Based Tax Credits	12
Credits Related to the Alternative Minimum Tax	13
Effects of Refundable Tax Credits	13
Effects on Economic Efficiency	14
Effects on Equity	15
Effects on Simplicity of the Tax System	16
Administrative Challenges in Providing Subsidies	16
Reaching Eligible People	17
Timing of Payments	19
Compliance	20
Budgetary Treatment of Refundable Tax Credits	22
Transparency of Total Costs	22
Allocation of Costs Between Outlays and Revenues	22
Appendix: Description of Refundable Tax Credits	25
List of Tables and Figures	30
About This Document	31



Refundable Tax Credits

Summary

The U.S. tax code contains many preferences that lower or eliminate the amount of taxes owed. Those preferences include deductions, exclusions, and tax credits, which can be either refundable or nonrefundable. Refundable tax credits differ from other preferences in a significant way: Whereas other preferences reduce the amount of taxes owed to the government, refundable credits can result in net payments from the government. Specifically, if the amount of a refundable tax credit exceeds a filer's tax liability before that credit is applied, the government pays the excess to that person or business.

In the federal budget, the portion of refundable credits that reduces the amount of taxes owed is counted as a reduction in revenues, and the portion that exceeds people's tax liabilities is treated as an outlay. Since 1975, when the first refundable tax credit took effect, outlays have accounted for between 50 percent and 80 percent of the annual budgetary costs of refundable tax credits.

The number and total costs of the refundable credits in the income tax system have grown considerably since 1975. The number of credits peaked at 11 in 2010 before dropping to 6 in 2013 (see Figure 1). Their total costs (that is, the reduction in revenues and the increase in outlays) reached a high of \$238 billion in 2008. (That amount and other annual costs discussed in this report are expressed in 2013 dollars.) Those costs will drop to \$149 billion in 2013, the Congressional Budget Office (CBO) estimates, mostly for the earned income tax credit (EITC) and the child tax credit. By 2018, three more credits will have expired, and the EITC and the child tax credit will have been scaled back.

Those cutbacks in refundable tax credits will be more than offset, however, by new health-related subsidies provided through the tax system. Starting in 2014, a new refundable tax credit will be available to some people for the purchase of health insurance through newly created exchanges. The cost of that credit will be about

\$110 billion by 2021, CBO and the staff of the Joint Committee on Taxation (JCT) project, bringing the total cost of refundable tax credits in that year to \$213 billion—roughly the same as the costs in 2009 and 2010, even though the number of refundable tax credits will have fallen by more than half between 2010 and 2021.

Changing Nature of Refundable Tax Credits

Not only have the number and costs of refundable tax credits changed over the years, but the nature of those credits has evolved. Eligibility for the first refundable tax credit—the earned income tax credit—was based primarily on the recipient's earnings, adjusted gross income, and the number of children in his or her home.¹ However, many of the newer refundable tax credits are not limited to people with earnings but are instead used to compensate people for expenditures on items such as health insurance and higher education. Once restricted to low-income workers who live with children, eligibility for some refundable tax credits has been extended—first to workers with very low income who do not live with children, then to people who incur certain types of expenses but who may not work, and more recently to some businesses.

Effects on the Economy and the Tax System

The growth of refundable credits affects the economy and the tax system in several ways. The credits affect:

- Economic efficiency—how resources are allocated in the economy;
- Equity—how tax burdens are allocated among households with varying demographic and economic characteristics; and

1. Adjusted gross income includes earnings and other taxable income (such as investment income), net of exclusions of some types of income (tax-exempt interest, for example) and certain adjustments.

- Simplicity of the tax system—what the costs are of complying with and administering taxes.

Credits affect the allocation of resources by favoring certain activities or goods. Credits that decline in value as income rises prompt some people to work fewer hours. However, credits that increase as earnings rise, such as the EITC at certain income levels, provide an incentive for some people to work more. The EITC also draws people into the labor force by increasing their after-tax income. On balance, that latter effect appears to dominate; researchers have identified a link between expansions of the EITC and increases in the number of people—especially single mothers—who have entered the workforce.

In addition, the growth of refundable tax credits has contributed to a decline in average tax rates among households in the bottom 40 percent of the income distribution. That decline is most notable for individual income tax rates, which between 2007 and 2009 became increasingly negative for low-income households (that is, on average, those households received money back from the federal government instead of owing income taxes). Most of those households, however, pay federal payroll taxes.

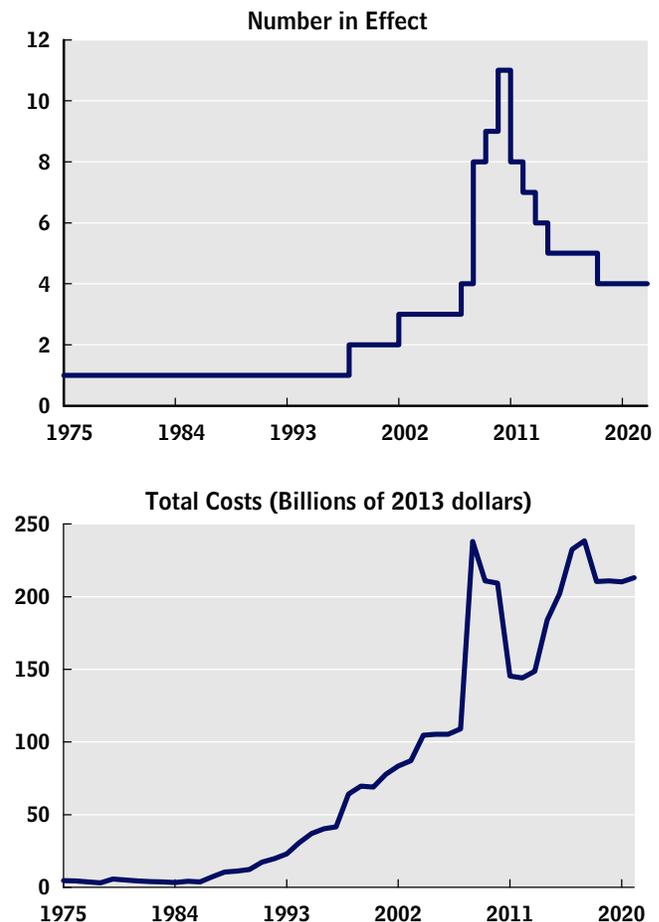
Refundable tax credits also affect the administration of taxes. By adding more complicated rules, more tax forms, and more computations, the credits increase the costs incurred by taxpayers in complying with the tax code and by the government in administering those laws.

Administrative Challenges in Providing Subsidies

Most refundable tax credits were created to meet social policy goals, such as providing income support for low-income households, expanding health insurance coverage, or increasing college enrollment. But those goals could instead be pursued through spending programs, such as the Supplemental Nutrition Assistance Program (formerly known as the Food Stamp program), the Temporary Assistance for Needy Families program, Medicaid, the Children's Health Insurance Program, and the Pell Grant program.

The choice between using the tax system and relying on spending programs to meet such goals hinges largely on administrative considerations, such as the effectiveness in reaching the target population, timeliness, and the ability to ensure compliance with rules. Each of those considerations affects the costs incurred by the federal

Figure 1.
Number and Total Costs of Refundable Tax Credits, Calendar Years 1975 to 2021



Sources: Congressional Budget Office based on data from the Internal Revenue Service (IRS) and estimates from the staff of the Joint Committee on Taxation. Historical data for refundable tax credits that are reported on individual tax returns are available through 2009 from IRS, *Individual Income Tax Returns*, Publication 1304 (various years), and, for 2010, from "SOI Tax Stats - Individual Income Tax Returns Publication 1304 (Complete Report)," [www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-\(Complete-Report\)](http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-(Complete-Report)) (December 18, 2012). Historical data for the refundable tax credit for corporations—the prior-year alternative minimum tax credit—are available through 2009 from IRS, "SOI Tax Stats - Corporation Complete Report," www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report (November 29, 2012).

Note: The costs of credits that switch from refundable to nonrefundable status (or vice versa) are shown only for the period in which they are refundable.

government and the burdens imposed on people who are eligible for benefits and on the third parties who might be asked to provide evidence of applicants' eligibility. Minimizing those costs and burdens, then, can be a factor in deciding between the tax system and spending programs as a means to deliver subsidies.

Delivering assistance to low-income families using either approach has advantages and disadvantages. In some cases, it is simpler to distribute assistance to low-income workers through the tax system: Most of those workers already file tax returns to claim refunds of income taxes withheld during the year even if they do not owe any taxes, and they can generally claim a credit by attaching one more form to their return. By comparison, claiming assistance through spending programs can be more time-consuming and intrusive for beneficiaries, especially if they must take time off from work to apply for the benefit in person at a government agency. But spending programs can more easily reach people who do not have to file tax returns and who are already receiving certain benefits from other government agencies. In many instances, caseworkers attached to those programs assist claimants by determining eligibility for them.

The two approaches differ in other ways. Spending programs can be designed to provide assistance as the need arises, whereas people typically file tax returns only once a year, which makes it more challenging to provide timely assistance during the year. Overpayments are generally higher for refundable tax credits than for subsidies operated through spending programs, primarily because the Internal Revenue Service (IRS) cannot verify that applicants meet all eligibility requirements before benefits are paid. However, additional verification steps raise the administrative and compliance costs of spending programs relative to those of the tax system.

Transparency of Refundable Tax Credits

Some analysts have suggested that the scope of federal budgetary commitments is masked because as much as half of the cost of all refundable tax credits (as well as the full costs of other tax preferences) has been recorded as a reduction in revenues, thereby making the budget appear smaller. Moreover, those preferences are not displayed in separate accounts in the budget in the same manner as spending programs. Only the outlay portion of each refundable tax credit is easily identified in the budget in a separate line item. The remaining costs are not presented individually; they are, instead, reflected in the total

amount of revenues recorded. That presentation makes the readily identifiable budgetary costs of refundable tax credits appear smaller than the full costs of those credits. As a result, providing Congressional review and oversight is more difficult for the credits than for spending programs.

The Structure of Tax Preferences

The preferences in the U.S. tax code that reduce or, in some cases, eliminate a taxpayer's income tax liability can take the form of exclusions, deductions, or credits, each of which affects the calculation of tax liabilities in a different way:

- A *tax exclusion* reduces the amount of income that tax filers report on their tax return.
- A *tax deduction* is an expense that is reported on tax returns and then subtracted from reported income when calculating taxable income.²
- A *nonrefundable tax credit* offsets an individual's tax liability, reducing it dollar for dollar.
- A *refundable tax credit* also offsets tax liabilities, but eligible individuals and businesses receive the full amount of the credit even if they do not have any tax to offset. As a result, they receive money back from the government, on net, rather than owing taxes.

Whereas tax credits reduce the amount of taxes owed dollar for dollar, exclusions and deductions reduce tax liabilities by less than the amount reported on the tax return. Because exclusions and deductions lower taxable income, their net impact generally depends on a taxpayer's marginal tax rate (the rate that applies to the last

2. The tax code gives taxpayers a choice between itemizing deductions for certain specified expenses, such as state and local income taxes and mortgage interest, and claiming the standard deduction, which is a flat dollar amount that does not depend on the actual amount spent. Generally, taxpayers find it more advantageous to itemize deductions if the sum of those deductions is greater than the standard deduction. The standard deduction or itemized deductions are subtracted from adjusted gross income when calculating taxable income. Some deductions—for, example, the one for contributions to an individual retirement account—can be claimed by any eligible taxpayer, even if he or she also claims the standard deduction; such preferences are sometimes referred to as “above-the-line” deductions and are subtracted from total income to compute adjusted gross income.

Table 1.**Illustrative Effects of Alternative Tax Preferences on Tax Liabilities**

(Dollars, unless otherwise specified)

	No Tax Preference	Deduction of \$14,000	Tax Credit of \$3,500	
			Nonrefundable	Refundable
Tax Rate = 25 Percent				
Taxable Income				
Before deduction for qualifying expense	80,000	80,000	80,000	80,000
Minus deduction	n.a.	-14,000	n.a.	n.a.
After deduction	80,000	66,000	80,000	80,000
Tax Rate (Percent) ^a	25	25	25	25
Tax Liability				
Before credit for qualifying expense	20,000	16,500	20,000	20,000
Minus amount of credit that reduces tax liability	n.a.	n.a.	-3,500	-3,500
After credit	20,000	16,500	16,500	16,500
Amount of Credit That Exceeds Tax Liability	n.a.	n.a.	n.a.	0
Change from Scenario with No Tax Preference				
Reduction in tax liability	n.a.	3,500	3,500	3,500
Payment from government	n.a.	0	0	0
Income after taxes and government payments	n.a.	3,500	3,500	3,500
Tax Rate = 35 Percent				
Taxable Income				
Before deduction for qualifying expense	250,000	250,000	250,000	250,000
Minus deduction	0	-14,000	0	0
After deduction	250,000	236,000	250,000	250,000
Tax Rate (Percent) ^a	35	35	35	35
Tax Liability				
Before credit for qualifying expense	87,500	82,600	87,500	87,500
Minus amount of credit that reduces tax liability	n.a.	n.a.	-3,500	-3,500
After credit	87,500	82,600	84,000	84,000
Amount of Credit That Exceeds Tax Liability	n.a.	n.a.	n.a.	0
Change from Scenario with No Tax Preference				
Reduction in tax liability	n.a.	4,900	3,500	3,500
Payment from government	n.a.	0	0	0
Income after taxes and government payments	n.a.	4,900	3,500	3,500

Continued

dollar of income).³ Hence, as tax rates increase, so does the value of tax exclusions and deductions. For example, a person who is in the 25 percent tax bracket and deducts payments of \$14,000 for, say, home mortgage interest reduces his or her tax liability by \$3,500, but that

reduction increases to \$4,900 for a homeowner in the 35 percent bracket (see Table 1, which illustrates the effect of tax preferences on the amount of taxes owed).

By contrast, a nonrefundable tax credit directly reduces the filer's income tax liability, meaning that the benefit received is simply equal to the amount of the credit but is not to exceed the filer's tax liability. Thus, an individual who is in the 25 percent tax bracket and has \$14,000 of

3. As income rises, the value of some tax preferences declines—and is eventually eliminated—because of special phaseout rules. For simplicity, the discussion in this section ignores phaseout rules.

Table 1. **Continued**

Illustrative Effects of Alternative Tax Preferences on Tax Liabilities

(Dollars, unless otherwise specified)

	No Tax Preference	Deduction of \$14,000	Tax Credit of \$3,500	
			Nonrefundable	Refundable
Tax Rate = 15 Percent				
Taxable Income				
Before deduction for qualifying expense	20,000	20,000	20,000	20,000
Minus deduction	0	-14,000	0	0
After deduction	20,000	6,000	20,000	20,000
Tax Rate (Percent) ^a	15	15	15	15
Tax Liability				
Before credit for qualifying expense	3,000	900	3,000	3,000
Minus amount of credit that reduces tax liability	n.a.	n.a.	-3,000	-3,000
After credit	3,000	900	0	0
Amount of Credit That Exceeds Tax Liability	n.a.	n.a.	n.a.	500
Change from Scenario with No Tax Preference				
Reduction in tax liability	n.a.	2,100	3,000	3,000
Payment from government	n.a.	0	0	500
Income after taxes and government payments	n.a.	2,100	3,000	3,500

Source: Congressional Budget Office.

Notes: For simplicity, the amounts of the deduction and tax credits are the same in each set of examples. Taxable income is equal to adjusted gross income, net of deductions and exemptions. Adjusted gross income includes earnings and other taxable income (such as investment income), net of exclusions of some types of income (tax-exempt interest, for example) and certain adjustments. The starting point in the examples assumes that all deductions and exemptions—other than the tax preference for the illustrative qualifying expense—have already been subtracted from adjusted gross income.

n.a. = not applicable.

a. For simplicity, the same tax rate is assumed to apply to the entire amount of the individual’s income.

mortgage interest payments would generally benefit equally from a \$3,500 tax credit (for example, a credit equal to 25 percent of mortgage interest) or a deduction of the full amount of those interest payments.

Unlike the value of exclusions and deductions, the dollar value of a nonrefundable tax credit is not affected by one’s income and tax bracket, as long as the person’s tax liability (before the credit) is greater than the amount of the credit. As a result, a person in the 35 percent bracket would prefer a \$14,000 deduction to a \$3,500 tax credit because the deduction would provide that person with \$1,400 more in tax benefits than would the credit.

The value of exclusions, deductions, and nonrefundable tax credits is limited, however, by the amount of taxes a person owes. People generally do not have any income tax liability (before credits) if their income is below a certain

amount—about \$27,100 for a family with two children (or about 120 percent of the federal poverty guideline for a family that size) and about \$9,800 for an individual with no children (about 90 percent of the poverty guideline for a one-person family) in 2012.⁴ A person who is eligible for a \$3,500 nonrefundable credit and owes the IRS \$3,000 in income taxes can claim the credit only up to the amount equaling his or her tax liability—in this case, \$3,000 (see, for example, the person in the 15 percent tax bracket in Table 1).

Refundable tax credits differ from other tax preferences in that their value may exceed the amount of income taxes the filer owes. The person in the previous example

4. The income tax thresholds in this example reflect the standard deduction and personal exemptions (for taxpayers and their dependents) available to each family or individual in 2012.

(eligible for a \$3,500 credit and owing \$3,000 in income taxes) could claim the full \$3,500 if the credit was refundable, even though that amount exceeded (by \$500) the amount of taxes owed. In that case, on net, the government would pay the individual rather than the other way around. Lawmakers sometimes place limits on the amount of the credit a person can receive if he or she does not have any income tax liability; in those instances, the credits are referred to as partially refundable.

Costs of Refundable Tax Credits

The first refundable credit was established in 1975, and the number of those credits began increasing in 1998; 11 different credits were in place in 2010. The costs of refundable tax credits peaked in 2008 but declined over the next four years because of the expiration of several credits designed to provide temporary economic stimulus. Costs will begin to climb again after 2013, CBO projects, and, by 2017, they will be about the same (\$238 billion) as in 2008 (see Figure 2). In 2018, when several credits are scaled back or eliminated, costs will fall by more than 10 percent, and, for the remainder of the decade, they will hover around \$210 billion—about the same as the cost in 2010, even though only four refundable credits will be in effect after 2017.

Sharp Increase in Costs from 1975 to 2010

The first refundable tax credit—the earned income tax credit—was introduced in 1975 and had a total budgetary cost in that year of nearly \$5 billion. That cost included both the reduction in revenues (the portion of the credit used to reduce tax liability) and the increase in outlays (the portion of the credit that exceeds tax liabilities and is paid to the taxpayer). The costs of refundable tax credits reached \$109 billion in 2007 and then shot up to \$238 billion in 2008, when eight such credits were in effect. By 2010, the total cost had dropped to about \$209 billion—still nearly twice the cost in 2007. The surge in the number and cost of refundable credits between 2007 and 2010 occurred largely because of the recession, which led to the enactment of temporary new credits and the expansion of existing ones.⁵ Although the number of credits increased from 2008 to 2010, their costs were greater in 2008 largely because of the one-time economic stimulus payments that were enacted in the Economic Stimulus Act of 2008 (which defined them as refundable tax credits) and were received by most taxpayers in that year (see Figure 3).⁶

In 1975, over two-thirds of the credits' costs was from the refundable portion of the credits (the amount by which credits exceed tax liabilities) and thus was counted in the federal budget as an outlay. That share peaked at 80 percent in 1996 after the value of the EITC, which is directed toward lower-income workers, was substantially increased in the Omnibus Budget Reconciliation Act of 1993 (referred to in this report as the 1993 reconciliation act). It then fell to about 50 percent in 2008 after enactment of the economic stimulus payments, which, like the EITC, provided assistance to workers but which extended eligibility for that credit to people who had higher income and were more likely to owe taxes before taking that credit.

Declining Costs from 2010 to 2013

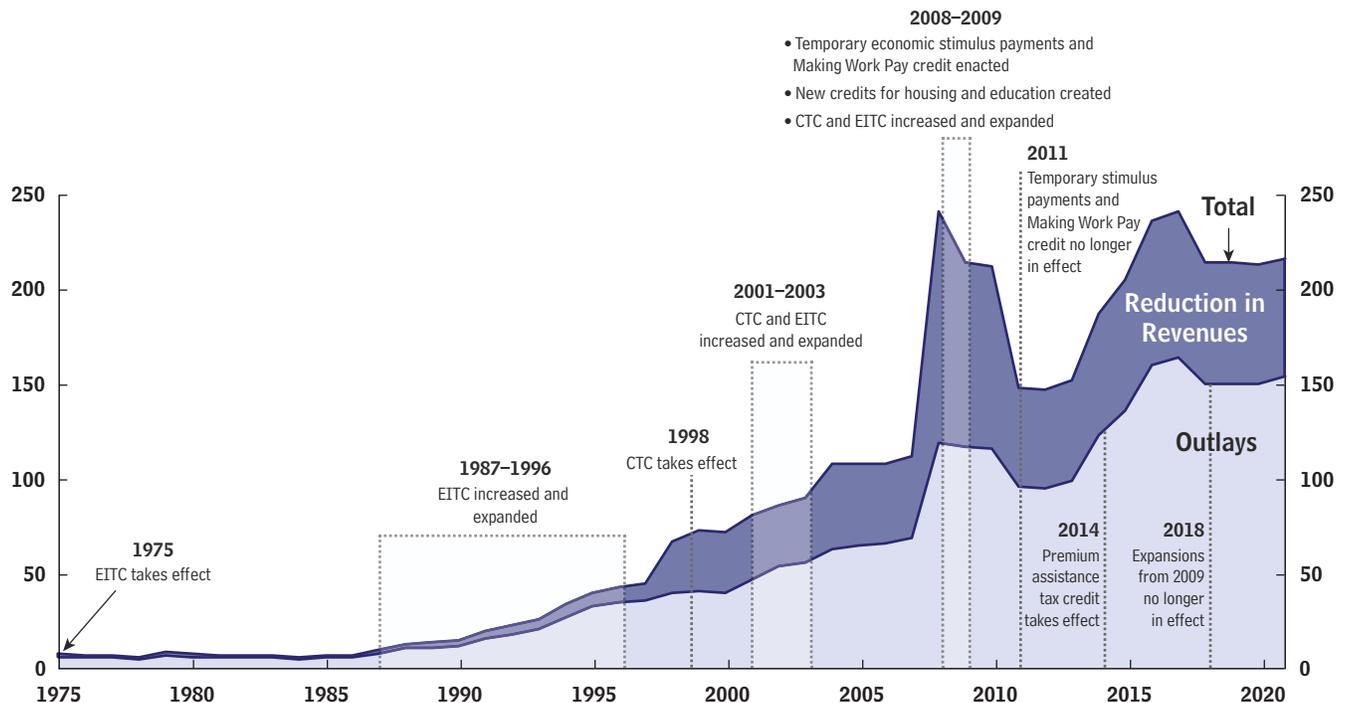
Most of the expansions of the credits that were enacted after 2007, along with temporary reductions in the individual income tax rates and other tax cuts, were scheduled to expire by the end of 2010. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (referred to in this report as the 2010 tax act) extended most of those tax provisions (along with the credit expansions enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001) for two more years; the American Taxpayer Relief Act of 2012 extended those provisions for at least five more years. However the 2010 act allowed other credits, such as the Making Work Pay credit, to expire (see Figure 4 on page 9).

5. Recessions affect the costs of refundable tax credits even in the absence of legislation that expands the scope of the credits. However, those effects are not easy to identify because recessions affect eligibility for credits in two different directions. Declines in income make some people, whose income was previously above the cutoff for a credit, eligible for certain credits. However, other people will no longer qualify for a credit because, for example, their earnings drop to zero (in the case of the earned income tax credit) or they can no longer afford (even with a subsidy) the item that is favored by the tax incentive.
6. Most people received the credit in 2008 on the basis of information provided on their 2007 tax returns. Taxpayers who did not file 2007 tax returns had a second opportunity to receive the economic stimulus payment: They could claim the credit on their 2008 tax returns. (The credit was referred to as a "recovery rebate" on the 2008 return.) In this analysis, CBO counted the credits received in 2008 and in 2009 as offsets to 2008 tax liabilities.

Figure 2.

Costs of Refundable Tax Credits and the Key Legislation That Affected Them, Calendar Years 1975 to 2021

(Billions of 2013 dollars)



Sources: Congressional Budget Office based on data from the Internal Revenue Service (IRS) and estimates from the staff of the Joint Committee on Taxation. Historical data for refundable tax credits that are reported on individual tax returns are available through 2009 from IRS, *Individual Income Tax Returns*, Publication 1304 (various years), and, for 2010, from “SOI Tax Stats - Individual Income Tax Returns Publication 1304 (Complete Report),” [www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-\(Complete-Report\)](http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-(Complete-Report)) (December 18, 2012). Historical data for the refundable tax credit for corporations—the prior-year alternative minimum tax credit—are available through 2009 from IRS, “SOI Tax Stats - Corporation Complete Report,” www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report (November 29, 2012).

Notes: In the federal budget, the portion of refundable credits that is used to reduce the amount of taxes owed is counted as a reduction in revenues, and the portion that exceeds tax liabilities (the refundable portion) is treated as an outlay.

The costs of credits that switch from refundable to nonrefundable status (or vice versa) are shown only for the period in which they are refundable. The American Opportunity Tax Credit is refundable from 2009 to 2017 and nonrefundable (as the Hope credit) before and after those years. The prior-year alternative minimum tax credit for individuals was refundable from 2007 to 2012 and nonrefundable before and after. The adoption tax credit was refundable in 2010 and 2011 and nonrefundable before and after.

EITC = earned income tax credit; CTC = child tax credit.

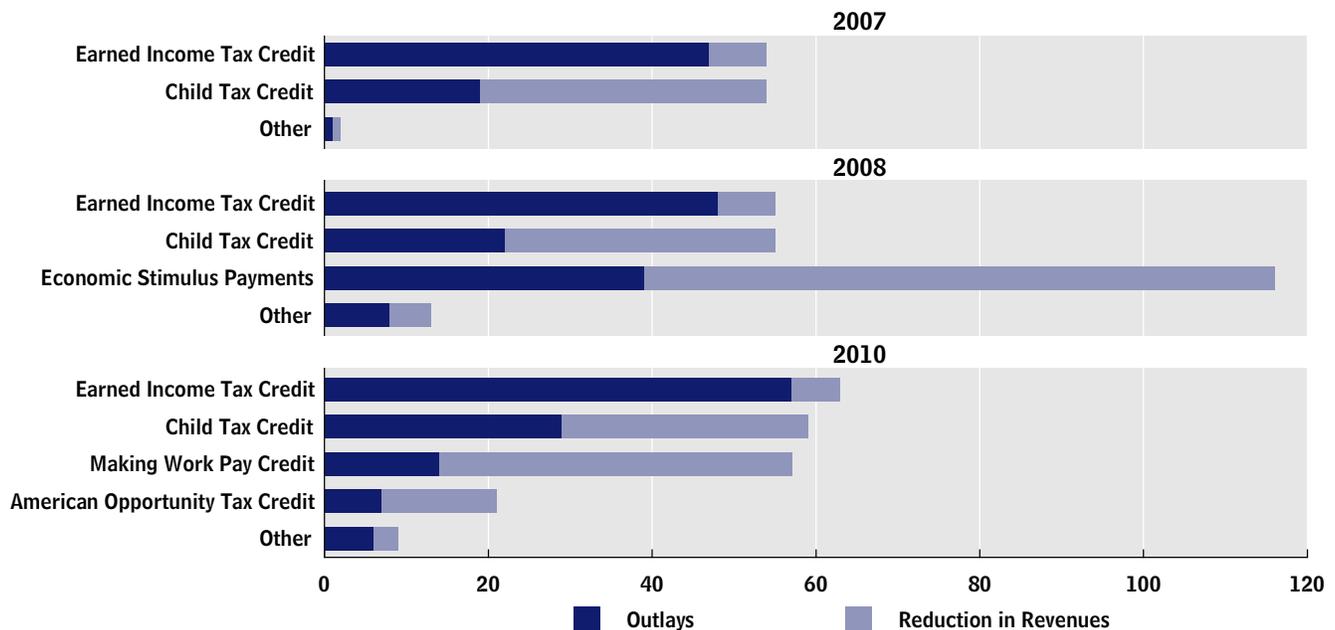
By the beginning of 2013, five of the refundable tax credits that were available in 2010 had expired. Hence, according to CBO’s projections, the budgetary costs of refundable tax credits will drop from \$209 billion in 2010 to \$149 billion in 2013.⁷ Because most of that decline in costs will be reflected in the budget as a smaller

reduction in revenues, the share of total costs recorded as outlays will rise from 54 percent to 65 percent. That outcome is due largely to the expiration of the Making Work Pay credit, which was available to higher-income people who owe taxes. The EITC will be the largest remaining refundable tax credit; its budgetary costs will total an estimated \$68 billion in 2013, of which \$60 billion will be payments that exceed tax liabilities and will be recorded in the budget as outlays.

7. CBO’s projections incorporate the effects of the American Taxpayer Relief Act of 2012.

Figure 3.**Costs of Refundable Tax Credits, Calendar Years 2007, 2008, and 2010**

(Billions of 2013 dollars)



Source: Congressional Budget Office based on data from Internal Revenue Service (IRS). Historical data for refundable tax credits that are reported on individual tax returns are available through 2009 from IRS, *Individual Income Tax Returns*, Publication 1304 (various years), and, for 2010, from “SOI Tax Stats - Individual Income Tax Returns Publication 1304 (Complete Report),” [www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-\(Complete-Report\)](http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-(Complete-Report)) (December 18, 2012). Historical data for the refundable tax credit for corporations—the prior-year alternative minimum tax credit—are available through 2009 from IRS, “SOI Tax Stats - Corporation Complete Report,” www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report (November 29, 2012).

Note: In the federal budget, the portion of refundable credits that is used to reduce the amount of taxes owed is counted as a reduction in revenues, and the portion that exceeds tax liabilities (the refundable portion) is treated as an outlay.

Rising Costs After 2013

That drop in the total cost of refundable credits will be partially reversed when the refundable tax credit for health insurance premiums, enacted in 2010 in the Affordable Care Act, takes effect in 2014.⁸ Low- and moderate-income individuals and families will become eligible for refundable tax credits that reduce the cost of health insurance purchased through the new health insurance exchanges.⁹ CBO and JCT estimate that the credit will add \$35 billion to the costs of all credits in 2014 (see Table 2).

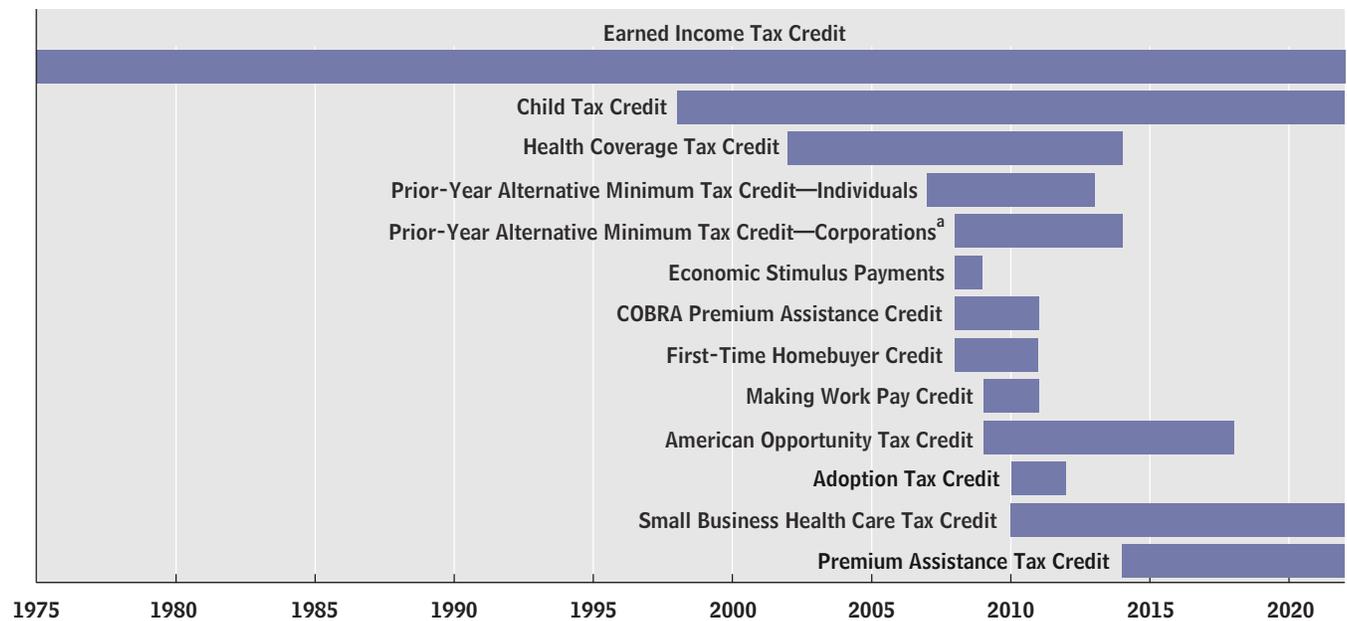
8. The Affordable Care Act refers to the Patient Protection and Affordable Care Act, the amendments made to the law by the Health Care and Education Reconciliation Act, and related legislative changes since those laws were enacted. In addition to the credits for health insurance premiums, the Affordable Care Act also established a tax credit for small businesses that took effect in 2010.

The total costs of refundable tax credits will continue to climb through 2017, when they will reach a high of \$238 billion—about the same as the previous peak in 2008. However, those costs will fall in 2018 when the American Opportunity Tax Credit expires and the child tax credit and the EITC are scaled back.

In 2021, the refundable tax credit for health insurance premiums will be the largest refundable tax credit. CBO and JCT estimate that the credit will cost \$110 billion in that year, about three-quarters of which will be attributable to an increase in outlays. As a result, CBO estimates,

9. Health insurance exchanges will be established to link people with insurance plans and to enroll eligible applicants in qualifying health insurance plans. The exchanges will also play a substantial role in administering the refundable tax credits for health insurance premiums.

Figure 4.
Years in Which Tax Credits Are Refundable



Source: Congressional Budget Office.

Notes: Date labels refer to the beginning of the calendar year. Most refundable credits took effect on January 1 and expired on December 31 of the applicable year. For credits that took effect or expired on different dates, see Table A-1.

COBRA = Consolidated Omnibus Budget Reconciliation Act.

a. The original legislation also allowed corporations to claim a refundable research credit under certain circumstances. That provision expired on December 31, 2009.

the costs of refundable tax credits will total \$213 billion in 2021—roughly the same amount as in 2010, when the tax code contained seven more refundable tax credits. The proportion of those costs categorized as outlays will rise from 65 percent in 2013 to an estimated 71 percent in 2021. None of the refundable tax credits that will be available in 2021 are scheduled to expire.

The Evolution of Refundable Tax Credits

The nature of refundable tax credits has evolved during the past decade. Initially, only workers who resided with children were eligible for the EITC, and the amount of the credit was tied to earnings. Since 1975, lawmakers have increased the amount of the EITC and extended eligibility to workers farther up the income scale and to those who do not live with children. In addition, more credits have been created, most of which are linked to expenditures on specific goods or services rather than

to earnings, and one of the newer credits is available to certain types of businesses rather than to individuals or families (see the appendix).

Earnings-Based Credits

The enactment of the earned income tax credit in 1975 signaled a change in federal tax policy: People could receive benefits through the tax system even if those benefits exceeded the amount of taxes they owed. The concept of a refundable tax credit, however, was not new. The merits and disadvantages of a negative income tax, which would have provided low-income families with a grant (or guaranteed payment) through the tax system even if they did not owe any income taxes, were debated during the 1960s. The amount of such a grant would be smaller for people with higher income. At a certain income level, the grant would be eliminated, and a family would be required to pay the full tax. Although such a program would have provided support for low-income families, some lawmakers were concerned that the

Table 2.**Costs of Refundable Tax Credits in Calendar Years 2013, 2014, and 2021**

(Billions of 2013 dollars)

Credit	2013	2014	2021
Earned Income Tax Credit	68	68	61
Child Tax Credit	57	57	40
Health Coverage Tax Credit	*	0	0
Prior-Year Alternative Minimum Tax Credit—Corporations	*	0	0
American Opportunity Tax Credit	21	21	0
Small Business Health Care Tax Credit	2	3	2
Premium Assistance Tax Credit	0	35	110
Total	149	184	213

Source: Congressional Budget Office based on estimates from the staff of the Joint Committee on Taxation.

Note: * = between zero and \$500 million.

promise of a guaranteed payment would discourage some people from working.¹⁰

The EITC established a different model for targeting assistance toward low-income families through the tax system. Unlike the negative income tax, the EITC was available only to people who were employed at some point during the year. Moreover, the credit—which rose by 10 cents for each dollar of earnings—effectively compensated workers for most of the additional payroll taxes they and their employers would pay on added earnings.¹¹ In that way, the credit was designed to offset the work disincentives created by the payroll tax.

But another feature of the EITC had an opposing effect on people's decisions to work. When it was established, the amount of the credit began to fall once it reached a maximum of \$400 a year; the decline in the amount of the credit as income rose, after a certain point, boosted the marginal tax rate on added earnings. In addition, the credit was limited to workers who lived with children

(who met certain age, relationship, and residency tests); that limit was imposed because of concerns that such people faced larger hurdles to work—such as the incentives to work less embedded in welfare programs—than did other low-income people.¹²

Since 1975, the credit rates for workers with children have increased, keeping pace, at times, with the rise in payroll tax rates during the 1980s. Provisions in the Omnibus Budget Reconciliation Act of 1990 expanded the EITC by increasing the credit rate above the rate for payroll taxes and, for the first time, setting the credit at a higher rate for workers with two or more children. The 1993 reconciliation act further increased and expanded the credit, especially by boosting the amount received by larger families. With those changes, the goals of the EITC included assisting families with the costs of raising children and reducing poverty among full-time workers. Concern about the impact of higher gasoline taxes on low-income workers led to the addition of a small credit under the 1993 reconciliation act for workers who did not live with children.

The EITC remained the only refundable credit in the federal tax code until the child tax credit was enacted in 1997 in the Taxpayer Relief Act, allowing eligible families to claim a tax credit of up to \$400 (rising to \$500 in

10. See Dennis J. Ventry Jr., "The Collision of Tax and Welfare Politics: The Political History of the Earned Income Tax Credit," in Bruce D. Meyer and Douglas Holtz-Eakin, eds., *Making Work Pay: The Earned Income Tax Credit and Its Impact on America's Families* (Russell Sage Foundation, 2002), pp. 15–66, www.russellsage.org/publications/making-work-pay.

11. At that time, employees and employers each paid 5.85 percent of earnings in Social Security and Medicare taxes, for a combined rate of nearly 12 percent. Economists generally agree that the employer's share of the payroll tax is passed on to workers in the form of lower wages.

12. See House Committee on Ways and Means, *Tax Reduction Act of 1975*, Report 94-19 (February 25, 1975); and Senate Committee on Finance, *Tax Reduction Act of 1975*, Report 94-36 (March 12, 1975).

1999) for each dependent under the age of 17.¹³ The credit was reduced—and eventually phased out—once income exceeded \$75,000 for single people and \$110,000 for married couples filing jointly. Unlike the EITC, the child tax credit was not fully refundable. Specifically, lawmakers reinforced the link between refundable tax credits and payroll taxes by limiting the refundable amount (referred to in the tax code as the additional child tax credit) to the employee's share of Social Security and Medicare payroll taxes that had not been offset by the EITC. Only taxpayers with three or more children qualified for the additional amount.

A series of tax acts, beginning with the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), expanded the child tax credit and the EITC. By 2004, the child tax credit had increased to \$1,000 for each qualifying child, and all filers—including those with one or two children—were allowed to receive a payment from the government for the portion of the credit that was not used to offset income taxes. The amount of that payment was 15 percent of earned income in excess of a threshold (\$10,750), up to the maximum credit of \$1,000 per child. Some married couples also benefited from an increase in the EITC.

The American Recovery and Reinvestment Act of 2009 (ARRA) further expanded the two earnings-based credits. ARRA reduced the earned income threshold for the child tax credit to \$3,000, thus increasing the number of eligible workers.¹⁴ Also in 2009, the EITC was increased again for some married couples, and workers with three or more children were allowed a larger credit than those with smaller families. In 2013, the maximum EITC

ranges from \$487 for a worker who either has no children or who does not live with his or her children to \$6,044 for a worker who lives with three or more children; families with income of up to nearly \$52,000 are eligible for at least a portion of the credit.

Like other provisions originally enacted in EGTRRA and ARRA, the expansions and increases of the child tax credit and the EITC were initially scheduled to expire on December 31, 2010, but the 2010 tax act extended them for two more years. Under the American Taxpayer Relief Act of 2012, the changes to the credits that were enacted in EGTRRA became permanent features of the tax code. However, the 2012 act extended the ARRA provisions only through the end of 2017.

Intended to bolster the economy during the recent recession, the Economic Stimulus Act of 2008 and ARRA in 2009 created temporary refundable tax credits that were linked to earnings: respectively, economic stimulus payments in 2008 (which were defined by law to be refundable tax credits) and the Making Work Pay credit (in effect in 2009 and 2010). The maximum stimulus payment for single filers was set at \$300 in 2008; single filers could receive a Making Work Pay credit of up to \$400 in the following two years.¹⁵ (The maximum amount of the credits for married couples filing jointly was twice that of single filers.) Under both acts, the new credits gradually phased out as income rose, beginning at \$75,000 for single filers and \$150,000 for joint filers. Those credits were not extended beyond their scheduled expiration (at the end of 2008 for the economic stimulus payments and at the end of 2010 for the Making Work Pay credit), leaving only two earnings-based refundable credits in effect in 2013—the EITC and the child tax credit.

13. The child tax credit differed from the EITC in that the child initially did not have to live with the taxpayer to qualify him or her for the child tax credit. The American Jobs Creation Act of 2004 consolidated the rules for claiming children for the two tax credits by establishing similar residency and relationship tests for child-related tax benefits. The definitions, however, are still not uniform. The parent who does not live with his or her young child, for example, can receive the child tax credit if the custodial parent waives his or her right to do so. However, only the custodial parent can claim that child to receive the EITC.

14. The threshold was originally adjusted for changes in the cost of living each year. When such an adjustment is made, the number of people eligible for the refundable portion of the credit drops if earnings grow more slowly than consumer prices. ARRA eliminated the cost-of-living adjustment, which further contributed to an increase in the number of eligible workers.

15. The 2008 economic stimulus payments differed from the Making Work Pay credit in several other ways. First, the economic stimulus legislation provided a larger nonrefundable credit to taxpayers (including those who did not have any earnings) who had a positive income tax liability before the credit: In those instances, the maximum amount of the credit was \$600 if single and \$1,200 if married and filing jointly. Second, the 2008 payments were \$300 higher for each qualifying child under the age of 17. Another difference—and a departure from previous earnings-based credits—was the extension of the 2008 economic stimulus payments to people who were not currently in the workforce but who received Social Security or veterans' benefits. A similar subsidy was provided by ARRA, but those payments were generally made by agencies other than the IRS.

Expenditure-Based Tax Credits

As the number of refundable tax credits has increased, their nature has changed, especially since 2008. Refundable tax credits have become more restrictive in some ways and more expansive in others. Unlike the earlier credits, which provided cash assistance without any restrictions on how those funds were used, many of the newer refundable tax credits are available to low- and moderate-income people who purchase a particular type of good or service (such as health insurance), regardless of whether they work.

The first major step toward expenditure-based credits was a supplement to the EITC, enacted in 1990, that covered a portion of the costs of health insurance for children whose parents worked.¹⁶ The size of that supplement, however, was—like the basic EITC—largely determined by the worker’s earnings and adjusted gross income but was capped at the lesser of the cost of the insurance or \$428. (In this report, the costs of the supplement are included in the total costs of the EITC and other earnings-based credits.)

Although that supplemental credit was repealed in 1993, four other refundable tax credits have since been enacted to subsidize the costs of health insurance:

- The health coverage tax credit, which took effect in 2002, for households who are eligible for trade adjustment assistance (the federal program that provides income support, training, and employment services to workers who have lost their job because of trade with foreign countries) or who have a pension plan that has been taken over by the Pension Benefit Guaranty Corporation;
- The COBRA (Consolidated Omnibus Budget Reconciliation Act) premium assistance credit, which

took effect in 2008, for workers who lost their job between September 2008 and May 2010;

- The small business health care tax credit, which took effect in 2010 and which covers a portion of small businesses’ payments for their employees’ health insurance; and
- The premium assistance tax credit, which will take effect in 2014 and will subsidize the purchase of health insurance for some people through the newly established insurance exchanges.

In addition, several of the newer credits are related to other expenses incurred by families, such as the costs of buying a home (the first-time homebuyer credit), college tuition (the American Opportunity Tax Credit), and adoption fees.

In 2010, 8 of the 11 refundable credits were linked to expenditures, but those 8 credits represented only about 11 percent of the outlays attributable to refundable credits. Over the next decade, however, the cost of credits based on expenditures will grow much faster than the cost of those based on earnings, CBO estimates, and, by 2021, they will account for 55 percent of outlays for refundable tax credits (see Figure 5).

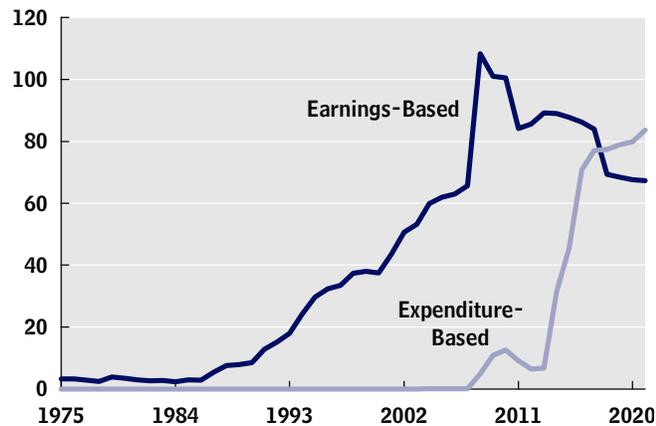
Nearly all of that growth will be due to the newly enacted credit for health insurance purchased through exchanges, beginning in 2014. Most people who purchase health insurance through an exchange will receive a refundable tax credit for their premiums as a result of the Affordable Care Act.¹⁷ To qualify, individuals and families must have income between 100 percent and 400 percent of the federal poverty guideline. Generally, people who are eligible for employment-based health insurance, Medicare, or Medicaid will not be able to claim the credit. The credit will equal the difference between a reference premium and a specified percentage of income, initially ranging

16. Before 1990, the tax code contained a very small expenditure-based tax credit that was refundable for just one year. The Energy Tax Act of 1978 allowed businesses, beginning in 1979, to claim a refundable tax credit for investments in solar or wind property (equipment that uses solar or wind energy to heat or cool, to provide hot water, or to generate electricity). Few businesses claimed the refundable portion of the credit, however, and the cost of the refundable portion was less than \$50 million in 1979. The credit was made nonrefundable in 1980 and is not counted among the refundable credits in this report.

17. In addition, individuals and families with income between 100 percent and 250 percent of the federal poverty guideline who purchase insurance through an exchange will be eligible for cost-sharing assistance to reduce their out-of-pocket costs. Unlike premium assistance credits, those subsidies will not be provided through the tax system.

Figure 5.
Outlays for Earnings-Based and Expenditure-Based Refundable Tax Credits, Calendar Years 1975 to 2021

(Billions of 2013 dollars)



Sources: Congressional Budget Office based on data from the Internal Revenue Service (IRS) and estimates from the staff of the Joint Committee on Taxation. Historical data for refundable tax credits that are reported on individual tax returns are available through 2009 from IRS, *Individual Income Tax Returns*, Publication 1304 (various years), and, for 2010, from “SOI Tax Stats - Individual Income Tax Returns Publication 1304 (Complete Report),” [\(www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-\(Complete-Report\)\)](http://www.irs.gov/uac/SOI-Tax-Stats-Individual-Income-Tax>Returns-Publication-1304-(Complete-Report)) (December 18, 2012). Historical data for the refundable tax credit for corporations—the prior-year alternative minimum tax credit—are available through 2009 from IRS, “SOI Tax Stats - Corporation Complete Report,” [\(www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report\)](http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report) (November 29, 2012).

Notes: In the federal budget, the portion of refundable credits that exceeds tax liabilities is treated as an outlay. The portion of those credits that reduces the amount of taxes owed is counted as a reduction in revenues. This figure shows only the outlay amounts.

The costs of credits that switch from refundable to nonrefundable status (or vice versa) are shown only for the period in which they are refundable. The American Opportunity Tax Credit is refundable from 2009 to 2017 and nonrefundable (as the Hope credit) before and after those years. The adoption tax credit was refundable in 2010 and 2011 and nonrefundable before and after.

from 2.0 percent to 9.5 percent.¹⁸ Only two other expenditure-based refundable tax credits will remain after 2013—the small business health care tax credit and the American Opportunity Tax Credit. The latter credit, however, has been extended only through 2017.

Credits Related to the Alternative Minimum Tax

Some of the more recent credits have extended eligibility in new directions.¹⁹ Two refundable credits were extended to individuals and businesses that paid the alternative minimum tax (AMT) in earlier years. Under the AMT, federal tax liability is computed differently than it is under the regular tax because the AMT allows a more limited set of deductions and tax credits; taxpayers pay the higher of their regular tax or the AMT. One example of the difference between the two taxes is that taxpayers can defer income taxes on some forms of income solely under the regular tax. However, AMT liabilities that result from the deferral provisions generate a nonrefundable tax credit (known as the prior-year alternative minimum tax credit) that taxpayers can apply to the regular income tax they owe in a future year in which they are not subject to the AMT. The Tax Relief and Health Care Act of 2006 allowed individuals to claim a portion of their unused prior-year AMT credits as a refundable credit from 2007 through 2012. A similar refundable credit was extended to corporations by the Housing and Economic Recovery Act of 2008. That credit will expire at the end of 2013.

Effects of Refundable Tax Credits

Refundable tax credits, like other tax preferences, affect individuals and the economy in several ways. Economists generally evaluate the effects of taxes and tax preferences according to three criteria:

18. The exchanges will group health plans into four tiers labeled “bronze,” “silver,” “gold,” and “platinum.” Each tier will cover a specified set of benefits, paying (on average) 60 percent, 70 percent, 80 percent, or 90 percent, respectively, of a beneficiary’s claims. The reference premium is the cost of the silver plan with the second-lowest cost in the locality. For more information, see Congressional Budget Office, *Additional Information About CBO’s Baseline Projections of Federal Subsidies for Health Insurance Provided Through Exchanges* (May 2011), www.cbo.gov/publication/41464.
19. Another development since 2008 was the creation of “bond credits.” The prototype (and, with costs of \$3 billion a year, the largest by far) was the Build America Bond program created by ARRA. Under that program, state and local governments receive direct payments from the federal government to reimburse them for the amounts they pay to holders of certain types of bonds. Although the credits are defined in the tax code as refundable, they are identical to other federal grants to state governments. For that reason, bond credits are not discussed in this report.

- Economic efficiency—how taxes affect the allocation of resources in the economy;
- Equity—how tax burdens are distributed among households that have varying demographic and economic characteristics; and
- Simplicity of the tax system—what the costs are of complying with and administering taxes.

Effects on Economic Efficiency

Refundable tax credits influence people's decisions about whether to work, to purchase health insurance, to enroll in college, or even to adopt a child. In some cases, the credits reduce economic efficiency—the extent to which resources are allocated in a manner that maximizes their value—by shifting resources away from more productive activities toward less productive ones or by discouraging people from seeking work; in other instances, they boost efficiency by offsetting the work disincentives embedded in other tax provisions or in spending programs.

By reducing the after-tax costs of particular goods and services, expenditure-based credits accomplish certain goals of lawmakers, but such credits can also contribute to an inefficient allocation of economic resources (by encouraging more consumption of goods receiving preferential treatment or by subsidizing activities that would have taken place without the tax incentives). The temporary first-time homebuyer credit, for example, probably encouraged some people to buy a more expensive house than they would have otherwise. In some instances, people would have engaged in the tax-favored activity even without a credit. Therefore, allowing taxpayers to claim a credit results in a large loss of federal revenue relative to the increase in the subsidized activity. Such effects are not unique to refundable tax credits. Other types of tax preferences, such as the itemized deduction for mortgage interest, also encourage taxpayers to acquire more of those preferred items in some instances than they would have without the preferences.

Credits that are linked to earnings include some features that improve the allocation of resources and some that have the opposite effect. The EITC, for example, was designed to offset work disincentives caused by payroll taxes or by the income limits in public assistance programs delivered by government agencies other than

the IRS. The credit encourages work in two ways: By raising the take-home pay of all recipients, the credit encourages people to enter the workforce, and by initially increasing as earnings rise, the credit boosts workers' incentives to earn more.²⁰ But to ensure that the credit targets people with low and moderate income, it begins to phase out as income rises above a certain threshold. For people in the phaseout range, that reduction in the amount of the credit generally provides an incentive to work less (see Figure 6).²¹

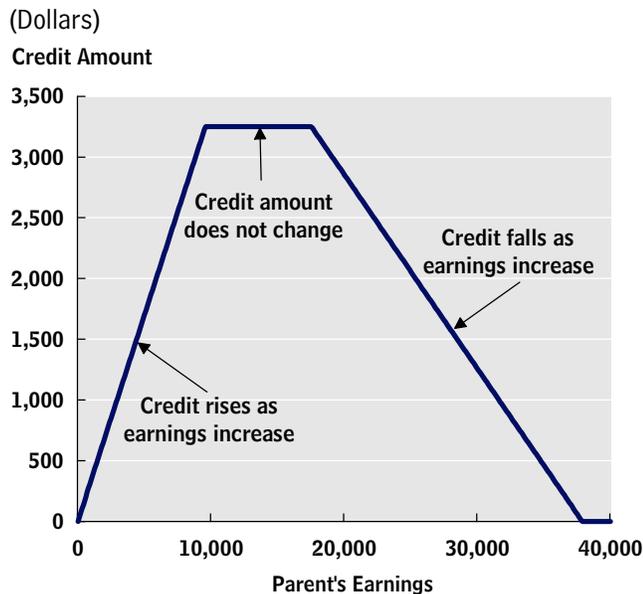
Researchers have found that the EITC, on net, effectively encourages work, especially among single mothers who previously were neither employed nor actively looking for a job. One study found that more than 60 percent of the increase of 9 percentage points in the employment of single mothers between 1984 and 1996 was due to expansions of the EITC over that period.²² Another study

20. That second feature of the credit—the increase in its value as earnings initially rise—also has the potential to reduce employees' incentive to work: Employees may respond to the increase in their after-tax income by working less (a response that economists refer to as the income effect). Researchers, however, generally find that the substitution effect—the incentive to work harder as after-tax wages rise—has a greater impact than the income effect. See Robert McClelland and Shannon Mok, *A Review of Recent Research on Labor Supply Elasticities*, Congressional Budget Office Working Paper 2012-12 (October 2012), www.cbo.gov/publication/43675.

21. Other earnings-based credits have some or all of the same features as the EITC and thus also affect marginal tax rates. The child tax credit, for example, increases as earnings rise, up to the maximum of \$1,000 per child. Like the EITC, the child tax credit reduces marginal tax rates in its phase-in range. Also like the EITC, at higher income levels the child tax credit is gradually reduced, causing marginal tax rates to increase as the credit is phased out. The two credits, however, differ in the beginning points of the phase-in and phaseout ranges. Whereas the EITC begins to phase in with the first dollar of earnings, taxpayers do not receive any child tax credit until they have earned at least \$3,000. Moreover, the EITC begins to phase out when income reaches \$37,870 for a single parent with one child, but such a parent would be eligible to receive the maximum child tax credit until his or her income was more than \$75,000. See Congressional Budget Office, *Effective Marginal Tax Rates for Low- and Moderate-Income Workers* (November 2012), www.cbo.gov/publication/43709.

22. See Bruce D. Meyer and Dan T. Rosenbaum, "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers," *Quarterly Journal of Economics*, vol. 116, no. 3 (2001), pp. 1063–1114, <http://qje.oxfordjournals.org/content/116/3/1063.abstract>.

Figure 6.
The Earned Income Tax Credit for a Single Parent with One Child, 2013



Source: Congressional Budget Office.

concluded that the credit's expansions during the 1990s might be the policies most responsible for the increase in employment and earnings among single mothers—even more than the substantial changes to public assistance programs at the federal and state levels that occurred during that decade.²³

Tax preferences, including deductions and refundable credits, could boost efficiency under other circumstances too. Certain activities, such as the work of charitable organizations, have widespread public benefits. However, people do not always place the appropriate value on those “external” benefits to society, and that can lead—under certain conditions—to a misallocation of resources that can be remedied, at least in part, by the availability of tax preferences. Some analysts have argued that a uniform refundable credit (one that has a flat amount, regardless of income) is preferable to other tax preferences (such as the itemized deduction for charitable contributions) if the purpose of the subsidy is to change behavior. That argument is strongest in cases in which low-income

23. See Jeffrey Grogger, “The Effects of Time Limits, the EITC, and Other Policy Changes on Welfare Use, Work, and Income Among Female-Headed Families,” *Review of Economics and Statistics*, vol. 85, no. 2 (May 2003), pp. 394–408.

people are as likely to respond to the incentives as are those with higher income.²⁴

Effects on Equity

Refundable tax credits, like other tax preferences, affect the distribution of tax burdens among households with different income. In addition, credits targeted toward specific populations alter the relative tax burden of households who have the same before-tax income but who differ in other ways (such as the number of children in the household).

Refundable tax credits differ in the range of income over which eligibility extends. For example, people qualify for the EITC as soon as they receive a paycheck, but they become ineligible when their income exceeds a threshold that, in 2013, is as high as \$51,567 (for a couple residing with three children). To claim the refundable portion of the child tax credit, parents must have at least \$3,000 of earnings, but eligibility for that credit extends much higher up the income scale than does eligibility for the EITC. Married couples who have three children remain eligible for the child tax credit until their income reaches \$170,000—over three times the cutoff for the EITC.

Because of those different income tests, the distribution of credits among households varies. In 2012, households in the lowest income quintile received a greater share of the total EITC (51 percent) than of the child tax credit (22 percent), CBO estimates.²⁵ Conversely, households in the top three income quintiles received a larger share of the child tax credit—48 percent of that credit compared with 20 percent of the EITC.

Largely as a result of the recession and the related temporary refundable tax credits (the economic stimulus payments and the Making Work Pay credit), the average individual income tax rate, according to CBO estimates, has been negative in recent years among households in the bottom two income quintiles (that is, the bottom 40 percent of the income distribution). People in those

24. See Lily L. Batchelder, Fred T. Goldberg Jr., and Peter R. Orszag, “Efficiency and Tax Incentives: The Case for Refundable Tax Credits,” *Stanford Law Review*, vol. 59, no. 23 (2006), pp. 23–76.

25. Quintiles, or fifths, are created by ranking households by their before-tax income. Quintiles contain equal numbers of people. A household consists of the people who share a housing unit, regardless of their relationship.

quintiles have, on average, received payments from the government for tax credits rather than paying income taxes to the government.²⁶ As the number and size of refundable tax credits increased, the average individual income tax rate became even more negative—going from -5.8 percent in 2007 to -9.3 percent in 2009 for the lowest quintile and, for the second quintile, from -0.1 percent to -2.6 percent.²⁷ As the economy improves and certain refundable tax credits expire or are scaled back as scheduled, the average individual income tax rate for people in those quintiles will probably become less negative. (Including payroll and other types of taxes, the average federal tax rate for people in the bottom 40 percent of the income distribution also declined over those three years, although it remained positive.)

Like many other tax preferences, refundable credits also affect the distribution of tax burdens among households who are similar in nearly all ways but who differ in some key respect. The child tax credit, for example, favors people with children over the childless. College students (or their parents) benefit from the American Opportunity Tax Credit, whereas households that have no students do not. The first-time homebuyer credit, available from 2008 through 2010, gave an advantage to people purchasing their first home that neither renters nor longer-term homeowners generally had.²⁸

Analysts differ, however, as to whether the varying effects of credits and other tax preferences on households are fair and appropriate. One view is that the credits reflect differences among people—even those with the same before-tax income—in their ability to pay the amount of taxes (including income, payroll, and excise taxes) they owe: In some cases, people have to purchase more of

certain items that society views as necessities (because, for example, they have children who need food and shelter), or they incur additional expenses in order to earn income (if, for example, they have to purchase a uniform or bring their own tools for a job). According to that view, some refundable tax credits appropriately reduce the gap in after-tax resources between people who have such expenses and those who do not. Another perspective, however, is that households choose to spend their income differently and that the tax system should not favor those who spend their income on particular goods or services.

Effects on Simplicity of the Tax System

Tax preferences—especially those that, like refundable credits, are targeted toward specific populations—make it more difficult and more costly for taxpayers to compute their tax liabilities and for the IRS to administer the tax code. To determine whether they are eligible for refundable tax credits, taxpayers generally must read more instructions, fill out more tax forms, and make more computations than they otherwise would. And if they are eligible, they typically must obtain and maintain more records to support their position in the event the IRS requests additional documentation.

Administering refundable tax credits also strains the limited resources the IRS has to provide services to taxpayers and to enforce the tax code. The number of tax returns increases as people who do not have to file returns do so in order to claim benefits. Complicated rules for refundable tax credits increase the number of telephone calls to the IRS from confused taxpayers and contribute to the tax gap (the difference between the amount of taxes that should be paid in a timely fashion and the amount that is actually paid). Some taxpayers probably make errors because they do not understand the tax law, whereas others—perhaps sensing that complexity makes the tax code more difficult to enforce—intentionally misreport their income, family characteristics, and other information on their tax returns.

Administrative Challenges in Providing Subsidies

Many refundable tax credits have been created to meet social policy goals by subsidizing living expenses or certain activities—for example, providing assistance to low-income families or encouraging people to attend college or buy health insurance. Such goals, however,

26. Average tax rates are calculated by dividing federal tax liabilities by before-tax income, including benefits from social insurance and other government assistance programs.

27. See Congressional Budget Office, *The Distribution of Household Income and Federal Taxes, 2008 and 2009* (July 2012), www.cbo.gov/publication/43373.

28. The Worker, Homeownership, and Business Assistance Act of 2009 extended a scaled-back version of the first-time homebuyer credit to certain homebuyers who already owned a home and purchased a new home after November 6, 2009. To qualify, those homebuyers had to have lived in their home for five consecutive years during the eight years before closing on the new home. The first-time homebuyer credit—including the provision applying to some homeowners—expired on April 31, 2010, for most people.

can also be achieved through spending programs. The choice between the two approaches hinges, in large part, on administrative considerations—particularly, which approach best achieves those goals at the lowest costs to the government and which imposes the least burden on people who are eligible for the subsidies and on the third parties that are asked to provide evidence in support of an applicant’s claim of eligibility. Delivering subsidies presents three challenges in that regard:

- Providing the correct amount of assistance to eligible people;
- Providing assistance in a timely manner, when people need it most; and
- Ensuring compliance with the laws for determining eligibility and computing the credit amounts.

Failure to meet those challenges makes it more difficult or more expensive to achieve the subsidies’ policy goals.

Reaching Eligible People

In certain respects, receiving benefits from the IRS is simpler for people than receiving them through other federal and state agencies, which means that eligible people may be more likely to seek such benefits. Individuals assert their eligibility for refundable credits on tax returns, and the IRS verifies—to some extent—applicants’ statements with information reported separately by third parties (for example, the earnings that employers report to the IRS on W-2 forms). In contrast, other government agencies have usually relied on more burdensome means to validate applicants’ claims, such as in-office meetings between applicants and caseworkers, up-front requests for documentation (such as pay stubs), and phone calls to employers and others to confirm applicants’ statements (which also alerts those third parties to the applicant’s need for assistance from the government). As a result, the application process is time-consuming and may be perceived as intrusive by the claimants. Those factors, and any additional stigma that applicants may associate with being in the program, tend to reduce participation. Studies of Medicaid and the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp program) show that participation declines as the complexity of the application process increases.²⁹

In response to those concerns, many benefit programs have adopted application processes with certain administrative features that are similar to those used in the tax system. Forty-one states allow individuals to complete and submit an application online for at least one of the following six programs: SNAP, the Temporary Assistance for Needy Families (TANF) program, child care assistance, Medicaid, the Children’s Health Insurance Program, and general assistance.³⁰ Two states (Delaware and Maryland) offer online applications for all six programs.³¹ And since 2010, students and their parents have been able to download information from their tax returns onto their applications for federal student aid. Access to computers, however, remains a hurdle for low-income applicants for those benefits: Over 40 percent of adults with income below \$30,000—and nearly 60 percent of those without a high school diploma—did not use computers at all in 2010.³²

Another advantage of the tax system is that many low-income workers have ongoing dealings with the IRS that they do not have with the government agencies that administer other types of assistance programs. Most low-income workers—the segment of the low-income population eligible for earnings-based credits such as the EITC and the refundable portion of the child tax credit—routinely file tax returns to receive refunds

29. See Jennifer P. Stuber and others, *Beyond Stigma: What Barriers Actually Affect the Decisions of Low-Income Families to Enroll in Medicaid?* Issue Brief (George Washington University Medical Center, July 2000), http://sphhs.gwu.edu/departments/healthpolicy/CHPR/downloads/beyond_stigma_no3.pdf; and Janet Currie and Jeffrey Grogger, “Explaining Recent Declines in Food Stamp Program Participation,” in Janet Rothenberg Pack and William G. Gale, eds., *Brookings-Wharton Papers on Urban Affairs: 2001* (2001), pp. 203–244, www.jstor.org/stable/10.2307/25058786.

30. General assistance programs are operated and funded by states. Those programs typically provide cash and in-kind benefits to people who are not eligible for federal programs, such as TANF.

31. See Center on Budget and Policy Priorities, *Online Services for Key Low-Income Benefit Programs: What States Provide Online with Respect to SNAP, TANF, Child Care Assistance, Medicaid, CHIP, and General Assistance* (CBPP, updated May 31, 2012), www.cbpp.org/cms/index.cfm?fa=view&id=1414.

32. Census Bureau, *The 2012 Statistical Abstract*, Table 1158, p. 725, www.census.gov/compendia/statab/2012/tables/12s1158.pdf.

when amounts withheld from paychecks during the year have exceeded their income tax liability for that year.³³

Those advantages probably help explain why the participation rate among workers eligible for the EITC is higher than that in other programs serving low-income workers. Researchers have found that about 75 percent of eligible tax-filing units (that is, individuals and married couples who report earnings) received the EITC in 2005.³⁴ By comparison, only 58 percent of eligible households with earnings claimed SNAP benefits in fiscal year 2009.³⁵

Those advantages diminish, however, as the application process for a refundable tax credit increases in complexity. Take, for example, the health coverage tax credit, which helps cover the cost of health insurance purchased by workers who are eligible for trade adjustment assistance. Applicants do not receive such credits until they are certified by the Department of Labor as qualifying for trade adjustment assistance—a process that can take several months. They must then purchase health insurance before they can receive the credit. Participation by eligible individuals was initially very low but increased somewhat after ARRA raised the amount of the credit (from 65 percent to 80 percent of premiums) and simplified the application process.³⁶

Using the tax system to provide subsidies to low-income people has some disadvantages. Although the application process is streamlined compared with that for spending

programs, rules to determine eligibility can be difficult to understand. Moreover, people who claim refundable tax credits are not assigned caseworkers to make those determinations for them, as occurs in many spending programs. The IRS provides some assistance to applicants (chiefly through phone centers and walk-in sites), but the decision about whether to use those services is up to the applicant.

Outside organizations, with technical assistance from the IRS, also set up sites where low-income taxpayers can have their tax returns completed for free by volunteer preparers. Access to those sites is limited, however: In 2011, about 12,500 volunteer tax preparation sites—in combination with IRS-financed sites providing subsidized tax counseling for the elderly—prepared 3 million returns (about 2 percent of individual income tax returns filed that year).³⁷

The challenges arising from complexity are probably exacerbated by certain characteristics of the population toward whom refundable credits are targeted. Relative to the rest of the filing population, a higher proportion of low-income filers are likely to be high school dropouts or to be from countries in which English is not the main language.³⁸ Most low-income filers rely on tax preparers to help them understand the rules and to complete their returns; in 2006, for example, 71 percent of filers who received the EITC paid a preparer, compared with 57 percent of all other filers.³⁹

Use of the tax system also is not advantageous in reaching eligible people who are outside that system. Most low-income workers file a tax return, but nearly all people

33. See Joint Committee on Taxation, *Overview of Past Tax Legislation Providing Fiscal Stimulus and Issues in Designing and Delivering a Cash Rebate to Individuals*, JCX-4-08R (JCT, February 2008).

34. See Dean Plueger, “Earned Income Tax Credit: Participation Rate for Tax Year 2005,” *IRS Research Bulletin: Proceedings of the 2009 IRS Research Conference*, pp. 151–195. That rate increases to 81 percent when computed solely for eligible workers who live with children and who receive a much larger credit than those who do not live with children.

35. See Joshua Leftin, Esa Eslami, and Mark Strayer, *Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Years 2002–2009* (report submitted by Mathematica Policy Research to the Department of Agriculture, Food and Nutrition Service, August 2011).

36. See Stan Dorn, *Health Coverage Tax Credits: A Small Program Offering Large Policy Lessons* (Urban Institute, February 2008), www.urban.org/publications/411608.html; and Government Accountability Office, *Health Coverage Tax Credit: Participation and Administrative Costs*, GAO-10-521R (April 30, 2010), www.gao.gov/products/GAO-10-521R.

37. Internal Revenue Service, *Internal Revenue Service Data Book, 2011*, Publication 55B (March 2012), Table 19, p. 47, www.irs.gov/pub/irs-soi/11datbk.pdf.

38. Among people whose family income fell below 200 percent of the federal poverty guideline and who, the Census Bureau determined, filed a tax return for 2007, about 27 percent did not graduate from high school and 24 percent were born in a country in which English was not one of the primary languages. The corresponding figures for people in higher-income families were, respectively, 8 percent and 11 percent, according to CBO’s tabulations. (Those tabulations are based on data from the Current Population Survey, 2008 Annual Social and Economic Supplement.)

39. CBO tabulations based on a public-use sample of tax returns from the Internal Revenue Service.

who are not working and whose income is low do not file one.⁴⁰ In most cases, those people are not required to file a return because their income is too low.⁴¹

Establishing outreach programs, providing help with completing applications, and simplifying eligibility rules are ways to increase participation in an assistance program, whether it is administered by the IRS or another government agency. An alternative approach, which New Zealand has adopted for its Family Support program, would be to build on the current patchwork of tax benefits and other types of cash and in-kind assistance (referred to as government transfers) and use two or more agencies to deliver the same benefit through different means: Eligible workers would receive refundable tax credits from the IRS, and everyone else who is entitled to the same benefit would apply through the other agencies that typically provide assistance to low-income people.⁴²

Timing of Payments

A second consideration is providing subsidies in a timely manner. Refundable tax credits are generally paid after people file their tax return, although eligibility is based on their earnings (in the case of the EITC) or their expenditures (in the case of education credits) in the preceding year. In contrast, many other types of subsidies are delivered more quickly by other agencies.

A tax credit meant to encourage a certain type of behavior is probably less effective when beneficiaries must wait a long time to receive the subsidy. For example, the American Opportunity Tax Credit is based on education expenses incurred in the tax year (the year in which

taxable income is earned), but most people wait until the following year to file a tax return to claim those expenses (thus, if they pay tuition in 2012, they will not receive the benefit until 2013). Because of that lag, the credit is less effective in encouraging enrollment in higher education than are other forms of financial aid that are paid when tuition bills are due.

Tax credits have been designed to be paid before tax returns are filed, but “advance payments” can be difficult to implement. From 1979 through 2010, workers could opt to receive advance payments of the EITC through their employer.⁴³ Workers who did so would then compute, on their tax return, the amount of the credit they should have received on the basis of their total income for the entire year. Taxpayers who received too little would get a payment of the remaining amount from the IRS; those who received too much would have to repay the excess to the IRS. As a result, a temporary decline in income during the year would not automatically make someone eligible for the credit (or, conversely, a temporary increase in income would not disqualify the person). In that way, advance payments were different from benefits provided by spending programs that base eligibility on the claimant’s income at the time of application and do not make that person pay back benefits received earlier if his or her income rises during the year.

Experience with the advance EITC payments raised some concerns. A 2007 report by the Government Accountability Office (GAO) found that only 3 percent of eligible taxpayers opted to receive advance payments of the credit in each year from 2002 through 2004.⁴⁴ One possible reason for the low participation is that workers were unaware of the advance payment option, but two separate studies did not find a sizable increase in participation in

40. See Joint Committee on Taxation, *Overview of Past Tax Legislation Providing Fiscal Stimulus and Issues in Designing and Delivering a Cash Rebate to Individuals*, JCX-4-08R (February 2008).

41. Some people must file a tax return even if they do not owe any income tax—for example, because their gross income equals or exceeds the filing threshold (the sum of the taxpayer’s standard deduction and personal exemptions for themselves and, if married, his or her spouse). That amount is roughly equal to 80 percent of the federal poverty guideline. People must also file if they are self-employed and owe Social Security and Hospital Insurance payroll taxes under the Self-Employment Contributions Act.

42. Nick Johnson, “Working for Families” in *New Zealand: Some Early Lessons* (Fulbright New Zealand, 2005), www.fulbright.org.nz/publications/2005-johnson/.

43. Employers, in turn, did not pay the IRS the full amount of income and payroll taxes that they withheld from their employees’ paychecks. In that way, the federal government compensated employers for the advance payments that they made to their workers. The Social Security and Medicare trust funds were not affected by that method of compensation.

44. Government Accountability Office, *Advance Earned Income Tax Credit: Low Use and Small Dollars Paid Impede IRS’s Efforts to Reduce High Noncompliance*, GAO-07-1110 (August 2007), www.gao.gov/products/GAO-07-1110.

response to outreach efforts by the IRS or employers.⁴⁵ Another possibility is that workers did not want to take the risk of owing money to the IRS at the end of the year. (Other possible explanations for the low participation rate are that workers did not want their employers to know they were eligible for the EITC, or that they viewed the delayed payment as a way to save money.)

Another concern was the impact of advance payments on compliance. Advance payments increased the lag between the worker's receipt of the credit and the IRS's verification of eligibility. The 2007 GAO report found that many people who received advance payments did not file tax returns—thus avoiding (intentionally or unintentionally) the end-of-year reconciliation process that corrected for overpayments and underpayments of the credit during the year. In response to that concern, the 1993 reconciliation act limited the amount of the credit that could be received in advance to 60 percent of the amount payable to workers with one child. The option to receive an advance payment of the EITC was repealed in 2010.

Since 2000, the IRS has used several other methods to pay refundable tax credits before tax returns are filed. One of the simplest approaches for recipients was used to deliver the economic stimulus payments that were paid in 2008. The rules for determining eligibility and the credit amounts were based on information on the 2007 tax returns that had been filed in the first four months of 2008. Most recipients did not have to provide additional information, and, as a result, the IRS began making payments in early May—less than three months after the enactment of the law providing for the stimulus payments and just over two weeks after the April 15 deadline for filing 2007 returns.

That approach, however, was probably more costly for the federal government than the method used to disburse EITC advance payments: The IRS had to gear up to determine eligibility for roughly 130 million stimulus payments while still processing tax returns and then send out a second set of refunds for that year. Moreover, recipients did not have to repay any amount that they

would not have received on the basis of their actual income and family characteristics in 2008. Another approach was implemented for advance payments of the health coverage tax credit. In that instance, the IRS turned to a private contractor to administer advance payments; establishing that system cost \$40 million, and annual operating costs are about \$15 million.

When the premium assistance tax credit for health insurance is implemented in 2014, recipients will have the option of requesting advance payments to pay premiums in a timely manner, but the process for doing so will differ in several ways from most of the earlier options for delivering advance payments: The advance payments of the premium assistance credit will be paid directly to the insurer on behalf of the subsidized individual; eligibility for those credits will be verified, to a limited extent, by government agencies before the credits are paid; and the amounts of overpayments that must be repaid will be limited for most people. A unique challenge, however, is that the taxpayers' credit will generally be determined initially on the basis of their family's composition and income as of two years before the subsidy is received; the amount of the credit will later be recomputed on the basis of the taxpayers' characteristics in the year that the subsidy is paid. As a result, some recipients may have to repay part or all of any overpayment if changes in their family's composition and income affect their eligibility for the credit or its amount.

Compliance

A third consideration is the degree of compliance associated with benefits for people with low income. One advantage of refundable tax credits is that the IRS, unlike other agencies, has the capacity to confirm whether filers meet some of the eligibility criteria without requiring that they provide additional documentation. Wage income can be checked against the W-2s employers file with the IRS. Third parties also report other information, critical to determining eligibility, to the IRS. Colleges and universities, for example, report tuition payments of all students. Other government agencies share data—such as Social Security records—with the IRS, thus improving the tax agency's ability to check other information that taxpayers report.

Challenges arise, however, when independent reports from third parties are unavailable or incomplete. One notable challenge that affects the administration of the entire tax system is the misreporting of self-employment

45. Internal Revenue Service, National Research Office, *Advance Earned Income Tax Credit 1994 and 1997 Notice Study, A Report to Congress* (August 1999); and Damon Jones, "Information, Preferences, and Public Benefit Participation: Experimental Evidence from the Advance EITC and 401(k) Savings," *American Economic Journal: Applied Economics*, vol. 2, no. 2 (2010), pp. 147–163, www.aeaweb.org/articles.php?doi=10.1257/app.2.2.

income, for which there is little or no independent information from individuals or entities other than the taxpayer.⁴⁶ Other information that is difficult to verify is whether the taxpayer resides with a child for most of the year (a factor that affects eligibility for the EITC and certain other child-related tax benefits), whether a student actually bought the textbooks he or she claims as expenses on the tax return (which affects claims for the American Opportunity Tax Credit), and whether the taxpayer is buying a home for the first time (a key criterion for the now-expired first-time homebuyer credit).

Other agencies face similar challenges in administering assistance programs. One key difference between those agencies and the IRS, however, is that they can demand that applicants provide documentation supporting their claims before receiving benefits. Another is that the state agencies that administer SNAP sometimes face the risk of owing money to the federal government if their error rates for that program are excessive.⁴⁷

Overpayment rates (which are net of recoveries due to enforcement actions) are generally lower for spending programs that have direct contact with beneficiaries than for tax preferences, but the costs of operating those programs are generally higher than the amounts the IRS spends for administering refundable tax credits. For example, overpayment rates for SNAP are typically less than 5 percent, but the federal and state governments together spend about \$7 billion a year to administer the program (which paid out about \$75 billion in benefits in fiscal year 2011), just over half of which is used to assess eligibility and recertify recipients.⁴⁸ By contrast, overpayment rates for the EITC are about 25 percent, but to administer those benefits, the IRS spends less than 1 percent of the total costs of the EITC. CBO estimates that those costs will be \$68 billion in 2013.⁴⁹

46. See Internal Revenue Service, *Tax Gap for Tax Year 2006: Overview* (January 6, 2012), www.irs.gov/pub/newsroom/overview_tax_gap_2006.pdf.

47. The federal government can impose penalties on states whose error rates for SNAP benefits (including overpayments and underpayments) are 105 percent of the national average for two consecutive years. That penalty is set at 10 percent of the amount of the error in excess of 6 percent. In addition, performance bonuses are paid to states with the best and the most improved payment accuracy.

48. See Congressional Budget Office, *The Supplemental Nutrition Assistance Program* (April 2012), www.cbo.gov/publication/43173.

To improve compliance with the rules governing refundable tax credits, the IRS could adopt verification procedures similar to those used by other agencies and require that applicants provide documentation before credits are paid. The IRS tested that approach in a small-scale pilot program between 2003 and 2005, requiring certain applicants for the EITC to provide documentation showing that their children lived with them for more than half the year (the residency test for children claimed by taxpayers for the EITC). Although the study found that certification reduced overpayments, the IRS also determined that obtaining documentation imposed burdens on applicants and the providers of that information (such as schools). The IRS did not conduct a formal cost-benefit analysis, and the agency has not implemented the certification requirement nationwide.⁵⁰

Other approaches to improving compliance would be more incremental, but each alternative has advantages and disadvantages. The IRS could be given more access to third-party data, but the effectiveness of that approach would be constrained by the availability of reliable information and the limited resources the agency has to use those data. The Congress could grant the IRS more powers to enforce the law (allowing the IRS, for example, to deny the credit without first giving the taxpayer an opportunity to provide more proof of eligibility), but those powers might result in some loss of taxpayers' rights.⁵¹ Another approach would be to provide more funding for the IRS's enforcement activities; that

49. See Office of Management and Budget, *Office of Federal Financial Management Improper Payments Dataset*, "Description of Data Elements Contained in Improper Payments Dataset," www.whitehouse.gov/omb/financial/improper_payment_dataset/; and Internal Revenue Service, *IRS Earned Income Tax Credit (EITC) Initiatives: Addendum to the Report on Qualifying Child Residency Certification, Filing Status, and Automated Underreporter Tests* (2008), www.irs.gov/pub/irs-utl/poc_summary_addendum_121708_final.pdf.

50. See Internal Revenue Service, *IRS Earned Income Tax Credit (EITC) Initiatives: Report on Qualifying Child Residency Certification, Filing Status, and Automated Underreporter Tests* (2008).

51. The IRS must follow certain procedures if it observes a potential error on a tax return. In an audit, the taxpayer can delay payment of the disputed amount until a court has reviewed the matter. The IRS has been granted greater flexibility to automatically deny the EITC (and certain other tax preferences) when certain information on the return—such as a child's Social Security number—is either missing or invalid. Under those circumstances, the IRS can immediately deny payment of the credit before any refund is paid.

approach would entail an increase in government spending or offsetting cuts in other government programs, but it might reduce overpayments by amounts greater than the added spending. Finally, eligibility criteria could be simplified, although that approach might also raise the total costs of credits (if, for example, eligibility was expanded as a result of simplification).

Budgetary Treatment of Refundable Tax Credits

The unique aspect of refundable tax credits—that the full amount of the credit can be paid even when the recipient has no tax liability—is reflected in their treatment in the federal budget: One portion of the credits is shown as a reduction in revenues and the other as an increase in outlays. That treatment raises questions regarding the transparency of refundable tax credits. Because only the outlay portion is shown separately in the federal budget, the full costs of refundable credits are not readily visible. A related issue is that the allocation of the costs between revenues and outlays is not consistent among credits. Both issues may affect lawmakers' review and oversight of refundable tax credits.

Transparency of Total Costs

Refundable tax credits—as well as certain income tax exclusions, deductions, and nonrefundable credits—are termed tax expenditures because they resemble government spending programs by providing financial assistance to specific activities, entities, or groups of people. One concern about the budgetary treatment of tax expenditures is that they mask the true extent of government activity. They have a significant impact on the budget because, in total, they reduce revenues by a sizable amount. Because they are shown in the budget as reducing revenues rather than as increasing spending, tax expenditures make the budget and the scope of the government's activities appear smaller.⁵² Moreover, because tax expenditures are not readily identifiable in the budget—unlike spending programs, which appear in individual budget accounts—assessing their cost is more difficult.

Refundable tax credits are more transparent than other tax expenditures because a portion of their costs—the

outlays—is identified in the budget in separate accounts. However, even that transparency is mitigated by the sensitivity of refundable credits to changes in other provisions in the tax code. For instance, when tax rates are cut (with no changes to the amount of refundable tax credits or eligibility for them), the outlay portion of the costs of credits increases because people incur a smaller tax liability before the credit is applied, but the total costs of the credit remain the same. For example, the American Taxpayer Relief Act of 2012 made permanent the 10 percent rate bracket, which was scheduled to expire at the end of 2012. According to JCT, by reducing income tax liabilities, that change will increase the outlay portion of refundable credits by \$1 billion to \$5 billion per year between 2013 and 2021; the portion of those credits used to offset tax liabilities will fall by about the same amount.⁵³ But the budget will directly identify only the increase in outlays, which might create the erroneous impression that the total cost of the credits has grown.

The budgetary effects of refundable tax credits could be made more transparent by showing the full costs of the provision, including revenues and outlays. (The transparency of other tax expenditures would also be improved by creating separate budget accounts for each provision.) Making all tax expenditures, including refundable tax credits, subject to periodic reauthorization (in the same manner as most spending programs and temporary tax provisions) would also increase their transparency and could lead to better oversight but would add complexity to the legislative process.

Allocation of Costs Between Outlays and Revenues

How the revenue and outlay portions of refundable credits are measured varies among credits. In most cases, the revenue portion is limited to the amount of the credit that reduces income tax liabilities. However, for two of the largest credits—the EITC and, beginning in 2014, the credit for health insurance purchased through the newly created exchanges—the Internal Revenue Code specifies that the amount shown as a reduction in revenues should encompass the amount of the credit sufficient to reduce not only income tax liabilities but also certain other liabilities reported on tax returns. The largest of those other liabilities are the Social Security

52. See Donald Marron and Eric Toder, *How Big Is the Federal Government?* Tax Policy Center (March 26, 2012), www.taxpolicycenter.org/publications/url.cfm?ID=412528.

53. Taking into account the total effect on revenues and outlays, JCT estimates that permanent extension of the 10 percent rate will, on net, increase the deficit by roughly \$40 billion a year between 2013 and 2021.

and Hospital Insurance payroll taxes paid by the self-employed under the Self-Employment Contributions Act, or SECA. Revenues recorded in the budget for those taxes are reduced to reflect the share of the credits allocated to them.⁵⁴

The costs of refundable tax credits could be allocated between revenues and outlays in the same manner for all refundable tax credits. One approach when measuring revenues and outlays would be to take into account only the amount by which credits offset individual income tax liabilities. If, for example, the EITC had been allocated in the same manner as the child tax credit in 2012 (that is, if the portion of the credit defined as offsetting tax liabilities had not included the offset to SECA taxes), the portion of the EITC's costs recorded as outlays would have increased from 91 percent to 98 percent, and the portion that reduced revenues would have declined, correspondingly, from 9 percent to 2 percent, CBO estimates.

Another approach would be to shift more of the impact of the refundable credits to the revenue side of the budget—by including the amount by which all such credits offset Social Security and Hospital Insurance taxes paid

54. That treatment, however, does not affect the amount of payroll taxes credited to the Social Security and Hospital Insurance trust funds. The trust funds are credited with the full amount of SECA taxes.

by employees and their employers under the Federal Insurance Contributions Act, or FICA.⁵⁵ Reducing the revenues recorded in the budget for FICA taxes to reflect the impact of the refundable credits, in the same manner as the SECA offset, would have substantially changed the allocation of EITC costs between outlays and revenues in 2012: CBO estimates that the outlay portion would have declined from 91 percent to 38 percent and that the reduction in revenues would have increased correspondingly, from 9 percent to 62 percent.

Both approaches would treat refundable credits in a more consistent manner, making comparisons of the allocation of outlays and revenues among the credits more straightforward. The second approach—considering the credits to be a reduction in FICA taxes—would also make the treatment of certain credits more consistent with the original rationale for those credits by showing the extent to which they help offset payroll taxes. However, that approach would be difficult to implement and could—in the absence of other changes to their budgetary treatment—further reduce the transparency of the credits. Because FICA taxes are not reported on individual income tax forms, determining the amount of each recipient's credit that offsets that tax would be challenging.

55. The Social Security trust funds would be credited with the same amount of FICA taxes as under current law.



Appendix: Description of Refundable Tax Credits

Since 1975, 13 refundable tax credits have been enacted. They are described in the following tables:

- Table A-1. Start Dates and Expiration Dates of Refundable Tax Credits
- Table A-2. Description of Earnings-Based Refundable Tax Credits, 2013 and 2014

- Table A-3. Description of Refundable Tax Credits That Are Expenditure-Based or Are Related to the Alternative Minimum Tax, 2013 and 2014
- Table A-4. Description of Refundable Tax Credits That Expired Before 2013

Table A-1.**Start Dates and Expiration Dates of Refundable Tax Credits**

Credit	Start Date ^a	Expiration Date
Earnings-Based Credits		
Earned Income Tax Credit	January 1, 1975	None
Child Tax Credit	January 1, 1998	None
Economic Stimulus Payments	January 1, 2008	December 31, 2008
Making Work Pay Credit	January 1, 2009	December 31, 2010
Expenditure-Based Credits		
Health Coverage Tax Credit	December 1, 2002	December 31, 2013
First-Time Homebuyer Credit	April 9, 2008	April 30, 2010 ^b
COBRA Premium Assistance Credit	September 1, 2008	May 31, 2010 ^c
American Opportunity Tax Credit	January 1, 2009	December 31, 2017 ^d
Adoption Tax Credit	January 1, 2010	December 31, 2011 ^e
Small Business Health Care Tax Credit	January 1, 2010	None
Premium Assistance Tax Credit	January 1, 2014	None
Other Credits		
Prior-Year Alternative Minimum Tax Credit—Individuals	January 1, 2007	December 31, 2012 ^f
Prior-Year Alternative Minimum Tax Credit—Corporations	April 1, 2008	December 31, 2013 ^g

Source: Congressional Budget Office.

Note: COBRA = Consolidated Omnibus Budget Reconciliation Act.

- a. The start date is the first year that the credit was refundable. Some credits were available earlier but were nonrefundable at that time.
- b. October 1, 2010, if the purchase contract was in place as of May 1; or May 31, 2011, for certain overseas military personnel.
- c. The credit is available for 15 months for workers who were involuntarily terminated on or before May 31, 2010.
- d. After December 31, 2017, the credit is scheduled to revert to the nonrefundable Hope credit.
- e. A nonrefundable credit for adoption expenses is still available after 2011.
- f. After December 31, 2012, the prior-year alternative minimum tax credit for individuals reverted to nonrefundable status.
- g. The original legislation also allowed corporations to claim a refundable research credit under certain circumstances. That provision expired on December 31, 2009.

Table A-2.**Description of Earnings-Based Refundable Tax Credits, 2013 and 2014**

Year	Description
	Earned Income Tax Credit
2013	<p>Reduces taxes of low- and moderate-income workers and provides cash assistance to those who owe little or no income tax.</p> <p>Initially increases with earnings. The size of the credit varies with the number of children residing with the taxpayer, filing status (marital status), earnings, and adjusted gross income. Qualifying children generally must be under the age of 19, but the credit is allowed for children who are either under the age of 24 and full-time students or any age and permanently and totally disabled.</p> <p>The maximum amounts of the credit are \$487 for taxpayers without children, \$3,250 for taxpayers with one child, \$5,372 for taxpayers with two children, and \$6,044 for taxpayers with three or more children. (The credit amounts change each year with the price of goods and services, as measured by the consumer price index for all urban consumers.)</p> <p>The credit begins to phase out when earnings (or adjusted gross income, if higher) are greater than \$7,970 for taxpayers without children or \$17,530 for taxpayers with children. Eligibility for the credit is cut off when income exceeds \$14,340 for taxpayers without children, \$37,870 for taxpayers with one child, \$43,038 for taxpayers with two children, and \$46,227 for taxpayers with three or more children. For married couples filing jointly, the cutoffs are extended by an additional \$5,340. (Those income thresholds are also adjusted annually for inflation.)</p>
2014	Same as 2013.
	Child Tax Credit
2013	<p>Reduces taxes of low- and moderate-income taxpayers with children under the age of 17 and provides cash assistance to workers who owe little or no income tax.</p> <p>The child tax credit equals the smaller of taxpayers' income tax liability before credits and the maximum credit amount (\$1,000 per child). However, workers with little or no tax liability before the credit are eligible for a refundable amount (referred to in the tax code as the "additional" child tax credit).</p> <p>For each additional dollar of earnings above \$3,000, the refundable portion of the credit rises by 15 cents until the credit reaches a maximum of \$1,000 per child under the age of 17.</p> <p>Taxpayers with three or more children can choose another method to calculate the additional credit. Under that alternative, the credit equals the amount by which their share of payroll taxes exceeds the earned income tax credit. They can claim the larger of the credit amounts determined under the two alternative approaches.</p> <p>The child tax credit begins to phase out when adjusted gross income (with some modifications) reaches \$75,000 for a single filer or a head of household (\$110,000 for a married couple filing jointly).</p>
2014	Same as 2013.

Source: Congressional Budget Office.

Table A-3.

Description of Refundable Tax Credits That Are Expenditure-Based or Are Related to the Alternative Minimum Tax, 2013 and 2014

Year	Description
	Health Coverage Tax Credit
2013	Covers 72.5 percent of health insurance costs for households eligible for trade adjustment assistance (the federal program that provides income support, training, and employment services to workers affected by trade) or who have pension plans that have been taken over by the Pension Benefit Guaranty Corporation.
2014	The tax credit expires.
	American Opportunity Tax Credit
2013	Covers up to \$1,000 of payments made for tuition, certain fees, and course materials during the year. The credit is available for the first four years of postsecondary education. (The nonrefundable portion covers up to \$2,500 of expenses.) The credit is phased out when adjusted gross income (with some modifications) is between \$80,000 and \$90,000 for a single filer or a head of household (between \$160,000 and \$180,000 for a married couple filing jointly).
2014	Same as 2013.
	Small Business Health Care Tax Credit
2013	Covers up to 35 percent (up to 25 percent for tax-exempt organizations, such as charities) of employers' payments for their employees' health insurance. Only tax-exempt organizations are eligible for the refundable portion, which cannot exceed the amount of payroll taxes paid by employers. Eligibility is limited to employers who meet the following criteria: <ul style="list-style-type: none"> • They have fewer than 25 full-time-equivalent employees, • They pay an average wage of less than \$50,000 a year, and • They cover at least half of their employees' health insurance premiums. The credit declines as the number of employees or the average wage increases.
2014	Maximum credit rate increases to 50 percent (35 percent for tax-exempt organizations).
	Premium Assistance Tax Credit
2013	Not available.
2014	Subsidizes enrollment in certain health insurance plans through health insurance exchanges, which will be established to link people with insurance plans. The credit covers the difference between the reference premium for a locality and the household's contribution, which is a specified percentage of income. That percentage ranges from 2.0 percent to 9.5 percent. The exchanges will group health plans into four tiers (bronze, silver, gold, and platinum) that will cover a specified set of benefits, paying (on average) 60 percent, 70 percent, 80 percent, or 90 percent, respectively, of a beneficiary's claim. The reference premium is the cost of the silver plan with the second-lowest cost in the locality. People whose combined adjusted gross income, tax-exempt interest, nontaxable Social Security benefits, and other modifications are between 100 percent and 400 percent of the federal poverty guideline may be eligible for the credit. Generally, people who are eligible for employment-based plans, Medicare, or Medicaid will not be eligible for the credit.
	Prior-Year Alternative Minimum Tax Credit—Corporations^a
2013	Allows corporations the option of claiming alternative minimum tax credits that had not been used before 2006 rather than take bonus depreciation (a provision that allows corporations to accelerate deductions for the depreciation, or loss of value, of certain types of property).
2014	The tax credit expires.

Source: Congressional Budget Office.

- a. The original legislation also allowed corporations to claim a refundable research credit under certain circumstances. That provision expired on December 31, 2009.

Table A-4.**Description of Refundable Tax Credits That Expired Before 2013**

Credit	Description
Economic Stimulus Payments	<p>Provided a refundable portion of the credit to eligible filers with at least \$3,000 in income from a combination of earnings and certain Social Security, Railroad Retirement, and veterans' benefits. The refundable credit amount was set at \$300 for a single filer or a head of household (\$600 for a married couple filing jointly).</p> <p>The nonrefundable portion of the credit was set at higher amounts (up to \$1,200 for a married couple filing a joint return). Taxpayers could qualify for the nonrefundable portion even if they did not have any earnings.</p> <p>The credit increased by \$300 for each child under the age of 17.</p> <p>Began to phase out when adjusted gross income (with modifications) was greater than \$75,000 for a single filer or a head of household (\$150,000 for a married couple filing jointly).</p>
Making Work Pay Credit	<p>Set at the lesser of 6.2 percent of an individual's earned income or \$400 for a single filer or a head of household (\$800 for a married couple filing jointly).</p> <p>Began to phase out when adjusted gross income was greater than \$75,000 for a single filer or a head of household (\$150,000 for a married couple filing jointly).</p>
First-Time Homebuyer Credit	<p>Covered up to \$8,000 (\$7,500 for homes purchased in 2008) for first-time homebuyers. Beginning in November 2009, a smaller credit was available for people who already owned a home and had lived in their home for five consecutive years during the eight years before closing on a new home.</p> <p>Began to phase out when adjusted gross income was greater than \$125,000 for a single filer or a head of household (\$225,000 for a married couple filing jointly).</p> <p>Taxpayers who purchased a home in 2008 were required to begin repaying the credit amount to the federal government in 2010. Taxpayers who purchased a home in 2009 and 2010 must repay the credit if they sell the property within three years, convert the home entirely to a business or rental property, or—if the home is destroyed or condemned—do not buy a new primary home within two years of the event.</p>
COBRA Premium Assistance Credit	<p>Covered 65 percent of health insurance premiums for workers who were involuntarily terminated between September 1, 2008, and May 31, 2010. The credit phased out as the taxpayer's adjusted gross income (with modifications) rose above \$125,000 for a single filer or a head of household (\$250,000 for a married couple filing jointly). The credit was available for up to 15 months.</p>
Adoption Tax Credit	<p>In 2011, covered up to \$13,360 of qualified expenses paid to adopt an eligible child.</p> <p>Began to phase out when adjusted gross income (with modifications) was higher than \$185,210.</p> <p>The credit is nonrefundable after 2011.</p>
Prior-Year Alternative Minimum Tax Credit—Individuals	<p>Allowed taxpayers to claim a credit for a portion of alternative minimum tax (AMT) liabilities in a prior year resulting from certain income that would not have been subject to the regular income tax.</p> <p>The refundable credit was generally the greater of \$5,000 and 50 percent of the unused nonrefundable minimum credit for the year. The refundable credit was reduced if adjusted gross income exceeded a specified threshold. The taxpayer could, instead, claim any unused AMT credit from the preceding year (that is, the amount that was denied in the preceding year because the taxpayer's adjusted gross income exceeded the threshold, thus reducing the credit).</p> <p>The credit is nonrefundable after 2012.</p>

Source: Congressional Budget Office.

Note: COBRA = Consolidated Omnibus Budget Reconciliation Act.

List of Tables and Figures

Tables

1. Illustrative Effects of Alternative Tax Preferences on Tax Liabilities	4
2. Costs of Refundable Tax Credits in Calendar Years 2013, 2014, and 2021	10
A-1. Start Dates and Expiration Dates of Refundable Tax Credits	26
A-2. Description of Earnings-Based Refundable Tax Credits, 2013 and 2014	27
A-3. Description of Refundable Tax Credits That Are Expenditure-Based or Are Related to the Alternative Minimum Tax, 2013 and 2014	28
A-4. Description of Refundable Tax Credits That Expired Before 2013	29

Figures

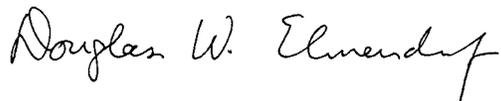
1. Number and Total Costs of Refundable Tax Credits, Calendar Years 1975 to 2021	2
2. Costs of Refundable Tax Credits and the Key Legislation That Affected Them, Calendar Years 1975 to 2021	7
3. Costs of Refundable Tax Credits, Calendar Years 2007, 2008, and 2010	8
4. Years in Which Tax Credits Are Refundable	9
5. Outlays for Earnings-Based and Expenditure-Based Refundable Tax Credits, Calendar Years 1975 to 2021	13
6. The Earned Income Tax Credit for a Single Parent with One Child, 2013	15

About This Document

This Congressional Budget Office (CBO) report was prepared at the request of the Ranking Member of the Senate Committee on Finance. [Corrected on January 25, 2013.] In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Janet Holtzblatt of CBO's Tax Analysis Division and Grant Driessen, formerly of CBO, prepared the report under the supervision of Frank Sammartino. Jonathan Morancy of CBO, Douglas Besharov of the University of Maryland, and Donald Marron of the Urban-Brookings Tax Policy Center provided helpful comments. The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.

Sherry Snyder edited the report. Maureen Costantino and Jeanine Rees prepared it for publication. An electronic version is available on CBO's Web site (www.cbo.gov).



Douglas W. Elmendorf
Director

January 2013