United States General Accounting Office

GAO

Report to the Honorable
Bill Bradley, U.S. Senate

September 1993

TAX POLICY

Earned Income Tax Credit: Design and Administration Could Be Improved

GAO/GGD-93-145

GAO

United States
General Accounting Office
Washington, D.C. 20548

General Government Division

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September 24, 1993

The Honorable Bill Bradley
United States Senate

Dear Senator Bradley:

This report responds to your request that we assess the earned income credit to determine if it is designed to achieve its objectives and to determine if the Internal Revenue Service (IRS) continues to encounter problems administering the credit.

To analyze the design of the credit, we (1) examined how the benefits are distributed among taxpayers, (2) measured the extent to which the credit offsets the payroll tax and increases the progressivity of the federal tax system, and (3) estimated the effect of the credit on work incentives. In the area of administering the credit, we examined how IRS was attempting to ensure that the maximum number of qualified recipients receive the credit without unduly increasing the number of illegitimate claims. We have made a number of recommendations to Congress and to IRS that are at the end of chapter 4.

We are sending copies of this report to the Secretary of the Treasury, the Commissioner of IRS, and appropriate congressional committees and members of Congress.

Major contributors to this report are listed in appendix V. If you have questions, please call me on (202) 512-5407.

Sincerely yours,

Jennie S. Stathis

Jennie S. Stathis
Director, Tax Policy and
Administration Issues

Executive Summary

Purpose

In 1990, as part of the Omnibus Budget Reconciliation Act (OBRA), Congress changed the qualification standards and substantially increased the size of the earned income credit (EIC), at least in part, to increase the progressivity of the overall federal tax system. The qualification standards were changed to ease both the Internal Revenue Service's (IRS) administrative and recipients' compliance burdens.

Since the 1990 changes, there have been several congressional proposals that would further increase the size of the credit to improve the economic status of low-income workers with families and to further increase the tax system's progressivity at the low-income end. Senator Bill Bradley asked GAO to assess the design of the EIC to determine if it is achieving its objectives and whether IRS is continuing to encounter problems in administering the credit.

From the design perspective, Senator Bradley was especially interested in (1) how the benefits of the credit are distributed among taxpayers; (2) the extent to which the credit offsets the payroll tax incurred by qualifying taxpayers; and (3) how the credit affects recipients' work incentives, especially those of single parents. The administrative issues GAO was asked to examine included how IRS was attempting to ensure that the maximum number of qualifying recipients receive the credit without unduly increasing the number of illegitimate claims.

In August 1993, a new Omnibus Budget Reconciliation Act was enacted into law. The new law increases the size of the EIC beginning in 1994 and extends coverage to very low-income workers without qualifying children. GAO's analysis of the distribution of benefits and extent of payroll tax offset and work incentive effects is based on prior law. Thus, GAO's numerical projections for 1994 most likely understate the magnitude of the credit's effects. However, GAO's discussion of the overall effectiveness of the credit for families with children as well as the reasons for IRS' administrative problems remains unaffected.

Background

The EIC is a refundable tax credit payable to a qualifying household if income is below a cap ($22,370 in 1992) and if the household contains at least one qualifying child. Any credit amount that exceeds tax liability is paid to the recipient. The credit is based on a percentage of earnings (17.6 percent in 1992) up to $7,500 of earned income. When income is between $7,500 and $11,850, the credit is a constant amount ($1,324 in 1992). For

incomes above $11,850, the credit is reduced (at a rate of 12.57 percent in 1992) as income rises, until it disappears at the cap ($22,370 in 1992).

The credit was first established in the Tax Reduction Act of 1975, which emphasized two long-term objectives: (1) to offset the impact of Social Security payroll taxes on low-income individuals and (2) to encourage low-income individuals to seek employment rather than welfare. In its first year, 6.2 million families claimed the credit. By 1988, 11.1 million families were receiving the credit, and almost 14 million received it for tax year 1991.

OBRA increased the credit rate and the maximum credit through tax year 1994. It also added an extra credit amount for families with two or more children. In addition, OBRA added two supplemental credits; one for having a child less than a year old and one for providing health insurance coverage for a qualifying child. However, OBRA introduced some important changes in the eligibility requirements. The most significant, because it had been the source of so many recipient errors, was to allow unmarried parents who did not qualify for head of household status to claim the credit as long as they had a qualifying child.

GAO used IRS' Statistics of Income individual income tax data for 1988 to assess the extent to which the credit offset payroll taxes and affected federal tax progressivity. For employment data, GAO used the Bureau of the Census' 1989 population survey. This, along with estimates of labor supply behavior from the Seattle/Denver income maintenance experiment, was used to estimate the effects of the credit as a work incentive.

Results in Brief

Because of OBRA's more generous credit provisions, the average credit amount is expected to increase by about 80 percent between 1988 and 1994. For example, in 1988 the average credit received by 11.1 million families was $600; and by 1994, the average credit is projected to rise to $1,067 (all in 1991 dollars). Most of those who receive the credit are projected to have incomes in the range where the credit falls as income rises ($11,850 to $22,370 in 1992). This is called the phase-out range of the credit.

As was intended, the credit increased the progressivity of the tax system for recipients. In 1988, the credit offset about half of the payroll taxes for low-income workers who qualified for the credit and almost offset these taxes for qualified workers in the credit's lowest income range. By 1994,

the credit is expected to nearly offset payroll taxes for the average low-income recipient. Those workers who receive the credit and are below the poverty line have their overall federal tax burden substantially reduced, while those qualified workers who are above the poverty line have their taxes reduced somewhat. However, because only 18 percent of low-income filers qualify for the credit, the overall effect on tax progressivity for low-income households is much less.

Work incentives for some workers appear to be enhanced by the credit, but many workers may find their work incentives somewhat reduced. Overall, the credit appears to slightly reduce the hours worked by qualified recipients. GAO estimates that in 1988 recipients probably worked about 2.1 percent fewer hours as a result of the credit. Because the lowest income workers receive a wage supplement from the credit, they probably increase their hours worked. However, workers who have incomes in the range where the credit is constant or falling with greater earnings probably reduce work effort somewhat. Wives were more responsive to the credit since their hours worked fell more than husbands and single female parents. GAO projections based on OBRA 1990 suggest that the size of these responses may increase as the credit becomes larger between now and 1994.

OBRA introduced important simplifications to the credit's eligibility requirements, but it also created some new complexities for both recipients and for IRS. Easing and simplifying the rules for qualifying should serve to reduce some of the major problems IRS had in administering the credit; however, the new credits with their complicated interaction provisions add to that burden. IRS, in turn, has added to the complexity by introducing a new schedule for recipients to fill out to qualify for the credit.

Even with the OBRA changes, IRS still faces the dilemma of either denying the credit to potentially eligible workers or giving the credit to potentially ineligible workers. Trying to balance these forces can lead to inconsistent treatment of filers. For example, the returns processing procedures IRS has instituted since OBRA may still allow certain filers who provide incomplete information to receive the credit. However, other filers who also provide incomplete information may not receive the credit or may receive it after much delay, although they appear qualified on the basis of tax return information. In addition, while IRS has greatly expanded its outreach effort for the EIC, it still does not use information it has on nonfilers that could substantially improve this effort.

GAO's Analysis

EIC Appears to Be Achieving its Goals

GAO found that in 1988, the EIC more than offset the employee's share and substantially offset the combined employee and employer shares of the payroll tax for those workers who earned less than $9,850 a year. These low-income workers were in the phase-in or stationary income range of the credit. Better-off low-income workers, those who earned between $9,851 and $18,576, were in the credit's phase-out range and received credits offsetting about one-half of their own shares and about one-quarter of the combined payroll tax shares. Overall, just over one-half of the combined payroll taxes of qualified low-income workers were offset by the credit.

Because of OBRA 1990's enlargement of the credit, GAO projected that the effect of the increases would, by 1994, produce an average credit that is more than the combined (employee and employer) payroll tax shares for low-income workers in the phase-in and stationary ranges. Better-off low-income workers, those in the credit's phase-out range, would receive an average credit equal to almost 40 percent of the combined payroll tax. Overall, the average qualifying worker's credit would be over 90 percent of his or her combined payroll tax burden.

In 1988, the federal tax system's tax rate structure was made modestly more progressive in the lower income ranges because the EIC partially offset payroll and income taxes. On average, the combined tax burden of both the payroll and income tax fell about 2 percentage points for workers with the lowest adjusted gross incomes, that is, incomes less than $9,850. Though the system on the whole became more progressive in the lower income ranges, the benefit of the tax reductions was limited to low-income workers who qualified for the credit. They represented about a fifth of all taxpayers with incomes less than $18,576, the 1988 income cutoff amount.

The degree of progressivity of the combined federal and state income tax structure closely approximated that for the federal system alone. In the six states GAO examined, the increase in the combined tax burden was very small—less than 1 percentage point on adjusted gross incomes of less than $16,000. Given such small changes, including state income taxes does not alter the finding that the income tax system has become slightly more progressive because of the EIC.

To estimate labor supply responses, GAO used as a basis prior studies of the "negative income tax." The structure of such a program has some similarities to the earned income credit. Although the experiments were conducted in the 1970s, they remain the best source of data for the labor supply responses of low-income workers. However, the responses may not reflect behavioral changes that have occurred since then. GAO used 1988 Bureau of the Census survey data that reported earnings, hours and weeks of work, and estimates of the amounts of earned income credits of individuals. Combining these data with estimates of work responses to the negative income tax experiments conducted in the 1970s, GAO found the maximum reduction in hours worked was probably about 26 hours over a 1-year period, or about a 2.1-percent reduction in the hours that would have been worked in the absence of the credit. For working couples filing joint returns, husbands probably reduced hours worked by 1.5 percent and wives 6.5 percent over the year. For the last group, single female heads of household, hours worked would have been, on average, virtually unchanged.

Some Administrative Problems Have Been Resolved but Others Remain

IRS data from 1988 indicated that one-third of the taxpayers who received the credit were not entitled to it. This occurred primarily because tax filers claimed the wrong filing status. OBRA's simplification of the rules for qualifying for the credit should resolve many of these problems, although other problems remain. Some of these problems can be resolved by improving IRS' returns processing procedures, others may require legislative changes to make the credit more administrable.

In the past, IRS returns processing procedures could not detect erroneous eligibility claims, such as incorrect filing status and dependency tests, in part because the tax return did not contain sufficient information. IRS also could not determine whether taxpayers who claimed the credit were eligible for it if the taxpayers failed to provide such information as the child's relation to the taxpayer or the length of time the child resided with the taxpayer. IRS information showed that in 1988, in 37 percent of the cases for which IRS calculated the credit for the taxpayer, the credit awards were in error. It is especially important for IRS to get the proper information when returns are filed since IRS rarely finds it cost-effective to recover erroneous payments given the small amounts per taxpayer.

The OBRA simplifications reduced the importance of filing status and dependency tests as problems for IRS. However, additional credits and interactions between these credits and other provisions in the code were

introduced by the law. These interactions, as well as the new EIC schedule introduced by IRS, have added to the complexity of the credit.

The Schedule EIC introduced by IRS for tax year 1991 is too complicated, and most of the necessary information could be included on the tax return itself. With minor modifications to the dependency and filing status sections of the Form 1040 or 1040A, all the requisite information would be available to determine whether a child qualified.

GAO also found that IRS' returns processing procedures can lead to inconsistent treatment of taxpayers and potentially inaccurate credit determinations. When a taxpayer submitted a Schedule EIC, but left off important information such as the child's relationship to the taxpayer, IRS would often give the credit. Another taxpayer who had the same information on a Form 1040A and asked for the credit, but did not submit a Schedule EIC, would receive a letter from IRS asking for a schedule. If the taxpayer subsequently submitted a schedule, even if incomplete, IRS would give the credit. Thus, taxpayers could receive the credit at different times even though they ultimately filed similarly incomplete Schedule EICs. If taxpayers did not ultimately submit the schedule, they would not receive the credit, although IRS had the same information regarding their children. Should IRS continue to require the Schedule EIC, IRS needs to modify its procedures so all taxpayers are treated consistently.

Many eligible families do not receive the credit because their income is too low to require filing a return. From IRS data it appears that in 1988, 7 percent of the taxpayers who did not file returns were eligible for the credit. GAO observed that IRS currently sends out delinquency and reminder to file notices in the course of its nonfiler program but only to nonfilers with incomes that appear higher than the filing threshold of a single taxpayer ($5,900 in tax year 1992). GAO believes that sending a reminder to file or a similar notice to low-earned-income nonfilers, who are below tax thresholds, could help inform these individuals about the existence of the credit and the possibility of claiming it.

Recommendations

GAO recommends that the Commissioner of Internal Revenue

- modify the tax return to capture all of the requisite qualification information,
- send nonfiler notices that explain credit requirements to nonfilers with low earned incomes, and

- modify returns processing procedures to ensure that all potentially eligible taxpayers who submit similar information are treated consistently.

Agency Comments

GAO received written comments on the draft report from IRS and discussed the draft with a Treasury representative. IRS has set up a working group to look into sending notices that explain EIC requirements to nonfilers with low earned income. However, IRS and Treasury disagreed with GAO's recommendation to modify the tax return to capture the relevant qualification information. Because some of the additional information would be added to the current space for dependent information, IRS was concerned that the burden on non-EIC taxpayers would be increased. IRS also believed that adding more information to the tax return would make that return more complex.

Although GAO recognizes that non-EIC filers would have to provide additional dependent information, such information could also be used to support the dependency claim and reduce its error rate. Dependency claims are currently a major tax compliance problem. Also, GAO believes that with a reevaluation of the design of the Forms 1040 and 1040A filing status section, the added information for EIC-qualifying children could be accommodated without greatly increasing the forms' complexity. If the credit is made simpler, IRS said it may reconsider its position about the need for the Schedule EIC.

Lastly, IRS said that its processing procedures currently treat taxpayers who provide the same information in the same way. However, IRS believed that people who submit a Schedule EIC are providing more information than those who do not. As a result, IRS believed it should treat the two groups differently. GAO observed, however, that IRS awarded the credit in certain cases even if the Schedule EIC was not complete, whereas if the same incomplete information was in the exemption section of a tax form, and the tax filer did not include the schedule, a credit was not awarded.

(IRS' comments and GAO's evaluation of them are presented at the end of ch. 4 and in app. IV.)

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Abbreviations

AFDC	Aid to Families with Dependent Children
AGI	adjusted gross income
CPS	Current Population Survey
EIC	earned income credit
IRS	Internal Revenue Service
NEI	nontaxable earned income
NIT	negative income tax
OBRA	Omnibus Budget Reconciliation Act
SIME/DIME	Seattle/Denver Income Maintenance Experiment
SOI	Statistics of Income
SSI	Supplemental Social Security Income
TCMP	Taxpayer Compliance Measurement Program

Introduction

In 1975, Congress created the earned income credit (EIC) to provide assistance to low-income workers who maintained a household and had dependent children they claimed as exemptions. While the initial enactment of the credit was part of an economic stimulus package, the legislation, the Tax Reduction Act of 1975 (P.L. 94-12), emphasized two other long-term objectives: (1) to offset the impact of payroll taxes on low-income individuals and increase the progressivity of the federal tax system; and (2) to encourage low-income individuals, who might otherwise receive welfare benefits, to seek employment.

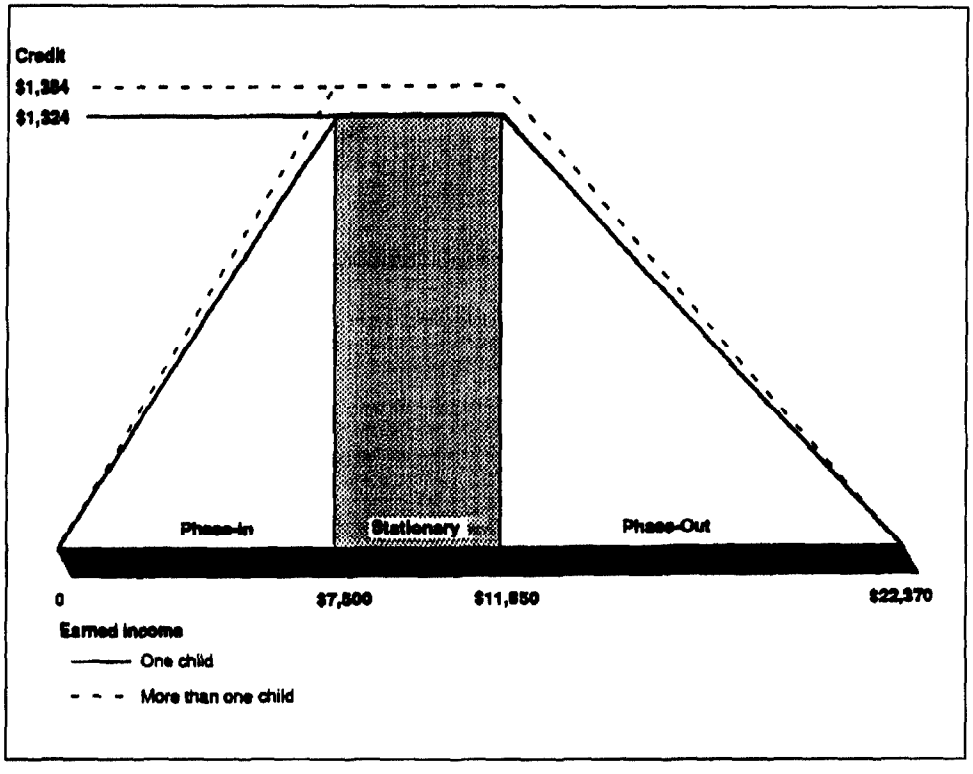
In 1990, Congress substantially expanded the EIC, making the basic credit more generous and adding provisions that gave larger amounts to households that had more than one child, had a child less than 1 year old, or paid for health insurance that covered a qualifying child. The Omnibus Budget Reconciliation Act (OBRA) both simplified and relaxed the credit's qualifying criteria. The Omnibus Budget Reconciliation Act of 1993 (H.R. 2264) passed by both houses of Congress and recently signed into law by the President contained a provision to broaden the coverage and increase the amount of the earned income credit.

This report responds to a request from Senator Bill Bradley that we examine both the credit's design and the Internal Revenue Service's (IRS) administration of the credit in light of the 1990 OBRA changes. In addition, Senator Bradley requested that we evaluate whether changes can be made to improve the credit's design or administration.

OBRA Increased Size but Retained Design of the Basic EIC

EIC is a refundable tax credit available to low-income workers with a qualifying child or children. The benefits are calculated primarily on the basis of earnings rather than on total income, although total income can affect the amount of credit given. EIC's design features three main parameters: the credit rate, the stationary range, and the phase-out rate.

Figure 1.1: Earned Income Credit, 1992



Recipients received the basic credit rate (17.6 percent in 1992, 18.4 percent for recipients with two or more qualifying children) as long as earnings were less than or equal to the lower income limit of the stationary range ($7,500 in 1992). From that level of earnings up to the upper limit of the stationary range ($11,850 in 1992), workers received the same maximum basic credit amount ($1,324 in 1992, $1,384 for recipients with two or more qualifying children). For taxpayers with adjusted gross income (AGI)—or if greater, earned income—above the upper limit of the stationary range, the credit is reduced at the phase-out rate for each additional dollar of AGI above that upper limit. In 1992, the phase-out rate was 12.57 percent (13.14 percent for recipients with two or more children) so that credit recipients with AGI above $11,850 saw their credit reduced by either $0.1257 or $0.1314, depending on the number of qualifying children, for each additional dollar earned. In 1992, the credit was completely phased out for AGI above $22,370.

Table 1.1 shows the credit's parameters from 1975 through 1994. For 10 years, the credit rate remained at 10 percent but since 1985, the rate has periodically been increased and is scheduled to continue increasing until 1994. Beginning in 1987, the income amounts defining the credit ranges were indexed to changes in the Consumer Price Index to ensure that EIC amounts would not fall in terms of purchasing power.

Table 1.1: EIC Rates, Maximum Credit, and Income Amounts Defining Credit Ranges, 1975-1994[a]

Years	Credit rate	Minimum income for maximum credit	Maximum credit	Phase-out rate	Earned income phase-out range[b]
1975-78	10.0%	$4,000	$400	10.00%	$4,000- 8,000
1979-84	10.0	5,000	500	12.50	6,000-10,000
1985-86	11.0	5,000	550	12.22	6,500-11,000
1987	14.0	6,075	851	10.00	6,925-15,432
1988	14.0	6,225	874	10.00	9,850-18,576
1989	14.0	6,500	910	10.00	10,250-19,340
1990	14.0	6,800	953	10.00	10,750-20,264
1991	16.7	7,100	1,192	11.93	11,250-21,250
1992	17.6	7,500	1,324	12.57	11,850-22,370
1993	18.5	7,750	1,434	13.21	12,220-23,050
1994[c]	23.0	8,030	1,846	16.43	12,650-23,890

[a]Credit rates and phase-out rates are those for recipients with one qualifying child. Income amounts are indexed for inflation.

[b]Income refers to the greater of either earned income or adjusted gross income.

[c]Projection based on OBRA 1990.

Source: For years 1975-1986 and projected year 1994, Committee on Ways and Means, U.S. House of Representatives, "Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means," Overview of Entitlement Programs, May 15, 1992. For years 1987-1992, Earned Income Credit Tax Tables in instructions for Form 1040, IRS. We learned the values for 1993 from IRS.

OBRA 1990 retained the fundamental EIC design but significantly increased the basic credit and phase-out rates over a 4-year period. Table 1.2 shows phase-in and phase-out credit rates and credit income ranges as modified by OBRA. The size of the basic credit increased from 14 to 16.7 percent in 1991 (rising to 23 percent in 1994). The credit rate increased for families with more than one qualifying child to 17.3 percent in 1991, rising to 25 percent in 1994. OBRA increased phase-out rates for the basic credit to 11.93 percent in 1991 and to 16.43 percent in 1994. In addition, OBRA made

a supplemental young child credit available for families with a qualifying child less than 1 year old. This additional credit increased the EIC rate by 5 percentage points and increased the phase-out rate by almost 4 percentage points. OBRA 1990 also added a credit for families who purchase health insurance coverage for a qualifying child. Both the supplemental young child credit and supplemental health insurance credit use the same earned income limits for phase-in and phase-out as the basic credit.[1] The maximum credit allows changes from year to year because the income amounts are indexed for inflation.

Table 1.2: EIC Phase-In and Phase-Out Rates, 1991-1994

Year	EIC one child	EIC two children	Young child credit rate	Health insurance premium credit rate
1991				
phase-in	16.7	17.3	5.0	6.0
phase-out	11.93	12.36	3.57	4.285
1992				
phase-in	17.6	18.4	5.0	6.0
phase-out	12.57	13.14	3.57	4.285
1993				
phase-in	18.5	19.5	5.0	6.0
phase-out	13.21	13.93	3.57	4.285
1994				
phase-in	23.00	25.00	5.0	6.0
phase-out	16.43	17.86	3.57	4.285

Note: 1994 rates are based on OBRA 1990.

Qualifying for EIC Has Become Simpler and Easier

Recent changes in the law have made it simpler to determine eligibility for the credit and easier for some public assistance recipients to qualify for the credit. To claim EIC, a taxpayer has to file a tax return, meet relevant earned income and AGI criteria, and meet eligibility criteria concerning the taxpayer's filing status and relationship to and responsibility for children. Before 1991, taxpayers seeking EIC had to file their tax returns as married-joint, surviving spouse, or head of household. A married couple had to file jointly and be entitled to a dependency exemption for a child. To meet dependency exemption requirements, a taxpayer generally must have provided more than half the total support of the child who lived with

[1]In 1994, the young child credit and health insurance supplement will be eliminated by OBRA 1993.

the taxpayer for more than half the year. A surviving spouse by definition must have maintained a household for a dependent child. Single persons had to qualify for head of household filing status that, by definition, required that the taxpayer maintain a household for a child or certain other dependents to qualify. Only taxpayers who provided more than half the household expenses met household maintenance qualifications. Aid to Families with Dependent Children (AFDC) benefits were not considered support or expenses provided by the taxpayer. Thus if more than half of an individual's or couple's income was from AFDC or another source other than their own incomes or resources, EIC generally was not available because the support and household maintenance qualifications were not met.

OBRA 1990, replaced these eligibility rules with a three-part test of relationship, age, and residency to determine if a child qualifies.[1] A qualifying child must be the tax filer's natural child, stepchild, adopted child, foster child, or descendent of a son or daughter. Married couples filing a joint return must generally be entitled to a dependency exemption with respect to the qualifying child. OBRA allows individuals filing tax forms with "single" filing status to claim the credit as long as he or she has a "qualifying child." Qualifying children must be under age 19, or under age 24 and a full-time student, or permanently and totally disabled. A child must live in the United States in the same principal place of abode as the tax filer for more than half the year to qualify (for foster children, the entire year). If the child qualifies for more than one tax filer, the filer with the larger AGI must claim the child. The same criteria determine a child's eligibility for the young child credit and health insurance credit. However, to qualify for the supplemental young child credit, the qualifying child must not have attained 1 year of age at the close of the taxpayer's tax year. To qualify for the supplemental health insurance credit, the taxpayer must have paid for insurance coverage that includes at least one qualifying child.

The Interaction of the EIC and Public Assistance Eligibility Criteria Has Varied

The legislation Congress enacted in 1990 removed the interaction between the EIC eligibility criteria and certain public assistance programs. Because the support test is no longer part of the qualifying child determination, public assistance benefits are no longer considered in determining qualification for the credit. Conversely, OBRA states that EIC is not to be

[1]These eligibility criteria now differ from those that determine eligibility for the dependency exemption. For example, to qualify for a dependency exemption, filers generally must have provided over half of the support costs for the child. After OBRA, a support test no longer was required.

considered in determining eligibility or benefit amounts for certain other public assistance programs.

Until the enactment of OBRA, the extent to which EIC and income-dependent benefits were used to offset one another varied. The initial 1975 legislation stated that the credit was not to be considered income in determining AFDC and food stamp benefits. However, the Technical Corrections Act of 1979 (P.L. 96-222) required that the credit be treated as earned income, thereby reducing both AFDC and Supplemental Social Security Income (SSI) benefits. The Family Support Act of 1988 (P.L. 100-485) required states to disregard the credit when determining AFDC benefits or eligibility. However, the credit was still counted in the gross income eligibility standard. In 1990, OBRA specified that EIC was not to be counted as income for determining the eligibility or amount of benefit for AFDC, Medicaid, SSI, food stamps, or low-income housing programs.

OBRA Changes Aimed at Improving Credit Administration

The disparity between EIC eligibility criteria and information collected on tax returns has posed various administrative difficulties for IRS and taxpayers claiming the credit. Since the credit's enactment, several changes have been legislated intended to (1) improve IRS administration of the credit, (2) enable IRS to award the credit to taxpayers who are eligible for the credit but fail to claim it, and (3) ease the burden of taxpayers who claim the credit.

The 1990 changes sought to simplify the eligibility determination for both IRS and for taxpayers. In addition, OBRA required taxpayers to provide on their tax return (1) a taxpayer identification number (i.e., a Social Security number) for children over 1 year of age and (2) the name and age of each qualifying child in order to claim the credit.

In addition, OBRA required IRS to establish an outreach program directed at increasing the number of eligible taxpayers who claim EIC. This requirement was prompted by a concern that many taxpayers who may be eligible for the credit may not get it because they either do not claim the credit on their tax returns or do not file a tax return.

Objectives, Scope, and Methodology

In December 1990, Senator Bill Bradley asked us to review EIC design and administration. In addition to requesting a general review of the credit's design in terms of its scope and purpose, Senator Bradley set forth several objectives to be accomplished that are concerned with the economic and

tax administration aspects of the credit. Specifically, he asked us to address the following group of economic objectives: determine (1) how EIC's tax benefits are distributed across categories of taxpayers, (2) how effectively the credit serves as an offset to the payroll tax and as a wage supplement, and (3) how the credit affects work incentives that low-income individuals face. With respect to IRS administration of the credit, he asked us (1) to identify problems IRS, taxpayers, and employers face because of the more complex EIC created by OBRA's broadening of its scope and (2) to examine how effectively IRS promotes the use of EIC.

Distribution of the EIC and Its Effectiveness in Offsetting Payroll Tax

For our analysis of the distribution of the credit and its effect on the progressivity of the tax code (chs. 2 and 3), we used IRS' 1988 Statistics of Income (SOI) Individual Income Tax database. These were the most recent data available when we started our review. For some additional distributional and progressivity analysis, we used the Bureau of the Census' Current Population Survey (CPS) data file (March 1989), which contains information on the income, hours of work, and demographic characteristics of a national sample of households.

To analyze how EIC affects the progressivity of the tax system, we estimated its effect on average taxes paid by persons at different AGI levels (ch. 3). We compared average effective federal income tax rates before and after EIC. We then broadened the definition of tax burden to include payroll taxes as well. Again, the progressivity impact of the credit was assessed by comparing tax burdens across adjusted gross income classes. To analyze whether state income taxes can offset the progressivity enhancing effect of the credit, we compared the federal and payroll tax burdens of credit recipients before and after state income taxes for selected states.

To analyze how effectively EIC offset the payroll tax levied on the earnings of low-income workers in 1988, we calculated the average ratio of the credit to a worker's payroll tax for each credit range. The payroll tax is used to finance trust funds for old age, survivors, and disability and hospital insurance.[2] Using earnings reported on 1988 federal income tax returns, we estimated what each low-income worker presumably paid from earnings into these trust funds.

Further, we projected earnings of the 1988 tax filing population to 1991 and 1994 using forecasts of changes in the consumer price level made by

[2]The payroll tax in 1988 was 7.51 percent on employee earnings up to $45,000.

the Congressional Budget Office. We calculated EIC reflecting the higher phase-in and phase-out credit rates OBRA established in 1990. (The changes for tax year 1994 enacted by OBRA 1993 occurred after our estimates were completed. These changes should not significantly alter our analyses.) Similar average ratios of credit to payroll taxes by credit ranges were calculated for these projected years.

EIC Effect on Work Incentives

To analyze EIC's effectiveness as a work incentive, we estimated the cumulative marginal tax rates for workers with EIC, reviewed the literature on labor supply, and estimated EIC's effect on labor supply for workers already in the workforce (ch. 3).

For our analysis of cumulative marginal tax rates, we combined marginal income tax rates on income (federal income, payroll, and state income) for taxpayers in certain AGI brackets. We measured EIC's impact on these cumulative marginal rates. Rather than show calculations for all filing statuses that qualify for the credit, along with different numbers of qualifying children, we limited our analysis to one filing status—married filing a joint return—and to families with two dependents. This was done primarily as an example of how state and federal taxes interact in determining the marginal tax rates for a household, not to be representative of all households.

Although head of household status turned out to be more prevalent among households receiving the credit, we chose the married filing jointly status because it represented the largest category of all filers whose filing statuses could qualify them for the credit.[3] We selected six states—Arizona, California, Kansas, Maryland, Ohio, and Wisconsin—to show a range of cumulative marginal rates among geographically dispersed states with varied state tax policies. See appendix I for additional details.

To analyze EIC's effect on workers' willingness to supply labor, we used estimates of workers' changes in hours of work in response to receiving a wage supplement and to changes in that supplement based on changes in earnings. We obtained these estimates from studies examining labor supply responses to a negative income tax (NIT) experiment conducted in Seattle and Denver from 1971 through 1977. Other NIT experiments were conducted earlier in New Jersey/Pennsylvania; Gary, Indiana; and

[3]"Introduction and Changes in the Law," Individual Income Tax Returns 1988, Statistics of Income Division, IRS, Publication 1304 (Rev. 9-91), table 2.4, p. 53.

Iowa/North Carolina. However, these other experiments had fewer participants than the Seattle/Denver experiment. The larger number of participants means that the results of the Seattle/Denver experiment should allow a more accurate measurement of labor responses.

The U.S. Department of Health and Human Services, sponsored the Seattle/Denver Income Maintenance Experiment (SIME/DIME) to measure the work disincentive effects of cash transfers and reductions in those transfers on work effort. The experiment involved almost 5,000 families that were randomly assigned to treatment groups (i.e., families receiving a guaranteed grant) and control groups.[4] Participation was limited to families whose incomes were no greater than 325 percent of the poverty level for a family of four in the year in which they enrolled.[5] By comparison, in 1988 EIC was completely phased out for a family of four when earned income was 150 percent of the poverty level.

We used the results of this experiment both because it was well designed and because it was targeted to the relevant population, low-income working families. We believe the results of this experiment are a better reflection of low-income workers' labor supply behavior than more recent studies based on all workers' behavior. In addition, the SIME/DIME experiment was designed to permit the identification of the labor supply effects of the NIT experiment, the structure of which has many similarities to EIC. However, we recognize that by our using these data our results do not reflect any changes in labor supply behavior that may have occurred since the late 1970s. See appendix II for a detailed methodological discussion.

IRS' Problems in Administering EIC

To review IRS' administration of the credit, we reviewed its returns processing procedures and EIC-related outreach work. For our analysis of IRS' returns processing procedures (ch. 4), we reviewed a random sample of 1,229 individual income tax returns from three IRS service centers—Brookhaven, New York; Fresno, California; and Cincinnati, Ohio—for tax year 1989.[6] We chose those centers because they are geographically diverse and generally receive a large number of returns requesting the credit. The returns sampled represent an estimated

[4]Robins, Philip K., "A Comparison of the Labor Supply Findings from the Four Negative Income Tax Experiments," The Journal of Human Resources, 1985, table 1, pp. 569-70.

[5]Ibid.

[6]Returns were not filed under OBRA 1990 rules until 1992 and thus were not available when we were doing our analysis.

population of 383,000 returns filed at these centers. We examined three strata of returns: (1) returns for which IRS did not change the taxpayer's EIC claim; (2) returns that IRS corrected (either granting the credit when none was claimed, disqualifying a credit claim, or changing the amount); and (3) returns for which the credit was neither claimed by the filer nor awarded by IRS but which appeared to us to be potentially eligible. Appendix III describes the sample methodology and sample characteristics. We also analyzed data from IRS' tax year 1988 Taxpayer Compliance Measurement Program (TCMP),[7] which were the latest data available, to determine the magnitude and types of erroneous EIC claims that the processing procedures could not detect. We used these data to determine what changes could be made either to information required on a return or to returns processing procedures to prevent ineligible taxpayers from receiving the credit.

To determine the status of IRS' outreach efforts to promote the credit, we interviewed IRS officials. In addition, we talked with officials from nonprofit organizations concerned with low-income individuals and families.

We obtained written comments on this report from IRS and informal comments from the Department of the Treasury. On the basis of these comments, we made changes where appropriate. IRS' and Treasury's comments are discussed at the end of chapter 4 and the IRS' comments are reprinted in appendix IV.

We did our work between December 1990 and October 1992 in accordance with generally accepted government auditing standards.

[7]TCMP was designed to measure compliance with the tax laws for most tax return line items. To obtain these measures, IRS periodically conducts comprehensive audits on a stratified random sample of returns. For the tax year 1988 program, audits were conducted on a random sample of over 54,000 individual tax returns, which represented about 104 million returns.

Although Most Low-Income Households Are Ineligible for the Credit, Recipients' Benefits Have Increased Substantially

EIC's purpose is to provide tax relief for low-income workers with children. In this chapter, we describe the overall size of the credit and characteristics of the recipient population. In addition to describing the recipients, we are also providing information on those low-income families who do not qualify. In fact, since the target population is working families with children, many low-income households do not qualify for the credit. However, despite the limited target population, Congress remains concerned about whether all eligible families are aware of and take advantage of the credit.

Since it was first enacted, the size of EIC has increased, after adjusting for inflation, and the number of recipients has grown. In 1975, the first year EIC was available, 6.2 million families claimed an average credit of $478.[1] The number of families claiming the credit remained fairly stable through 1986, although inflation eroded the value of the credit. In 1986, 7.2 million families claimed an average credit of $339. As a result of changes enacted in 1986, 11.1 million families received an average credit of $600 in 1988. In 1991, the first year after the OBRA changes, 13.9 million families received an average credit of $806.

By design, families who receive the credit have at least one wage earner, at least one qualifying child, and file tax returns. The credit is not available to working individuals or couples without children. Nor is it available to poor households with no earnings. The amount of the credit depends on income, and there is a limit on the amount of income a household can earn and still qualify for EIC. In 1975, that limit was $8,000 ($19,024 in 1991 dollars). After adjustment for inflation, the income level at which credit eligibility ends ($21,250 in 1991) is only slightly greater than the original limit.

In 1988, based only on earned income, about 45 percent of the EIC recipients would have fallen below the poverty level for families of their size. These poor families claimed an average credit of $706. Near-poor families, that is, families above the poverty level but with incomes below the earnings limit, earned a smaller average credit of $504.

Most EIC recipients are unmarried and have one child. More live in the South than in any other region. Most recipients are in the phase-out range. As a result, each dollar they earn is reduced by the phase-out percentage (10 percent in 1988). Credit recipients account for only 18 percent of the income tax filers whose incomes are less than the cutoff level.

[1]All dollar figures are in 1991 dollars, unless otherwise specified.

Because it is difficult to estimate the size of the population eligible for the credit, it is not currently possible to estimate the EIC participation rate. While those potentially eligible families who file returns are likely to be given the credit or at least notified about their potential eligibility, other eligible families may not receive the credit because they do not file tax returns. Taxpayers whose income does not reach a certain threshold amount ($9,550 in 1990 for a married couple filing jointly, $6,800 for a single person filing as a head of household) are not required by law to file.

Recently EIC Benefits Have Increased Significantly

In 1975, the first year EIC was available, 6.2 million families claimed a total of $2.97 billion in credits. The average credit per family was just over $478. In 1989, 11.6 million families claimed a total of $6.5 billion, with an average credit of $604. In 1991, the first year of the OBRA 1990 changes, the number of families receiving the credit increased to 13.9 million, and they claimed a total of $11.2 billion in credits. Table 2.1 shows the number of families who received the credit, the total amount distributed, and the average credit for selected years in both current and constant 1991 dollars.

Table 2.1: Total Amount of EIC, Number of Families Receiving Credit, and Average Credit for Selected Years, 1975-1991

Tax year	Total amount (millions)	Number of families (thousands)	Average credit (current dollars)	Average credit[a] (constant dollars)
1975	$1,250	6,215	$201	$478
1980	1,986	6,954	286	467
1985	2,088	7,432	281	348
1986	2,009	7,156	281	339
1987	3,931	8,738	450	527
1988	5,940	11,148	533	600
1989[b]	6,500	11,600	560	604
1990[b]	7,400	12,500	592	614
1991[c]	11,200	13,900	806	806

[a]GAO calculation, dollars converted to 1991 dollars using the gross domestic product deflator.

[b]Years 1989 and 1990 from Table 9, IRS 1990 and 1991 Annual Reports, U.S. Government Printing Office, Washington, D.C.

[c]Based on preliminary IRS data. The total amount of credits includes the health insurance credit, supplemental young child tax credit, as well as the increase in the credit amount for families with two or more children.

Source: U.S. Congress, House Committee on Ways and Means, Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, 1992.

In Addition to Increasing Average Benefit, Changes in Law Affect Which Earners Get What Benefits

The EIC rate in 1988 was 14 percent. The maximum credit attainable was $984. A low-income earner could claim this maximum credit on earnings between $6,225 and $9,850 ($7,027 and $11,081 in 1991 dollars)—the maximum credit range. In the phase-out range—from $9,850 to $18,576 ($11,081 to $20,918 in 1991 dollars)—the credit was subject to a 10-percent phase-out rate, or a loss of 10 cents from each additional dollar earned.

For the lowest income earners, that is, those with earnings that place them in the phase-in range, the average effective earned income credit was just under 14 percent of earnings in 1988.[2] In the same year, the average effective credit rate in the maximum credit or stationary range was 10.4 percent, while the average effective credit rate was only 3 percent in the phase-out range. Because the credit is constant while earnings are rising, the ratio of credit to earned income declines throughout the range over which the credit is at its maximum. The rate of decline accelerates in the phase-out portion, because the credit is declining while earnings are rising.

In 1990, Congress raised the rates for the basic credit.[3] In 1991, the credit rates were scheduled to range from 16.7 percent (one child) to 17.3 percent (two or more children). These rates were to be boosted to 23 and 25 percent, respectively, by 1994 when OBRA 1990 was to be fully phased in. However, OBRA 1993 has higher rates for 1994. Under OBRA 1990, the average effective credit rate is likely to increase substantially. However, this increase is difficult to estimate since it depends on the number and ages of qualifying children.

We projected average effective credit rates for the three credit ranges in 1991 and 1994 using 1988 data.[4] Our estimates are shown in table 2.2. They include the supplemental young child credit and the larger credit for families with two or more qualifying children. Our projections show that average effective rates for the first two credit ranges should rise substantially, with a smaller rise for workers in the phase-out range. By 1994, we projected that taxpayers in the phase-in range will face an average effective credit rate of 24 percent compared with 17.1 percent in

[2]Because some of these workers have other income, their AGI may be greater than earnings and their credit somewhat reduced as a result.

[3]OBRA also included an additional credit amount for more than one child as well as supplemental credits for a child less than 1 year old and for the purchase of health insurance coverage for a qualifying child. See chapter 1.

[4]Our projection to 1994 is based on OBRA 1990 phase-in and phase-out rates and does not reflect OBRA 1993 changes.

1991 and 13.7 percent in 1988, nearly doubling the credit rate over the 6-year period.

Table 2.2: Average Effective Credit Rates, 1988 (Actual), 1991, and 1994 (Projected)

Year	Phase-in (percent)	Maximum (percent)	Phase-out (percent)	Overall (percent)
1988	13.7	10.4	3.0	5.3
1991	17.1	13.4	3.7	6.7
1994	24.0	18.8	5.2	9.4

Note: The average effective credit rate is based on a simulation of the statutory credit rates applied to families with one child, two or more children, and children less than a year old in the 1988 SOI sample of the tax-filing population. The average rate does not include the health insurance credit since data on health insurance premiums and use of the health insurance credit were not available at the time of our analysis.

In the maximum range, the effective credit rate will rise by over 80 percent between 1988 and 1994. In the phase-out range, the increase will be only slightly less dramatic: by 1994, the effective rate will be 5.2 percent compared to 3.7 percent in 1991 and 3 percent in 1988. Thus between 1988 and 1994, when the OBRA changes are fully phased-in, the effective rate will have increased about 73 percent in the credit's phase-out range. In 1988, slightly more than half of all credit recipients were in that range.

When looked at across time, the effect of OBRA's increase of the credit rate is quite substantial regardless of what earned income range the recipient is in. The effective credit rate rises by 73 to 80 percent in all ranges, and the average effective credit rate rises from 5.3 percent in 1988 to 9.4 percent by 1994, a 77-percent increase. This increase is reflected in a substantial change in the expected average credit amount between these years. The average credit amount will rise from $605 in 1988 to $1,067 in 1994, a rise of about 80 percent.[5]

Profile of Credit Recipients

Only 18 percent of low-income households who filed a return received the EIC in 1988. The largest number of recipients were above the poverty line and generally in the phase-out range of the credit. However, those below the poverty line received larger credits than those above the poverty line. Most of the families who received the credit were headed by a single parent and about half of all families had one child.

[5]Our estimate of average credit is the weighted average of the credit using the IRS' 1988 SOI Individual Income Tax database sample. It differs insignificantly (by less than 1 percent) from the actual average credit claimed in 1988. Our estimates of the average credit in 1991 and 1994 were also based on this sample.

Credit Helped the Poor More Than Near Poor

In 1988, based only on earned income, about 45 percent of the EIC recipients would have fallen below the official poverty level for families of their size.[6] These poor families accounted for 54 percent of all EIC claimed. The average credit received by poor families was $706 in 1991 dollars. Near-poor families, families with earned incomes above the poverty level for families of their size but under the credit earnings limit, earned an average credit of $504 in 1991 dollars. Thus, the credit helped the poor somewhat more than the near poor.

Most EIC Recipients Are Not Married and Have One Child

Nearly 60 percent of the credit recipients are unmarried household heads. These households accounted for 63 percent of the credits claimed in 1988. Fifty percent of families who received the credit had only one qualifying child. Two-children families made up 29 percent of 1988's credit recipients. Twenty-six percent of these families lived in the southeastern part of the nation. The southwestern region accounted for the next highest proportion, 18 percent, followed by 16 percent for the western region.

Most EIC Recipients Were in the Credit's Phase-Out Range

The majority of EIC recipients—about 51 percent—were in the phase-out range of the credit in 1988. Twenty-seven percent were in the phase-in range. Because the phase-out is believed to have the largest disincentive effects on work effort, this distribution of workers suggests that about half of the credit recipients may have reduced their hours of work as a result of the credit. On the other hand, about one-quarter of the recipients are subject to the phase-in. Of all the credit ranges, the work incentives in this range are more likely to be positive, so that workers in this range are more likely to expand their work effort. Since more credit recipients are affected by the phase-out than the phase-in, the effects of the negative work incentive may dominate. This is discussed in chapter 3.

18 Percent of Returns in Eligible Income Range Received EIC

In 1988, EIC was claimed on about 18 percent of all tax returns for filers with earnings less than $18,576, the income cutoff for receiving the credit. During that year, use of the credit was limited to qualified married couples filing joint returns, unmarried filers with head of household filing status, and widow(er)s filing surviving spouse status. About 85 percent of all head of household returns and 60 percent of surviving spouse returns with earnings under $18,576 received the credit. EIC recipients accounted for about a quarter of the married returns (this includes married-joint and

[6]Some of these families may have qualified for AFDC and food stamps, which are not included in earned income. To the extent such assistance is received, the percentage of credit recipient families with economic incomes below the poverty level is probably somewhat less than 45 percent.

married-separate returns, although married-separate returns were not then, nor are they now, eligible for the credit).

However, these statistics may understate the potential use of the credit in future years because in 1988 single individuals had to qualify as heads of household or surviving spouses to claim the credit. As of 1991, single individuals with qualifying children are permitted to claim the credit even though they contribute less than half of the qualifying child's support as long as the child passes the residency test. Since credit eligibility depends on the presence of qualifying children, the credit is not available to working poor individuals, couples, or families without qualifying children through tax year 1993.

Credit Coverage Is Difficult to Measure

One important but very difficult question is what percentage of the population eligible for EIC actually receives the credit? The question is important for measuring both how well the credit is reaching its target population and the effectiveness of various outreach programs. The question is difficult to answer because there is no reliable measure of the size of the target population against which to compare the number of recipients.

One study attempted to measure the EIC participation rate—the ratio of the number of recipients to the pool of eligible families. Measuring credit coverage requires matching two dissimilar databases: IRS taxpayer files to measure the number of EIC recipients and census data to estimate the size of the EIC-eligible population. One researcher, using census and tax data to estimate the participation rates for 1979, 1984, and 1988, estimated participation rates could be over 100 percent. This finding indicates that more families are claiming the credit than the number actually eligible.

However, IRS and others have noted that many households that received the credit may not have been eligible. For example, IRS estimated that in 1982, 27 percent of EIC recipients were actually ineligible and, in 1985, 39 percent were ineligible. After correcting for the number of recipients who might be ineligible, the researcher revised his estimated participation rate to range from 50 to 80 percent of eligible families.[7]

Changes made by OBRA 1990 may have reduced both the number of inadvertent errors and the degree of intentional noncompliance. However,

[7]Scholz, John Karl, The Participation Rate of the Earned Income Tax Credit, Working Paper, Institute for Poverty Research, August 1990. We discuss the issue of noncompliance in more detail in chapter 4.

without another compliance study, it is difficult to know the extent of such an effect. Such a study, along with another close comparison between the tax and census data, would be necessary to accurately estimate the EIC participation rate.[8]

[8]Another source of data on potential nonparticipants is the Information Returns Masterfile that contains W-2 information. In chapter 4, we discuss using this data in IRS outreach efforts.

EIC Increases Tax System's Progressivity While Probably Reducing Work Effort

While the federal income tax is a progressive tax system overall, the rate schedule provides little progressivity at lower incomes. Depending on the number of exemptions and the size of the standard deduction, different family types will begin paying taxes at different income levels called tax thresholds. Below these thresholds there is no federal income tax liability whether income is near the tax threshold amount or close to zero. But families that earn wage and salary income, even though below the income tax threshold, also pay payroll taxes. While these taxes are proportional to wages, they tend to reduce the overall progressivity of the federal tax system. The refundable EIC was enacted and updated to offset the effect of payroll taxes and, as a result also increased the overall progressivity of the federal tax system for workers who would pay little or no income taxes. But the credit's effectiveness in increasing the tax system's progressivity is limited in that low-income workers without children are not given relief from their payroll tax burden.

EIC increases the progressivity of the tax system for the low-income wage earners who receive it. The credit offsets payroll taxes and reduces the average federal tax burden of recipients. These benefits are most substantial for recipients in the credit's phase-in range where the amount of credit exceeds the average payroll tax and reduces the combined effective income and payroll tax rates to only 1.2 percent. However, because EIC recipients represent just about a fifth of all low-income tax filers, the credit only slightly increases the overall progressivity of the tax system.

Providing a refundable tax credit to qualifying families regardless of income would have increased progressivity somewhat, although it would have been more expensive than the current credit. To increase the effect of the credit on tax progressivity, as well as to limit the overall cost, the credit provides for a reduction in the credit or phase-out as incomes get higher. While this phasing out may increase the credit's effect on progressivity at lower incomes, it also raises perceived or effective marginal income tax rates on all workers with incomes in that range. The higher effective marginal income tax rate reduces the work incentive of these households and probably leads to a reduction in hours worked.

Our analysis of the response of low-income workers to these changes in effective marginal rates suggested that the overall effect is probably to reduce their hours of work though not to a very large extent. However, the

magnitude of the reduction in hours of work will probably grow as the credit's marginal phase-out rates become greater. For those credit recipients in the phase-in range, the wage subsidy provided by the credit probably increased the hours of work. Those in the stationary phase of the credit get the same amount regardless of working a few hours more or less. Our analysis also suggested they probably reduced their hours somewhat. Finally, those in the phase-out range must contend with higher marginal effective tax rates as well. This group, which was more than half the affected population, probably reduced their hours even more. Our projections for 1994 indicated that the magnitudes of all these effects are likely to grow, with the likely net reduction in hours for the overall population getting larger.

EIC Increases Progressivity of Federal Tax System for Credit's Recipients

By offsetting payroll taxes and by reducing the average federal income tax of recipients, EIC increases the progressivity of the tax system. In 1988, the credit offset more than half of payroll taxes[1] for the average recipient. This percentage offset will rise, and we project that by 1994, when the credit rate increases are fully phased in, the amount of the credit will nearly offset the payroll tax.

Alternatively, EIC reduces the average income tax burden of recipients, thereby increasing the progressivity of the tax schedules they face. We compared the federal income tax burden of credit recipients to that of nonrecipients and found that for some recipients the credit exceeded their income tax liability (giving them a subsidy), and for most recipients the credit substantially offset the income tax.

When the payroll tax is added to the federal income tax, the credit offsets these combined effective taxes, but the effect is more significant for very low income recipients in the credit's phase-in range. The credit, which diminishes in the phase-out range, quite naturally provides a smaller reduction in the combined federal income and payroll average tax rates paid by credit recipients in this range. When we included state income taxes in our calculations of cumulative average tax rates, we found that these taxes did not significantly raise the burden on low-income filers. Thus, the progressivity of the income tax rate structure facing low-income

[1]Payroll taxes are defined as the sum of taxes for three separate Social Security programs—old age, survivors, and disability and hospital insurance trust funds. In 1988 the combined tax rate imposed on covered employees was 7.51 percent on earnings up to $45,000. In our analyses, we assumed these contributions were taxes placed on workers to finance current program benefit payments. However, some analysts argue these contributions are not taxes but insurance premiums that ensure workers an annuity income and medical care upon retirement.

workers was not significantly changed when state income taxes were added to the tax rate analyses.

Credit Offsets a Substantial Part of the Payroll Tax

EIC offsets a significant portion of payroll taxes. In 1988, it offset about 53 percent of a qualified average worker's payroll tax burden. In 1991, when OBRA 1990's credit increases were partially phased in, the credit offset about 65 percent of those taxes. By 1994, when OBRA 1990's changes were expected to be fully phased in, the credit would have risen to 92 percent, nearly offsetting such a worker's payroll tax burden.

However, this overall average masks important differences in the offset for workers with different incomes. When this average effect is disaggregated into effects in the phase-in and phase-out ranges, the differences in offset effects are easier to observe. In 1988, as shown in table 3.1, the credit offsets the payroll tax burden by 93 percent for credit recipients in the phase-in range (earned income under $6,225). By 1994, the typical credit of a worker in the phase-in range would have been about one and one half times greater than the worker's payroll tax burden. However, for the majority of recipients, that is, those subject to the phase-out range (earnings between $9,850 and $18,576), the credit offsets about a quarter of the payroll tax burden in 1988 and 1991. By 1994, the typical credit was expected to offset about 40 percent of the tax burden.

Table 3.1: EIC as a Percentage of Payroll Taxes for Taxpayers by Credit Range, 1988, 1991, and 1994

Year	Phase-in	Stationary	Phase-out	Overall
1988	93%	76%	23%	53%
1991	114	95	28	65
1994	160	134	39	92

Note: We based calculations for the 1988 tax year on a sample of returns. Earned incomes for 1991 and 1994 are projections based on the assumption that incomes would match the growth rate of the Consumer Price Index between 1988 and 1991 and a 1994 index forecasted by the Congressional Budget Office. Payroll taxes for taxpayers reporting wages and salaries are estimates. Payroll taxes for employees include estimates of both their direct contribution and the contributions made by their employers. The 1994 projection assumes OBRA 1990's phase-in and phase-out rates and maximum credits as opposed to new rates and credits for 1994 as enacted by OBRA 1993.

While EIC Raises Tax Thresholds Above Poverty Level Incomes, It Changes the Poverty Rate Only Slightly

Before 1987, a portion of the earned incomes of many families below poverty levels was taxed. But the Tax Reform Act of 1986 increased tax thresholds so that incomes were not taxed until they slightly exceeded poverty-level incomes. In the early 1980s, some workers with earnings below the official poverty level were subject to income tax on those earnings because the tax threshold, the income level at which taxes begin, was well below the amount of income needed to emerge from poverty. On average, these tax thresholds ranged between 64 and 70 percent of poverty-level incomes. However, poor workers who qualified for the credit had lighter tax burdens. In fact, after their EICs were taken into account, these recipients were not subject to a tax liability until their incomes were between 83 and 94 percent of the official poverty level for families of their size. Since the enactment of the Tax Reform Act of 1986, the tax threshold has been about equivalent to the poverty level. This has ensured that poor families have very little or no tax liability, regardless of whether they qualify for the credit.

EIC raises the tax threshold, that is, the amount of income recipients can earn before they incur an income tax liability. For tax filers who do not itemize deductions, the tax threshold depends on filing status (which determines the size of the standard deduction) and the number of children who can be claimed as dependents. We compared the tax threshold, with and without EIC, to the poverty-level incomes of married and single head of household families with two dependent children.

Since 1987, the tax threshold has slightly exceeded poverty level incomes, ensuring that those individuals and families officially defined as poor are not subject to an income tax. Additionally, low-income workers who received EIC have been able to earn as much as 28 percent (for a married couple with two children) and as much as 50 percent (for a head of household with two children) above the poverty level before being taxed.

However, for very low income workers below the tax threshold and with earned incomes below poverty level incomes, EIC has had only a slight effect on the poverty rate. As table 3.2 shows, when the effect of the credit is taken into account, the poverty rate for all persons was reduced by as little as 0.1 percent in 1985 to as much as 0.7 percent in 1991. The slightly larger effect in 1991 reflected the higher credit rates enacted by OBRA in 1990. That the effect was small is not surprising because the nonworking poor and the working poor without qualifying children do not receive the credit. Also, credit recipients whose earned incomes place them in the

phase-in range do not earn enough even with the credit to be lifted above a poverty-level income.

Table 3.2: Effect of EIC on Poverty Rates for Selected Years, 1979-1991

	Percentage of persons in poverty by definition of income				
Poverty rate by definition of income	**1979**	**1982**	**1985**	**1988**	**1991**
Income after federal taxes	19.5	23.3	21.6	20.7	22.3
Income after federal taxes plus EIC	19.2	23.1	21.5	20.3	21.6
Reduction in poverty rate	0.3	0.2	0.1	0.4	0.7

Note: Income after federal taxes is defined by the Bureau of the Census as the sum of money income, including capital gains and health insurance supplements to wage or salary income, less government cash transfers and Social Security and federal income taxes.

Source: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series p-60, No. 182-RD, Measuring the Effect of Benefits and Taxes on Income and Poverty: 1979 to 1991, U.S. Government Printing Office, Washington, D.C., 1992, table 2, p. 96.

EIC Decreases Average Effective Federal Income Tax Rates

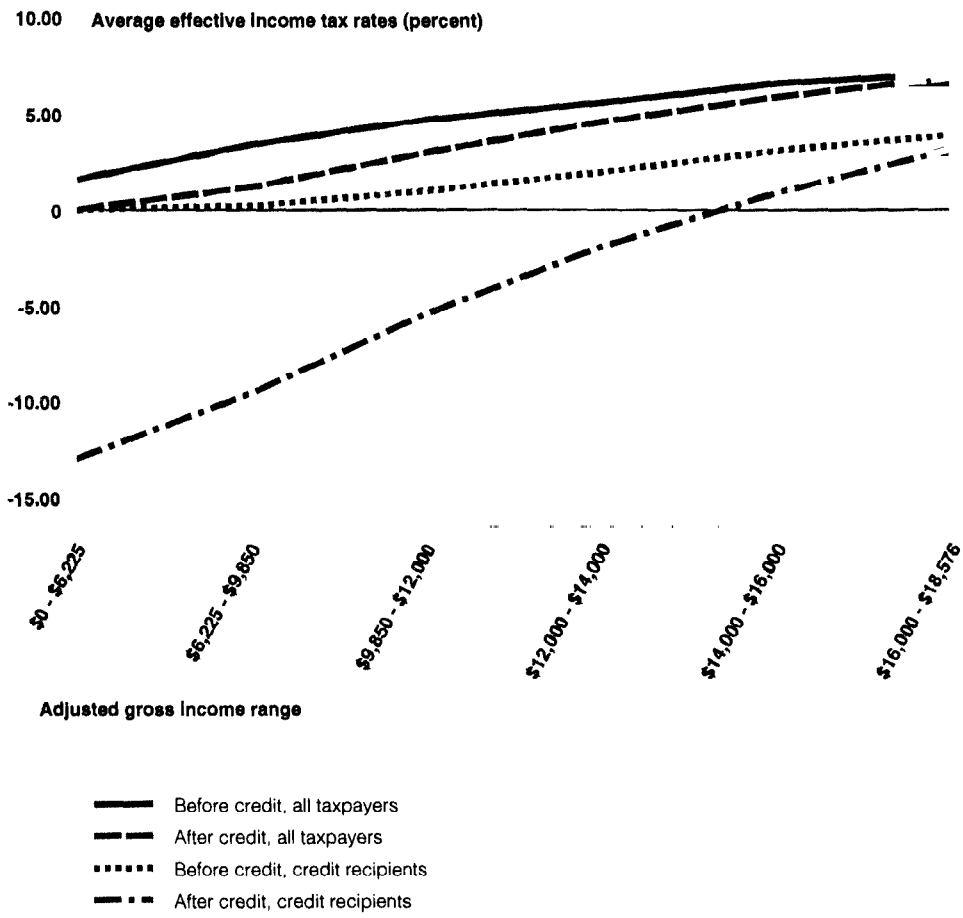
By reducing the average effective tax rates of the two significant taxes on wages, the payroll tax and the federal income tax, EIC increases tax progressivity for recipients. This reduction in tax burden is more significant for those in the phase-in range. Because EIC recipients are about a fifth of all taxpayers with adjusted gross incomes less than the credit's income cap, average effective rates were not substantially lowered for most taxpayers in income classes below the cap.

The federal income tax is considered progressive because average tax burden (tax/income) rises with economic income.[2] At very low incomes, individuals and families have no income tax liability. Individuals and families with more moderate incomes are subject to lower tax rates than those with more substantial income. In 1988, all taxpayers with AGIs of less than $6,225 (the limit of the credit's phase-in range) paid a 1.6-percent effective tax rate before accounting for the credit. But once the credit was included in the calculation, the overall average effective rate fell to 0.02 percent. For taxpayers with AGI between $6,225 and $9,850 (the credit's stationary range), the average effective rate was 3.4 percent without the credit but 1.2 percent with the credit. Finally, for taxpayers with AGIs between $14,000 and $16,000 (the middle of the phase-out range),

[2]Our analysis of effective tax burdens used the Internal Revenue Code's definition of AGI as an approximation to economic income. It is only an approximation for low-income workers to the extent that the economic income of such workers includes items, such as AFDC and food stamps, that are not in AGI. Thus, for some low-income workers, AGI, our proxy for economic income, may understate their economic income and overstate average tax burdens.

the average effective rate was 6.6 percent without the credit and 5.9 percent with the credit.

Figure 3.1: Average Effective Income Tax Rates of Individuals Before and After EIC by Adjusted Gross Income, 1988



EIC reduces the average effective federal income tax rates of recipients. Because the credit is refundable, it also provides a subsidy to taxpayers whose credits exceed tax liabilities. In 1988, EIC recipients in the phase-in range (those with adjusted gross income below $6,225) received refunds that averaged almost 13 percent of AGI. Without the credit, these families would have paid an average effective federal income tax rate of 0.01 percent. Similarly, EIC recipients in the stationary range ($6,225 to

$9,850) received refunds averaging almost 10 percent of their AGI. Otherwise, they would have paid a 0.2-percent tax rate.

The average effective federal income tax of EIC recipients in the phase-out range ranged was between a negative 5 percent to a positive 3 percent, depending on the taxpayer's AGI. Those near the beginning of the phase-out range, with adjusted gross income under $12,000, would have paid an average effective federal income tax rate of 1 percent. The tax rate was low because some families' tax thresholds were above $12,000, while other families' thresholds were only slightly below $12,000 so little of their income was subject to tax. However, with the credit, they instead had an average effective tax rate of about negative 5 percent. Families near the end of the phase-out range (those with AGI above $16,000) would have had a 4-percent average effective federal income tax rate without the credit. But with it, these recipients paid an average effective rate of about 3 percent.

Payroll Tax—A Significant Tax Burden for Low-Income Workers

The payroll tax adds a substantial tax burden on low-wage earners. In 1988, the payroll tax rate on employees' earnings was 7.51 percent on earnings under $45,000. Employers also paid the same rate on wages paid to workers. Employers are expected to try to shift the burden of the tax to employees and, because there are few nontaxed alternatives, it is commonly assumed that they succeed.[3] This burden would show up in the form of lower before-tax wages to reflect the employer's share and in the form of lower after-tax wages to reflect the employee's share of the tax.[4] In our calculations, therefore, we included both of these shares in the average effective tax rate calculations (a total of 15.02 percent on wages under $45,000).

We combined the federal income and payroll tax burdens of taxpayers with low AGIs. We found that EIC sharply reduced the combined average effective federal income and payroll tax rates for its recipients. This reduction in rates was more significant in the credit's phase-in range, where the credit, in 1988, was equal to 14 percent of earned income.

[3]Almost all occupations are covered by the payroll tax so that employees have few alternatives other than to be subject to the payroll tax. This fact forecloses nontaxed employment opportunities, thereby making it easier for employers to shift all or part of their share to the employees. Even if the tax is not completely shifted to workers, it is probably substantially shifted.

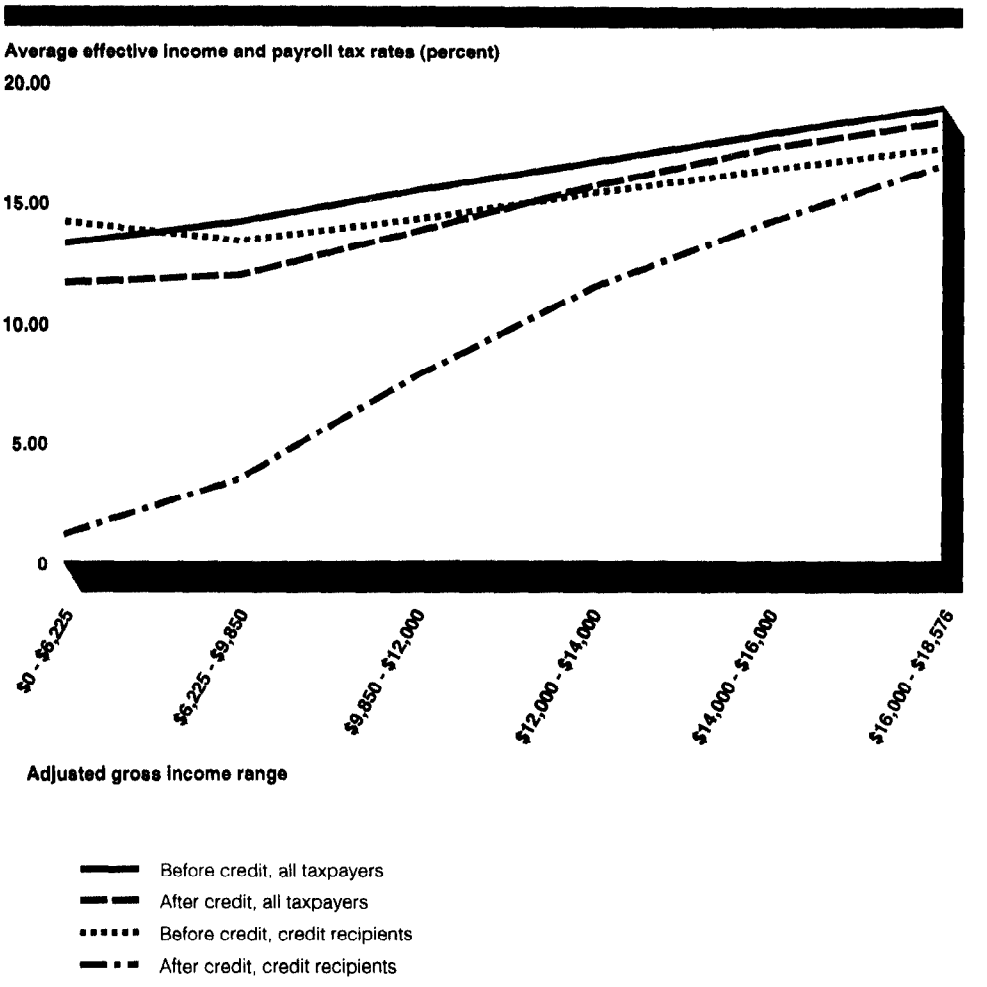
[4]The employer's nominal share of the tax burden was imputed as income to the low-income worker. For example, if a low-income worker had $10,000 in earned income, we imputed the payroll tax as amounting to $1,502 (employee and employer shares) and earned income as amounting to $10,751.

For all tax filers, the average combined effective tax rate began at 13 percent for the lowest income group and rose slightly throughout the low- to moderate-income range (the solid line in figure 3.2). The credit lowers the effective tax rate for filers in the relevant AGI categories, with a larger effect on the lowest income groups (see the "all taxpayers" dashed line directly below the solid line in figure 3.2).

For credit recipients, however, the credit substantially reduces average burden. In the lowest AGI group, the tax rate without the credit would have been about 14 percent, but the credit reduces it to 1.2 percent. The credit continues to offset the combined effect of these taxes as income rises. In the credit's stationary range ($6,225 to $9,850), the average taxpayer would have paid an effective combined payroll and federal income tax rate of about 13 percent. With the credit, recipients paid an average effective rate of only 3.5 percent.

The combined average effective tax rate of credit recipients in the phase-out range ($9,850 to $18,576) increased with earned income. Recipients in the beginning of the phase-out range had an average tax rate of 7.8 percent. Without the credit, they would have paid about 14 percent. Those recipients near the end of the credit's phase-out range paid an average tax rate of 16.6 percent. Without the credit, their average rate would have been 17.3 percent.

Figure 3.2: Average Effective Income and Payroll Tax Rates of Individuals Before and After the EIC by Adjusted Gross Income, 1988



Credit Reduces Effective Tax Rate for Working Poor and Near Poor

EIC reduced the combined average federal income tax and payroll tax rates paid by the working poor and near poor. In 1988, working poor persons who qualified for and received EIC and who had incomes under the poverty line would have paid an average combined effective rate of 13.8 percent. The credit reduced this rate to 2.9 percent, almost an 80-percent reduction. The credit also reduced the tax burden of credit near-poor recipients who had incomes above the poverty level but below $20,000. In 1988, these recipients' average rate was reduced from 16 percent to 12.4 percent, a 22-percent reduction.

Six States' Income Taxes Minimally Affect Level and Progressivity of Overall Average Tax Rates

In the six states we included in our review, state tax rate schedules only minimally affected the combined federal income and payroll average effective tax rates of EIC recipients. Generally, state income tax policies did not change the effective rates for those in the credit's phase-in range and only minimally changed rates for those in the stationary range. State income taxes generally increased the average effective rates by about 1 percentage point for those in the credit's phase-out range.

To obtain a broader view of the progressivity of the tax structure facing credit recipients, we compared the average tax rates they faced before and after allowing for state income taxes. We compared average effective tax rates by AGI classes comparable to the three credit ranges. We computed average tax rates for residents of each of the six states in our analysis. We calculated the average tax rates for credit recipients only and included, in the first instance, federal income and calculated payroll taxes alone, and then federal taxes plus state income taxes. In the states we examined,[5] we found the largest mean increase in tax rates was no more than 1.13 percentage points (see table 3.3). Such small changes barely affected the level and progressivity of the combined tax structure.

Table 3.3: State Income Taxes' Effect on the Level and Progressivity of Average Effective Income and Payroll Tax Rates Paid by EIC Recipients in Six States, 1988

	Mean of EIC recipients' effective tax rates in all states		
Adjusted gross income classes (1)	Before state tax (2)	After state tax (3)	Different columns (3)-(2) (4)
Less than $6,225	1.18%	1.18%	0.0%
$6,225 - 9,850	3.73	3.86	0.13
$9,850 - 12,000	7.96	8.29	0.33
$12,000 - 14,000	11.70	12.45	0.75
$14,000 - 16,000	13.69	14.65	0.96
$16,000 - 18,576	16.74	17.87	1.13

Note: The six states are Arizona, California, Kansas, Maryland, Ohio, and Wisconsin.

Source: 1988 Individual SOI Data File, IRS Statistics of Income Division; for definitions of state taxable income and marginal rates, Significant Features of Fiscal Federalism, 1989 edition, Advisory Commission on Intergovernmental Relations, Washington, D.C.

[5]We calculated average effective tax rates (federal and state income taxes plus the payroll tax) for six states: Arizona, California, Kansas, Maryland, Ohio, and Wisconsin. A discussion of methodology and tax tables for each state are in appendix I.

While Average Tax Rates Measure Burden, Incentives Are Based on Marginal Tax Rates

According to the economic theory of labor supply, the extent to which EIC will encourage or discourage work effort depends on the credit range in which a worker's earnings place him or her, whether the worker perceives how the credit rate acts to subsidize or tax hourly wages, and the relative importance to the worker of leisure versus income. For example, 1988's 14-percent phase-in range credit rate in effect was equivalent to a negative marginal tax rate (an effective wage subsidy). That is, each additional hour of work ultimately reduces a tax liability or enlarges a refund. So, when offered overtime at a precredit rate of $3.00 an hour, a worker is effectively earning a postcredit $3.42 an hour, or $0.42 more than the offered wage rate. If a worker perceives that his or her effective hourly rate is now $3.42 an hour and believes an hour of leisure time is worth less than that amount, then the worker will be inclined to work more overtime hours than otherwise would have been the case without the credit. By contrast, had this same worker been earning, say, $7.50 an hour in the phase-out range where the marginal tax rate is a positive 10 percent, his or her postcredit hourly wage would have been $6.75 an hour, $0.75 less than the offered wage rate. In this case, the worker would be inclined to work fewer overtime hours or perhaps decline overtime altogether if leisure time was valued more than $6.75 an hour. Thus, a worker in the credit's phase-out range is more likely to work fewer hours or decline additional work opportunities than if the worker had not qualified for the credit.

By 1994, the wedge between pre- and postcredit wage rates was expected to be larger when the more liberal credit rate enacted by OBRA in 1990 was to become effective and, therefore, more workers were likely to perceive the difference between their pre- and postcredit wage rates. In 1994, the basic credit rate for a family with one child would have been 23 percent with a 16.43-percent phase-out credit rate. Using the same example but substituting 1994's phase-in rate, the same low-income worker in the phase-in range would have a postcredit wage rate increase of $0.69 an hour rather than $0.42 an hour he or she would have had in 1988. If the worker were in the phase-out range, the decrease in the postcredit wage rate would have been $1.23 rather than $0.75 in 1988. These widening differences in effective after-credit hourly wage rates on income will probably increase the size of the behavioral response. In addition, they may serve to heighten the awareness among low-income workers of how the credit rewards or penalizes work effort.

Credit Interacts With Federal Income and Payroll Tax Rates

EIC phase-in and phase-out rates, federal marginal income tax rate brackets, and payroll tax rates interact to effectively create additional marginal tax brackets. For example, in 1988, the two income tax brackets (zero and 15 percent),[6] the payroll tax rate, and three EIC ranges created a total of five different effective marginal tax rates as earned income rose from zero to the income level at which the credit disappears. The cumulative marginal tax rate rises continually over the ranges of income that qualify for the credit. After the credit's income cap is reached, marginal tax rates fall because there is no longer a credit phase-out rate.

EIC's implicit subsidy[7] and tax rates have the effect of decreasing, maintaining, and finally increasing marginal tax rates for EIC recipients when they are superimposed on the federal income and payroll tax structure. For example, take EIC as it was configured in 1988. Assuming earned income was equivalent to AGI, a couple filing a joint return with two dependents had a negative tax liability and hence an implicit negative marginal tax rate of 14 percent on earned income up to $6,225. However, their payroll tax rate was a constant 7.51 percent. (Notice we are assuming in this discussion that only the employee's share of payroll taxes affects marginal tax rates. This assumption differs from the one made earlier in our discussion of tax burdens.[8]) Summing both implicit and explicit marginal rates yields a combined marginal rate of negative 6.49 percent on a married couple's earned income up to $6,225 as shown in the last column of table 3.4. For the next income bracket, which encompasses earned income between $6,226 and $9,850 (the credit's stationary range), the implicit marginal tax rate was zero as was the explicit marginal income tax rate, leaving only the positive payroll tax rate of 7.51 percent. Had the couple's income been between $9,850 and $12,800, putting them in the credit's phase-out range, their combined marginal tax rate would be 17.51 percent as the credit's 10-percent phase-out rate would be added to their 7.51-percent payroll tax rate.

When a married couple's income rises sufficiently, the marginal tax rates change again. As earned income exceeds the $12,800 tax threshold but remains below $18,576 (the point at which the credit is completely phased

[6]The zero tax rate bracket refers to the implicit tax rate on tax filers whose standard deduction and personal exemptions together equal or exceed their AGIs.

[7]The direct subsidy credit rate of 14 percent, in 1988, applicable in the credit's phase-in range, can be thought of as a negative marginal income tax rate.

[8]In our earlier discussion, we assumed that over time the burden of the employer's share of payroll taxes falls on workers by reducing before-tax wages. This effect is indirect and takes time while most of the marginal tax rates we are examining are explicit and take effect quickly.

out), the credit's implicit 10-percent marginal tax rate and the explicit income tax's 15-percent marginal rate combined, along with payroll taxes, to create an effective marginal rate of 32.51 percent. The final effective marginal rate is incurred when the workers' earned income (or AGI whichever is greater) exceeds $18,576, the maximum income qualifying for a credit. At that point, the implicit marginal credit rate is zero and the marginal income tax rate is the statutory 15 percent, so the combined marginal tax rate falls from 32.51 to 22.51 percent. In effect, the interaction of EIC and the federal income tax system converts two marginal income tax brackets into five brackets.

Table 3.4: Cumulative Implicit and Explicit Marginal Tax Rates by Adjusted Gross Income Ranges, 1988

Adjusted gross income classes	Federal marginal tax rate	Federal payroll tax rate	EIC marginal credit rate	Cumulative marginal tax rate
Less than $6,225	0.0	7.51	−14.0	−6.49
$6,226 - 9,849	0.0	7.51	0.0	7.51
$9,850 - 12,799	0.0	7.51	10.0	17.51
$12,800 - 18,576	15.0	7.51	10.0	32.51
$18,577 - 29,750	15.0	7.51	0.0	22.51

Note: Marginal income tax rates were based on the assumption of a married couple filing a joint return, claiming two dependents, and taking a standard deduction.

Source: For federal income tax rate brackets, payroll tax rate, EIC rates, U.S. Congress, House Committee on Ways and Means, Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, 1992 edition, Washington, D.C.

State Marginal Income Tax Rates Interact With EIC Rates and Federal Marginal Income Tax Rates

Similarly, when state marginal income tax rates are added to federal marginal rates—income, payroll, and implicit credit rates—the number of marginal tax brackets increases as does the amount of tax liability. For credit recipients in the phase-out range, who accounted for more than half of the recipients in the six states we analyzed, the phase-out rate boosted the combined income and payroll marginal rates from about 17.5 percent to about 37.5 percent for moderate low-income workers (those earning between $9,850 and $18,576 in 1988). So the phase-out rate, when viewed as an implicit marginal tax rate, together with federal and state marginal tax rates can drive a substantial wedge between before- and after-tax wage rates.

We combined the federal income and payroll taxes and state income taxes to create cumulative effective marginal income tax rates for married taxpayers. Like federal income taxes, the rates depend on an individual's

or couple's filing status and income tax base (most often based on federal AGI or federal taxable income). Table 3.5 shows the cumulative marginal tax rates, including the implicit credit rate, for married-joint filers with two dependent children in six states for 1988.

In the six states, married EIC recipients ranged from just over one-third to nearly one-half of all low-income married taxpayers. Most of these recipients faced relatively high effective marginal rates because of the credit's phase-out. For example, the combined marginal rate shown for Kansas joint returns in table 3.5 for filers with incomes beginning at $12,800 is 36.56 percent: the sum of the 15-percent federal marginal rate, the 7.51-percent employee payroll tax, a 4.05-percent state marginal rate, and the implicit 10-percent EIC phase-out rate.

Table 3.5: Combined Federal, State, and Earned Income Implicit Tax Rates and Number of Rate Brackets for Married Low-Income Workers in Six States, 1988

	Cumulative marginal tax rates[a] after EIC (percent) married joint return tax schedules					
Adjusted gross income class	**Arizona**	**California**	**Kansas**	**Maryland**	**Ohio**	**Wisconsin**
$0 - 6,225	-6.49	-6.49	-6.49	-6.49	-6.49	-6.49
$6,226 - 9,849	7.51	7.51	7.51	7.51	7.51	7.51
$9,850 - 10,799	19.51	17.51	17.51	17.51	17.51	17.51
$10,800 - 12,799	20.51	17.51	17.51	17.51	18.25	22.41
$12,800 - 13,899	36.51	32.51	36.56	34.51	33.25	37.41
$13,900 - 15,773	36.51	32.51	36.56	35.51	33.25	37.41
$15,774 - 18,576	37.51	32.51	36.56	37.51	34.0	37.41
$18,577 and above	28.51	23.51	26.56	27.51	24.0	27.41
Number of marginal rate brackets[b] up to $18,576	9	5	4	8	6	5
Percentage of EIC returns to all married returns up to $18,576	47.0	47.1	28.8	39.8	34.0	35.8

[a]Combined marginal tax rates are the sum of federal and state income marginal tax rates and payroll tax of 7.51 percent and implicit EIC marginal rates.

[b]For presentation purposes, several state tax brackets were collapsed—Arizona had three additional brackets; California, two; Maryland, two; and Ohio, one. Marginal tax rates used in these brackets were those rates that applied to most of the income within the bracket. Rates rise further on incomes over $18,577.

Source: For federal income tax rate brackets, payroll tax rate, the earned income credit rates, and state tax thresholds, see U.S. Congress, House Committee on Ways and Means, Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, 1992 edition; for applicable state income tax brackets and marginal rates, Significant Features of Fiscal Federalism, 1989 edition, Advisory Commission on Intergovernmental Relations, Washington, D.C.

The relatively high marginal rates for moderate low-income credit recipients mean that the wedge between pre- and post tax wage and salary rates becomes considerably more substantial and more likely to affect work effort decisions.[9] Using our earlier example, we can illustrate the potentially significant effect relatively high marginal tax rates could have on work effort choices. Assume, as before, a low-income worker in Kansas is offered overtime at time and half or $10.50 an hour.[10] The post tax hourly wage is, in effect, $6.66 an hour [$10.50 x (1.00 - 0.3656)] after the cumulative marginal tax rate is applied. Without Kansas' marginal tax rate, the implicit post tax hourly wage would have been $7.09 an hour rather than $6.66. Thus, our hypothetical moderate low-income worker sees his or her net after-tax hourly wage fall short of the offered wage rate by about 36 percent; before the state marginal rate was a factor, the wage reduction was 32 percent. For many moderate low-income workers, the increasing gap between before- and after-tax wage rates may serve to make it less attractive to substitute more work hours for leisure activities.

EIC May Increase the Work Effort of Lowest Wage Workers but Reduces the Effort of Other Recipients

Changes in wage rates are a key factor in a low-income worker's decision to augment or curb his or her work effort. A wage rate increase sets in motion two contradictory behavioral impulses: the wage effect that induces the worker to work more hours and the income effect that increases the desire to spend more time on other nonwork activities or leisure. When a worker faces a change in wage rates, these contradictory behavioral impulses sort themselves out in terms of a decision to work more or fewer hours.

How EIC creates wage and income effects can be illustrated by an example of a worker who receives the credit and whose earned income places him or her in the phase-in range. In the phase-in range, the refundable credit is 14 percent of earned income. So a worker earning $3 an hour for a 40-hour work week will have earned a credit of $16.80 ($120 x .14) by the end of the week. Even a worker who chooses to receive the credit as a lump sum by waiting to file a tax return may be fully aware that the more hours he or

[9]Whether workers respond to a change in marginal income tax rates has been the topic of empirical labor economic research for many years. The research has generally found that an increase in marginal income tax rates reduces labor supply. The supply reductions take the form of reduced hours of work and a lowering of labor force participation rates. See Killingsworth (1983), pp. 356-59. One study explicitly addressed the issue of whether workers correctly perceive their marginal income tax rates. This study found that workers appear to act as if they faced a marginal income tax rate equal to the one to which they were actually subjected. Ibid., p. 357.

[10]This assumes the worker's regular hourly wage is $7.00 and the worker works 2,000 hours a year. Thus the worker's before-tax earnings are $14,000, which places him or her in the $13,900-to-$15,773 bracket in table 3.5.

she works, the larger the credit will be. To the extent this hypothesis is true, the worker will act as if he or she is earning $3.42 an hour rather than $3.00 an hour. Thus, to the extent qualified low-income workers perceive their effective postcredit wage rate to be greater than their precredit wage rate, they are induced to work more hours. This is because not working an extra hour has become more costly; each hour of leisure now costs $3.42 in foregone income. On the other hand, because the anticipated credit increases expected income (the so-called income effect), it encourages a worker to want to consume more leisure time activities.[11] Whether the wage effect, which encourages work effort, dominates the income effect, which discourages work, or vice versa can only be known through evidence based on individual behavior.

The preceding description of the way the credit interacts with low-income worker choices between work and leisure is oversimplified. The simplification about choices between work or leisure presumed that workers are free to vary their hours as they wish. However, in the labor market many, if not most, jobs have fixed minimum hours of work, usually 35 or 40 hours per week. Thus, the choice of a worker who prefers to work less than 35 or 40 hours a week can be characterized as "take it or leave it." Hence the choice to work more or fewer hours in response to qualifying for the credit appears to be limited.

But such institutional arrangements do not preclude other adjustments to work activity. Before qualifying for the credit, a worker may view taking a second job as worth the sacrifice of foregoing leisure time. But after qualifying for the credit, the extra income the credit offers partly replaces the income the worker would lose if he or she were to quit the second job. A large enough credit, therefore, might cause the worker to quit the second job.

Even primary jobs with fixed hours are subject to some adjustments. For example, absenteeism could rise despite fixed hours of work. Also, full-time workers may shift to part-time jobs to get the leisure time they now prefer. And, over an extended period, workers can move to jobs that offer weekly work schedules more in keeping with their desired hours of work.

[11]The phase-out of the credit has the same economic effect as a marginal income tax rate. The perception on the part of the worker that added work will increase income tax liability and therefore effectively reduce his or her wage rate applies to the perception of the credit as well. Whereas working more hours increases tax liability, it also reduces the tax credit and raises net tax liabilities for those credit recipients in the EIC phase-out range. Thus, in the phase-out range, both the wage and income effects are mutually reinforcing in that they tend to discourage work effort.

The credit affects workers' choices about the quantity of work and leisure time, including the decision about whether to participate in the workforce or not. Depending on individual preferences between work and leisure activities, the availability of higher after-credit wage rates for qualified workers in the credit's phase-in range may induce some individuals to participate in the workforce if they have a strong enough preference for work over leisure. For example, a single female head of a family may find $3 an hour an inadequate incentive in light of transportation and child care expenses and foregoing part or all of any welfare allowance. But for some potential workers in this situation, an extra 14-percent boost in the after-tax wage over the offered wage could prompt a decision to seek employment.

Whether workers do perceive the credit as a reason to alter choices between work and leisure can only be established by observing worker responses to the credit or, barring that possibility, by inferring responses to the credit on the basis of responses to a government program that is similar to the EIC. The NIT experiments, carried out in the 1970s, focused on the work effort responses of low-income workers to a program that provided an income supplement that was phased out as a worker's earnings increased.

Design of the Seattle/Denver NIT Income Maintenance Experiment

In the early 1970s the Department of Health and Human Services sponsored (SIME/DIME),[12] the last and largest of several NIT experiments, to measure the disincentive effects of cash transfers on work effort. The experiment involved almost 5,000 families in Seattle and Denver. Families were randomly assigned to treatment groups (families receiving a guaranteed grant) and control groups, most for a 3-year period and some for a 5-year period. In the treatment groups, participants were subject to either a 50- or 70-percent phase-out rate.[13] For example, a family getting the $4,800 guarantee in 1971, that is, the level of income provided when a family has no other income and is subject to the 50-percent phase-out, would have their grant reduced to zero at an income level of $9,600 (guaranteed income/phase-out rate: $4,800/0.5 = $9,600). Members of the control group provided work and earnings histories to interviewers. Overall, SIME/DIME revealed substantial labor supply responses: a

[12]For a more complete account of the Seattle/Denver NIT experiment and the methodology we used to estimate labor supply responses to EIC, see appendix II.

[13]Some families were assigned another set of phase-out rates that began at 70 and 80 percent. These high rates were applied to the first $1,000 of earned income and then reduced by 5 percentage points for each additional $1,000 of earned income.

12.5-percent reduction in annual hours worked for husbands, 23.4 percent for wives, and 20.7 percent for single female heads of household.[14]

One reason for using the NIT experiment's measures of work effort responses as an estimate of the work effort responses to the EIC is the design similarity in the phase-out of EIC and the NIT's grant. As with the credit over the highest eligible income range, the NIT plans transfer amounts that are subject to phase-out as income increases. When the break-even income level is attained in the NIT version, the amount of the government transfer becomes zero. Similarly, in the phase-out range, the maximum EIC is reduced as earned income rises. Thus, in terms of influencing labor supply responses, the main economic facets of both are essentially the same: a tax credit in the EIC's phase-out range and a transfer payment in the NIT plan (income effect) that is phased out (wage effect) as income increases.

Apart from a design similarity, NIT experiments' work effort or labor supply response measures should be germane because the experiments focused on low-income populations as does EIC. In the Seattle/Denver experiment, eligibility was limited to families with total earnings of less than $26,280 a year (in 1988 dollars) or, if both husband and wife were employed, earnings of $32,120 a year (in 1988 dollars). EIC, being somewhat more focused on low-income families, restricted the credit to earned incomes not exceeding $18,576 regardless of family size. Though the Seattle/Denver experiment allowed for the inclusion of more moderate-income families than did EIC in 1988, the main emphasis in the experiment was on working families with approximately the same earnings as EIC recipients.

We believe the wage and income effects measured in the NIT studies are useful predictors of labor responses to EIC under certain assumptions. We assumed the labor supply behavioral response of EIC recipients, in terms of changes in annual hours of work, would be proportional to that of NIT recipients who reacted to higher phase-out rates and changes in supplemental income. In addition, because NIT's labor responses to phase-out rates and changes in transfer amounts were measured independently of the demographic characteristics of the NIT population in the Seattle/Denver studies, the NIT labor responses are still useful even if the demographics of these populations have changed. Also, the

[14]Final Report of the Seattle-Denver Income Maintenance Experiment, Vol. 1, Part III, chapter 5, table 3.12, (Washington, D.C.: U.S. Government Printing Office, 1983).

Seattle/Denver labor response measures are more precise than other similar measures derived from nonexperimental labor supply studies.[15]

However, labor supply responses to EIC are probably smaller than those measured in the NIT experiment because the links among income, the phase-out rate, and grant amount in the experiment was made clear to the treatment families while the link may not be as obvious to EIC recipients. Assigning the NIT wage effect measure of labor response to EIC recipients presumes that recipient low-income workers grasp the economic implication of the credit's rules and relate them to their wage rate. In the case of the NIT experiment, this assumption was very reasonable. Families enrolled in the experiment were told about the guarantee level and the tax rate of the NIT plan to which they were assigned. Records were kept on income and assets on a monthly basis.[16] Thus, awareness was heightened concerning the links among the transfer payment, earned income, and the phase-out rate. Measured labor responses were, therefore, probably more definitive in the NIT experiment than they are likely to be under EIC rules.

Those differences in institutional arrangements suggest that estimates of labor supply responses attributable to the credit, using the NIT studies' measures of the wage and income effects, will probably overstate the true labor response of EIC recipients. Thus, our estimates of the labor response to the credit should be viewed as high-end estimates of the changes in annual hours of work induced by the credit.

To use the NIT findings to estimate labor supply responses to EIC in 1988, a database that records the tax credit, hourly wages, and hours worked during the year was required. The Bureau of the Census' March 1989 Current Population Survey (CPS) contains data on 1988 household annual earnings, usual hours worked in a week, and number of weeks worked during the year. On the basis of reported earnings and dependents in the households of primary families, the Bureau of the Census created a special file appended to each record that contained estimates of individual filing status, federal income tax, state income tax, and the EIC. Using that information and the average of the estimates from five studies of the wage and income effects attributable to SIME/DIME, we estimated the labor supply response of low-income workers to the 1988 EIC.[17]

[15]For a discussion of why the measurements of the wage and income effects estimated in these studies of the SIME/DIME can be generalized to estimations of labor supply responses to EIC, see appendix II.

[16]Final Report, p. 8.

[17]The details of the methodology and the labor response estimating equation are described in appendix II.

1988 EIC Labor Supply Responses Probably Were Small Overall, Although More Sizable for Particular Groups

We used the wage and income effect measures from five studies of the SIME/DIME labor responses to estimate 1988 credit recipients' labor supply responses.[18] Using the lowest and the highest of the five estimates from these studies, we estimated that overall labor supply was probably reduced by as few as 24 hours a year (1 percent of average annual hours of work) or as many as 34 hours (3 percent of average annual hours of work). Averaging the results of the five studies, shown in table 3.6, we estimated that overall labor supply was probably reduced by 26 hours, or 2 percent of average annual hours worked.[19]

We estimated that wives, on average, probably reduced their work hours by a somewhat greater amount than their husbands—four times the percentage change of their husbands. In general, the greater percentage reduction of work by wives was partly because in 1988 wives on average worked fewer hours than husbands, thus exaggerating the percentage change. On the other hand, single female heads of household probably had the smallest hourly reduction, about 24 hours per year on average.

In the phase-in range hours worked probably increased by an average of 4 percent—the 14-percent subsidy rate generated a positive wage effect that appeared to have outweighed the negative income effect of EIC. However, this was more than offset for the overall recipient population by the 3-percent decrease in hours worked by those in the stationary range and the 4-percent decrease by those in the phase-out range.

The estimates in table 3.6 are meant to be suggestive of the possible labor responses to EIC as it was configured in 1988 with a phase-in rate of 14 percent, a phase-out rate of 10 percent, and a maximum credit of $874. As discussed previously, the labor effects observed in the NIT experiment may have been more responsive to that cash transfer program because of the institutional arrangements used to monitor the program. With heightened awareness of how the phase-out tax rate affects the amount of the transfer or grant, the NIT recipients were probably better able to make informed choices concerning the value to them of overtime or additional part-time work relative to the value of leisure time. With this caveat in mind, it is fair to say that our measured labor response (overall a

[18]Five were selected from the many studies of labor supply responses to SIME/DIME. Appendix II discusses the criteria used for the selection of these studies.

[19]Labor supply responses shown in tables 3.6 and 3.7 are the average of responses based on estimates of the wage and income effects developed in five studies of SIME/DIME. Details on methodology and high and low estimates of labor supply response by credit range and marital categories are in appendix II.

2.1-percent reduction in hours worked) probably somewhat overstates the actual response.

Table 3.6: Estimated Labor Supply Response to EIC, 1988

	Estimated average change in annual hours worked		
	Change in work hours	Percent change	Proportion of recipients
All recipients	-25.8	-2.1	100.0
By credit range			
Phase-in	10.8	4.1	22.6
Stationary	-26.2	-2.6	16.9
Phase-out	-39.3	-4.3	60.5
By martial status			
Husbands	-24.6	-1.5	32.9
Wives	-31.5	-6.5	22.5
Single female heads of household	-23.7	-0.3	44.6

Source: Appendix II.

Projection of Labor Supply Responses to 1994 Shows Larger Labor Supply Reductions

Our projection to 1994 shows a larger reduction in labor supply—not surprising since the average credit, in constant 1991 dollars, is expected to increase nearly 80 percent and average 9.4 percent of earned income (up from 5.3 percent in 1988).[20] As table 3.7 shows, the overall average percentage reduction in the annual supply of labor is expected to rise from 2.1 percent in 1988 to 3.6 percent in 1994. But as was the case with our 1988 estimates, these 1994 projections are likely to be overstated. Again, the high and low estimates of five separate studies suggest that the probable range could be as high as 5 percent or as low as 1.5 percent. Since the 1994 projection was based on the assumption that everyone's earned income increases at the same rate, the pattern among the credit range and marital categories is similar to the 1988 labor supply effects estimates. Most notably, the largest reduction was in the working wives category. In that category, estimated labor supply reductions, on average, could rise from 1988's 6.5 percent to 10.2 percent by 1994.

[20]These projections are based on the 1994 rates established in OBRA 1990. They do not reflect the changes introduced in the 1993 legislation.

Table 3.7: Estimated Labor Supply Response to EIC, 1994

	Estimated average change in annual hours worked		
	Change in work hours	Percent change	Proportion of recipients
All recipients	-46.5	-3.6 1	00.0
By credit range			
Phase-in	18.6	6.4	22.5
Stationary	-47.7	-4.6	17.0
Phase-out	-70.4	-7.0	60.5
By marital status			
Husbands	-45.5	-2.8	32.9
Wives	-57.7	-10.2	22.5
Single females (heads of household)	-41.7	-0.8	44.5

Source: Appendix II.

EIC Can Be Changed to Make It a More Effective Income Maintenance Program

Within a policy framework of unchanged revenue costs, attempts to change EIC's design to improve work incentives for some workers can only be achieved by weakening incentives for others. For example, raising the credit rate for workers in the phase-in range increases revenue costs; these higher costs can be recaptured by raising EIC's phase-out rate, but to do so makes work less appealing for recipients in the phase-out range. Similarly, a reduced phase-out rate, which might enhance the incentive to work for many, would need to be offset by a lower phase-in rate. Alternatively, to maintain revenue neutrality while raising the phase-in or lowering the phase-out rate, it might be necessary to change the income levels at which the phase-in or phase-out ends or where the phase-out starts. Such alterations further complicate the incentive effects of any change in the credit's structure.[21] Our projections for 1994 indicated that positive work incentives for the lowest income workers have been increased by the OBRA 1990 changes but at the expense of an increase in the program's cost and a reduction in work incentives for those in the phase-out range, which comprises the majority of credit recipients.

While EIC has been effective at lowering the tax burden of qualifying workers, it has been less effective at raising those workers out of poverty[22]

[21]For example, reducing the income level at which the phase-out starts means that more of the population will face a phase-out rate even though the rate is lower for the previous phase-out population. Other combinations can give different results.

[22]EIC's effect on the poverty rate is discussed earlier in this chapter.

and does not assist the large number of workers without dependents who do not qualify for the credit. Expanding either the scope of EIC to include more workers or increasing the amount of the EIC to make it a more effective antipoverty policy clearly would raise the overall cost of the program.

Eliminating the requirement that a filing household have a qualifying child would give tax relief and work incentives to single individuals and married couples without children that parallel those currently given families with children. Although the rationale may be stronger for providing EIC to families with children given that these families face greater work-related expenses (especially for child care), low-income families without children must also pay payroll taxes and might respond to the work incentives of the credit. At the existing levels of credit, such a change would significantly increase the overall cost of the program. At the existing cost in foregone tax revenues and refundable credits, such a change would substantially reduce the amount of credit paid per family.

Conclusions

The net effect of EIC before 1990 was to make the overall federal tax system more progressive. The credit did this by offsetting in whole or in part the payroll tax burden of qualifying workers. Because of the credit's structure, the offset was larger for lower income workers than for workers near the top of the qualifying income range. In 1990, Congress substantially increased the level of the credit. Between now and 1994, both the phase-in and phase-out rates will increase as will the overall amount of the credit. As a result, the overall progressivity of the federal tax system will be increased in the lower income ranges.

Because the credit raises the income of recipients and also raises the effective tax rates of those in the phase-out range, it probably reduced the incentive to work for those who perceived the phase-out as an effective income tax increase as well as those in the stationary range. Our estimates indicated that the 1990 changes, while increasing the work incentive for those in the phase-in range, will most likely magnify the overall reduction in hours worked due to EIC. This is because the majority of the recipients are in EIC's stationary and phase-out ranges where the increased credit amounts and higher phase-out rates through 1994 reduce incentives to work.

Some EIC Administrative Problems Have Been Resolved but Others Remain

For many years, EIC was the source of more mistakes than any other individual income tax provision. For example, for tax year 1988, an estimated one-third of the taxpayers who received the credit were not entitled to it. Filers claiming the wrong filing status were the most frequent source of error. Other problems arose from filers understating their income or incorrectly claiming dependents. IRS did not detect these mistakes in large part because the tax return or supporting documents did not contain sufficient information.

Another set of problems arose from the fact that IRS had to make qualification determinations on the basis of incomplete information. This put IRS in the dilemma of either denying the credit to potentially eligible taxpayers or giving the credit to potentially ineligible taxpayers. Before tax year 1991, IRS adopted procedures that allowed most taxpayers to get the credit as long as their tax returns contained enough information to indicate that they may have been eligible for it.

In 1990, OBRA eliminated some of the major obstacles that taxpayers faced in determining their eligibility for the credit and that IRS faced in administering the eligibility requirements for the basic credit. However, because it added two supplemental credits to the basic credit, OBRA created some additional complexity for IRS and taxpayers.[1] IRS compounded these complexities for taxpayers by creating a complex schedule that taxpayers had to complete to get the credit. The primary reason for the schedule was to give IRS more assurance that the credit would be given only to eligible taxpayers. Ironically, the procedures it established to process the schedule can still allow ineligible taxpayers to receive the credit. Further, the procedures can hinder eligible taxpayers in requesting the credit or in getting the credit in a timely manner.

IRS would have no need for these flawed procedures if it eliminated the requirement that taxpayers file the schedule to get the credit. In place of the schedule, IRS could modify the income tax return to capture the data needed to determine EIC eligibility. These modifications along with clarified tax return instructions would be likely to reduce the number of erroneous EIC payments. Also, certain erroneous EIC payments associated with nontaxable earned income could be avoided if information reporting was required.

[1]OBRA 1993 eliminated the young child and health insurance supplemental credit.

Determining Credit Eligibility Has Consistently Posed Administrative Problems for IRS

The EIC eligibility requirements have always been difficult for taxpayers to comply with and for IRS to administer. Taxpayers had to correctly determine their income, filing status, and qualifying dependents and accurately record this information on their tax returns. However, many taxpayers failed to do so. IRS' tax year 1988 TCMP data show that of an estimated 10.4 million taxpayers who received the credit, as many as 3.4 million taxpayers with credits totaling $1.8 billion could have been ineligible for it. Some of these filers erroneously received credits because IRS' returns processing procedures were incapable of determining if the EIC eligibility information on returns was accurate. Others erroneously received credits because IRS established returns processing procedures that allowed taxpayers to get the credit when they did not provide all the EIC eligibility information on their returns and when taxpayers did not claim the credit.

IRS' Procedures Could Only Find Miscalculations and Inconsistencies

In general, we found that IRS correctly followed its procedures and, based on tax return information, gave the proper credit amount to potentially eligible taxpayers. We estimate that IRS made errors in calculating the credit in about 1.7 percent of the 383,520 EIC claims represented by our sample cases.[2] However, IRS' returns processing procedures could detect erroneous credits only when taxpayers miscalculated the credit or used inconsistent tax return data. Of the 12 million returns for tax year 1990 on which the credit was claimed, IRS' returns processing procedures detected about 6 percent, or 668,000 returns, on which taxpayers had miscalculated their credits. These individuals were entitled to the credit but had either made a math error or entered the wrong credit amount from the EIC table.

IRS also identified about 250,000 returns on which taxpayers claimed the credit but the return information indicated they were not entitled to it. For example, before tax year 1991, only taxpayers who filed joint returns or filed as a qualifying widow(er) could get the credit for a foster child. Thus, if a taxpayer filed as head of household and claimed the credit for a foster child, IRS' processing procedures could detect this inconsistency and deny the taxpayer the credit.

[2]The 90-percent confidence interval for this estimate ranges from 1.0 to 2.4 percent.

IRS' Procedures Were Limited Because Important Certification Information Was Not on the Return

IRS' returns processing procedures could not detect erroneous credits in those cases in which taxpayers misrepresented or falsified EIC eligibility information on their tax returns. For example, before OBRA, unmarried taxpayers with children had to file as head of household or qualifying widow(er) with dependent child to get the credit. To qualify as a head of household, a taxpayer had to provide over one-half the costs of maintaining a household; a qualifying widow(er) had to provide over half the support of the dependent child. If taxpayers did not meet the support requirement but still claimed the head of household filing status, IRS could not detect these errors when processing tax returns. Similarly, erroneous EIC claims that were based on ineligible dependents could not be detected when returns were processed. The only way IRS could detect EIC payments that were based on inaccurate return information was to audit the taxpayer's return.

In Many Ambiguous Cases, IRS Gave Filer Benefit of the Doubt

IRS also could not determine whether taxpayers who claimed the credit were eligible for it when they did not provide complete EIC eligibility information on their returns, such as the relationship of the child or length of time the child resided with the taxpayer. These situations posed a dilemma for IRS. IRS could either assume that the taxpayers were entitled to the credit or it could deny the credit and correspond with the taxpayers for the missing information. If IRS granted the credit on the basis of incomplete information, it had no assurance that the taxpayers were entitled to it. On the other hand, if IRS denied the credit and corresponded with the taxpayers for the missing information, refunds would have been delayed or some eligible taxpayers may not have responded to IRS and would not have received the credit.

Faced with this dilemma, IRS adopted returns processing procedures that allowed most taxpayers who claimed the credit to get it even though they did not provide all the necessary eligibility information on their returns. Table 4.1 summarizes the criteria IRS used to manually process returns on which the taxpayer claimed EIC but had incomplete EIC eligibility information.

Table 4.1: IRS Criteria for Granting EIC Based on Completeness of Tax Return Information

If the filing status was	And the number of months the child lived with the taxpayer was	And the relationship of the child was also	Then grant EIC?
Married filing joint	Blank	Blank	Yes
	6 or more	Blank	Yes
	Less than 6	Any or blank	No
	Less than 12	Foster child	No
	Blank	Foster child	Correspond
Head of household	Blank	Blank	Yes
	6 or more	Blank	Yes
	Less than 6	Any or blank	No
	Any or blank	Foster child	No
Qualifying widow(er)	Blank	Blank	Yes
	12	Any or blank	Yes
	Less than 12	Any or blank	No
	Blank	Foster child	Correspond

Source: IRS.

As shown in the table, if a taxpayer failed to provide information on the number of months the child resided with the taxpayer or the relationship of the child to the taxpayer, IRS would still grant the credit. We estimated that in about 21 percent, or about 81,600, of the 383,520 EIC claims for tax year 1989 represented by our sample cases, the credit was granted even though the returns had incomplete EIC eligibility information.[3]

IRS was faced with a similar dilemma when taxpayers did not claim the credit but appeared to qualify for it on the basis of the income, filing status, and dependency information on their returns. IRS adopted returns processing procedures to give these taxpayers the credit, instead of just informing them that they might be eligible for the credit. For tax year 1990, IRS gave the credit to about 564,000 taxpayers who did not claim it. IRS does not have data on how many of these taxpayers were actually entitled to the credit. However, our analysis of IRS' tax year 1988 TCMP database showed that about 37 percent of the taxpayers who got the credit because IRS calculated it for them were not entitled to it.[4] Our analysis of this TCMP database also showed that 32 percent of the taxpayers who calculated their own credit were not entitled to it.[5]

[3]The 95-percent confidence interval for this estimate ranged from 18 to 24 percent.

[4]The 95-percent confidence interval for this estimate ranged from 23 to 51 percent.

[5]The 95-percent confidence interval for this esitmate ranged from 29 to 36 percent.

OBRA Resolved Some Administrative Problems, but Created Others

OBRA replaced some of the complicated eligibility requirements with a straightforward, three-part test for determining if taxpayers were entitled to the credit on the basis of the relationship, residence, and age of the child. These changes made it easier for IRS to determine if taxpayers were eligible for the credit. OBRA complicated EIC administration, however, by increasing the credit for households with more than one child and establishing two new supplemental credits for (1) households with children under 1 year old and (2) households that purchase health insurance for a qualifying child.

OBRA also introduced complicated rules to ensure taxpayers do not use more than one tax credit or deduction for the same expense or purpose. These changes also made it more difficult for taxpayers to calculate their credit and for IRS to administer the credit. In addition, to increase the likelihood that only eligible taxpayers received the credit, IRS introduced a separate schedule that EIC applicants were to fill out. This form, which asked for some information that is not on the tax return, made applying for the credit more difficult for taxpayers.

Some Administrative Problems Were Resolved by OBRA 1990

OBRA 1990 resolved the major administrative problems associated with the complicated filing status and dependency determinations. It introduced a three-part test for establishing EIC eligibility that is based on the relationship of the child to the taxpayer, the length of time the child lived with the taxpayer, and the child's age. The OBRA changes made it easier for IRS to administer the basic credit because there are no longer different eligibility rules for different filing statuses. Taxpayers are entitled to the credit as long as they meet the income requirements, have a qualifying child, and do not use the married filing separately filing status. Table 4.2 shows the differences between the credit requirements before and after the 1990 law change.

Table 4.2: Differences Between the Pre-OBRA 1990 and OBRA 1990 EIC Requirements

EIC Requirements	Pre-OBRA	OBRA
Filing status of taxpayer	Married filing joint head of household qualifying widow(er).	Any filing status except married filing separate.
Definition of child	Can be (1) son, daughter, stepchild, adopted child, or grandchild; (2) foster child except if taxpayer is head of household.	Can be son, daughter, stepchild, adopted child, grandchild, or foster child.
Dependency status of child	In most cases, child must be dependent of the taxpayer. Child does not have to be dependent if child is unmarried and taxpayer is head of household.	In most cases, the child does not have to be claimed as a dependent by the taxpayer.
Age of child	Child can be any age.	Child must be (1) under age 19, or (2) under age 24 and a full-time student, or (3) any age if permanently disabled.
Residence of child	Child must live in taxpayer's main home in United States for (1) more than 6 months, or (2) 12 months if a foster child, or (3) 12 months for any child claimed by a qualifying widow(er).	Same as pre-OBRA except that qualifying widow(er) is treated the same as the other filing statuses.

OBRA substantially reduced the importance of filing status in determining EIC eligibility by allowing unmarried parents who did not qualify for head of household filing status to get the credit. Therefore, even if taxpayers inappropriately claimed the head of household filing status they would still be allowed the credit as long as they had a qualifying child. Because this issue was the largest source of taxpayer errors in the pre-OBRA period, the change should substantially reduce the number of erroneous EIC claims. IRS' tax year 1988 TCMP data show that an estimated 2.0 million, or 59 percent, of the 3.4 million taxpayers who got the credit but were not entitled to it had inappropriately claimed head of household rather than single filing status.

OBRA also eliminated some of the administrative problems relating to EIC dependency determinations. For example, before OBRA, only taxpayers who filed a joint return or filed as a surviving widow(er) could get the credit for a foster child. Under OBRA, a taxpayer whose filing status is not married-filing separately can claim a foster child as a qualifying child. Similarly, under OBRA, a surviving widow or widower can get the credit if the qualifying foster child resides with the taxpayer for 12 months. Before OBRA, the taxpayer also had to provide more than half the child's support for the tax year.

Administrative Problems Created by OBRA

Some OBRA 1990 changes made credit determinations more difficult for both IRS and taxpayers. EIC administration was complicated when OBRA

related the basic credit to family size—one credit amount is given for households with one child, and a larger amount is given for households with more than one child. This change required IRS to manually review the return to see if more than one child qualified in those cases in which the taxpayer claimed more than one child. Also, the table for the basic credit has two columns—one for households with one qualifying child and the other for households with more than one child—which increases the possibility for taxpayer error in determining the basic credit.

Similarly, the additional credit given for children under 1 year old complicated EIC administration because it is tied to the dependent care credit. If the supplemental young child credit is claimed, the dependent care credit for that child may not be claimed. Also, if the taxpayer received employer-provided dependent care expense and claimed the supplemental young child credit, the exclusion for employer-provided dependent care may not be claimed. These changes required IRS to establish returns processing procedures to manually verify that taxpayers did not claim both the supplemental credit for a child under the age of 1 and the dependent care credit for the same child. The supplemental young child credit also placed a burden on taxpayers to determine which credit was more beneficial to them.

The addition of the supplemental health care credit created other administrative problems. IRS needs to know how much the taxpayer paid for health insurance premiums that went toward covering a qualifying child, because the credit is limited by that amount. The supplemental health insurance credit caused further complications because it was tied to taxpayers' deductions for medical expenses and to the health insurance deduction for self-employed taxpayers. If the taxpayer claims the health insurance credit and also itemizes, deductible medical expenses must be reduced by the amount of the health insurance credit. If the taxpayer is self-employed and is claiming the health insurance deduction, the amount of the premium eligible for that deduction must be reduced by the amount of the health insurance credit. IRS had to develop returns processing procedures to determine if taxpayers correctly handled these health insurance interactions.

IRS' Actions to Implement OBRA Created Problems for Taxpayers

To deal with OBRA 1990 requirements and to ensure that only eligible taxpayers received the credit, IRS developed a separate schedule—Schedule EIC—that taxpayers are required to submit with their returns. Before OBRA, taxpayers calculated the credit on a worksheet that

was included in the instructions to the credit. Taxpayers did not have to submit the worksheet with their returns.

We believe Schedule EIC is complex. It consists of four parts. The first part describes the qualifications for the credit, including a definition of a qualifying child. The second part asks for information on the two youngest qualifying children. This information includes name, year of birth, Social Security number, relationship of the child to the taxpayer, and the number of months the child lived with the taxpayer. The third part is for those taxpayers who want IRS to calculate their credits for them. It asks for information on nontaxable earned income and the amount of health insurance premiums paid. The fourth part is for those taxpayers who want to calculate the credits for themselves. This part consists of calculations of earned income, AGI, and the credit amounts from three different tables. The schedule is reprinted in appendix III.

Returns Processing Procedures May Still Allow Inaccurate EIC Determinations to Be Made

Even after the changes introduced by OBRA 1990, IRS still has no assurance that all eligible but only eligible people receive the credit. Most taxpayers who submitted incomplete information on their qualifying dependents still get the credit. Thus, even with Schedule EIC, the potential still exists that IRS allows ineligible taxpayers to receive the credit. It is important for IRS to be assured of eligibility at the returns processing stage, because it is rarely cost-effective for IRS to pursue cases in which the credit has been granted erroneously given the small amounts involved. On the other hand, the procedures can prevent potentially eligible taxpayers from receiving the credit or from receiving it promptly. Clearer taxpayer instructions could help ensure that taxpayers provide the necessary information for IRS to determine if they are eligible for the credit.

Procedures May Allow Ineligible Taxpayers to Receive the Credit

Similar to its pre-OBRA 1990 processing procedures, IRS has given the credit even though the taxpayer's Schedule EIC did not contain information on the three essential factors for EIC eligibility—(1) the relationship of the child to the taxpayer, (2) the number of months the child lived with the taxpayer, and (3) the age of the child.

Table 4.3 shows the situations in which IRS gave the credit based on incomplete information. Thus, if the taxpayer submitted the schedule, that appeared to be enough for IRS to give the credit even if important information was omitted.

Table 4.3: IRS Criteria for Granting EIC Based on the Completeness of Schedule EIC Information

If the relationship is	And the months child lived with taxpayer is	And the age of the child is	And the child is student/ disabled	Then grant EIC?
Son, daughter, stepchild, adopted child, or grandchild	6 to 12	Less than 19	Blank	Yes
	6 to 12	19 to 24	Yes	Yes
	6 to 12	19 to 24	No	No
	0 to 5	Any or blank	N/A	No
	Blank	Less than 19	Blank	Yes
	Blank	19 to 24	Yes	Yes
	Blank	19 to 24	Blank	No
	Blank	Blank	Blank	Yes
Foster child	12	Less than 19	N/A	Yes
	12	19 to 24	Yes	Yes
	12	19 to 24	Blank	Correspond
	0 to 11	Any or blank	N/A	No
	Blank	Any or blank	Any	Correspond
Blank	6 to 12	Less than 19	Blank	Yes
	6 to 12	19 to 24	Yes	Yes
	6 to 12	19 to 24	Blank	No
	0 to 5	Any or blank	Any	No
	Blank	Less than 19	Blank	Yes
	Blank	19 to 24	Yes	Yes
	Blank	19 to 24	Blank	No
	Blank	Blank	Blank	Yes

Source: IRS.

IRS asks taxpayers to provide the information (i.e., name, year of birth, Social Security number, relationship of child, number of months child lived with taxpayer) on qualifying children. However, the instructions do not make clear that this information is essential if IRS is to make proper credit determinations. To help ensure that only eligible taxpayers receive the credit, IRS needs to specifically state in its tax return instructions that these data are necessary to get the credit. If some taxpayers still fail to provide complete information, even after IRS makes the importance of this information very clear to them, IRS should consider corresponding with them to obtain the missing data rather than simply granting the credit.[6]

[6]In our September 1991 testimony, The New Earned Income Credit Form Is Complex and May Not Be Needed (GAO/T-GGD-91-68), we stated that IRS should give the credit on the basis of return information without corresponding with taxpayers. This was meant as an interim solution to perceived complexities introduced by the new law and new schedule. However, IRS does need accurate and complete information to do its job properly.

Procedures Prevent Taxpayers From Receiving the Credit or Receiving It Promptly

IRS has returns processing procedures that may prevent and certainly delay giving the credit to filers who claimed it, but failed to send in Schedule EIC with their returns. In these cases, IRS sent the return back to the taxpayer with a letter that told the taxpayer to file the schedule with the tax return if she or he wanted the credit. IRS' rationale for this procedure was that it needed all EIC eligibility information to ensure that eligible taxpayers received the full amount of the credit to which they were entitled. To give these taxpayers the basic credit without this information would have resulted in many taxpayers receiving either too little or too much credit. Further, IRS stated that if many of these taxpayers were entitled to more than the basic credit it would be costly to handle requests for the additional credits.[7]

During the 1992 filing season, IRS used procedures that were similar to its pre-OBRA processing procedures. IRS gave the basic credit to taxpayers who did not claim it but who appeared to qualify for it on the basis of their tax return information. In these cases, IRS calculated the basic credit and corresponded with the taxpayer for additional information on the taxpayer's eligibility for the supplemental credits. However, in the 1993 filing season, IRS changed its procedures so that no one receives even the basic credit without submitting Schedule EIC. IRS corresponded with taxpayers who appeared to be eligible but did not claim the credit.

Rather than insist on taxpayers submitting the schedule before they are considered for the credit, IRS could alter the tax return so that it contains enough information to allow a determination regarding at least the basic credit. While IRS constructed its complicated Schedule EIC to provide information useful for administering the credit that was not requested on the tax return, we question whether a separate schedule is really needed. Filers already provide most of EIC qualifying information in the exemption section of Forms 1040 and 1040A. The child's name, Social Security number, relationship, and length of residency are required by Schedule EIC for a qualifying child and by Forms 1040 and 1040A for a dependent child. The only data asked for on Schedule EIC not currently required on the tax return are the child's date of birth and, if the child was born before 1974, whether the child was a student under the age of 24 or was disabled. The exemption section of Form 1040 or 1040A could be modified to capture this information.

[7]IRS estimated that it would need 18 additional staff years for every 1 million returns for which it had to calculate the basic credit and send taxpayers notices explaining that they may be entitled to the supplemental credits. IRS also estimated that it would need an additional 158 staff years for every 1 million requests it received for the supplemental credits.

We give an example of how this might be done in figure 4.1. The top part shows the current exemption section on a Form 1040. The second part is derived from Schedule EIC. It shows that with very minor modifications, all of the relevant information can be included in one place.

Figure 4.1: Existing and Proposed Dependent Information

Existing

Exemptions (See page 12.)

6a ☐ **Yourself.** If your parent (or someone else) can claim you as a dependent on his or her tax return, do not check box 6a. But be sure to check the box on line 33b on page 2

b ☐ **Spouse**

c **Dependents:** (1) Name (first, initial, and last name) | (2) Check if under age 1 | (3) If age 1 or older, dependent's social security number | (4) Dependent's relationship to you | (5) No. of months lived in your home in 1991

If more than six dependents, see page 13.

d If your child didn't live with you but is claimed as your dependent under a pre-1985 agreement, check here ▶ ☐

e Total number of exemptions claimed

No. of boxes checked on 6a and 6b ____

No. of your children on 6c who:
- lived with you ____
- didn't live with you due to divorce or separation (see page 14) ____

No. of other dependents on 6c ____

Add numbers entered on lines above ▶ ☐

Proposed

Exemptions (See page 12.)

6a ☐ **Yourself.** If your parent (or someone else) can claim you as a dependent on his or her tax return, do not check box 6a. But be sure to check the box on line 33b on page 2

b ☐ **Spouse**

c **Dependents:** (1) Name (first, initial, and last name) | (2) Dependent's year of birth | For a dependent born BEFORE 1973, check if dependent was: (3) a student under age 24 at end of 1991; (4) disabled (see booklet) | (5) If age 1 or older, dependent's social security number | (6) Dependent's relationship to you (for example, son, grandchild, etc.) | (7) Number of months child lived with you in the U.S. in 1991

If more than six dependents, see page 13.

d If your child didn't live with you but is claimed as your dependent under a pre-1985 agreement, check here ▶ ☐

e Total number of exemptions claimed

No. of boxes checked on 6a and 6b ____

No. of your dependents on 6c who:
- lived with you ____
- didn't live with you due to divorce or separation (see page 14) ____

No. of other dependents on 6c ____

Add numbers entered on lines above ▶ ☐

There are other reasons, unrelated to determining EIC qualifications, to have this additional information on Forms 1040 and 1040A. The age and student status requirements for determining whether a child can earn more than $2,300 and still be claimed as a dependent for tax exemption purposes are the same as the requirements for the credit. Therefore, if IRS added this information to the tax return, it could better verify the exemption claims of all taxpayers.[8] IRS' tax year 1988 TCMP data show that erroneous exemptions are a major tax compliance problem—over $13 billion in exemptions for about 6.7 million children were improperly claimed.

One other modification would have to be made to the filing status sections of Forms 1040 and 1040A tax returns so they can be used in place of Schedule EIC. Since some taxpayers—primarily single parents—can get the credit for children they cannot claim as dependents, the filing status lines of the return would have to be modified so that taxpayers can record EIC qualifying information on the line.

Erroneous EIC Payments Can Be Reduced and More Can Be Done to Give EIC to Qualified Taxpayers

Paradoxically, IRS lacks information on certain types of income it needs to prevent granting erroneous EIC claims, but at the same time it does not use all the information it has to ensure that all eligible taxpayers receive the credit. For example, IRS considers nontaxable earned income, such as military housing allowances, to be earned income for EIC purposes. However, much of this income is not reported to recipients or to IRS. As a result, erroneous credits are given to taxpayers because they do not include this income in their EIC calculations. On the other hand, IRS has income information on potentially eligible EIC recipients who do not file tax returns, but IRS does not let all of these individuals know that they may be entitled to the credit.

Proposed Changes in Reporting Nontaxable Earned Income Can Prevent Erroneous Credit Payments

Determining the amount of income that should be included in calculating the credit poses a problem for taxpayers and IRS. For EIC purposes, earned income includes not only taxable income such as wages and self-employment income, but also nontaxable earned income. Examples of nontaxable earned income include voluntary salary deferrals and housing and subsistence allowances received by military personnel. Nontaxable income is not required to be reported on tax returns, but certain types, such as salary deferrals, are reported on Form W-2. However, military

[8]We discussed this issue in Tax Administration: Erroneous Dependent and Filing Status Claims (GAO/GGD-93-60, Mar. 19, 1993).

housing and subsistence allowances, the most dominant type of nontaxable earned income received by low-income taxpayers, are not required to be reported on Form W-2. Nontaxable earned income determinations are difficult for taxpayers to make if they are not shown on Form W-2.

Schedule EIC has a line for reporting nontaxable earned income. Before tax year 1991, taxpayers who included nontaxable earned income in their credit calculations were supposed to write "NEI" on the EIC line of the return to indicate that they had this type of income. This was necessary because including NEI would lower the credit for filers in the credit's phase-out range. If filers did not make this notation on the return and the Form W-2 did not show any nontaxable earned income, IRS would not know why the credit calculated by the taxpayer was lower than the credit calculated on the basis of the information available to IRS. As a result, IRS would assume that the taxpayer had made an error in determining the credit and would recalculate it on the basis of the earned income shown on the return.

When processing returns, IRS cannot detect cases where taxpayers do not include their NEI in their EIC calculations. IRS can detect cases where this income is reported on Form W-2 in its underreporter program, which computer-matches the income on these forms to income on tax returns. However, IRS cannot detect cases where nontaxable income, such as military housing and subsistence allowances, is not reported on Form W-2. The amount of revenue lost because of this could be substantial. For example, a study conducted by the Department of Defense in cooperation with IRS found that of the 250,300 military members who claimed the credit in 1989 about 56 percent, or over 139,800 members, were ineligible for the credit when their housing and subsistence allowances were included in the credit calculation. These ineligible individuals received credits totaling $41 million. The study also found that another 98,670 military members received $42 million in excess EIC payments when the value of their housing and subsistence allowances were used to calculate the credit.

Both IRS and the Department of Defense recognized this compliance problem and have proposed legislation that would require the military to report this information on its members' Forms W-2 and allow a simplified method of calculating the value of housing and subsistence allowances. These latter changes are needed because calculating the fair market value of support given people who reside in military-provided base housing is complex. Reporting such NEI on Form W-2 is important both for taxpayers

to compute their credit and for IRS to ensure that ineligible taxpayers do not receive the credit. Also, these changes would reduce the need for Schedule EIC.

IRS Needs to Do More to Ensure All Eligible Taxpayers Get EIC

Because OBRA made major changes to EIC, IRS embarked on new outreach programs to inform potential recipients about these changes. These efforts included publicizing the credit through tax seminars and distributing brochures and handouts at conventions of social welfare professionals and others concerned with those potentially eligible for the credits. IRS also used these groups as an integral part of its information and outreach program. Besides dealing through these intermediaries, IRS developed news releases, fact sheets, posters, and other materials for getting the word out on the new credits directly to the public.

We believe that IRS' outreach efforts are commendable. However, IRS could do more to target specific low-income workers to inform them of the credit. IRS' TCMP data show that about 7 percent of taxpayers who filed delinquent returns for tax year 1988 after being notified were entitled to the credit.[9] Many eligible families who do not incur any tax liability are not required to file tax returns and, since most have no income taxes withheld, they see no reason to file. Yet these individuals are eligible for the credit, and if they filed a return they would get the credit in the form of a refund check.

One way IRS can reach these individuals directly is to use the income information it has on nonfilers. For example, IRS has information returns, such as Form W-2 wage statements, on almost 5 million people who failed to file a 1989 tax return. About 2.7 million of these nonfilers are pursued at service centers through IRS' nonfiler program. They are initially sent delinquency notices requesting them to file their tax returns. Many of the remaining 2.3 million have an obligation to file but, because of their low income, they owe no tax. They receive a reminder to file notice that is a brief description of who must file a return. As of this year, this notice contains a detailed description of EIC and the eligibility requirements for the credit. However, IRS sends these notices only to nonfilers with incomes that appear higher than the filing threshold of a single individual ($5,900 in tax year 1992). IRS should consider sending a similar notice to those with earned incomes below this threshold, stressing the need to file to receive EIC.

[9]In addition to the TCMP data file based on data collected from returns, IRS maintains another TCMP data file consisting of nonfilers. Notification to taxpayers of failure to file and delinquent return data are tallied in this data file.

Many Administration and Compliance Problems Can Be Eliminated by Legislative Changes

While IRS can improve its procedures to ensure better compliance with existing law, both compliance and administration could be eased with some legislative changes. One important change would be to eliminate the interactions introduced by the 1990 law. Another would be to eliminate the current distinctions between a qualifying child and a dependent. Because these changes may increase the number of qualifying workers, there may be some small revenue cost.

Interactions Increase Credit's Complexity but Have Little Revenue Impact

Some of the most complicated features of the OBRA requirements are the interactions associated with the young child credit and dependent care credit and the interaction between the health insurance credit and the deductions for medical expenses. Last year's tax bill, vetoed by the President, would have eliminated the interactions. It would have repealed the three provisions that are the source of complex calculations. The first two provisions reduce the allowable deduction for health insurance premiums by the amount of the health insurance credit. These deductions could be part of the medical expense deduction or, for the self-employed, part of the health insurance deduction. The third provision to be repealed does not currently allow taxpayers to exclude employer-provided dependent care expenses from taxable income if they claim the supplemental young child credit component of EIC.

According to the staff of the Joint Committee on Taxation, if these interactions were eliminated the total revenue loss would be about $80 million over a 5-year period. The Department of the Treasury estimated that no taxpayer's EIC would be reduced by more than $3.71 were the revenue loss offset by reducing basic credit rates.

The recently enacted OBRA 1993 (H.R. 2264) eliminates the health insurance and young child credit entirely. As a result, the complications arising from the interactions are no longer relevant.

Having All EIC Information on the Tax Return Can Reduce Problems but Some Concerns Remain

Most of the problems that arose before 1990 and that can be expected to arise subsequently came about because IRS does not capture enough information on the return to make an accurate EIC determination. If either more information is requested on the return or the qualifying information is limited to items that can reasonably be included on a return, many problems would go away. However, even if all relevant information is on a return, it is not readily verifiable. One movement in the direction of verifiability is to include more information on the W-2. Because refunds are paid out long before W-2 information returns are matched to tax

returns, however, the potential for noncompliance remains. As a result, until and unless IRS has the ability to match W-2 information with the incoming tax return, IRS will not be able to ensure that the credit goes to all eligible but only to eligible individuals.

Conclusions

Before OBRA, about a third of the taxpayers who received the credit were not entitled to it. This occurred because the EIC eligibility requirements were too complex for taxpayers and IRS did not have returns processing procedures to detect erroneous credits. OBRA resolved major EIC administrative problems by eliminating complicated filing status and dependency requirements and replacing them with a three-part test for determining a qualifying child. However, OBRA created other complexities for both IRS and taxpayers by adding two supplemental credits.

To handle the new EIC components and to ensure that only eligible taxpayers received the credit, IRS required that taxpayers file Schedule EIC to claim the credit. This schedule and IRS' procedures for processing it could prevent eligible taxpayers from receiving the credit, while at the same time allowing ineligible taxpayers to get the credit. For example, IRS' practice of requiring the schedule if a taxpayer claimed the credit but giving the credit even if all three child eligibility determinants were blank is clearly a case of form over substance.

Schedule EIC is not needed for IRS to effectively administer the credit. IRS could modify the exemption section of the tax return to collect the information it needs to determine EIC eligibility, such as the child's age. If IRS modifies the exemption section of the tax return, it could eliminate some of its current returns processing procedures that hinder eligible taxpayers from receiving the credit in a timely fashion. IRS also needs to clarify its instructions to taxpayers on the need to provide EIC eligibility information on their returns so that IRS can better determine if taxpayers are entitled to the credit.

If IRS does not modify the exemption section of the return and continues to require Schedule EIC, IRS needs to change its returns processing procedures so that all taxpayers receive consistent treatment. For example, if the credit continues to be given on the basis of incomplete Schedule EIC information, then to be consistent the credit should be given to taxpayers who do not file the schedule but appear to qualify for the credit on the basis of the exemption section of the return. Such a procedure would also address the timing difference that now results when taxpayers submit the

schedule only after IRS corresponds with them. They receive the credit late even though their tax returns may have contained sufficient information.

Eliminating NEI as a consideration in calculating the credit would eliminate some of IRS' problems in administering the credit, although the cost of the credit would rise somewhat. Alternatively, to ensure that military personnel include NEI they receive for housing and subsistence in their EIC calculations, legislative action is needed to require that the military report NEI information to the recipients and IRS. To help ensure that all potentially eligible taxpayers are informed of EIC, IRS needs to send notices to all nonfilers who have earned income.

Ensuring that EIC goes to eligible and only to eligible individuals would be easier if the tax return captured all of the information IRS requires to determine eligibility and if the information were readily verifiable. Making room for that information on the tax return is one approach. However, just because information is on the return does not make it correct or make it easy for IRS to check. Alternatives that would have EIC based solely on verifiable tax return information would make administration and compliance easier but could also increase the cost.

Recommendations to Congress

To reduce the number of EIC claimants who are mistakenly given the credit or given too large a credit, as well as to reduce IRS' administrative burden, we recommend that Congress

- require Department of Defense agencies to show on Form W-2 the amount of NEI military personnel receive, and
- allow a simplified method for calculating the value of military housing and subsistence allowances.

Recommendations to IRS

To help ensure that eligible taxpayers receive the credit in a timely manner, we recommend that the Commissioner of Internal Revenue

- modify Forms 1040 and 1040A to collect the data now required by Schedule EIC;
- clarify taxpayer instructions on the need to provide complete information on EIC eligibility;
- send notices that explain EIC requirements, including the need to file a return to get the credit, to all nonfilers who have low earned incomes; and

- modify returns processing procedures to ensure that all potentially eligible taxpayers who submit similar information are treated consistently.

Agency Comments and Our Evaluation

IRS agreed with our recommendation to clarify instructions to taxpayers on the need to provide complete information on EIC eligibility and said it would emphasize in instructions that failure to provide complete information may delay processing returns and refunds. IRS is also redesigning the EIC Schedule to make it easier for taxpayers to use. Although such an effort, if successful, should reduce taxpayers' burden, we still believe the same information presently collected on the Schedule EIC could be obtained through tax form modification. IRS also agreed with our recommendation to send notices that explain EIC requirements to all nonfilers who receive earned income. IRS stated that a work group is studying this and other ways to reach individuals who may be eligible for the credit and are not receiving it.

IRS in written and the Department of the Treasury in informal comments did not agree with our recommendation to modify Forms 1040 and 1040A to collect data now required by Schedule EIC. The Commissioner was concerned that the modification "would increase the complexity and burden for all taxpayers." The proposed modification to the exemption section of the tax forms would require those filers with qualifying children who are dependents to enter the dependent's birth date and indicate whether the qualifying child was a student or disabled. We do not agree that our recommendation will result in added complexity. For EIC tax filers the burden would be less because they would no longer need to complete the Schedule EIC. Although non-EIC filers would have an extra burden due to the expanded exemption section, IRS would have information that could be used to verify taxpayer dependency claims. IRS' data indicated that erroneous dependency claims are a major tax compliance problem.

IRS argues that EIC filers could confuse the requirement of a qualifying child with the requirement for claiming a dependent. IRS suggested that by entering names of qualifying children in the expanded exemption section, EIC filers might erroneously claim a dependency exemption when they are not entitled to one. First, EIC filers can now mistakenly enter their nondependent but qualifying child in the exemption section of the tax forms and erroneously claim an exemption as well as an earned income credit. The only barrier now to this error is clear instructions to the taxpayer in the instruction booklet of the elements needed to claim a dependent. To guard against a rise in this type of error, instructions

discussing the requirements for EIC-qualifying children could caution tax filers that the dependency boxes in the exemption section should only be checked if the dependency test is satisfied.

IRS was also concerned that additional space would be needed to capture the information now collected on the Schedule EIC relating to qualifying nondependent children and nontaxable earned income. We believe that by redesigning the filing status section of Forms 1040 and 1040A, sufficient space exists for the single, head-of-household, and qualifying widow(er) filing statuses to write the names of two nondependent qualifying children. Also, additional space on the married-joint filing status line could be made by eliminating the phrase "even if only one had income." The elimination of this helpful hint to taxpayers, which is already mentioned in the tax form instructions, seems to us worth the gain in EIC simplification.

We do not see a need to provide space on the tax return for nontaxable earned income since less than 3 percent of eligible taxpayers claim this type of income. A worksheet could be developed similar to the one contained in the tax return instructions prior to OBRA for taxpayers to calculate the credit when they have nontaxable income.

IRS argued that Schedule EIC was created in response to a direction in the conference report on the 1990 OBRA. Although there were comments about establishing a separate schedule for EIC in the conference report, legislative history suggests the intended purpose of the conferees' remarks was to achieve taxpayer simplification and, thereby, enhance the legitimate number of EIC claims. We believe taxpayer simplification can be better achieved by the elimination of the separate EIC Schedule; the separate two-page schedule is an additional obstacle for very low-income tax filers. Further, IRS argued the schedule appears to have caused a drop in error rates between 1990 and 1991, the year the schedule was introduced. We believe any drop in error rates could be the result of a number of factors. First, the 1990 OBRA simplified the qualifying child requirements; this in itself should reduce taxpayer error. Second, in each of the last few years the electronic filing of tax forms has increased. These filings usually have lower error rates than paper filings. Third, the lower error rate could possibly result from Schedule EIC discouraging very low-income workers, who tend to make more tax form errors, from filing an EIC claim. Thus, it is not at all clear that the lower error rates IRS reports can be attributed to the new Schedule EIC.

IRS agreed with us that taxpayers should be treated consistently; however, it indicated that there is no need to change returns processing procedures because these procedures treat all EIC tax filers similarly. But IRS does not address an example of inconsistency in its procedures that we cited in the report. IRS procedures allow the awarding of the credit even when the Schedule EIC is incomplete. But if a schedule is not filed and similar information is included in the exemption section of the tax form of a tax filer claiming EIC, IRS does not award the credit.

Regarding our suggestion that the Schedule EIC be eliminated, the Commissioner stated that given the complexity of the current EIC statute, the schedule could not be eliminated. The Commissioner indicated that IRS would reconsider eliminating the schedule if then-proposed legislation to simplify the EIC were passed. Since the legislation has just been signed into law that eliminated the supplemental credits that were the source of complication, we believe there is no longer a need for the Schedule EIC, especially if IRS modifies the tax return as we recommended. However, IRS will still need to clarify its taxpayer instructions to let taxpayers know that they need to provide complete eligibility information to receive the credit. IRS will also need to modify its processing procedures to ensure that the credit is given to all taxpayers who provide complete eligibility information.

Scope and Methodology Used in Calculating States' Average Effective Tax Rates and Marginal Rates

Methodology for Cumulative Average Effective Tax Rate Analysis

To analyze how the earned income credit (EIC) affects the progressivity of the tax system, we estimated the effect of EIC on average taxes paid by persons at different adjusted gross income (AGI) levels. We first calculated average combined tax rates including (1) federal income and payroll taxes only and (2) federal income taxes, state income taxes, and payroll taxes. (In both cases, payroll taxes include both the employer and employee shares.) Second, we repeated the calculations but subtracted EIC from any federal tax liability to determine the impact of the credit on these average rates.

For each tax return contained in the Internal Revenue Service's (IRS) sample of 1988 returns,[1] we combined the federal income tax liability data element, before credits, with an imputed estimate of payroll taxes.[2] We included both the employer and employee shares in our imputation of payroll taxes, since it is generally accepted that the employee actually bears the burden of both shares of the tax. To compute payroll taxes, we multiplied earnings (salaries and wages) by the combined payroll tax rate (15.02 percent in 1988). We added to this amount farm and business self-employment payroll taxes and payroll taxes on "tip" income.

To obtain the average effective income and payroll tax rate, we divided the sum of federal income tax liability before credits and payroll tax by AGI plus the employer share of the payroll tax. The result is the average effective rate of the combined income and payroll tax.

In chapter 3, figure 3.1 shows the average effective federal income tax rates before and after EIC, and figure 3.2 shows the average effective federal income and payroll tax rates before and after EIC by AGI classes. Tables I.1 and I.2 show the data underlying those figures.

[1]IRS Statistics of Income (SOI) 1988 Individual Income Tax database, Washington, D.C.

[2]We imputed payroll taxes paid on wages and salaries because these taxes are not recorded on federal income tax forms and therefore are not data elements in the SOI tax database. However, self-employment payroll taxes on farm net profits and individual business net profits are elements on Schedule SE (Form 1040) and in the SOI database. So, to the estimated payroll taxes on wages and salaries, we added payroll taxes on self-employment net income.

Table I.1: Average Effective Income Tax Rates of Individuals Before and After the EIC by Adjusted Gross Incomes, 1988

	Average effective tax rates			
	All taxpayers[a]		Credit recipients	
Adjusted gross income classes	Before credit	After credit	Before credit	After credit
Less than $6,225	1.6%	0.02%	0.01%	-13.0%
$6,225 - 9,850	3.4	1.2	0.2	-9.6
$9,850 - 12,000	4.7	3.0	1.0	-5.4
$12,000 - 14,000	5.6	4.6	2.0	-1.9
$14,000 - 16,000	6.6	5.9	3.1	0.9
$16,000 - 18,576	7.1	6.9	3.9	3.2
$18,576 - 20,000	7.7	7.7	N/A	N/A
$20,000 - 25,000	8.2	8.2	N/A	N/A
$25,000 - 30,000	9.2	9.2	N/A	N/A
$30,000 - 40,000	10.0	10.0	N/A	N/A
$40,000 - 50,000	10.9	10.9	N/A	N/A
$50,000 - 60,000	12.4	12.4	N/A	N/A
$60,000 - 80,000	14.1	14.1	N/A	N/A
$80,000 - 100,000	16.1	16.1	N/A	N/A
Over $100,000	20.3	20.3	N/A	N/A

N/A = Not Applicable

[a]Excluded from the calculations are married taxpayers who filed separate returns. To treat married individuals filing separately in the same way as married couples filing a joint return, as a separate filing unit, we would have had to add their incomes. Since we were not able to identify and merge together separate-married tax returns, they were not included. In 1988, these returns accounted for only 1.5 percent of all returns.

Source: 1988 Individual Statistics of Income Data File, Statistics of Income Division, IRS, Washington, D.C.

Table I.2: Average Effective Income and Payroll Tax Rates of Individuals, Before and After the EIC, by Adjusted Gross Income, 1988

	Average effective tax rates			
	All taxpayers[a]		Credit recipients	
Adjusted gross income classes	Before credit	After credit	Before credit	After credit
Less than $6,225	13.3%	11.7%	14.2%	1.2%
$6,225 - 9,850	14.2	12.0	13.4	3.5
$9,850 - 12,000	15.5	13.8	14.3	7.8
$12,000 - 14,000	16.7	15.7	15.4	11.5
$14,000 - 16,000	17.9	17.3	16.4	14.2
$16,000 - 18,576	18.6	18.4	17.3	16.6
$18,576 - 20,000	19.2	19.2	N/A	N/A
$20,000 - 25,000	20.3	20.3	N/A	N/A
$25,000 - 30,000	21.5	21.5	N/A	N/A
$30,000 - 40,000	22.3	22.3	N/A	N/A
$40,000 - 50,000	23.0	23.0	N/A	N/A
$50,000 - 60,000	23.0	23.0	N/A	N/A
$60,000 - 80,000	22.6	22.6	N/A	N/A
$80,000 - 100,000	22.6	22.6	N/A	N/A
Over $100,000	23.9	23.9	N/A	N/A

N/A = Not Applicable.

[a]See note to table I.1.

Source: 1988 Individual Statistics of Income Data File, Statistics of Income Division, IRS, Washington, D.C.

Further, to address the extent to which the overall income tax burden is reduced for EIC-qualifying low-income workers, we calculated the average effective tax rate of federal and state income taxes. To obtain a complete picture of the distribution of low-income workers and their tax burdens before and after EIC would have required calculations for all 43 states with income taxes. Rather than give an exhaustive list of calculations for all 43 states, we performed these calculations for only 6 states. We computed the combined federal and state income tax burdens for residents of Arizona, California, Kansas, Maryland, Ohio, and Wisconsin. We chose these six states to show a range of cumulative marginal rates among states with varied tax policies. Also, these states were geographically dispersed.

Using the SOI Individual Income Tax database and information on state tax law reported in several publications,[3] we imputed a state tax liability for individuals sampled in IRS' Individual Income Tax database. Since the SOI sample was not stratified by state, our calculations are not unbiased estimates of average state tax burdens by income groups. This is a limitation of our analyses, but the SOI sample is the only data set available for which a combined tax burden can be derived.

Most state income tax systems base the determination of state tax liability on federal AGI or federal taxable income. From the appropriate income base for each state, we calculated exclusions and adjustments—such as Social Security benefits, capital gains, and moving expenses—as appropriate to each state where these exclusions and adjustments differed from federal amounts. For example, in states that exempt Social Security benefits from their income tax, we subtracted Social Security benefits from federal AGI so that the adjusted AGI conformed to that state's definition of it. Next we subtracted personal exemptions, standard deductions, and federal income tax (if deductible) to obtain state taxable income. For states that allow itemized deductions, we imputed values for state itemized deductions only for those taxpayers who itemized deductions on their federal income tax returns. (If they did not itemize on their federal returns, we assigned them a state standard deduction.) We included in these imputations only itemized deduction items for which we had data. For example, where appropriate, we included in the calculation of state itemized deductions a deduction for medical expenses because medical expenses were claimed by the taxpayer (or taxpayers on joint returns). But we did not include local income tax payments as an itemized deduction in calculating state tax liability because on federal returns local income tax payments are combined with state income tax payments and therefore are not separately identifiable. Next, we calculated the state income tax liability by applying the appropriate marginal tax rate to our estimate of state taxable income. We subtracted credits, such as California's low-income tax credit, and state dependent child credits, such as those in Maryland and Wisconsin, from the tax liability computation. We then calculated the ratio of federal and payroll tax liability to federal AGI, with and without the federal EIC. Next, we included state income taxes in these two ratios. This allowed us to compare the overall tax burden, net of selected credits, before and after state income taxes for the sampled six states. These two ratios allowed us to determine whether the addition of

[3]Sources used include the Advisory Commission on Inter-governmental Relations publication, Significant Features of Fiscal Federalism, 1988; Prentice Hall's State Tax Guide; and individual income tax forms from all six states.

state income taxes altered the initial assessment of EIC's impact on income tax system progressivity.

Tables I.3 through I.8 show the combined average effective tax rates of federal and state income taxes and the payroll tax by AGI class for each state in our study. The tax burden ratios used for each state are in the columns headed "After EIC" and subheaded "EIC recipients." In table 3.3 in chapter 3, we compared average tax burden ratio of EIC recipients across the six states, before and after state income taxes.

Table I.3: Arizona Average Income Tax Rates by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	12.33	13.29	10.37	0.88	12.61	13.29	10.65	0.88
$6,225 - $9,850	14.37	14.10	12.52	4.88	15.42	14.21	13.57	4.99
$9,850 - $12,000	16.30	13.65	14.47	7.32	18.11	14.13	16.28	7.81
$12,000 - $14,000	15.60	13.07	14.54	9.34	17.68	14.27	16.62	10.54
$14,000 - $16,000	17.38	13.31	16.75	11.05	20.02	14.54	19.40	12.28
$16,000 - $18,576	18.80	17.19	18.66	16.59	21.49	18.93	21.34	18.33
$18,576 - $20,000	16.72	N/A	16.72	N/A	19.52	N/A	19.52	N/A
$20,000 - $25,000	18.95	N/A	18.95	N/A	22.61	N/A	22.61	N/A
$25,000 - $30,000	22.14	N/A	22.14	N/A	26.02	N/A	26.02	N/A
$30,000 - $40,000	21.12	N/A	21.12	N/A	25.01	N/A	25.01	N/A
$40,000 - $50,000	22.57	N/A	22.57	N/A	26.76	N/A	26.76	N/A
$50,000 - $60,000	23.62	N/A	23.62	N/A	27.85	N/A	27.85	N/A
$60,000 - $80,000	21.58	N/A	21.58	N/A	25.70	N/A	25.70	N/A
$80,000 - $100,000	21.06	N/A	21.06	N/A	25.12	N/A	25.12	N/A
Over $100,000	23.83	N/A	23.83	N/A	27.90	N/A	27.90	N/A

N/A = Not Applicable

Note: Tax burden excludes any state sales, personal, or real property taxes.

Table I.4: California Average Income Tax Rates by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	14.43	13.65	11.29	1.51	13.65	14.43	11.29	1.51
$6,225 - $9,850	14.87	13.17	12.76	3.47	14.88	13.17	12.77	3.47
$9,850 - $12,000	15.58	14.15	14.12	7.62	15.61	14.15	14.15	7.62
$12,000 - $14,000	17.16	14.62	16.17	10.85	17.23	14.69	16.24	10.92
$14,000 - $16,000	18.38	16.43	17.72	14.29	18.59	16.53	17.94	14.40
$16,000 - $18,576	18.60	16.85	18.40	16.17	18.86	17.01	18.66	16.33
$18,576 - $20,000	20.09	N/A	20.09	N/A	20.49	N/A	20.49	N/A
$20,000 - $25,000	20.01	N/A	20.01	N/A	20.70	N/A	20.70	N/A
$25,000 - $30,000	21.38	N/A	21.38	N/A	22.71	N/A	22.71	N/A
$30,000 - $40,000	22.20	N/A	22.20	N/A	25.34	N/A	25.34	N/A
$40,000 - $50,000	22.36	N/A	22.36	N/A	26.73	N/A	26.73	N/A
$50,000 - $60,000	22.30	N/A	22.30	N/A	26.66	N/A	26.66	N/A
$60,000 - $80,000	21.62	N/A	21.62	N/A	26.55	N/A	26.55	N/A
$80,000 - $100,000	21.45	N/A	21.45	N/A	26.71	N/A	26.71	N/A
Over $100,000	23.18	N/A	23.18	N/A	28.87	N/A	28.87	N/A

N/A = Not Applicable

Note: Tax rate excludes any state sales, personal, or real property taxes.

Table I.5: Kansas Average Income Tax Rates by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	13.65	13.71	12.80	0.68	13.84	13.71	12.98	0.68
$6,224 - $9,850	14.88	13.85	13.27	2.77	15.95	13.85	14.34	2.77
$9,850 - $12,000	16.38	13.90	15.28	7.69	17.73	14.00	16.63	7.79
$12,000 - $14,000	15.64	15.41	14.23	11.80	17.18	15.74	15.77	12.13
$14,000 - $16,000	19.04	16.52	18.39	14.23	21.08	17.16	20.43	14.87
$16,000 - $18,576	20.9	17.0	20.77	16.09	23.30	18.03	23.17	17.12
$18,576 - $20,000	18.25	N/A	18.25	N/A	20.35	N/A	20.35	N/A
$20,000 - $25,000	20.69	N/A	20.69	N/A	23.16	N/A	23.16	N/A
$25,000 - $30,000	21.09	N/A	21.09	N/A	23.51	N/A	23.51	N/A
$30,000 - $40,000	21.40	N/A	21.40	N/A	23.92	N/A	23.92	N/A
$40,000 - $50,000	23.35	N/A	23.35	N/A	25.99	N/A	25.99	N/A
$50,000 - $60,000	23.18	N/A	23.18	N/A	25.84	N/A	25.84	N/A
$60,000 - $80,000	23.15	N/A	23.15	N/A	26.05	N/A	26.05	N/A
$80,000 - $100,000	23.35	N/A	23.35	N/A	26.50	N/A	26.50	N/A
Over $100,000	24.91	N/A	24.91	N/A	28.97	N/A	28.97	N/A

N/A = Not Applicable

Note: Tax burden excludes any state sales, personal, or real property taxes.

Table I.6: Maryland Average Income Tax Rates by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	12.75	13.82	11.20	0.92	12.75	13.82	11.20	0.92
$6,225 - $9,850	15.03	14.05	12.99	4.72	15.03	14.05	12.99	4.72
$9,850 - $12,000	15.09	13.45	13.17	7.10	15.09	13.45	13.17	7.10
$12,000 - $14,000	17.56	17.90	16.95	14.30	17.62	18.25	17.01	14.66
$14,000 - $16,000	18.74	17.33	18.13	15.22	18.90	17.87	18.28	15.76
$16,000 - $18,576	21.08	19.16	20.89	18.48	21.26	19.70	21.07	19.02
$18,576 - $20,000	19.92	N/A	19.92	N/A	20.30	N/A	20.30	N/A
$20,000 - $25,000	21.48	N/A	21.48	N/A	21.74	N/A	21.74	N/A
$25,000 - $30,000	21.87	N/A	21.87	N/A	22.42	N/A	22.42	N/A
$30,000 - $40,000	22.13	N/A	22.13	N/A	22.41	N/A	22.41	N/A
$40,000 - $50,000	22.15	N/A	22.15	N/A	22.72	N/A	22.72	N/A
$50,000 - $60,000	22.30	N/A	22.30	N/A	23.09	N/A	23.09	N/A
$60,000 - $80,000	21.97	N/A	21.97	N/A	22.54	N/A	22.54	N/A
$80,000 - $100,000	22.44	N/A	22.44	N/A	22.74	N/A	22.74	N/A
Over $100,000	23.61	N/A	23.61	N/A	24.02	N/A	24.02	N/A

N/A = Not Applicable

Note: Tax burden excludes any state sales, personal, or real property taxes.

Table I.7: Ohio Average Income Tax by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	12.62	14.58	11.21	1.72	12.75	14.61	11.34	1.75
$6,225 - $9,850	14.02	13.37	12.79	4.21	14.53	13.52	13.29	4.36
$9,850 - $12,000	15.44	15.47	14.0	9.27	16.10	15.74	14.66	9.55
$12,000 - $14,000	16.36	16.19	15.30	12.36	17.25	16.74	16.19	12.91
$14,000 - $16,000	18.14	15.12	17.65	12.92	19.30	15.78	18.82	13.58
$16,000 - $18,576	18.28	17.79	18.08	17.11	19.64	18.82	19.45	18.13
$18,576 - $20,000	20.17	N/A	20.17	N/A	21.84	N/A	21.84	N/A
$20,000 - $25,000	20.44	N/A	20.44	N/A	22.32	N/A	22.32	N/A
$25,000 - $30,000	22.16	N/A	22.16	N/A	24.35	N/A	24.35	N/A
$30,000 - $40,000	23.0	N/A	23.0	N/A	25.52	N/A	25.52	N/A
$40,000 - $50,000	23.78	N/A	23.78	N/A	26.61	N/A	26.61	N/A
$50,000 - $60,000	23.94	N/A	23.94	N/A	27.05	N/A	27.05	N/A
$60,000 - $80,000	23.15	N/A	23.15	N/A	26.58	N/A	26.58	N/A
$80,000 - $100,000	23.13	N/A	23.13	N/A	26.86	N/A	26.86	N/A
Over $100,000	24.68	N/A	24.68	N/A	29.97	N/A	29.97	N/A

N/A = Not Applicable

Note: Tax burden excludes any state sales, personal, or real property taxes.

Table I.8: Wisconsin Average Income Tax Rates by Adjusted Gross Income Before and After EIC, 1988

	Average federal income and payroll tax burden				Average federal income, state, and payroll tax burden			
	Before EIC		After EIC		Before EIC		After EIC	
AGI range	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients	All taxpayers	EIC recipients
Less than $6,225	13.30	11.32	12.44	1.34	13.38	11.32	12.52	1.34
$6,225 - $9,850	13.56	11.39	12.57	2.32	14.85	11.89	13.86	2.82
$9,850 - $12,000	15.13	15.53	14.59	8.74	17.21	16.66	16.68	9.88
$12,000 - $14,000	18.74	15.36	18.09	11.54	21.48	17.36	20.82	13.54
$14,000 - $16,000	16.98	16.30	16.55	14.43	20.02	18.86	19.59	16.99
$16,000 - $18,576	18.65	16.77	18.46	16.01	22.03	19.03	21.84	18.26
$18,576 - $20,000	17.85	N/A	17.85	N/A	21.33	N/A	21.33	N/A
$20,000 - $25,000	20.45	N/A	20.45	N/A	24.38	N/A	24.38	N/A
$25,000 - $30,000	21.70	N/A	21.70	N/A	26.23	N/A	26.23	N/A
$30,000 - $40,000	22.47	N/A	22.47	N/A	27.46	N/A	27.46	N/A
$40,000 - $50,000	22.47	N/A	22.47	N/A	27.74	N/A	27.74	N/A
$50,000 - $60,000	23.07	N/A	23.07	N/A	28.61	N/A	28.61	N/A
$60,000 - $80,000	22.72	N/A	22.72	N/A	28.48	N/A	28.48	N/A
$80,000 - $100,000	22.45	N/A	22.45	N/A	28.22	N/A	28.22	N/A
Over $100,000	25.22	N/A	25.22	N/A	30.70	N/A	30.70	N/A

N/A = Not Applicable

Note: Tax burden excludes any state sales, personal, or real property taxes.

Methodology for Cumulative Marginal Tax Rate Analysis

While the distribution of average tax burdens across taxpayers provides information about the progressive nature of the overall tax system, the pattern of marginal income tax rates before and after EIC, as income rises, can indicate how the incentives to increase or decrease work effort are affected. In calculating these marginal rates, we added the statutory federal and state income tax brackets to the employee share of the Social Security tax (7.51 percent in 1988). To this sum, we added the implicit EIC tax rates: in the phase-in range the marginal rate is a negative 14 percent, and in the phase-out range the marginal rate is 10 percent. Because both the federal and state marginal rates depend on filing status—single, married-joint, head of household, etc.—we chose the state and federal married-joint return tax schedules. Although this is a limitation of the analyses, the pattern of combined marginal rates for the married-joint return taxpayers should be similar to those for the other filing statuses. We

limited our analysis to families filing joint returns with two dependent children in six states: Arizona, California, Kansas, Maryland, Ohio, and Wisconsin.

Since federal and state income tax rate schedules generally apply to taxable income, we added the state or federal standard deduction and personal exemption amounts (for a married couple filing jointly with two dependents) to the federal and state taxable income bracket endpoints to estimate the AGI ranges to which the marginal rates apply. For example, in 1988, a married couple with two dependents filing a joint return was entitled to a $5,000 standard deduction and four exemptions, each equal to $1,950, for a total of $12,800 in nontaxable income. Because federal tax schedules express marginal tax rates in terms of taxable income, not AGI, we added $12,800 to federal income tax brackets so we could derive the federal marginal tax rate by AGI brackets. Similarly, to derive the state marginal income tax rate by AGI, we added the state standard deduction and personal exemption amounts to state income tax rate schedules.

We assumed all AGI consisted of taxable wages and salaries and would be subject to the payroll tax at a marginal rate of 7.51 percent, until AGI reached the maximum taxable amount of $45,000 in 1988, when the marginal rate would then fall to zero. We included only the employee share in these calculations since, although employees probably bear the burden of both shares of the tax, we believe they are most likely to perceive the difference between their before-tax income and after-tax income as being equal to their share of the payroll tax.

Using the SOI Individual Income Tax database, we estimated the distribution of taxpayers with married-joint filing status in each bracket and the percentage of those taxpayers receiving EIC in each of the six states. These frequency distributions provided information about the percentage of individuals at various AGI levels subject to certain cumulative marginal rates. However, since the SOI database sample was not stratified by state, this distribution cannot be assumed to be an unbiased estimate of the distribution of married taxpayers filing joint returns, by cumulative marginal tax rates, in each state we analyzed.

Scope and Methodology Used in the Analysis of EIC's Labor Supply Effects

To assess the extent to which the EIC influences low-income workers' willingness to work, we estimated the probable change in hours worked in 1988 induced by the EIC. Also, because of the sizable increase in the EIC scheduled to be in place by 1994, we estimated the probable change in hours worked using the higher 1994 credit rates. In this appendix, we

- describe how the credit might influence a low-income worker's willingness to work through a perceived change in the reward for working, i.e., a worker's after-credit wage rate, and through the expected receipt of a lump-sum payment (or tax liability offset), i.e., the refundable EIC;
- describe the source of our labor supply behavioral response measures, namely, the negative income tax (NIT) experiments in the 1970s in Seattle, Washington, and Denver, Colorado, and why we believe the design of the experimental NIT schemes makes the results useful in studying the EIC;
- describe the research undertaken to measure the effect of the experiments on low-income workers' willingness to work, the methodological issues involved in measuring these effects, and our reasons for using the findings of selected studies;
- describe how the Bureau of the Census' Current Population Survey (CPS) data were used to estimate EIC and the change in hours worked that it induced; and
- show the estimated change in hours worked in 1988 and 1994 by EIC range (phase-in, stationary, and phase-out) and family status (husband, wife, and female head of household).

EIC's Influence on Labor Supply Choices

Standard labor economics postulates that wage rates are a key economic factor in an individual's employment decision. Theory states, on the one hand, a typical worker would desire to work more hours when offered a higher wage because each hour worked will generate more income. On the other hand, a higher wage rate paid for hours currently worked enlarges the worker's income and, having more income for the same number of hours worked, the individual is better off in the sense he or she can buy more goods and services, including leisure time activities. Thus, the enlarged income tempers the worker's desire to work more hours since to augment income further would mean he or she would have to cut back leisure time. The wage rate increase sets in motion two contradictory behavioral impulses: the wage effect that induces the worker to work more hours and the income effect that creates a demand to spend more time on leisure activities. Eventually these contradictory behavioral impulses sort themselves out in terms of a decision to work more or fewer hours.

EIC potentially has both a wage and an income effect on the work and leisure choices of qualifying low-income workers. Whereas the preceding example postulated an explicit wage rate change that had associated with it an implicit income effect (the greater income attained at the current level of hours worked), the EIC can be thought of as an explicit after-tax income increase with an implied change in the wage rate. As discussed in chapter 1, EIC is a direct function of the level of a worker's earned income and, hence, indirectly of wage rates and hours worked. For example, in 1988 the refundable credit in the phase-in range was 14 percent of earned income. In effect, a qualifying worker whose nominal before-credit wage was, say, $3 per hour, was actually almost earning $3.42 per hour. To the extent qualified low-income workers perceive their effective after-credit wage rate to be greater than their nominal wage rate (or put another way, that their tax credit increases with hours worked), they are induced to work more hours. This is because the price of leisure activities has become more costly—leisure hours now cost $3.42 in foregone income at the margin. On the other hand, the credit does increase after-tax income, thus stimulating a worker to consume more goods and services, including leisure time. Whether the wage effect dominates the income effect or vice versa can only be assessed empirically.[1]

The preceding description of the causal links between the way the credit is calculated and low-income worker choices between work or leisure was somewhat oversimplified, because it presumed that workers are free to vary their hours as they wish. However, in the labor market many, if not most, jobs have fixed hours of work. Thus, the choice of a worker who prefers to work less than 35 or 40 hours a week can be characterized as "take it or leave it." But such institutional arrangements do not preclude other forms of adjustments to work activity. For example, a perceived increase in the after-credit wage rate may make it worthwhile for a worker either to moonlight or to quit a second job depending on the relative strength of the wage and income effects. Or, supposing that the income effect is more dominant, the credit could induce an increase in absenteeism even in a fixed weekly hour regime. Also, full-time workers may shift to part-time jobs where the leisure time they now prefer is available. And, over an extended time period, workers can change to jobs that offer weekly work schedules more in keeping with their desired hours of work.

[1]In the phase-out range of the credit, each additional dollar of earned income is effectively taxed at a 10-percent rate. Thus, in the example, the $3 wage rate on an after-tax basis is $2.70. In this case, the wage effect and the credit's income effect are mutually reinforcing in that they tend to discourage work effort.

EIC affects workers' choices about the quantity of work or leisure time, including the decision whether to participate in the workforce or not. Depending on individual preferences about work or leisure activities, the perception of higher after-credit wage rates (for example, in the credit's phase-in range) may induce some individuals to participate in the workforce if they have a strong preference for work over leisure. Also, the size of the credit may induce some nonworkers to accept employment they formerly would not consider either because the number of employment hours was not what they preferred or the total income was just not sufficient.

Whether workers do perceive EIC as a change in their after-tax incomes that is large enough to alter choices between work and leisure can only be established by observing worker responses to the credit or, barring that possibility, by inferring similar responses to those observed in the NIT experiments in the 1970s. The NIT used in these experiments had certain similarities to the EIC design. The next sections describe the design of those experiments, discuss the similarities and differences between the NIT experiments and EIC, and describe the size of the wage and income effects found by studies of the NIT experiments.

Design of the Seattle/Denver Income Maintenance Experiment

In the early 1970s, the Department of Health and Human Services sponsored the Seattle/Denver Income Maintenance Experiment (SIME/DIME), the last and largest of several NIT experiments, to measure the disincentive effects of cash transfers on work effort. The experiment involved almost 5,000 families in both cities. Families in the experiment were randomly assigned to treatment and control groups. Most were assigned for a 3-year period and some for a 5-year period. Families in the treatment group were told what their basic grant amount was and how it would be reduced as their earnings increased. Members of the control group provided work and earnings histories to interviewers. Overall, SIME/DIME revealed substantial labor supply effects that ranged from a 12.5-percent reduction in annual hours worked for husbands, 23.4 percent for wives, and 20.7 percent for single female heads of household.[2]

[2]The reported reduction in annual hours worked applied to workers whose earnings were below the NIT break-even earnings level, both before and after the experiment, that is, the point where earnings warrant a zero NIT grant. In addition, some working wives whose earnings placed them above the break-even level before being assigned to treatment groups also reduced their annual hours of work when their earnings declined by the second year of the experiment and therefore qualified for a small NIT grant. Final Report of the Seattle-Denver Income Maintenance Experiment, Vol. 1, Part III, Washington, D.C.: U.S. Government Printing Office, 1983, chapter 5, table 3.12.

The cash transfer treatment tested in SIME/DIME consisted of a series of NIT plans. The plans varied in detail but the basic concept was that a family without income was guaranteed a certain benefit level that was phased out as the family's income from other sources rose. At some point, the guaranteed amount less the phase-out amount equaled zero. That level of income that reduced the guarantee to zero was referred to as the break-even income amount. The different plans were designed to assess labor supply responses to varying degrees of grant size and phase-out tax rates. For example, families were divided among three guaranteed levels—$3,800, $4,800, and $5,600. They were further randomly assigned to different tax rate phase-out regimes: two constant phase-out rates, 50 and 70 percent, and two declining phase-out rates, 70 and 80 percent. These latter declining rates were applied to the first $1,000 of earned income and then reduced by 5 percentage points for each additional $1,000 in earned income. Lower phase-out rates are more generous than higher rates because the break-even incomes are higher. A family getting the $4,800 guarantee and subject to a 50-percent phase-out would have a break-even income of $9,600 (guaranteed income/phase-out rate: $4,800/0.5 = $9,600), with a 70-percent rate the break-even point would occur sooner, at $6,857.

One reason for using NIT's measures of labor supply responses as an estimate of the labor responses to EIC is the design similarity in the phase-out of NIT's grants and EIC. As does the credit over the highest eligible income range, the NIT plans transfer amounts that are subject to phase-out as income increases. When the break-even earnings level is attained in the NIT version, the amount of the government transfer becomes zero. Similarly, the maximum EIC, too, is phased out as earned income rises. Thus, in terms of influencing labor supply responses, the main economic facets of both are essentially the same: a tax credit in the EIC case and a transfer payment in the NIT case (income effect) that is phased out (wage effect) as earnings increase.

Not only are NIT's measure of labor supply responses applicable to the phase-out range, they should also be applicable to EIC's stationary and phase-in ranges. Rather than a negative wage effect, as in the phase-out range, the wage effect is positive in the phase-in range because of the credit's 14-percent subsidy rate.

We believe the wage and income effects measured in the NIT studies are useful predictors of labor responses to EIC. The structural models used to derive the labor supply response to wage and income effects measure such responses at the average value of changes in wage rates, due to the

phase-out, and the average change in supplemental income, due to a change in the transfer amount. In the NIT experiment the average effective phase-out was about 50 percent[3] and the average transfer was about $4,000 (in 1988 dollars). In the credit's case, the phase-out rate in 1988 was 10 percent and the average credit amount, or change in supplemental income, was $533. In applying the results of the NIT experiments to EIC, we assumed that the effects of the smaller EIC phase-out rate and average credit on labor supply (on hours worked) are proportional to the effects of the larger NIT rates and transfers.[4] If the effects are not proportional, we could be understating or overstating the labor supply response. Also, since EIC includes a phase-in (subsidy) rate while NIT did not, we are additionally assuming the response to a phase-in (subsidy) rate is symmetric (although with the opposite sign) to a phase-out rate.

NIT's measures of labor response are also useful in analyzing the credit because any differences between the NIT's experimental family demographic characteristics and those of the earned income credit population are taken into account in the estimation process. The NIT studies measured the average change in hours worked per year attributable to changes in hourly wages because of the phase-out and changes in supplemental income because of reductions in the NIT transfer amount. Simultaneously, other pertinent factors that could influence labor responses were taken into account such as workers' age, sex, family size, and hours worked before grant participation. So, differences in the distribution of these factors between the NIT experimental population and the EIC population should not detract from the relevancy of NIT's labor response measures.

Apart from design similarity, the NIT experiments' labor supply response measures are germane to EIC because the experiments focused on low-income populations as does EIC. In the Seattle/Denver experiment eligibility was limited to families with heads whose total earnings were less than $26,280 per year (in 1988 dollars), or families with earnings of $32,120 per year (in 1988 dollars) if both husband and wife were employed. EIC, being somewhat more focused on low-income families, restricted the credit to earned incomes not exceeding $18,576 regardless of family size. Though the Seattle/Denver experiment allowed for the

[3]Some experimental families were in treatment groups with a constant 50- or 70-percent phase-out rate, and some were in treatment groups with 70- and 80-percent declining rates.

[4]Keeley, et al. (1978) comments that "...the estimation of the substitution [wage] and income effects enables the prediction of labor supply response to NIT programs other than the ones being tested in SIME/DIME." Also, a recent study of EIC used SIME/DIME estimates to measure labor responses to EIC. See Hoffman, Saul D., and Seidman, Lawrence S., The Earned Income Credit: Antipoverty Effectiveness and Labor Market Effects, Kalamazoo, MI: W.E. Upjohn Institute, 1990, pp. 43-44.

inclusion of more moderate-income families than did EIC in 1988, the main thrust of the experiment included families of approximately the same earnings as did EIC in 1988.

The Seattle/Denver experiment's labor supply response measures are also appropriate because their measures of labor responses should be relatively precise. Other studies of labor supply responses, which rely on data collected from general surveys of the population, have derived labor response measures that are subject to larger measurement error. This is because in controlled experiments, such as the Seattle/Denver income maintenance project, the experiments have built into them greater variation in after-tax wage rates and NIT grants achieved through the means of assigning families to a variety of phase-out rates and grant programs.

However, despite the appropriateness of using the NIT studies to analyze EIC, labor supply responses to EIC are probably smaller than those measured in the NIT experiment because the links between income, phase-out and guaranteed amount in the experiment were made clear to the treatment families. Assigning the NIT wage effect measure to EIC presumes that EIC low-income workers grasp the economic implication of the credit's rules and relate them to their wage rate. In the case of the NIT experiment, this assumption is very reasonable. Families enrolled in the experiment were told about the guarantee level and the tax rate of the NIT plan to which they were assigned. Records on income and assets were maintained on a monthly basis by the experimental families.[5] Thus, awareness was heightened concerning the links between the transfer payment, income earned, and the phase-out rate. As a result, relatively more low-income workers in the Seattle/Denver treatment groups probably perceived how the phase-out affected their net after-grant hourly earnings than is likely to be the case for credit recipients' perception of their after-credit hourly earnings.

Summary of Findings of Labor Supply Responses Based on SIME/DIME Experiment

Many studies of the labor supply responses to SIME/DIME have been published and assessed by authorities in the field. Major surveys of the studies were conducted by Killingsworth (1983), Robins (1985), and Pencavel (1986). A number of studies were identified by these authorities as important enough to warrant reporting and a review of findings. Pencavel's criterion, for example, for including selective studies is

[5]Overview of the Seattle-Denver Income Maintenance Experiment Final Report, p. 8.

"[First,] they provide sufficient structure on the estimated relationships that the results have some claim to correspond to their behavioral responses; and, second, they impose sufficiently few prior estimating restrictions as to supply an opportunity for the data to reveal whether they really conform to the implication of the static allocation model."[6]

Many of the studies they comment on are reported by all three reviewers. A few are unique to each survey. In table II.1, we summarize the findings, in terms of income and wage effects, of five studies that were commonly cited.[7]

Generally speaking, the wage and income effects are derived from economic models statistically fitted to data that measure each worker's change in hours worked and supplemental income before and after the experiment. The models that are fitted to the data can vary from one researcher to another in certain ways although the models reflect the same general theoretical principles. Each model assumes a worker seeks to attain the most satisfaction he or she can from the consumption of goods and services, including leisure activities, given the sum of earned and unearned income, which is called the budget constraint. With these simple assumptions, a worker's willingness to supply labor can be expressed as shown in equation II.1, where H_i represents the number of hours the ith worker is willing to work given his or her hourly wage, w_i, and level of supplemental income, v_i, which includes interest, dividends, and income such as EIC.

$$(II.1)\ H_i = H(w_i, v_i)$$

The same model can be used to explain how labor supply is affected by EIC. An increase in the perceived hourly wage due to the credit's marginal subsidy rate will generate a positive wage effect, and the anticipated amount of the credit will generate a negative income effect on the willingness to supply labor. The wage increase, in the case of the earned income credit, is the difference perceived in the hourly wage rate before and after the credit subsidy rate is taken into account when a worker is in

[6]Pencavel, J., "Labor Supply of Men: A Survey," Chapter 1, Vol. 1, Handbook of Labor Economics, O. Ashenfelter and R. Layard, eds., Holland: Elsevier Science Publishing Co., 1986, p. 80.

[7]Both Killingsworth and Pencavel cited Burtless and Greenberg (1982), whose wage and income effect parameter estimates are not included in table II.1. Their study, unlike the others cited, emphasized how sensitive the wage and income effect parameters are to the duration of the experiment. In the Seattle/Denver NIT experiment most of the families participated for 3 years, a smaller number were retained in the experiment for 5 years. Burtless and Greenberg showed that the substitution and income effect parameters differed among the program's 3- and 5-year participants. But their key statistics lacked precision. Also, their results would have had greater validity had they tested their thesis in the context of a life cycle model of labor behavior rather than the single-period model they used. For the foregoing reasons, their parameter estimates are not included.

the phase-in range of the credit. (In the phase-out credit range, the perceived difference in the pre- and postcredit wage rate would be negative because the marginal phase-out rate is an effective marginal income tax rate.) On the other hand, the change in supplemental income, which is equal to the amount of the credit, induces a negative effect on the willingness to supply labor. The amount of the credit is the full amount a worker expects to receive on the basis of his or her anticipated earnings for the year.[8]

The overall labor supply response depends on each worker's taste for work or leisure. A worker who has a strong preference for work or a weak preference for leisure will have a wage effect that is likely greater than the income effect. Thus, the change in labor supply in the phase-in range, for example, is more likely to be positive, i.e., $H_i > 0$ where ΔH_i is the representation of the difference in the hours the ith worker is willing to work before and after the credit is introduced. Conversely, a strong preference for leisure will likely result in a negative change in labor supply, i.e., $H_i < 0$.

The wage and income effects were measured by regression coefficients obtained from the statistical representation of equation II.1. The general statistical form of equation II.1 used by researchers examining the labor supply effects is shown in equation II.2. In the NIT research, the perceived change in a worker's hourly wage rate is equal to the product of the phase-out rate, τ, times the hourly wage, W. And V is equal to the amount of the grant whose size is conditioned on earnings.[9] As a worker's earnings approach the maximum allowable earnings, the grant becomes smaller. Thus, the amount of the grant for any particular worker would depend on what his or her earnings were over the experimental period. The regression coefficient α measures the wage effect, β measures the income effect, and ε represents errors in the measurement of the source data.[10]

[8]Again an assumption of the model is that on average workers will perceive the credit as additional income and anticipate the approximate amount that will be claimed on a tax return. In the case of the small proportion of workers who use the advance credit payment option, the probability is that these workers are more likely to perceive the credit as additional income because their federal income tax withholding is reduced, or they receive a direct supplement in their pay.

[9]In the Seattle/Denver studies, the change in supplemental income, ΔV_i, was measured as the change in disposable income between the pre-experimental year and the experiment's second year, plus the average net NIT grant received in the experiment's second year. Disposable income was approximately equal to a family's earnings. In contrast, our change in supplemental income is the estimated EIC received. Since the EIC tax policy has been in effect for several years, we are unable to observe the amount of disposable income EIC families had before the credit was available and hence calculate its change.

[10]The wage effect measured by α in the regression equation in the economic literature is called the compensated wage effect. The wage effects shown in table II.1 are compensated wage effects.

Statistical equations were estimated separately for data on working husbands, wives, and single female heads of household.

$$(II.2)\ \Delta H = \alpha * (\tau * W) + \beta * \Delta V + \varepsilon$$

Though the general statistical form is the same, differences in the estimates of the wage and income effects for the Seattle/Denver NIT experiment arose because researchers used somewhat different theoretical formulations. For example, both Johnson and Pencavel studies cited in table II.1 allowed in the formulation of their estimating equations for the fact that husbands will take into account the earnings of their wives and wives will take into account their husbands' earnings. This formulation says, in the NIT context, that the choice to work more hours and to enjoy less leisure time (or vice versa) as a consequence of receiving an NIT grant is a joint household decision. Other researchers model the same choice between work and leisure separately for husbands and wives. They thus implicitly assume that husbands and wives make decisions on whether to work overtime and take second jobs independently of each other.

Estimating techniques among the studies also vary. For example, the Johnson and Pencavel studies use a utility function that is quite different from that in the other studies. A utility function specifies the amount of satisfaction each worker can attain with given amounts of consumer goods and leisure time. For example, the greater the earnings a worker receives without sacrificing any leisure time, the more consumer goods he or she can buy and therefore reach a higher utility level (i.e., become "better-off"). The utility function used by Johnson and Pencavel required a nonlinear statistical technique rather than the linear "ordinary least-squares" technique used in the other studies. Also, Johnson and Pencavel allowed for the possibility that a change in a wife's wage rate would affect the work effort decision of her husband and vice versa, an important factor in their findings. Using this differing equation specification and estimating technique probably also contributed to different estimates of the wage and income effects.[11]

[11]These differences in model specification and estimating techniques are summarized in Killingsworth (1983), p. 401, fn. 41.

Table II.1: Labor Supply Responses to the Seattle/Denver Negative Income Tax Experiment, Estimates of Income and Wage Effects Found in Representative Studies

	Income effect (annual hours per $1,000)			Wage effect (annual hours per $1)		
Studies	Husbands	Wives	Single female head of household	Husbands	Wives	Single female head of household
Keely & Robins (1980)	-60.9[a]	-110.8[a]	-99.5[a]	41.1	132.0[b]	75.9
Johnson & Pencavel (1982)	-125.8	-57.9	-87.2	106.1	118.9	78.8
Johnson & Pencavel (1984)	-61.0	-36.1	-54.0	140.7	161.5	253.8
Robins & West (1980)	-24.9	-105.7[a]	-96.5[c]	96.6[c]	236.5[c]	99.7
Robins & West (1983)	-95.2[c]	-196.8[a]	-147.1[c]	71.3	151.8	176.4
Arithmetic means	-73.6	-101.5	-96.9	91.2	160.1	136.9
Means adjusted for inflation since 1971	-25.2	-34.8	-33.2	31.2	54.8	46.9

Note: Deflation factor: 2.92 (1988 CPI/1971 CPI = 118.3/40.5). Statistical significance denoted by [a]1 % level, [b]10 % level, [c]5 % level,

The average wage and income effects of the five studies, adjusted for inflation, were used to estimate annual hour reductions attributable to the introduction of EIC. Using the Census Bureau's March 1989 CPS, (discussed in the next section), average 1988 hourly wages and the credit were calculated for EIC-eligible married couples and single female heads of household. For example, in equation II.3, α represents the average wage effect that is multiplied by the difference in the pre- and postcredit average hourly wage of the ith individual, plus the average income effect, times the change in supplemental income (i.e., EIC). If a husband were in the phase-in range of the credit and were earning $3.00 per hour, then his postcredit wage rate would be $3.42 for a change in wage rate of $0.42. (In the phase-in range of the credit, τ equals the 14-percent marginal subsidy rate, so 0.14 times $3.00 equals $0.42.) Assume further the husband worked 2,000 hours per year and thus earned $6,000. He would be eligible for a $840 EIC (see table 1.1 in ch. 1). The change in V would then be the amount of the credit—$840. β is the average income effect for husbands, and from table 2.1 that value can be calculated at -0.02519 per dollar of credit. Thus, we would expect the husband to reduce annual hours worked by about 8 hours.

$$(II.3)\ \Delta H = \alpha * (\tau * W) + \beta * \Delta V$$

$$-8 = (31.22 * .42 - .02519 * 840)$$

Use of CPS to Simulate Tax Database

To use the NIT findings to estimate labor supply responses to EIC in 1988, a database that records the tax credit, hourly wages, and hours worked during the year is required. The IRS' Statistics of Income (SOI) data file does have tax data on a returns unit basis. But there are no data on wages and hours worked for eligible EIC recipients. The Bureau of the Census, however, has in its March 1989 CPS information on household 1988 annual earnings, usual hours worked in a week, and number of weeks worked during the year. On the basis of reported earnings and dependents in the households of primary families, Census created a special file appended to each record that contains estimates of individual filing status, federal income tax, state income tax, and earned income tax credit.

Census estimated adjusted gross income (AGI) and earned income by several techniques. For each simulated tax filing unit, the income amounts from all taxable sources were summed and an amount for capital gains was imputed by Census statisticians based on SOI data, and these gains or losses were assigned to CPS individual records using a Monte Carlo probability technique. Similar probabilistic techniques were used to assign an amount for a contribution to individual retirement accounts. Standard deductions and itemized deductions were also simulated using both SOI and CPS data. Tax rules for EIC were applied to a calculation of earned income, which was the CPS record amounts for wages, salaries, farm income, and self-employment income. Also, a simulated amount of AGI was compared to earned income as is required in determining the credit within the phase-out range.

As an indicator of the accuracy of the overall tax simulation, Census published a comparison of certain key statistics by AGI for the 1987 CPS.[12] Table II.2 is an extract of CPS and SOI comparisons reported in the Census publication, After-Tax Money Income Estimates of Household: 1986. The three adjusted-income categories highlighted correspond approximately to EIC's 1988 phase-in, maximum, and phase-out earned income ranges. The comparison of net taxes paid (tax liabilities after credits) suggests that the CPS estimate is reasonably good for the phase-in and phase-out range but underestimates actual taxes paid by 12 percent in the approximated stationary range. The underestimate could arise from several causes, such as underestimation of taxable income or overestimation of credits,

[12]A direct comparison of the credit's benefits by AGI was not published by the Bureau of the Census. Moreover, the public CPS data file does not contain all the simulated elements, such as capital gains (losses) and individual retirement account deductions, needed to prepare a table of EIC benefits distributed by AGI. A comparison between the Census Bureau's CPS and IRS' SOI estimates of net federal income taxes and number of tax returns is shown for 1986 rather than 1988 because 1986 was the last year for which the Census Bureau published a statistical comparison.

including EIC. On the second criterion, the predicted number of returns simulated from family survey data seems reasonably good, with estimates falling short at most by 4 percent.

While the CPS estimates of the number of all tax filers appear similar to that of SOI, differences emerge when just estimates of the EIC population are compared. A direct comparison of CPS' 1988 estimated tax returns that qualified for EIC vis-à-vis SOI's 1988 estimate suggested that CPS' simulation somewhat underestimates the number of returns qualified for the credit and, hence, the amount of the credits. The total number of returns CPS' simulation projects as being eligible and claiming the 1988 EIC is 8.9 million, whereas SOI's sample projection is 11.1 million returns. Thus, CPS underestimates the total count by about 25 percent. In terms of tax credit benefits, Census underestimates the total credits by about $1.3 billion, or almost 29 percent. The underestimate of the number of returns and the credit's benefits seems to be predominantly in the simulation of head of household tax returns. CPS' single filing status, its equivalent of head of household status, underestimated these returns by about 43 percent and their credits by $1.2 billion. This suggests that estimates of EIC's effects on single female-headed households' labor supply, using CPS' simulation data, most likely underestimates this group's contribution to the average labor supply response to EIC of all three groups—husbands, wives, and single female heads of household.

Table II.2: Selected Comparison of IRS Actual and CPS Simulated Federal Income Taxes Paid After Credits and the Count of Returns by Adjusted Gross Income, 1986

	Net taxes paid (billions)			Number of returns (thousands)		
Adjusted gross income	**CPS**	**SOI**	**Difference**	**CPS**	**SOI**	**Difference**
Total	$364.4	$370.9	-1.8%	103,473	103,300	0.2%
Under $5,999	0.6	0.8	-0.25	20,114	19,974	0.7
$6,000 to $9,999	3.6	4.1	-12.2	11,318	12,797	-11.6
$10,000 to $19,999	28.6	28.9	-1.0	24,070	25,128	-4.2
$20,000 and over	331.6	337.1	-1.6	47,971	45,401	5.7

Source: After-Tax Money Income Estimates of Household: 1986, U.S. Bureau of the Census, Washington, D.C., tables A-1 and A-3, pp. 36-37.

Methodology and Estimates of 1988 and 1994 Labor Supply Responses to EIC

The supplemental March 1989 CPS survey of households provided estimates of hours worked per week, weeks worked, and wages and salaries for 1988. We retained in our sample only individuals whose earned incomes were from wages or salaries. This was because it was unclear whether NIT estimates of hours worked, drawn from a sample of urban residents, included sole proprietors. Because the studies did not separately estimate the labor responses of sole proprietors and because their labor responses might differ from those of urban wage earners, we decided to exclude proprietors from the sample data. We imputed average hourly wages by dividing an individual's total wages and salaries by the product of the usual hours worked per week and number of weeks worked per year. As noted by other researchers, this imputation suffers from a downward bias in part due to a tendency of respondents to underestimate earnings. Our estimates of hourly average wages in the phase-in range category (earned income up to $6,225) contained many very small hourly values. We followed Bound and Johnson[13] in eliminating all hourly values of less than $1.63 (in 1988 dollars) per hour. After this adjustment, we calculated annual hour changes for the population at large using Census' sample weights for each of the three credit ranges. The wage effect is positive in the phase-in range, whereas the income effect is negative—as indeed it is for all three ranges. In the stationary range there is only an income effect because the credit is unchanged as a low-income worker's income increases. In the phase-out range, both the wage and income effects negatively affect the desired hours worked as they do in the NIT design.

To estimate the effect of the much higher EIC rates slated to become effective in 1994, we estimated the labor supply effects following the general methodology described for the 1988 estimates. Using the families the Bureau of the Census analysts identified as qualifying for the 1988 EIC, we projected their earned incomes and average wage rates to 1994. The projection assumed these families' incomes and average wage rates would grow by the actual rate of inflation in 1989 through 1991 and a forecasted rate of inflation for 1992 through 1994 (the Consumer Price Index for urban workers). The inflation forecast was made by the Congressional Budget Office in its January 1992 annual report to Congress.[14] Applying the tax law to this set of families, we estimated the 1994 EIC taking into

[13]Bound, John, and Johnson, George, "Changes in the Structure of Wages in the 1980's: An Evaluation of Alternative Explanations," American Economic Review, Vol. 82, No. 3 (June 1992), pp. 371-92.

[14]The Economic and Budget Outlook: Fiscal Years 1993-1997, A Report to the Senate and House Committees on the Budget, The Congressional Budget Office, Washington, D.C., January 1992, table 1-4, p. 23.

account the extra credit given for more than one qualifying child and for children less than a year old.

Table II.3: Estimated Labor Supply Response to EIC, 1988

	Estimated change in annual hours worked					
	Change in hours[b]			Percent change[b]		
	Low[a]	Mean	High[b]	Low[a]	Mean	High[b]
All recipients	-23.8	-25.8	-34.2	-1.0	-2.1	-3.0
By credit range						
Phase-in	35.6	10.8	6.1	9.0	4.1	3.1
Maximum	-15.3	-26.2	-40.7	-1.4	-2.6	-4.1
Phase-out	-48.4	-39.3	-47.5	-4.6	-4.3	-5.0
By marital status						
Husbands	-29.2	-24.6	-25.5	-1.4	-1.5	-1.8
Wives	-21.4	-31.5	-45.7	-4.3	-6.5	-9.2
Single female heads of household	-21.0	-23.7	-34.8	1.1[c]	-0.3	-0.8

[a]The least negative labor supply effect was based on the long-run wage and income effect estimates of Johnson and Pencavel (1984).

[b]The largest labor supply effect was based on the wage and income effect estimates of Robins and West (1983).

[c]The observed positive percentage for the single female head of household category is consistent with the negative average number of hours shown. Changes in negative hours exceeded positive changes, hence a negative average change of 21.0 hours. But negative changes were concentrated among higher low-income workers in the phase-out range who typically worked more hours in a year than low-income workers in the phase-in range where the hour changes were positive. The positive percentage changes were much larger for workers in the phase-in range than the negative percentage changes in the phase-out range.

Source: Current Population Survey, March 1989, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., and GAO analysis.

The estimates in table II.3 are meant to be suggestive of the possible labor responses to EIC as it was configured in 1988, namely a maximum credit of $874. As was mentioned previously, we expect the labor supply effects observed in the NIT experiment were probably more responsive because of the institutional arrangements used to monitor the program. With heightened awareness of how the phase-out tax rate affects the amount of the transfer or grant, it is likely the NIT recipients were better able to make informed choices concerning the relative value to them of overtime or part-time wage rates. With this caveat in mind, it is fair to say that the overall labor response to the EIC was probably somewhat less than the 2.1-percent reduction in hours worked suggested by averaging the wage

and income effects of five studies. While overall labor supply was likely reduced, in the phase-in range hours worked probably increased by 4.1 percent—the 14-percent subsidy rate stimulated a positive wage effect that outweighed the negative income effect of the credit. Wives were more prone to reduce their work hours than their husbands—6.5 percent for wives compared to only 1.5 percent for husbands. Single female heads of household had the least hourly reduction, although not by much, of about 24 hours per year on average, or less than 1 percentage point of their average annual hours worked.

Even allowing for CPS' underestimate of head of household returns mentioned previously, the overall finding would probably not change significantly. Assuming single female-headed families would account for all of the head of household estimated undercount,[15] the proportion of EIC recipients who are single female heads of household would change from 44.5 percent to 53.4 percent. Thus, the annual average reduction in hours worked would fall from 25.8 to 25.4 hours and the average percent reduction from 2.1 to 1.8 percent.

While the average of five studies suggested only a modest labor supply reduction, the Robins and West 1983 study suggests labor supply reductions overall could reach 3 percent. The estimates derived from this study generated the largest labor supply effects, defined as the greatest labor supply reductions, in all categories. For example, in this study the labor supply reduction of working wives was almost 3 percentage points greater than the overall average for all studies. But apart from this category, the Robins and West estimates for husbands and single female heads of household do not depart from the average nearly as much.

Among the five studies, estimates based on the Johnson and Pencavel (1984) study showed the least overall labor supply effects. The percentage reduction across all categories in 1988 was 1 percent and 1.5 percent in 1994. Also, the pattern of reductions was similar to that of the Robins and West study. Single female heads of household show the least reductions, followed by husbands, and then working wives.

[15]Also assumed was that the distribution of the undercount of single females' hours worked per week and their average hourly wage in 1988 would be distributed in the same pattern as in the CPS sample.

Our projection to 1994 showed larger overall reductions in labor supply.[16] This is not surprising since the average credit rate is expected to increase 77 percent and average 9.4 percent of earned income, up from 5.3 percent in 1988. The overall average percentage reduction in the annual supply of labor is expected to rise from 2.1 percent in 1988 to 3.6 percent in 1994. Since the 1994 projection was based on the assumption that everyone's earned income increases at the same rate, the pattern among the credit range and marital categories was similar to the 1988 labor supply effects estimates. Most notably, the largest reduction, as it was before, is in the working wives category. Labor supply reductions could rise from 1988's 6.5 percent to 10.3 percent by 1994.

The range of estimates in 1994 was also more diverse in an absolute sense than in 1988 because the same income growth assumptions cause absolute differences to increase. The high overall estimate of five labor effect studies was the Robins and West 1983 study. It suggested an overall labor supply reduction of 5 percent; the low estimate derived from the Johnson and Pencavel 1984 study suggested, by way of contrast, only a slight reduction of 1.5 percent. As was mentioned earlier, all these estimates were based upon the institutional arrangements of the NIT experiments. For the reasons given earlier, all these estimates should be viewed as probably overstating the negative labor responses to some extent.

[16]Projections of 1994 labor response are based on OBRA 1990's credit rates scheduled for tax year 1994. OBRA 1993 raises the phase-in rates and maximum credits and expands coverage for tax year 1994.

Table II.4: Estimated Labor Supply Response to EIC, 1994

	Estimated change in annual hours worked					
	Change in hours			Percent change		
	Low[a]	Mean	High[b]	Low[a]	Mean	High[b]
All recipients	-42.7	-46.5	-61.9	-1.5	-3.6	-5.0
By credit range						
Phase-in	61.9	18.5	10.4	15.3	6.4	5.1
Maximum	-27.9	-47.7	-74.4	-2.5	-4.6	-7.1
Phase-out	-85.5	-70.4	-85.4	-7.4	-7.0	-8.1
By marital status						
Husbands	-54.0	-45.5	-47.3	-2.8	-2.8	-3.1
Wives	-38.6	-57.7	-84.6	-6.7	-10.2	-14.6
Single female heads of household	-36.5	-41.7	-61.3	2.1[c]	-0.8	-1.5

[a]The least negative labor supply effect was based on the long-run wage and income effect estimates of Johnson and Pencavel (1984).

[b]The largest labor supply effect was based on the wage and income effect estimates of Robins and West (1983).

[c]The observed positive percentage for the single female head of household category is consistent with negative average number of hours shown. Changes in negative hours exceeded positive changes, hence a negative change on average of 36.5 hours. But negative changes were concentrated among higher low-income workers in the phase-out range who typically worked more hours in a year than low-income workers in the phase-in range where the hour changes were positive. The positive percentage changes were much larger for workers in the phase-in range than the negative percentage changes in the phase-out range.

Source: Current Population Survey, March 1989, U.S. Department of Commerce, Bureau of the Census, Washington, D.C., and GAO analysis.

GAO Sampling Methodology and Technical Analysis

This appendix describes the sampling methodology we used to determine how well IRS' returns processing procedures can detect potentially erroneous EIC claims. The appendix also describes the data we used from IRS' tax year 1988 Taxpayer Compliance Measurement Program (TCMP) to determine the magnitude and types of erroneous EIC claims that the returns processing procedures could not detect. The appendix also presents details on the precision of the statistical estimates contained in the report.

The statistical estimates reported in chapter 4 are point estimates. The precision of these estimates varies with the quantitative relationship of a sample to a population. For example, we reported a point estimate in chapter 4 that 3.4 million taxpayers who received the credit may not have been entitled to it. In statistical terms that also describe the reliability of this estimate, we would say that we were 95-percent confident that between 3 million and 3.7 million taxpayers who claimed the credit were not entitled to it. There is a 5-percent chance that the confidence interval does not contain the actual population.

Sampling Methodology and Analysis for Erroneous EIC Claims Detected by Returns Processing Procedures

To determine how well IRS' returns processing procedures detect erroneous EIC claims, we selected random samples of individual income tax returns for tax year 1989 at three IRS service centers: Brookhaven, New York; Cincinnati, Ohio; and Fresno, California. At these service centers we chose tax returns processed on 11 randomly selected processing days from January to August 1990. We developed statistical estimates for this population on the basis of a stratified random sample of tax returns from individuals who were either eligible for EIC or claimed EIC. We stratified the tax returns at each center in accordance with the following criteria:

- Stratum I: taxpayers who claimed the EIC correctly;
- Stratum II: potentially eligible taxpayers who did not claim EIC and IRS did not compute the credit for them; and
- Stratum III: taxpayers who either (1) miscalculated their EIC and IRS corrected the credit, or (2) did not claim EIC and IRS computed the credit for them.

The initial strata populations of tax returns processed during 11 work days and associated sample sizes are shown in table III.1 by service center.

Table III.1: Initial Population and Sample Size for Returns of Taxpayers Potentially Eligible for the EIC (for 11 Randomly Selected Processing Days)

	Brookhaven		Cincinnati		Fresno	
Stratum	Population	Sample	Population	Sample	Population	Sample
I	54,796	250	175,380	250	103,340	251
II	1,304	150	5,332	150	2,425	150
III	9,433	200	16,514	200	14,996	200
Total	**65,533**	**600**	**197,226**	**600**	**120,761**	**601**

We selected the sample tax returns from each service center's Returns Transaction File and requested the associated hard copy returns from IRS for detailed evaluation. For many sampled returns we were unable to obtain a copy of the tax return. These returns were dropped from the sample. In addition, many returns were dropped from the Stratum II sample because the sampling frame included individuals who were not eligible for EIC. Initial and final sample sizes are shown in table III.2 for each of the service centers.

Table III.2: Initial and Final Sample Sizes

	Brookhaven sample sizes		Cincinnati sample sizes		Fresno sample sizes	
Stratum	Initial	Final	Initial	Final	Initial	Final
I	250	202	250	229	251	198
II	150	29	150	85	150	19
III	200	159	200	163	200	145
Total	**600**	**390**	**600**	**477**	**601**	**362**

Statistical estimates were weighted and combined to yield overall results for the 11 days sampled at the three service centers. Table III.3 shows the statistical estimates used in the report together with the associated confidence intervals at the 95-percent confidence level.

Table III.3: Statistical Results of the Sample of Returns Where Taxpayers Were Potentially Eligible for EIC

	Point estimate		Confidence interval at the 95-percent confidence level	
Attributes of sample cases	**Population**	**Percent**	**Number**	**Percent**
Taxpayer miscalculated the credit	32,284	8.4	30,611 - 33,958	7.9 - 8.9
Taxpayer claimed the credit and IRS disallowed it	9,330	2.4	7,926 - 10,734	2.1 - 2.8
Taxpayer's eligibility is questionable although EIC calculation correct	81,600	21	70,399 - 92,802	18 - 24
Taxpayer received the credit with incomplete return information	69,333	85	58,469 - 80,196	81 - 89
Taxpayer made a notation on the EIC line and was given the credit	6,322	1.6	4,605 - 8,039	1.2 - 2.1
Taxpayer made a notation on the EIC line and was not given the credit	2,246	36	1,816 - 2,676	29 - 42
IRS gave the taxpayer the wrong credit amount	7,759	2.0	6,494 - 9,024	1.7 - 2.4

Analysis of EIC Data From the TCMP Database

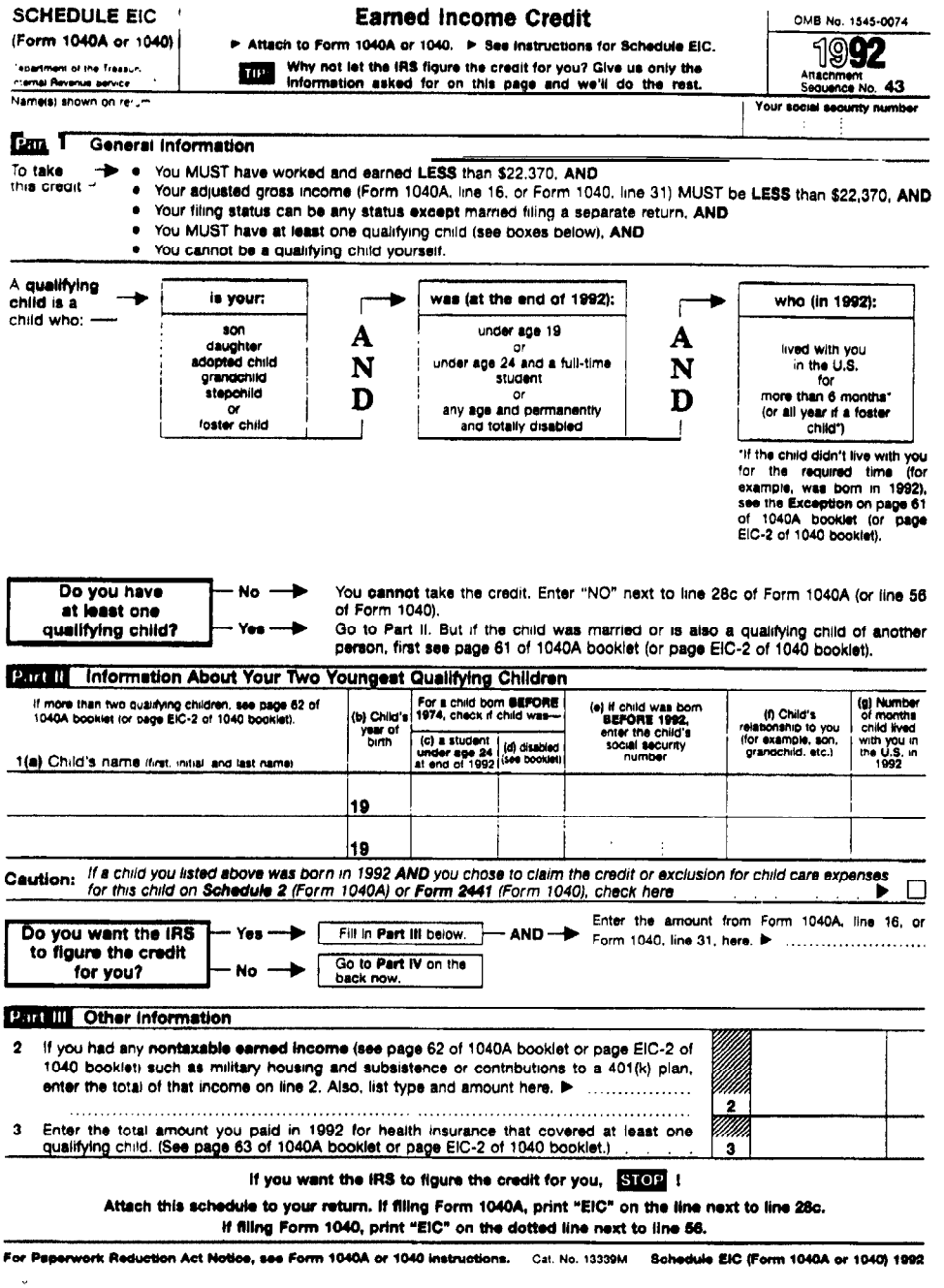
IRS' tax year 1988 TCMP for individual taxpayers is a statistically valid, stratified random sample of 54,088 tax returns that represents a nationwide universe of about 104 million tax returns. The TCMP computerized database contains the 1988 tax return data for these taxpayers as originally submitted and as corrected in a subsequent IRS audit. We did not conduct a reliability assessment of the TCMP database; however, we discussed the sampling and weighing methodologies with IRS statisticians and data processors and found their methodologies and database maintenance activities to be reasonable.

Using the TCMP database, we examined taxpayers who originally claimed EIC (whether calculated by the taxpayer or by IRS), but lost their EIC as a result of the TCMP audit. The resulting estimates were developed at the 95-percent confidence level. Point estimates and the associated confidence intervals are shown in table III.4.

Table III.4: Statistical Results of the 1988 Individual TCMP Analysis for EIC-Related Data

Taxpayer categories	Point estimate	Confidence interval at the 95-percent confidence level
Number who received EIC	10.4 million	9.9 million - 10.9 million
Lost EIC after audit	3.4 million	3.0 million - 3.7 million
Amount of EIC lost	$1.9 billion	1.6 billion - 2.1 billion
Lost EIC and had filing status changed from head of household to single	2.0 million	1.7 million - 2.3 million
Percentage of all who lost EIC	59%	50 - 68%
Lost EIC after calculating their own credit	3.1 million	2.8 million - 3.5 million
Percentage of all who calculated their own credit	32%	29 - 36%
Lost EIC after IRS calculated and gave them the credit	0.24 million	0.15 million - 0.34 million
Percentage of all for whom IRS calculated the credit	37%	23 - 51%

Figure III.1: Schedule EIC



SCHEDULE EIC (Form 1040A or 1040)

Department of the Treasury
Internal Revenue Service

Name(s) shown on return

Earned Income Credit

▶ Attach to Form 1040A or 1040. ▶ See instructions for Schedule EIC.

TIP Why not let the IRS figure the credit for you? Give us only the information asked for on this page and we'll do the rest.

OMB No. 1545-0074

1992

Attachment Sequence No. 43

Your social security number

Part I General Information

To take this credit →
- You MUST have worked and earned **LESS** than $22,370, **AND**
- Your adjusted gross income (Form 1040A, line 16, or Form 1040, line 31) MUST be **LESS** than $22,370, **AND**
- Your filing status can be any status **except** married filing a separate return, **AND**
- You MUST have at least one qualifying child (see boxes below), **AND**
- You cannot be a qualifying child yourself.

A **qualifying child** is a child who: →

is your:	AND	was (at the end of 1992):	AND	who (in 1992):
son daughter adopted child grandchild stepchild or foster child		under age 19 or under age 24 and a full-time student or any age and permanently and totally disabled		lived with you in the U.S. for more than 6 months* (or all year if a foster child*)

*If the child didn't live with you for the required time (for example, was born in 1992), see the **Exception** on page 61 of 1040A booklet (or page EIC-2 of 1040 booklet).

Do you have at least one qualifying child?
- No → You **cannot** take the credit. Enter "NO" next to line 28c of Form 1040A (or line 56 of Form 1040).
- Yes → Go to Part II. But if the child was married or is also a qualifying child of another person, first see page 61 of 1040A booklet (or page EIC-2 of 1040 booklet).

Part II Information About Your Two Youngest Qualifying Children

If more than two qualifying children, see page 62 of 1040A booklet (or page EIC-2 of 1040 booklet). 1(a) Child's name (first, initial, and last name)	(b) Child's year of birth	For a child born **BEFORE 1974**, check if child was— (c) a student under age 24 at end of 1992	(d) disabled (see booklet)	(e) If child was born **BEFORE 1992**, enter the child's social security number	(f) Child's relationship to you (for example, son, grandchild, etc.)	(g) Number of months child lived with you in the U.S. in 1992
	19					
	19					

Caution: *If a child you listed above was born in 1992 **AND** you chose to claim the credit or exclusion for child care expenses for this child on **Schedule 2** (Form 1040A) or **Form 2441** (Form 1040), check here* ▶ ☐

Do you want the IRS to figure the credit for you?
- Yes → Fill in **Part III** below. — **AND** → Enter the amount from Form 1040A, line 16, or Form 1040, line 31, here. ▶
- No → Go to **Part IV** on the back now.

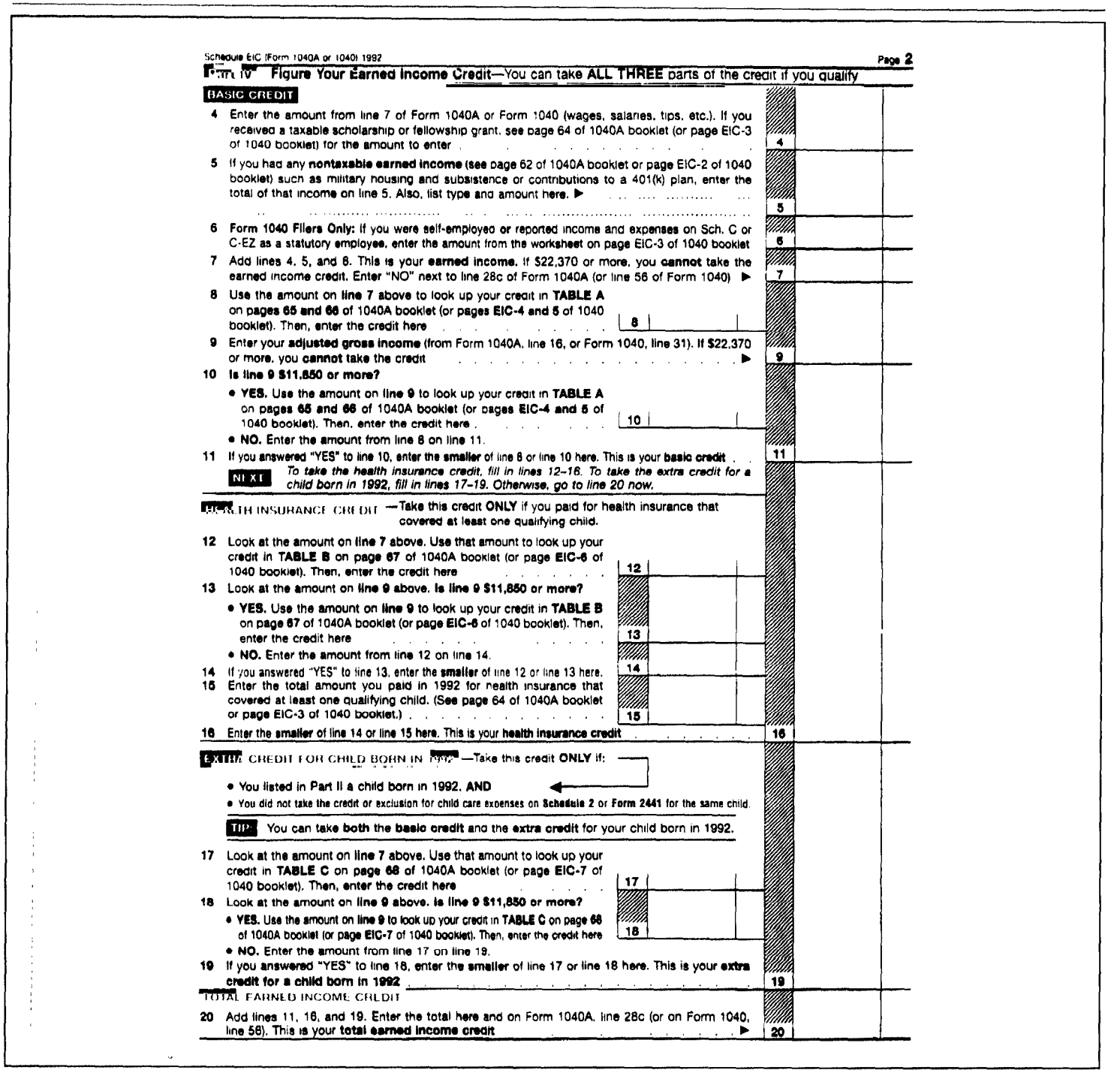
Part III Other Information

2	If you had any **nontaxable earned income** (see page 62 of 1040A booklet or page EIC-2 of 1040 booklet) such as military housing and subsistence or contributions to a 401(k) plan, enter the total of that income on line 2. Also, list type and amount here. ▶	2	
3	Enter the total amount you paid in 1992 for health insurance that covered at least one qualifying child. (See page 63 of 1040A booklet or page EIC-2 of 1040 booklet.)	3	

If you want the IRS to figure the credit for you, STOP !

Attach this schedule to your return. If filing Form 1040A, print "EIC" on the line next to line 28c. If filing Form 1040, print "EIC" on the dotted line next to line 56.

For Paperwork Reduction Act Notice, see Form 1040A or 1040 instructions. Cat. No. 13339M **Schedule EIC (Form 1040A or 1040) 1992**



Schedule EIC (Form 1040A or 1040) 1992 Page 2

Part IV Figure Your Earned Income Credit—You can take **ALL THREE** parts of the credit if you qualify

BASIC CREDIT

4 Enter the amount from line 7 of Form 1040A or Form 1040 (wages, salaries, tips, etc.). If you received a taxable scholarship or fellowship grant, see page 64 of 1040A booklet (or page EIC-3 of 1040 booklet) for the amount to enter 4

5 If you had any **nontaxable earned income** (see page 62 of 1040A booklet or page EIC-2 of 1040 booklet) such as military housing and subsistence or contributions to a 401(k) plan, enter the total of that income on line 5. Also, list type and amount here. ▶ 5

6 **Form 1040 Filers Only:** If you were self-employed or reported income and expenses on Sch. C or C-EZ as a statutory employee, enter the amount from the worksheet on page EIC-3 of 1040 booklet 6

7 Add lines 4, 5, and 6. This is your **earned income.** If $22,370 or more, you **cannot** take the earned income credit. Enter "NO" next to line 28c of Form 1040A (or line 56 of Form 1040) ▶ 7

8 Use the amount on **line 7** above to look up your credit in **TABLE A** on pages **65 and 66** of 1040A booklet (or pages **EIC-4 and 5** of 1040 booklet). Then, enter the credit here 8

9 Enter your **adjusted gross income** (from Form 1040A, line 16, or Form 1040, line 31). If $22,370 or more, you **cannot** take the credit . . . . . ▶ 9

10 **Is line 9 $11,850 or more?**

- **YES.** Use the amount on **line 9** to look up your credit in **TABLE A** on pages **65 and 66** of 1040A booklet (or pages **EIC-4 and 5** of 1040 booklet). Then, enter the credit here 10
- **NO.** Enter the amount from line 8 on line 11.

11 If you answered "YES" to line 10, enter the **smaller** of line 8 or line 10 here. This is your **basic credit** 11

NEXT *To take the health insurance credit, fill in lines 12–16. To take the extra credit for a child born in 1992, fill in lines 17–19. Otherwise, go to line 20 now.*

HEALTH INSURANCE CREDIT —Take this credit **ONLY** if you paid for health insurance that covered at least one qualifying child.

12 Look at the amount on **line 7** above. Use that amount to look up your credit in **TABLE B** on page **67** of 1040A booklet (or page **EIC-6** of 1040 booklet). Then, enter the credit here 12

13 Look at the amount on **line 9** above. **Is line 9 $11,850 or more?**

- **YES.** Use the amount on **line 9** to look up your credit in **TABLE B** on page **67** of 1040A booklet (or page **EIC-6** of 1040 booklet). Then, enter the credit here 13
- **NO.** Enter the amount from line 12 on line 14.

14 If you answered "YES" to line 13, enter the **smaller** of line 12 or line 13 here. 14

15 Enter the total amount you paid in 1992 for health insurance that covered at least one qualifying child. (See page 64 of 1040A booklet or page EIC-3 of 1040 booklet.) 15

16 Enter the **smaller** of line 14 or line 15 here. This is your **health insurance credit** 16

EXTRA CREDIT FOR CHILD BORN IN 1992 —Take this credit **ONLY** if:

- You listed in **Part II** a child born in 1992, **AND**
- You did not take the credit or exclusion for child care expenses on **Schedule 2** or **Form 2441** for the same child.

TIP You can take **both** the **basic credit** and the **extra credit** for your child born in 1992.

17 Look at the amount on **line 7** above. Use that amount to look up your credit in **TABLE C** on page **68** of 1040A booklet (or page **EIC-7** of 1040 booklet). Then, enter the credit here 17

18 Look at the amount on **line 9** above. **Is line 9 $11,850 or more?**

- **YES.** Use the amount on **line 9** to look up your credit in **TABLE C** on page **68** of 1040A booklet (or page **EIC-7** of 1040 booklet). Then, enter the credit here 18
- **NO.** Enter the amount from line 17 on line 19.

19 If you answered "YES" to line 18, enter the **smaller** of line 17 or line 18 here. This is your **extra credit for a child born in 1992** 19

TOTAL EARNED INCOME CREDIT

20 Add lines 11, 16, and 19. Enter the total here and on Form 1040A, line 28c (or on Form 1040, line 56). This is your **total earned income credit** . . . . . ▶ 20

Source: IRS.

Comments From the Internal Revenue Service

COMMISSIONER

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
WASHINGTON, D.C. 20224
July 8, 1993

Mr. Johnny C. Finch
Assistant Comptroller General
United States General Accounting Office
Washington, DC 20548

Dear Mr. Finch:

Thank you for the opportunity to review the draft report entitled, *Earned Income Tax Credit: Design And Administration Could Be Improved*. Our detailed comments on the specific report recommendations are enclosed. We also provided technical comments on the report text directly to your staff.

While we agree with three of the four recommendations to IRS, at this time we have concerns with the recommendation to modify Forms 1040 and 1040A to capture information currently reported on Schedule EIC, thereby eliminating the need for the schedule. We believe this recommendation would increase the complexity for all taxpayers and could confuse those taxpayers it is intended to help.

We are, however, pursuing a number of initiatives to ensure that those who qualify for the credit are aware of it and claim it. For example, we are considering redesigning the Schedule EIC to make it easier to complete. If the statutory simplifications under consideration by the Congress are enacted this year, the Schedule EIC can be substantially simplified. In addition, we are working with the Congress, other agencies, employers, and groups representing children and families to expand our publicity and our assistance to those who qualify for the credit.

Sincerely,

for Margaret Milner Richardson

Enclosure

IRS COMMENTS ON RECOMMENDATIONS
CONTAINED IN GAO DRAFT REPORT ENTITLED
EARNED INCOME TAX CREDIT: DESIGN AND ADMINISTRATION COULD BE IMPROVED

Recommendation 1: Modify Forms 1040 and 1040A to collect the data now required by Schedule EIC.

Comment: We have concerns with this recommendation to eliminate Schedule EIC by modifying Form 1040 and Form 1040A and cannot support it at this time. The proposed modifications would increase the complexity and burden for all taxpayers. Modifying the exemption section of the tax return, as GAO suggests, would increase the burden on all filers claiming exemptions regardless of their eligibility for the earned income credit. The earned income credit was claimed on approximately 13.7 million 1991 returns. Dependents were claimed on an additional 30.7 million returns. (Data source: Statistics of Income Advance Data Line Frequencies Report.)

The proposed form modifications related to providing information on a dependent and on a qualifying child are likely to create confusion for some taxpayers because the definition of a qualifying child for purposes of claiming the earned income credit is different from the definition of a dependent for purposes of claiming a dependency exemption. This confusion may result in taxpayers incorrectly claiming their qualifying child as a dependent. Correcting errors of this type will impose an additional burden on both taxpayers and the IRS.

The current Form 1040 and Form 1040A also do not have sufficient space to properly accommodate all the information that now is collected on the first page of Schedule EIC. This information includes the qualifying child and health insurance premium information which GAO proposes collecting on the Form 1040 or Form 1040A, as well as information on nontaxable earned income. Because of the current space constraints, including this information on Form 1040 and Form 1040A would require lengthening these forms to three pages for all taxpayers.

IRS developed the Schedule EIC in response to the directive in the 1990 Omnibus Reconciliation Act (OBRA) Conference Report. The introduction of the schedule appears to have made it easier for taxpayers to properly claim the credit. The taxpayer EIC error rate declined from 7.3 percent for tax year 1990 to 5.6 percent for tax year 1991, the year Schedule EIC was introduced.

Legislation under consideration by Congress would simplify the earned income credit. When this legislation is enacted, we will reevaluate our position on this recommendation.

Recommendation 2: Clarify taxpayer instructions on the need to provide complete information on EIC eligibility.

Comment: We agree. Although the current Schedule EIC instructions contain statements such as, "fill in," "be sure to," and "[you] must enter," the instructions do not indicate the consequences of failing to provide the requested information. We plan to modify the 1993 Schedule EIC instructions to emphasize that failure to provide complete EIC information may delay processing of their returns and, consequently, delay issuance of their refunds.

We continually improve our forms, schedules, publications, and instructions to make them as easy as possible for taxpayers to understand. We have a specific initiative underway to improve the Schedule EIC and have contracted with a graphics specialist to redesign this schedule. Although under current law, we plan to retain all of the existing entry lines on a redesigned schedule, we believe that a new layout may make the form easier for taxpayers to use.

Recommendation 3: Send notices that explain the EIC requirements, including the need to file a return to get the credit, to all nonfilers who have earned income.

Comment: We agree that all eligible taxpayers should be made aware of the availability of the earned income tax credit. Currently, the reminder to file notice sent to some nonfilers includes a publication which tells taxpayers what they need to do to claim the earned income tax credit. In addition, our publicity aimed at bringing nonfilers back into the tax system includes information on the earned income tax credit. The publicity also notes that taxpayers must file a return to claim the credit. An IRS workgroup is looking at GAO's proposal to send notices to all potentially eligible taxpayers to inform them of the credit. The workgroup is also studying other ways to reach all individuals who may be eligible for the credit and are not receiving it.

Recommendation 4: Modify returns processing procedures to ensure that all potentially eligible taxpayers who submit similar information are treated consistently.

Comment: We agree that taxpayers should be treated consistently. Our Internal Revenue Manual mandates processing procedures to ensure that returns supplying similar information are treated the same.

The filing of the Schedule EIC is important. It notifies IRS that the taxpayer believes he or she is eligible and intends

to claim the credit. Once a claim is made, we attempt to validate that claim from the information provided. If a Schedule EIC is filed, but information is missing, we try to determine eligibility without unnecessary correspondence. In so doing, we balance the need for taxpayer compliance with the desire to reduce taxpayer burden. If a correct determination can be made, we can avoid additional costs for both IRS and the taxpayer.

However, when no Schedule EIC is filed, we correspond to ask for the missing schedule. We need to determine whether the taxpayer intended to claim the credit or just made an incorrect entry on the EIC line. Even if the taxpayer intended to claim the credit, we cannot verify the amount of credit the taxpayer intended to claim without the information collected on the Schedule EIC. Once the Schedule EIC is received, we can make a more accurate determination of the taxpayer's intention and eligibility for the credit.

In the first paragraph on page 7, GAO suggests that if we can't modify our procedures, we should consider eliminating the Schedule EIC requirement. We do not believe we can eliminate the Schedule EIC given the current complexity of the statute and for the reasons discussed above. We will, however, review this option again in the future.

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