Compliance Estimates for Earned Income Tax Credit Claimed on 1999 Returns

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Internal Revenue Service
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EXECUTIVE SUMMARY

Of the estimated $31.3 billion in Earned Income Tax Credit (EITC) claims made by taxpayers who filed returns in 2000 for tax year 1999, it is estimated that between $8.5 and $9.9 billion (27.0 percent to 31.7 percent) should not have been paid. The alternative estimates reflect different assumptions about compliance of taxpayers who failed to appear for audits. The upper-bound estimate of $9.9 billion is derived by assuming that taxpayers who do not appear for audits are not eligible for any credit. The lower-bound estimate of $8.5 billion is derived by assuming that taxpayers who failed to show up for audits have the same degree of noncompliance as taxpayers whose returns were examined.

Both sets of estimates do not reflect the fact that some eligible taxpayers may not have claimed the credit to which they were entitled. Some taxpayers may not have claimed the credit on their returns, and others may not have filed tax returns at all. This study did not cover these types of individuals. An implication of this limitation is that the study does not account for offsetting errors that occurred when two taxpayers resided with a qualifying child. The taxpayer eligible to claim the EITC–the person with the higher modified AGI–may not have claimed it, while the taxpayer with the lower modified adjusted gross income may have claimed the credit erroneously. The study estimates reflect the error made by the taxpayer who incorrectly claimed the EITC, but do not include any EITC that might properly have been claimed by the taxpayer with the higher income.

The error rate estimates in this report are based primarily on examinations of a sample of EITC returns. The range of sampling uncertainty for these estimates is plus-or-minus 2.3 percentage points.

The largest amount of EITC overclaims for which the errors are known is associated with taxpayers claiming a child who was not the taxpayer's qualifying child. The most common qualifying child error was claiming a child that did not meet the residency requirements. The errors that resulted in the largest amount of the remaining overclaims were the following: income reporting errors, taxpayers claiming a qualifying child who was also the qualifying child of someone else with higher modified adjusted gross income (AGI), and married taxpayers filing as single or head of household when they should have filed as married-filing-separately.

The last study of EITC compliance was conducted using tax year 1997 returns (*Compliance Estimates for Earned Income Tax Credit Claimed on 1997 Returns).* For tax year 1997, we estimate that between $7.2 and $7.8 billion of the estimated $30.3 billion claimed, or 23.8 percent to 25.6 percent, should not have been paid. The sampling uncertainty for the tax year 1997 study estimates is plus-or-minus 2.3 percentage points. The error rate increased approximately 6.1 percentage points between 1997 and 1999 based on the upper-bound estimates (the 31.7 percent and the 25.6 percent figures). The difference, however, is only about 3.2 percentage points for the lower-bound estimates (27.0 percent and 23.8 percent), and falls within the range of sampling error. The upper-bound estimates of noncompliance rose more than the lower-bound estimates because EITC claims attributable to taxpayers who did not appear for the audit more than doubled, increasing from $925 million in 1997 to $2.1 billion in 1999. In the upper-bound estimates, which treat all such claims as overclaims, the increase in claims for these taxpayers accounts for about 72 percent of the growth in the overclaim error rate between 1997 and 1999.

We cannot conclude with certainty that the actual percentage of EITC claims that should not have been paid has changed between 1997 and 1999. Methodological and procedural differences between the two studies may explain some or all of the difference. In addition to statistical variability due to sampling error, two additional factors may have contributed to the differences between the findings of the two studies. First, procedural improvements in 1999 may have resulted in better detection of errors. For example, examiners were provided with formal training in preparation for the tax year 1999 study. Second, examiners audited a class of individuals in the 1999 study who had not been examined in the 1997 study. These were individuals whose entire EITC claim had been denied in return processing.

The estimates presented in this report do not reflect the impact of recent legislative and administrative changes that are likely to improve compliance rates. The *Economic Growth and Tax Relief Reconciliation Act of 2001* (EGTRRA) substantially changed the rules applicable to individuals who have the same qualifying child. It also modified the definition of a foster child and two EITC income concepts. These provisions became effective in 2002. In addition, the Internal Revenue Service (IRS) recently implemented the Dependent Database (which includes data from the Federal Case Registry of Child Support Orders and a Social Security Administration file linking parent and child social security numbers) for identifying returns with potential EITC errors for pre-refund audits. As a result of the 2001 tax law change, the IRS will be authorized to deny EITC claims if the Federal Case Registry indicates that the taxpayer is the child's non-custodial parent.

I. INTRODUCTION

The earned income tax credit (EITC) is a refundable tax credit available to certain low and moderate-income taxpayers. Only taxpayers with earned income are eligible to claim the EITC. The amount of the EITC depends on the taxpayer's income and number of qualifying children.

In September 2000, the IRS issued a report on compliance with the earned income tax credit for tax year 1997. The report was the outcome of a study initiated in late 1997 to improve our understanding of the magnitude and nature of noncompliance among EITC claimants. It was part of a multi-faceted compliance initiative developed under a special five-year EITC appropriation enacted by Congress in 1997 and marked a transition in our ongoing efforts to identify, understand, and measure EITC noncompliance.[1]

This report is a continuation of the work begun in 1997. This report combines data from three sources to derive estimates of the accuracy of individuals' EITC claims on tax year 1999 returns filed in calendar year 2000. The primary source of information is IRS audits of a random sample of tax returns filed for tax year 1999 on which EITC was claimed. The second source of information is a compilation of information on tax year 1999 returns on which EITC was claimed, but then subsequently either fully or partially disallowed during return processing. The third source of information is an extract of data on returns that were subjected to IRS enforcement actions under EITC-related enforcement programs. The methodology used to develop the current estimates is similar to that used for tax year 1997. Differences are described in Section IV of the report.

This report does not examine taxpayers who did not claim the EITC but who, in fact, may have been eligible for the credit. Thus, the estimates do not reflect the extent to which the credit was underclaimed by taxpayers who were eligible for the EITC, but who either did not claim the credit on their returns or did not file tax returns at all. One implication of this restriction is that the study does not account for offsetting errors that occurred when two taxpayers resided with a qualifying child. In such situations, only the taxpayer with the higher modified adjusted gross income was eligible to claim the EITC. However, the taxpayer with the lower modified adjusted gross income sometimes erroneously claimed the EITC, while the second taxpayer may have been eligible for EITC but did not claim any credit at all. The estimates reflect the error made by the taxpayer who incorrectly claimed the child, but do not include any EITC that might properly have been claimed by the taxpayer with the higher income.[2]

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[1] EITC compliance estimates were first developed using data from IRS's Taxpayer Compliance Measurement Program, which was last conducted in 1988. IRS next conducted studies that were limited to EITC claimants for tax years 1993 and 1994. (See *Study of EITC Filers for Tax Year 1994*.) These studies used different methodologies than that used in the 1997 and 1999 reports. (See *Compliance Estimates for Earned Income Tax Credit Claimed on 1997 Returns* for a discussion of the difference between the studies conducted for tax year 1994 and tax year 1997.)

[2] Also neither the tax year 1997 nor the tax year 1999 estimates reflect noncompliance behavior of taxpayers who did not claim EITC on the original return they filed, but who subsequently filed an amended return (Form 1040X) to claim EITC.

Section II describes the data used in this report. Section III presents the results of the study. Section IV presents a comparison of the results of the 1997 and 1999 studies including a discussion of some differences between the two studies. Finally, Section V discusses recent EITC legislative changes and IRS compliance activities. More detailed descriptions of the EITC, IRS administrative procedures, data sources, and estimation methods are contained in the appendices to the report.

II. DATA COLLECTION

This report combines data from three sources in order to derive estimates of the accuracy of individuals' EITC claims on tax year 1999 returns filed in calendar year 2000. The first source is a compilation of the results of audits of a random sample of 1999 tax returns on which the EITC had been claimed. The second source is an extract of 1999 tax returns that claimed the EITC and had an EITC-related error detected during returns processing. The third source is IRS's Enforcement Revenue Information System (ERIS) data for 1999 EITC returns that were subjected to IRS enforcement action. No information is available concerning taxpayers who were eligible for the EITC, but did not claim it.

Data from the first source were used primarily for estimating the EITC errors, but also were used for estimating some components of enforcement revenue. Data from the other two sources were used only for estimating enforcement revenue. This differs from tax year 1997 where the second data source—returns with EITC math errors—also was used for estimating EITC errors. This was unnecessary in the 1999 study because the random sample of audits has been expanded to include taxpayers whose entire EITC was denied during returns processing. A longer description of the data sources can be found in Appendix B.

A. RANDOM SAMPLE OF EITC CLAIMANTS

As with the tax year 1997 study, a random sample of tax year 1999 returns provides information on taxpayers who had claimed the EITC and whose EITC was allowed in full or part during returns processing. However, the random sample for tax year 1999 also included returns where the entire EITC claimed on the return was disallowed during routine processing.[3]

The benefit of including this type of return in the sample is that all the returns from which the error estimates are derived are subject to the same level of scrutiny as to their correctness. For tax year 1997, the estimates for returns where the EITC was disallowed in full during return processing were derived from math error processing operational results and not field audits. A claimant's request for reinstatement of the EITC was subject only to a limited correspondence review of the document(s) provided by the claimant in support of his or her position on the particular issue addressed in the math error notice. For example, if a claimant transposes some digits of his or her only EITC child's Social Security Number (SSN) so that it does not match IRS's copy of Social Security Administration's records, the child is not allowed as an EITC qualifying child and the EITC is removed. If the claimant provides the correct SSN, the EITC is reinstated. However, in 1997 there was no further review of

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[3] During processing, tax returns are checked for computational accuracy and missing or incomplete information. In the case of an EITC return, this includes a check of the validity of the social security number provided for the taxpayer, his or her spouse, and each qualifying child. If an error is found, the amount of the refund or tax due is correspondingly adjusted. Taxpayers are notified by letter of these adjustments and given an opportunity to appeal them. Many of these adjustments are subsequently abated. For example, if the social security number submitted for a qualifying child is found to be invalid, the amount of EITC is adjusted and a notice is sent to the taxpayer. If the taxpayer responds by submitting the correct social security number for that child, then the adjustment is abated.

whether the child in fact satisfied the EITC qualifying child relationship, age, and residency criteria. In 1999, such returns were examined fully.

The sample for the tax year 1999 study consists of 3,457 tax returns.[4] It was drawn from both paper and electronically filed returns processed at all ten IRS Service Centers between January 18, 2000, and May 27, 2000. The sample was weighted to reflect total EITC claims on 1999 tax returns filed throughout 2000. About 92 percent of tax year 1999 returns filed in 2000 and claiming the EITC were processed during the interval from which the sample was selected. Thus, we assume that the compliance characteristics of returns processed after the sampling period were the same as those processed during the sampling period.

IRS District Examination staff audited each tax return in the sample to determine the accuracy of the EITC claim and other tax return items. The auditors used standard examination procedures in conducting the audits.[5] In addition to the standard reports and documents prepared during an audit, the examiners also completed a checksheet for the study, indicating the reasons for any changes to the EITC and providing other information for analysis. These examinations served operational objectives as well as research objectives. As a result of the examinations, taxpayers with errors were assessed additional tax that was owed or received refunds of taxes that had been overpaid.

Because processing of information documents (*e.g.,* Forms W-2 and 1099) is not completed until September of the year in which they are filed, these documents were not available to auditors during the examination of most cases in the study. Tax examiners at the Cincinnati Service Center reviewed the information documents to determine whether the claimants had reported on their returns all of the income reported by payers to IRS. In cases where it appeared to the tax examiners that claimants had not reported all the income and this income had not been detected during the examination, the tax examiners adjusted the return line items to include the underreported income and recomputed the EITC. These adjustments were made for purposes of meeting the research objectives of this project, but do not reflect actual assessments.

In general, the difference between the amount of EITC claimed by the taxpayer and the amount to which the taxpayer was entitled based on the examination and the information document review process was used to derive the error rate estimates. The exception was for cases where the taxpayer was either unwilling or unable to appear for the audit. Standard examination procedures resulted in the disallowance of the credit for these cases. However, because the agent never was able to meet with the

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[4] Initially, 3,490 tax returns were selected. However, 22 cases were dropped because the taxpayers could not be located and 11 were dropped for other reasons, leaving a final sample of 3,457 cases.

[5] For 191 study cases, the taxpayers did not appear for the audit. The study procedures required that every effort should be made to interview the taxpayers and that accommodation should be made to taxpayers who were unavailable during regular working hours, by scheduling weekend and evening appointments. These procedures authorized compensatory time and overtime pay for the study. In cases where the taxpayer did not appear for the audit, standard examination procedures resulted in disallowance of the credit.

taxpayer, there is uncertainty as to whether the amount claimed actually is overclaimed. It is possible that if the taxpayer had appeared for the audit, the examining agent might have determined that the taxpayer was entitled to some or all of the EITC claimed or—possibly—was entitled to additional credit.

To account for the uncertainty for these types of cases, we derived two sets of estimates using different assumptions about the compliance of these claimants. For one set, we assume that the entire amount claimed was overclaimed. This approach gives an upper bound on the error for these cases. For the other set of estimates, we assume that the compliance of the taxpayers who did not appear for the audit is the same as that of taxpayers who did appear. We call the first set of estimates the "upper-bound" estimates and the second set of estimates the "lower-bound" estimates.[6]

B. RETURNS PROCESSING ERROR NOTICES

The sample of audited returns was supplemented by a tabulation from a special extract of all 1999 tax returns filed that had claimed EITC and had been subject to an EITC-related math error notice. The extract contains information on both the amount of the EITC denied during processing and the amount of the credit subsequently restored based on the taxpayers' responses to error notices. These tabulations were used to develop the estimates of revenue protected in processing.

C. ENFORCEMENT REVENUE INFORMATION SYSTEM

The third source of data used in the report came from the Enforcement Revenue Information System (ERIS). ERIS contains detailed information on the results of IRS enforcement actions. The information is specific to the taxpayer, type of tax, tax year, and type of enforcement action. From ERIS data, we obtained information on service center and district office examinations of tax returns with questionable EITC claims. The enforcement revenue estimates include the amounts of erroneous EITC claims on 1999 tax returns that IRS has either prevented from being paid out, has collected, or can reasonably expect to collect through examinations of returns identified as having questionable EITC claims. ERIS data on the study sample cases were excluded from the tabulation since these data were obtained directly from the study.

[6] The assumption that taxpayers who did not appear for the audit are fully compliant would result in a lower error estimate than the assumption we use here that their compliance is similar to those that did appear. However, it is doubtful that the compliance of taxpayers who do not appear for an audit would be better than that of taxpayers who do.

III. RESULTS

The principal results of the study are presented in Table 1 on the following page. The table displays two sets of estimates. The difference between the estimates is the result of different assumptions about the compliance of sample taxpayers who did not appear for the audits. The upper-bound estimates are derived using the assumption that all the EITC claims of these taxpayers are overclaims. The lower-bound estimates are derived using the assumption that the compliance of these taxpayers is the same as that of taxpayers who did appear for the audits.

An estimated $31.3 billion in EITC claims were made by taxpayers who filed tax year 1999 returns in 2000. Approximately $9.9 billion should not have been paid based on the upper-bound estimates. The comparable lower-bound estimate is $8.4 billion.

A. UPPER-BOUND ESTIMATES

Columns (1) through (4) in Table 1 contain the upper-bound estimates. Row A in Table 1 shows the estimated number and percentage of returns claiming EITC in tax year 1999 that overclaimed EITC, claimed the correct amount of EITC, or underclaimed EITC. Row B shows that filers claimed $31,291 million in EITC on 1999 tax returns. Row C is the estimated correct amount of EITC–$20,883 million–that should have been claimed by those taxpayers who filed returns claiming some amount of EITC.

Row D is the amount overclaimed on filed returns; that is, it is the amount claimed less the correct amount. The total overclaim amount is $11,118 million ($1,193 per overclaim return). Row E shows the amount of underclaims–$710 million–on returns claiming some EITC in 1999. Because of data limitations, this estimate does not reflect the fact that some eligible individuals may not have claimed the credit to which they were entitled.

Row F shows that the IRS will eventually collect net enforcement revenue of $1,188 million, attributable solely to erroneous EITC claims on 1999 tax returns. This estimate includes $509 million from returns processing, $511 million from service center and district office audit programs, and $166 million from the underreporter component of the Information Return Program (IRP). These amounts reflect both upward and downward adjustments to EITC amounts claimed by taxpayers, and include changes to returns with either overclaims or underclaims.

Row G shows that the IRS is estimated to pay $30,102 million in EITC for tax year 1999, after accounting for enforcement activities. Row H is the EITC Unrecovered Overclaim amount, which is equal to $9,914 million (or overclaims on line D less overclaimed amounts recovered on line F). It is the amount of revenue lost due to inaccurate EITC claims for tax year 1999. (Row I and Row J are discussed in Section C.)

B. LOWER-BOUND ESTIMATES

Columns (5) through (8) in Table 1 contain the lower-bound estimates. The lower-bound estimates show fewer overclaim returns and more correct and underclaim returns. The lower-

Table 1. EITC Compliance Estimates for Tax Year 1999 EITC Claimants (Number and Amounts in Millions)

		Upper-Bound Estimates[1]				Lower-Bound Estimates[2]			
		Overclaim Returns (1)	Correct Returns (2)	Underclaim Returns (3)	Total (4)	Overclaim Returns (5)	Correct Returns (6)	Underclaim Returns (7)	Total (8)
A	Number of Returns Claiming EITC	9.3	8.2	1.3	18.8	8.6	8.9	1.4	18.8
	Percentage of Total Returns	49.5%	43.8%	6.8%	100.0%	45.6%	47.0%	7.3%	100.0%
B	Amount Claimed[3]	$15,748	$13,797	$1,746	$31,291	$14,572	$14,785	$1,880	$31,237
C	Correct Amount	4,630	13,797	2,456	20,883	4,920	14,785	2,646	22,350
D	Amount Overclaimed	11,118	-	-	11,118	9,653	-	-	9,653
E	Amount Underclaimed	-	-	710	710	-	-	765	765
F	Amount Recovered [4]	1,203	0	-15	1,188	1,203	0	-15	1,188
	In Processing	509	0	0	509	509	0	0	509
	IRP Underreporter Program	165	0	1	166	165	0	1	166
	Service Center and District Examination	527	NA	-16	511	527	NA	-16	511
	Examination of Sample Returns	2	0	‡	2	2	0	‡	2
G	Amount Paid	-	-	-	30,102	-	-	-	30,049
H	Unrecovered Overclaim	9,914	-	-	9,914	8,449	-	-	8,449
I	Overclaim Percentage	-	-	-	35.5%	-	-	-	30.9%
J	Unrecovered Overclaim Percentage	-	-	-	31.7%	-	-	-	27.0%

[1] Assumes that taxpayers who failed to appear for an audit do not qualify for any earned income tax credit.

[2] Assumes that taxpayers who failed to appear for an audit have the same compliance (overclaims, correct, underclaims) as taxpayers who were audited.

[3] Although the upper-bound and lower-bound estimates of the total number of returns claiming EITC are the same, the estimates of the total amount of EITC claimed differ because the estimates are derived from slightly different sets of sample returns using different weights. Because each of the weights is calculated by dividing the study population total for each stratum by the sample total for that stratum, the estimated total number of returns will always be the same by design. The sample count used in the calculation of the weights for the upper-bound estimates include the "no-show" returns. The upper-bound estimate of the total amount of EITC claimed is the weighted sum of the subset of sample return that includes the returns where the taxpayer appeared for the audit and the returns where the taxpayer did not appear. The sample count used in the calculation of the lower-bound estimates, however, excludes the "no-show" cases. The lower-bound estimate of the total amount of EITC claimed is the weighted sum of the subset of only the sample returns where the taxpayer appeared for the audit. Compared with the upper-bound estimates, the lower-bound estimates are derived from a smaller set of sample returns using slightly larger weights. This accounts for the difference in total amount of EITC claimed.

[4]The amount recovered reflects estimates of the revenue protected during processing and eventual collections from other IRS enforcement programs.

‡ The aggregate amount underclaimed on the sample returns was about $164,000.

Detail may not add due to rounding.

bound estimate of the correct amount of EITC that should have been claimed by taxpayers who filed returns and claimed EITC is $22,350 million, about $1,467 million higher than the upper-bound estimate (Row C).

The estimated total amount of EITC overclaimed is $9,653 million, about $1,122 per overclaim return. This is approximately $1,465 million lower than the upper-bound estimate. The amount of underclaims on returns claiming some amount of EITC is $765 million, which is $55 million higher than the upper-bound estimates. The correct amount of EITC claimed is $14,785 million. This is approximately $988 million higher than the upper-bound estimates.

We use the same enforcement revenue estimates for both sets of error estimates. Thus, based on the lower-bound estimates, IRS is estimated to pay $30,049 million in EITC for tax year 1999. IRS expects to recover $1,203 million in overclaims, resulting in $8,449 in unrecovered overclaims of EITC.

C. OVERCLAIM PERCENTAGE AND UNRECOVERED OVERCLAIM PERCENTAGE ESTIMATES

The Overclaim Percentage is defined as the amount overclaimed, before accounting for enforcement activities, expressed as a percentage of the amount claimed. For 1999 returns the upper-bound estimate is 35.5 percent (Row I which is equal to Row D divided Row B). The lower-bound estimate is 30.9 percent, a difference of 4.6 percentage points from the upper-bound estimate. The Unrecovered Overclaim Percentage is the amount of overclaimed EITC paid expressed as a percentage of the total amount of EITC claimed. The upper-bound estimate for 1999 was 31.7 percent (Row J which is equal to Row H divided by Row B). The lower-bound estimate is 27.0 percent, which is about 4.7 percentage points lower than the upper-bound estimate. These percentages are the central findings of the study.

Because the Overclaim Percentage and the Unrecovered Overclaim Percentage are based in part on examinations of a sample of returns, both are subject to sampling error. The potential effect of sampling error on the estimate may be calculated following standard statistical procedures. The result of these calculations is that the 95-percent confidence interval for both the Overclaim Percentage and the Unrecovered Overclaim Percentage is plus or minus 2.3 percentage points. This means, for example, that based on the upper-bound estimates there is a 95 percent probability that the actual value of the Unrecovered Overclaim Percentage is in the range of 29.4 percent to 34.0 percent. Similarly, for the lower-bound estimates there is a 95 percent probability that the actual value is in the range of 24.7 percent to 29.3 percent.

In addition, some of the elements of the error estimate calculations are not based on the sample and require various assumptions. We partly address the uncertainty in the measurement of overclaims associated with the sample taxpayers who were unwilling or unable to appear for the audit by deriving two sets of estimates. There are other issues, however, that are not directly addressed. For example, because not all of the examinations of 1999 EITC returns have been completed, the enforcement revenue estimates include projections for the incomplete cases based on the results of the cases that have been completed. The likely effect on the estimates of assumptions of this type (non-sampling error) is not easily quantified.

D. TYPES OF ERRORS

Table 2 presents estimates of the types of errors made by EITC claimants who overclaimed EITC. Most of these estimates are based on the reasons for adjustments to EITC claims recorded by auditors and tax examiners for the sample cases. There is no information about the types of errors made by taxpayers who were unwilling or unable to appear for the audit. In Table 2, these taxpayers are reported in a category by themselves and the entire amount of EITC claimed is listed as the overclaimed amount. There is information about the type of errors for the remaining cases with overclaims.

Table 2. EITC Overclaims by Type of Error, Estimates for Tax Year 1999

	Returns		EITC Overclaims	
	Number (thousands)	Percent	$ (Millions)	Percent
Total	9,321	100.0	11,118	100.0
Type of error unknown (Taxpayer unwilling or unable to appear for audit)†	1,240	13.3	2,058	18.5
Type of error known	8,081	86.7	9,060	81.5
Subtotal: Type of Error Known	8,081	100.0	9,060	100.0
Child claimed is not taxpayer's qualifying child	1,316	16.3	2,253	24.9
Income reporting errors	3,366	41.7	1,940	21.4
Qualifying child is also a qualifying child of someone with higher modified AGI	874	10.8	1,557	17.2
Claimed single or head of household status; should have used married filing separately	702	8.7	971	10.7
Child claimed is not taxpayer's qualifying child and taxpayer claimed single or head of household status but should have used married filing separately	274	3.4	607	6.7
Errors corrected in processing only	735	9.1	587	6.5
All other errors and combinations	815	10.1	1,146	12.6

† These 1.2 million returns were not actually audited. Rather, they are taxpayers represented in the sample by 165 taxpayers who did not appear for audit and therefore had their EITC claims disallowed. The remaining 26 of the 191 sample taxpayers who did not appear for audit had their EITC reduced to zero in math error processing. These returns are in the "Errors correcting in processing only" category.
Detail may not add due to rounding.

For tax year 1999, the largest amount of overclaims is caused by taxpayers claiming children who were not their qualifying children. About $2,253 million, or 24.9 percent of the estimated overclaimed EITC amounts for cases where the type of error is known, is attributable solely to taxpayers claiming an ineligible child. The most common qualifying child error was claiming a child that did not meet the residency requirements. Under 1999 law, taxpayers are required to reside with their qualifying child for over half a year or for a full year, depending on the relationship of the child to the taxpayer. The second most common qualifying child error is claiming a child who does not meet the relationship criteria. The most common issue in this area involves the child not satisfying the definition of an EITC eligible foster child. The major problems are that the child and taxpayer did not live together the entire year and/or the taxpayers did not care for the child as they would their own child. The age requirement causes the fewest problems. Age errors are caused by taxpayers claiming children who are over 18 but do not satisfy either the full-time student or disability requirements.

The second most important error is attributable to income misreporting. About 21.4 percent of EITC overclaims for cases where the type of errors are known are due solely to income reporting errors. Income misreporting includes underreporting of earned income and modified adjusted gross income and less frequently, overreporting of earned income and underreporting of EITC disqualified investment income. It also includes cases where the taxpayer filed as single or head of household but should have used married filing jointly status, and the omitted spouse had income.

The third largest amount of overclaims where the type of errors are known is associated with complicated living arrangements. In such situations, a child is the qualifying child of both the taxpayer and another person. In these cases, only the person with the highest modified adjusted gross income (AGI) is eligible to claim the EITC. However, about 17.2 percent of overclaimed EITC amounts for cases where errors are known are solely the result of the person with the lower modified AGI claiming the child. In some cases, the other adult is qualified to claim the EITC but did not. The number of such cases is difficult to quantify. Therefore, the study does not account for the offsetting errors that occur because the other person, with the higher modified AGI, did not claim the EITC when he or she was eligible.

About 10.7 percent of the EITC overclaims where the type of errors are known are associated with the misreporting of filing status among married taxpayers. These taxpayers filed as single or head of household when they should have filed as married filing separately. An additional 6.7 percent of EITC overclaims where the types of errors are known, are attributable to a combination of qualifying child and filing status reporting errors. These errors are often associated with individuals erroneously believing that they can claim head of household filing status. Married couples must generally file tax returns jointly or as married filing separately. However, there is an exception that enables some married individuals to file as head of household. To qualify, individuals cannot reside with their spouses for the last six months of the year. Further, they must maintain the households in which they and their dependent children reside. Many taxpayers did not meet these requirements because they lived with their spouse for at least some time during the last half of the year, or they did not pay more than half the cost of keeping up their home.

About 6.5 percent of the overclaims where the types of errors are known reflect errors that were detected during return processing and result in a reduction in the EITC. The remaining 12.7 percent of the overclaims are associated with returns having other errors or a combination of errors (e.g., qualifying child and income errors).

IV. TAX YEAR 1997 AND 1999 COMPARISON

The estimates presented in this report generally are comparable to those contained in our September 2000 report, *Compliance Estimates for Earned Income Tax Credit Claimed on 1997 Returns*. One of the primary objectives of both studies was to estimate EITC noncompliance. The other objective was to gain an understanding of the types of errors made. This report includes measures of voluntary compliance and of compliance after IRS enforcement efforts. The measure of voluntary compliance is intended to reflect the extent to which taxpayers (and tax preparers, in the case of professionally prepared returns) are able and willing to comply with the law. The measure of compliance after IRS enforcement efforts is intended to reflect the extent to which the IRS pays out erroneous claims. Both measures include unintentional mistakes and deliberate errors.

The actual figures calculated, however, are a reflection of the tax law in effect at the time, IRS's ability to detect noncompliance in the returns from which the estimates are developed, taxpayers' ability and willingness to comply with the law, and sampling error. In comparing estimates for different time periods, all these factors must be considered. In general, the studies are sufficiently alike that the results can be compared. However, the differences between the years suggest caution in attributing observed differences in the estimates to changes in taxpayer behavior.

A. DIFFERENCES IN TAX LAW, PROGRAM PROCEDURES, AND METHODOLOGY, 1997 AND 1999

There are three basic differences in the EITC law in effect in tax years 1997 and 1999.[7] Since 1998, taxpayers whose EITC is reduced or disallowed as a result of deficiency procedures need to recertify before claiming the credit again. Taxpayers also are subject to a two-year ban on claiming EITC if their EITC is denied due to reckless or intentional disregard of the rules and a ten-year ban if their EITC is denied due to fraud. These taxpayers also need to recertify to claim the credit again.

Second, under the *Tax and Trade Relief Extension Act of 1998*, the IRS is allowed to use math error authority to deny an EITC claim during returns processing if Social Security Administration records reveal that either the taxpayer or the child does not meet the credit's age criteria.

In addition, various EITC amounts are slightly higher in 1999 than in 1997 because they are indexed for inflation. The maximum credit amount increased from $3,656 to $3,816 for the credit with two qualifying children, from $2,210 to $2,312 for the credit with one qualifying child, and from $332 to $347 for the credit without a qualifying child. In addition, the maximum income amount for receiving the credit increased from $29,290 to $30,580 for the credit with two qualifying children, from $25,760 to $26,928 for the credit with one qualifying child, and from $9,770 to $10,200 for the credit without a qualifying child.

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[7] See Appendix A for a more detailed description of the EITC law.

There were also some important methodological and procedural changes between the 1997 and 1999 studies. The five most significant changes include the addition of a new sample stratum, the implementation of formal training for Examination personnel, the introduction of mandatory *pro forma* workpapers on some issues, formal case classification, and a revision to the study checksheet. These changes may have resulted in increased detection of errors.

First, for the tax year 1999 program, the sample strata were revised and an additional stratum that was not part of the 1997 program was added. The tax year 1999 sample design included a stratum for returns that had claimed an EITC, which was disallowed in full during return processing. As discussed earlier in Section IIB of the report, the purpose of adding this stratum was to ensure that all the returns from which the estimates of overclaims were developed were subject to the same level of scrutiny regarding their correctness.[8]

The other strata were changed from filing status/gender groupings to filing status/combined Schedule C profit-loss groupings. These changes were made to ensure that a sufficient number of returns with combined Schedule C profits and losses were included in the sample so that it would be possible to undertake an analysis of these particular subgroups.

Second, all Examination personnel involved in the study received formal training. Examination staff developed specialized training material covering both EITC law and program procedures. This information was presented to managers and program coordinators at “train-the-trainer” sessions. These individuals returned to their Districts and trained the auditors who examined the returns. In contrast, Examination personnel involved in the tax year 1997 program were provided written instructions and standard IRS EITC reference material, but were not given formal training or a training package.

Third, Examination implemented mandatory *pro forma* worksheets as part of the examination workpapers for tax year 1999. A *Pro forma* worksheet consists of a list of standardized points that need to be addressed during the examination of a particular issue. The use of a *pro forma* improves consistency in the examination of a particular issue by outlining the details that need to be addressed. It also standardizes examiners’ documentation of their reviews of the issue.

Fourth, each return was formally classified before being assigned to the examining agent. EITC, obviously, was always classified. Filing Status, Exemptions, Income, Child Tax Credit, and Additional Child Tax Credit were usually classified as well. In general, the examiners audited the entire return.

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[8] However, the addition of this sample stratum probably had little impact on either the overclaim or unrecovered overclaim percentages. This is because the amount of EITC claims abated is not substantially greater than the amount that would have been allowed in examination. During the 2000 filing season, the IRS abated about $381 million of EITC claims that had originally been deemed as having a math error. (This amount includes abatements on EITC claims disallowed in full or partially.) From the audited sample, we estimate that about $275 million would have been allowed on returns for which the EITC was entirely disallowed in math error processing and $52 million would have been restored on returns for which the EITC was partially disallowed in processing.

Fifth, the study checksheet (completed by the examiner) was revised for tax year 1999. There were two primary reasons for the revision. The first was to simplify the data consistency component of the study by minimizing errors and missing data on the checksheet. The second was to obtain affirmation that particular issues had been addressed by rewording questions to require yes/no-type answers. This was done mainly for the benefit of subsequent case reviewers so they would not face the dilemma of having to distinguish between something that was reviewed and not documented and something that was not reviewed at all.

Processing of tax returns for tax year 1999 was slightly different than for tax year 1997 because of expansions in math error processing. Between these years, IRS implemented math error treatment for secondary taxpayer identification number (TIN) errors, EITC claimant age errors, EITC qualifying child age errors, failure to recertify for those claimants required to do so, and claiming EITC while subject to the two-year for negligence or the ten-year ban for fraud related to EITC.[9]

During this time period, IRS also enhanced its EITC education and outreach activities and refined the EITC audit selection criteria.[10] One of the activities completed was a substantial revision to EITC taxpayer assistance products. These revisions resulted in major changes to both Publication 596, *Earned Income Credit (EIC)*, and the EITC component of the instructions to Forms 1040, 1040A, and 1040EZ. In late fall 1999, IRS also initiated a multi-year, integrated strategy to educate tax return preparers about common EITC errors and to examine preparer practices and propose appropriate penalties. As part of this effort, IRS staff visited tax preparers who prepare many returns with EITC claims. Most of these visits were strictly educational. A few, however, also had some enforcement aspects to them, generally involving a review of some of the preparer's returns.

B. COMPARISON OF ESTIMATES FOR TAX YEARS 1997 AND 1999

Tables 3 and 4 display the estimates for tax years 1997 and 1999 in side-by-side format. Table 3 contains a subset of the type of information presented in Table 1 of this report. Likewise, Table 4 contains information identical to that presented in Table 2 of the report.[11] Rows A and B in Table 3 show that the amount of EITC claimed by taxpayers covered by our studies increased between 1997 and 1999 but the number of returns decreased.

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9 IRS math error management information reports list, for tax year 1999, about 11,000 secondary TIN errors, 145,000 EITC claimant age errors, 38,000 EITC qualify child age errors, 54,000 recertification errors, and 500 two-year and ten-year ban errors.

10 IRS activities related to EITC are discussed in its quarterly reports on the EITC appropriation. See for example, IRS Publication 3763, *IRS Tracking: Earned Income Tax Credit Appropriation, Fourth Quarter—FY2000*.

11 The report for tax year 1997 does not contain estimates derived using the assumption that the compliance of taxpayers who did not appear for an audit is like that of taxpayers who did appear. These estimates are presented in this report.

Table 3. EITC Compliance Estimates for 1997 and 1999 EITC Claimants (Numbers and Amounts in Millions)

		Upper-Bound Estimates		Lower-Bound Estimates	
		1997	1999	1997	1999
A	Number of Returns Claiming EITC	19.9	18.8	19.9	18.8
B	Amount Claimed	$30,338	$31,291	$30,377	$31,237
C	Correct Amount	21,689	20,883	22,284	22,350
D	Amount Overclaimed	9,275	11,118	8,736	9,653
E	Amount Underclaimed	626	710	644	765
F	Amount Recovered	1,320	1,188	1,320	1,188
G	Amount Paid	29,018	30,102	29,057	30,049
H	Unrecovered Overclaim	7,763	9,914	7,224	8,449
I	Overclaim Percentage	30.6%	35.5%	28.8%	30.9%
	95% Confidence Interval Lower Bound	*28.3%*	*33.2%*	*26.5%*	*28.6%*
	95% Confidence Interval Upper Bound	*32.9%*	*37.8%*	*31.1%*	*33.2%*
J	Unrecovered Overclaim Percentage	25.6%	31.7%	23.8%	27.0%
	95% Confidence Interval Lower-bound	*23.3%*	*29.4%*	*21.5%*	*24.7%*
	95% Confidence Interval Upper-bound	*27.9%*	*34.0%*	*26.1%*	*29.3%*

Detail may not add due to rounding.

The tax year 1999 error estimates are higher than the tax year 1997 estimates. There is a 4.9 percentage point difference in the upper-bound estimates for the Overclaim Percentage; 35.5 percent for tax year 1999 compared to 30.6 percent for tax year 1997. The difference in the upper-bound estimates for the Unrecovered Overclaim Percentage is 6.1 percentage points; 31.7 percent for 1999 and 25.6 percent for tax year 1997. The differences between the lower-bound estimates are smaller than the upper-bound differences. The lower-bound Overclaim Percentage estimates differ by 2.1 percentage points; 30.9 percent in 1999 compared to 28.8 percent in 1997. There is a 3.2 percentage point difference in the lower-bound Unrecovered Overclaim Percentage; 27.0 percent for tax year 1999 compared to 23.8 percent for tax year 1997. The 95 percent confidence intervals for these estimates, both for tax year 1997 and for 1999, are about 4.7 percentage points.

Based on the estimates presented in Table 4, the type of errors in tax year 1999 are similar to those made in tax year 1997. However, the distribution of the errors is slightly different. The most noticeable difference is in the estimates associated with taxpayers who would be unable or unwilling to appear for an audit. The estimated amount of EITC claimed—and reported in this table as overclaims—for this category increased from about $925 million in tax year 1997 to about $2.1 billion in tax year 1999. When their EITC claims are treated as overclaims, this "no-show" group accounts for three percentage points of the 30.6 percentage point Overclaim Percentage for tax year 1997. In tax year 1999 it accounts for 6.6 percentage points of the 35.5 percentage point Overclaim Percentage. Thus approximately 3.6 percentage points of the 4.9 percentage point difference between 1997 and 1999, about 72 percent, is associated with this group.

The estimates in Table 4 also show a reduction in mathematical and clerical type errors—the "Errors corrected in processing only" group. These figures corroborate the decline in various EITC-related math errors that already had been observed in various IRS management information reports. While it is not possible to determine how much of the change is attributable to each of the various factors that influence math errors, IRS activities in two areas may have made a contribution to the decline. The revisions to the EITC publication and instructions focused on clarifying the eligibility requirements and credit calculation. Math error notices issued in prior years also likely prevented some taxpayers from making the same errors in subsequent years.

Table 4. EITC Overclaims by Type of Error, Estimates for Tax Years 1997 and 1999

	Returns				EITC Overclaims			
	Number(Thousands)		Percent		$ (Millions)		Percent	
	1997	1999	1997	1999	1997	1999	1997	1999
Total	8,445	9,321	100.0	100.0	9,275	11,118	100.0	100.0
Type of error unknown: (Taxpayer unwilling or unable to appear for audit)[1]	726	1,240	8.6	13.3	925	2,058	10.0	18.5
Type of error known	7,719	8,081	91.4	86.7	8,350	9,060	90.0	81.5
Subtotal: Type of Error Known	7,719	8,081	100.0	100.0	8,350	9,060	100.0	100.0
Child claimed is not taxpayer's qualifying child	1,078	1,316	14.0	16.3	2,053	2,253	24.6	24.9
Income reporting errors	2,943	3,366	38.1	41.7	1,301	1,940	15.6	21.4
Qualifying child is also a qualifying child of someone with higher modified AGI	944	874	12.2	10.8	1,585	1,557	19.0	17.2
Claimed single or head of household status; should have used married filing separately	654	702	8.5	8.7	974	971	11.7	10.7
Child claimed is not taxpayer's qualifying child and taxpayer claimed single or head of household status but should have used married filing separately	287	274	3.7	3.4	558	607	6.7	6.7
Errors corrected in processing only	937	735	12.1	9.1	745	587	8.9	6.5
All other errors and combinations	876	815	11.3	10.1	1,135	1,146	13.6	12.6

[1] These returns were not actually audited. Rather, they are taxpayers represented in the samples by the sample taxpayers who did not appear for audit and therefore had their EITC claims disallowed. In this table the entire amount claimed is reported as overclaims.
Detail may not add due to rounding.

In a separate analysis, we looked at various demographic and tax characteristics to evaluate whether changes in the composition of EITC claimants toward groups with higher error rates might account for some of the difference between 1997 and 1999. For this analysis, we obtained the three prior years of tax return data for both the tax year 1997 and 1999 sample returns. We used the four years of available information to categorize returns. Examples of some of the categorizations are “first-time” tax return filers versus non-first-time filer, “first-time” EITC claimant versus “cyclical” EITC claimant, and filing status. We developed estimates of the error rates for these groups and their share of the EITC claimant population to see whether the error rates were different across groups and whether there had been an increase between years in the share of EITC claimants with the higher error rate. Although the data suggest that there may be differences in error rates across groups, there is no indication of a shift in the composition of the EITC claimant population toward groups with higher error rates.

V. COMPLIANCE ACTIONS AND LEGISLATIVE CHANGES SINCE THE 2000 FILING SEASON

The tax year 1997 report discussed the IRS's EITC outreach, education, and enforcement activities. The efforts are ongoing. The two most noteworthy developments involve the Dependent Database Project and the EITC Preparer Outreach Program.

A test of the initial Dependent Database system design and algorithms was conducted at the Austin Service Center from March 2000 through May 2000. The test results suggested that the system is an effective tool for selecting returns with potential EITC errors. The results from the test were used to enhance the system and its rules. The system was implemented nationwide for the 2001 filing season to identify returns with potential EITC errors for pre-refund, correspondence (service center-based) audits. The system will be used again for the 2002 filing season for selecting returns for pre-refund audits. An evaluation of the system's effectiveness for identifying potentially erroneous EITC claims, including an assessment of its potential value in math error processing (as provided for in the *Economic Growth and Tax Relief Reconciliation Act of 2001*), currently is underway.

The EITC Preparer Outreach Program was extended for the 2001 filing season and is underway now for the 2002 filing season. A major enhancement for the 2002 filing season is the addition of a test component to the program. The outreach effort for a subgroup was developed with a test and control group design to assess better the impact of this type of effort.

Legislative changes to the EITC effective for tax years after 1999 may help improve EITC compliance. The *Ticket to Work and Work Incentives Improvement Act of 1999* created more objective standards for who could be considered an EITC foster child. The *Economic Growth and Tax Relief Reconciliation Act of 2001* (EGTRRA) made several simplifying changes to the EITC, which eventually may help improve compliance after taxpayers and tax preparers become familiar with the new law. Effective in 2002, EGTRRA substantially modified the AGI-tiebreaker rule making it simpler for both taxpayers to understand and IRS to administer. The new tiebreaker rule applies only if a child actually is claimed (and may be claimed) by two taxpayers. Under the new rule, if one taxpayer is a parent and the other is not (e.g., a grandparent residing with the child) the child will be treated as the qualifying child of the parent. If both parents are eligible to claim the child, then the child will be considered the qualifying child of the parent with whom he or she resided for the longest period of time during the year. Only if neither person is the parent or if the child resided with both parents for the same length of time, is a comparison of AGI made, with the child then deemed to be the qualifying child of the person with the highest AGI. The 1997 and 1999 study results show that between 17 percent and 19 percent of EITC overclaims are the result of errors with only the AGI tiebreaker rule. This change in law should have an impact on this component of overclaims by greatly reducing the circumstances in which the AGI tiebreaker rule is applicable.

The 2001 legislation also simplified the two major EITC income concepts beginning with 2002 tax returns. It eliminated nontaxable earned income from the definition of earned income and returned to using adjusted gross income instead of the modified adjusted gross income concept that has been in use since 1997. These changes will simplify the EITC calculation for taxpayers and reduce IRS administrative costs associated with these aspects of the law. During processing, IRS staff manually review Forms W-2 to identify omitted nontaxable earned income. IRS EITC math error management information reports for tax year 1999 indicated that about 179,000 taxpayers had not included nontaxable earned income from Form W-2, about 8,000 had included income that was not nontaxable earned income, and about 49,000 had erred in computing modified AGI.

The 2001 legislative changes also reduced the residency time requirement for EITC foster children. Beginning in 2002, foster children will be required to reside with taxpayers for over half the year (the same as with all other EITC eligible children), rather than twelve months as under prior law. EGTRRA also reduced the so-called “marriage-penalty” by gradually increasing the amount of the credit allowed for married taxpayers filing jointly between 2002 and 2008.

In addition, EGTRRA authorized the IRS to use math error authority to deny EITC claims if the Federal Case Registry (an element of the Dependent Database) indicates that the taxpayer is the noncustodial parent of the child claimed on the EITC. This provision, however, does not take effect until the 2004 filing season.

The effects of these recent legislative changes are not reflected in the results of the tax year 1999 study.

APPENDIX A: TAX YEAR 1999 EARNED INCOME TAX CREDIT

The EITC is available to certain individuals who work and whose *Earned Income* and *Modified Adjusted Gross Income* both are below certain limits. The EITC is a refundable tax credit, which means that the amount of the credit allowed to an individual first is applied as a payment against any income tax liability and any remaining amount is refunded to the claimant.

The amount of the credit allowed is based on *Earned Income*, *Modified Adjusted Gross Income*, and the number of EITC *Qualifying Children*. In general, *Earned Income* includes wages and net earnings from self-employment as well as nontaxable items such as 401(k) salary deferrals, military quarters and subsistence allowances, and clergy housing allowances. *Modified Adjusted Gross Income* is derived by adding back to *Adjusted Gross Income* certain loss amounts from Schedule C (Profit or Loss From Business-Sole Proprietorship), Schedule C-EZ (Net Profit From Business-Sole Proprietorship), Schedule D (Capital Gains and Losses), Schedule E (Supplemental Income and Loss), Schedule F (Profit or Loss From Farming), or the rental of personal property not used in a trade or business. The definition of a qualifying child is discussed below.

The maximum amount of the credit allowed to persons with a qualifying child or children is substantially larger than the amount allowed to persons without qualifying children. For tax year 1999 the maximum credit allowed to persons without a qualifying child was $347 versus the maximum amounts of $2,312 and $3,816 allowed to persons with one and two qualifying children respectively.

A. ELIGIBILITY CRITERIA FOR ALL CLAIMANTS

There are certain eligibility criteria that apply to all EITC claimants. As a first step in determining eligibility for the credit, all claimants must determine that they meet the following conditions:

1. The claimant must have earned income during the year.
2. The claimant's investment income cannot be more that $2,350.[1]
3. The claimant's filing status must be a status other than married filing separately.
4. The claimant, the claimant's spouse (if filing as married filing jointly), and all qualifying children must have Social Security Numbers (SSNs).[2]
5. The claimant and the claimant's spouse cannot be the qualifying child of another person.

[1] Investment Income for EITC purposes consists of both taxable and tax exempt interest; dividend income; capital gain net income; and certain royalty, passive activity, and rental of personal property income.

[2] For persons who are not U.S. citizens, the SSN must be associated with permission from the Immigration and Naturalization Service to work in the United States. The issuance of a SSN for the sole purpose of applying for or receiving federally funded benefits does not qualify the holder of the SSN to the EITC.

6. The claimant cannot file a Form 2555, Foreign Earned Income (or Form 2555-EZ, Foreign Earned Income Exclusion).
7. The claimant cannot be a nonresident alien for any part of the year unless the claimant is married to a U.S. citizen or resident alien and chooses to be treated as a resident for all of 1999.

B. ADDITIONAL ELIGIBILITY CRITERIA FOR CLAIMANTS WITH A QUALIFYING CHILD

Individuals who wish to claim the larger credit amounts allowed to persons with a qualifying child also must meet the following conditions:

1. Their *Earned Income* and *Modified Adjusted Gross Income* must each be less than $26,928 for a person with one qualifying child or less than $30,580 for a person with more than one qualifying child.
2. They must have a qualifying child as described below.
3. The qualifying child (children) cannot be the qualifying child (children) of another person who has a larger *Modified Adjusted Gross Income.*

A qualifying child for the EITC is a child who satisfies each of the following three eligibility tests:

1. Relationship Test *(The child must be the claimant's son, daughter, or their descendant; a stepchild; or an eligible foster child.)*
2. Residency Test *(The child must live with the claimant for more than half the year - the entire year for a foster child - in the United States.)*
3. Age Test *(The child must be under age 19 at the end of the year, or be under age 24 and a full time student, or be permanently and totally disabled.)*

C. ADDITIONAL ELIGIBILITY CRITERIA FOR CLAIMANTS WITHOUT A QUALIFYING CHILD

Individuals who want to claim the EITC without a qualifying child(ren) must satisfy the following requirements in addition to those outlined in A above:

1. Their *Earned Income* and *Modified Adjusted Gross Income* must each be less than $10,200.
2. The claimant (or the claimant's spouse if filing jointly) must be at least 25 years of age but less than 65 years at the end of the year.
3. The claimant must be able to claim an exemption for himself or herself (and his or her spouse if filing a joint return.)
4. The claimant's main home must have been in the United States for more than half the year.

D. AMOUNT OF THE CREDIT

The amount of the credit depends on a claimant's *Earned Income*, *Modified Adjusted Gross Income*, and number of qualifying children. In general, a claimant is entitled to a credit that is equal to the applicable *Credit Percentage* times the portion of his or her earned income that does not exceed the applicable *Earned Income Amount*. For claimants with income between the *Earned Income Amount* and the *Phaseout Amount*, the amount of the credit is constant and is equal to the *Credit Percentage* times the *Earned Income Amount*. The amount of the credit is further limited for a claimant whose *Earned Income* and/or *Modified Adjusted Gross Income* exceed the applicable *Phaseout Amount*. In these cases, the amount of the credit is reduced from the maximum credit (which equals the credit percentage times the *Earned Income Amount*) by an amount equal to the applicable *Phaseout Percentage* times the amounts of *Earned Income* or *Modified Adjusted Gross Income* (whichever is greater) in excess of the *Phaseout Amount*. Claimants do not actually calculate credit amounts using the credit and phaseout percentages; by law they are required to use look-up tables provided in their tax return packages.

The various credit and phaseout percentages and earned income and phaseout amounts differ by the number of qualifying children. Table A-1 lists the applicable information for tax year 1999 by number of qualifying children.

Table A-1. Tax Year 1999 EITC Percentages and Amounts

Number of Qualifying Children	Credit Percentage	Phaseout Percentage	Earned Income Amount	Phaseout Amount	Amount at Which Credit is Completely Phased Out	Maximum Credit
One Qualifying Child	34	15.98	$6,800	$12,460	$26,928	$2,312
Two or More Qualifying Children	40	21.06	$9,540	$12,460	$30,580	$3,816
No Qualifying Children	7.65	7.65	$4,530	$5,670	$10,200	$347

APPENDIX B: RESEARCH METHODS

The estimates presented in this report were developed using three major sources of information: (1) records of the audits of a sample of tax year 1999 returns with EITC, (2) tabulations from the EITC math error extract for tax year 1999, and (3) the Enforcement Revenue Information System (ERIS). The first source was used for estimating both the gross amount of EITC overclaimed and enforcement revenue. The latter two were used only for estimating enforcement revenue.

A. ESTIMATES OF THE AMOUNT OF EITC ERRORS

The population of 1999 returns from which the audit sample was selected consisted of returns on which the EITC had been claimed by the taxpayer. Each of the sampled returns was assigned weights that were used in developing estimates for the population from which the sample was drawn.

In general, the difference between the amount of EITC claimed by the taxpayer and the amount to which the taxpayer was entitled based on the examination and the information document review process was used to derive the error rate estimates. The exception was for cases where the taxpayer was either unwilling or unable to appear for the audit. Standard examination procedures resulted in the disallowance of the credit for these cases. However, because the agent never was able to meet with the taxpayer, there is uncertainty as to whether the amount claimed actually is overclaimed. It is possible that if the taxpayer had appeared for the audit, the examining agent might have determined that the taxpayer was entitled to some or all of the EITC claimed or—possibly—was entitled to additional credit.

To account for the uncertainty for these types of cases, we derived two sets of estimates using different assumptions about the compliance of these claimants. For one set, we assume that the entire amount claimed was overclaimed. This approach gives an upper bound on the error for these cases. For the other set of estimates, we assume that the compliance of the taxpayers who did not appear for the audit is the same as that of taxpayers who did appear. We call the first set of estimates the “upper-bound” estimates and the second set of estimates the “lower-bound” estimates.

B. ESTIMATES OF ENFORCEMENT REVENUE

The estimates of revenue protected from the adjustments made in processing (math error corrections) were developed from the EITC math error extract tabulations for tax year 1999 and the sample data. We allocated the aggregate amount of math error reported in the tabulations to the overclaim, correct, and underclaim return groupings using their respective shares of math errors estimated from the sample data. We then allocated the amount of EITC restored (abated) to taxpayers, as reported in the tabulations, by assuming that the math error identified on correct and underclaim returns would be restored in full. The remaining abatements were allocated to the overclaim returns.

For Service Center and District Office audits, we aggregated the amounts of disallowed EITC for those audit projects that focus on EITC returns; the data were supplied by the ERIS. We had information on both credit changes (increase and decreases) and collections of the credit for taxpayers with decreases in allowable credits through June 2001. We used comparable data from tax year 1997 to adjust the tax year 1999 data to account for cases that will close and collections that will be made after June 2001.

For the revenue from the Automated Underreporter Program (AUR) we used the sample data from the EITC study. All unreported income that could be detected by matching third-party income reports *was* detected for the study cases by the field examiners or by tax examiners in the Cincinnati Service Center. We assume that all wage, interest, dividend, State income tax refund, unemployment compensation, taxable social security, taxable IRA, and taxable pension and annuity income added to a return in the study was subject to detection in the regular underreporter program.

To estimate the amount of EITC that would have been disallowed by that program, we proceeded as follows. For each case in the study, we restored all return items, except the listed income types, to their state as reported by the taxpayer. We then recalculated the income tax liability and the EITC based on the resulting hybrid "return." We assumed that a certain percentage of these cases would be worked. For each of these cases we multiplied the excess of the reported EITC over the recalculated EITC by the weight for the case. The sum of these weighted differences is our estimate of the overclaimed EITC subject to recovery by the AUR. Because AUR is a post-refund program, we estimated that the IRS recovered about 50 percent of the amount of EITC overclaimed on returns.[1] This rate was selected based on a review of an April 2001 ERIS tabulation of Automated Underreporter Program results for tax years 1995 through 1999. For cases on which EITC was underclaimed, we counted the entire amount as negative enforcement revenue.

For examination of sample returns, we used the unweighted examination results. Because this program also froze refunds, we include the entire amount as enforcement revenue.

C. DATA SOURCES

1. Audit of a Sample of Tax Year 1999 Returns with EITC

a. Sample Design and Selection

A sample of returns on which the EITC was claimed was selected for review. The returns were computer selected using stratified random sampling.[2] These returns were selected at all ten IRS Service Centers from returns that cleared math error processing between January 18, 2000 and May 27, 2000.

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[1] In the tax year 1997 study, we assumed that only 25 percent of the amount of EITC overclaimed on returns was recovered. We increased the percentage to 50 percent based on additional information available for this study.

[2] This was accomplished by selecting returns for which the last four digits of the primary SSN matched one of a pre-selected set of numbers.

Paper and electronic returns were selected. The sample was drawn from individual income tax returns (Forms 1040/PC, 1040NR, 1040A, 1040EZ, 1040PR/SS) with an entry on the Earned Income Tax Credit line.

The strata codes, their definitions, and sample counts are presented in Table B-1. The final sample consisted of 1,688 electronically filed returns and 1,769 paper returns.[3] A breakdown of the sampled returns by Service Center and return format (paper versus electronic) is provided in Table B-2.

b. Return Review

The EITC amount claimed for each of the sampled returns was reviewed for accuracy. This involved audits of each return by district level examination staff, and subsequent review by tax examiners at the Cincinnati Service Center of the audit results in conjunction with information returns reports that were not available at the time of the audit. These activities took place as soon as possible after a return was selected for the sample.[4] To minimize the frequency of taxpayers not appearing for the subsequent audit, the service center tax examiners attempted to place a refund freeze on each taxpayer's account immediately after the selection of the return for the study.

c. Examination

For each of the returns selected, a case folder was assembled. It contained a copy of the return and other data from IRS masterfiles useful for checking the accuracy of the EITC. The completed case folder was shipped to the taxpayer's district for assignment within the Examination Division. The examination procedures stated that examiners were to have at least one in-person interview with the taxpayer. Examinations of returns with Schedule C businesses and Schedule F farms were to be conducted at the business location. The auditors used standard examination procedures in conducting the audits.[5] In addition to the standard reports and documents prepared during an audit, the examiners completed a questionnaire (checksheet) for the study. Upon completion of the audit, the examiner

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[3] Thirty-three cases originally selected for the sample were excluded for various reasons. This included 22 cases where the taxpayer could not be located and 11 cases that were excluded for other reasons (for example, the taxpayer had died.) These thirty-three cases are not included in the final sample count of 3,457.

[4] This discussion focuses on processes relevant to understanding the estimates presented earlier in the report. Although the study included various procedures for reporting and following up on refund fraud schemes detected during the study and on making adjustments to the claimants' income tax liabilities, these operational aspects of the study are not discussed in this report.

[5] There were 191 cases in which the taxpayers did not appear for the audit. These were cases where the taxpayer's address was known and some form of mail and/or telephone contact arranging an appointment with the taxpayer had been made, but the taxpayer did not appear for the appointment. The study procedures provided that every effort should be made to interview the taxpayers and that accommodation should be made to taxpayers who were unavailable during regular working hours, by scheduling weekend and evening appointments. These procedures authorized compensatory time and overtime pay for the study. In cases where taxpayers did not appear for an audit, standard examination procedures resulted in disallowance of the credit.

added the audit report, supporting work papers, and study checksheet to the case folder and sent the case to the district study coordinator for review. After the coordinators completed the case reviews, the cases were then sent to Oakland, California for quality review.

Table B-1. Tax Year 1999 EITC Compliance Study: Sample Strata

Strata	Description	Sample Count
1	Math Error EITC Filers with EITC per computer=$0 and EITC per taxpayer>$0	125
2a	Married Filing Jointly EITC Filers with EITC per computer>0 and no Schedule C attached or Combined Schedule C Profit/Loss per computer=$0	290
2b	Head of Household EITC Filers with EITC per computer>0 and no Schedule C attached or Combined Schedule C Profit/Loss per computer =$0	922
2c	Single, Married Filing Separately or Qualifying Widow/Widower EITC Filers with EITC per computer>0 and no Schedule C attached or Combined Schedule C Profit/Loss per computer =$0	266
3a	Married Filing Jointly EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer >$0	181
3b	Head of Household EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer >$0	281
3c	Single, Married Filing Separately or Qualifying Widow/Widower EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer >$0	169
4a	Married Filing Jointly EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer <$0	719
4b	Head of Household EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer <$0	348
4c	Single, Married Filing Separately or Qualifying Widow/Widower EITC Filers with EITC per computer>0 and Combined Schedule C Profit/Loss per computer <$0	156

Table B-2. Tax Year 1999 Earned Income Tax Credit Study: Number of Returns in Sample by Service Center and Return Format

	Return Format		
Location	Paper	Electronic	Total
Andover	104	253	357
Atlanta	191	NA	191
Austin	208	410	618
Brookhaven	140	NA	140
Cincinnati	184	317	501
Fresno	256	NA	256
Kansas City	168	NA	168
Memphis	161	373	534
Ogden	209	335	544
Philadelphia	148	NA	148
Total	1,769	1,688	3,457

d. Examination Quality Review

Examiners from the Northern California Quality Assurance Division reviewed each study case for completeness and accuracy. This review covered both the audit findings and study checksheets. The Quality Assurance Division staff attempted to resolve problems with cases using information present in the folders. Occasionally, the staff contacted the responsible district to obtain additional case information. In extreme circumstances, the Quality Assurance Division returned the case to the district for rework when the audit findings appeared to be unsupported or erroneous.[6] After completion of their review, the Quality Assurance Division sent the cases to the Cincinnati Service Center.

e. Post-Examination Activities at the Cincinnati Service Center

Because transcripts of information documents (Forms W-2 and 1099) do not become available until September of the year in which they are filed, these documents were not available to examiners during the examination of most cases in the study. Consequently, a primary activity of the tax examiners in the service center was to obtain and review this information to determine whether the claimants had reported on their returns all of the income reported by payers to IRS on the information documents. In cases where it appeared to the tax examiners that claimants had not reported all the income and this

[6] Study procedures called for the issuance of refunds on errors in the taxpayer's favor. If the errors reduced the amount of credit from that previously allowed, the results were recorded for study purposes but the audits were not reopened.

income had not been detected during the examination, the tax examiners adjusted the return line items to include the underreported income. The tax examiners then recomputed the returns, taking into account changes made by both the examiners and the tax examiners.

The tax examiners also searched IRS records for information the other adults with the same qualifying child as a taxpayer.[7] They obtained whatever IRP data were available on these individuals. They also printed RTVUEs for those other adults who filed returns but filed them after the District examiner conducted his or her audit.[8] This new information was used by staff during data perfection to reapply the AGI tiebreaker rule. The tax examiners also completed questionnaires developed for the study.

f. Data Collection and Review

For each of the sample returns, information from numerous sources was compiled into various computer data files to be saved for future analyses. There are three basic sources of data. The first is return line item information. The second is the checksheet information, and the third is IRS return transaction file information other than the tax return line information.

For return line items, up to four values of a particular return line item were captured. In general, these can be labeled the *per return*, *per IRS computer*, *per agent*, and *per best & final* values. The *per return* values reflect information reported by taxpayers on their tax returns and transcribed and processed by IRS.[9] The *per IRS computer* values reflect amounts calculated by IRS during return processing, carried on IRS data files, and used by IRS in calculating taxpayers' legal tax liabilities. These values reflect corrections made for math errors. The *per agent* values reflect the audit results. The *per best & final* reflect the audit results adjusted for changes to returns based on the tax examiners' reviews of the information documents. The *per return* and *per IRS computer* elements were obtained electronically from copies of IRS's Return Transaction File.[10] The *per agent* and *per best & final* data were developed by modifying the *per computer* data to reflect the auditor and tax examiner changes.

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[7] Because the audits were conducted as soon as possible after the returns were filed and many were underway prior to both the filing deadline and first extension deadline, other adults in the household may not have filed their returns by the time the audit was concluded.

[8] RTVUE is an IRS system command that obtains tax return line information collected during return processing. If the other adults with the same qualifying child as the taxpayer filed a tax return, we obtained printed copies of this information.

[9] In some cases, per return data may not reflect what the taxpayers actually wrote on the returns. During code and edit, IRS fixes obvious entry errors on the part of the taxpayer--for example, putting an amount on the wrong line. Also, the IRS occasionally makes errors in transcribing information from returns that are not corrected in subsequent processing.

[10] In one case, the computer record was not available. For this case, the data were transcribed from the RTVUE and a copy of the return.

The second group of data is the checksheet data. As previously mentioned both the auditors and the tax examiners completed checksheets. The responses to these checksheets were transcribed for the study into computer data files.

The final set of data is return transactions data other than return line information. Some examples of the types of fields included are date of birth information and SSN validation results. This information was obtained electronically.

The data files were run through various consistency check programs that identified potential data problems. The output of these programs was reviewed and corrections to the data files were made when errors in the data were found.

2. EITC Math Error Extract for Tax Year 1999

During processing, tax returns are checked for computational accuracy and missing or incomplete information. The amount of refund or tax due is correspondingly adjusted to reflect these changes. Taxpayers are assigned notice codes pertaining to the nature of the error on the return. Taxpayers are notified by letter of these adjustments and, if they disagree with IRS, are asked to submit documentation supporting the validity of their original claim. Many of these adjustments related to EITC taxpayer identification number errors are subsequently abated.

The EITC Math Error Extract for Tax Year 1999 is an extract of return and account information for returns that were assigned any of the EITC-related math error notice codes and selected dependent TIN math error notice codes. This extract of information is used to produce a management information report on these math error notice codes. The data in the report were used for developing the estimates of the amount of revenue protected in processing.

3. Enforcement Revenue Information System (ERIS)

ERIS is a management information system that accounts for revenues collected and costs incurred as a result of conducting IRS enforcement activities. It contains extracts of data from sources such as the Audit Information Management System (AIMS), the Information Reporting Program Case Analysis (IRPCA), and various IRS Master File systems. In this study we used data for Examination EITC-related project codes.

APPENDIX C: ALTERNATIVE ESTIMATES OF EITC ERRORS BY TYPE OF ERROR

Many taxpayers who claim EITC make more than one EITC error on their returns. This frequently creates ambiguity when dollar amounts of error are assigned to the various types of error. For example, consider a married taxpayer who files as head of household and claims EITC based on a qualifying child. If it is determined that the taxpayer should have filed under the married-filing-separately status, then the entire amount of EITC would be denied. On the other hand, if the child is found not to be the taxpayer's qualifying child, then some or all of the credit also could be denied for that reason. If the taxpayer is found to have committed both errors, then the full credit would be denied. If the amount that could be denied for each reason is attributed to that reason, then the amount denied to that taxpayer would be counted twice.

There are a number of ways of handling this problem. For example, estimates may be reported for returns with only particular errors, and for returns with combinations of errors. Alternatively, precedence may be assigned to the various errors. Table 2 of the main text of the report takes the first approach. Estimates are given for the most common types of errors where, for each type, no other error occurs on the return; such estimates are included for claiming a child that is not the taxpayer's qualifying child, filing single or head of household when the correct status is married filing separately, claiming a qualified child that is a qualified child of another person with higher modified AGI, and income reporting errors. Table 2 also provides estimates for one particular combination of errors: claiming a child that is not the taxpayer's qualifying child combined with filing as single or head of household when the correct status is married filing separately. Finally, estimates for all other particular errors and all other combinations of errors are reported together.

The following table primarily uses the second approach. The types of error are grouped under the headings “Eligibility Errors” and “Credit Amount Errors.” Eligibility errors are given precedence over credit amount errors. The first three categories of eligibility errors are grouped and ordered as the rules for EITC are listed in Chapters 1, 2, and 3 of IRS Publication 596 for tax year 1999. Errors related to the “Rules for Everyone” (Chapter 1 of Publication 596) are given precedence over the errors related to the “Rules If You Have a Qualifying Child” (Chapter 2) and “Rules If You Do Not Have a Qualifying Child” (Chapter 3). Within a group, precedence is assigned where necessary and is reflected in the order of the errors in the table. These three groups are followed by two categories of eligibility associated with the study itself. Errors related to the rules in Chapter 4 (“Figuring and Claiming the EIC”) of Publication 596 are shown under the heading “Credit Amount Errors.” Within this group, the table follows the first approach: the rows for “Income reporting error” and “Child claimed is not the taxpayer's qualifying child” reflect in each case taxpayers who made only that error. Combinations of these two errors are included in the “Other errors and combinations” row.

Table C-1. EITC OVERCLAIMS BY TYPE OF ERROR, ALTERNATIVE ESTIMATES FOR TAX YEAR 1999

	Returns		**EITC Overclaims**	
	Number (thousands)	Percent	$Millions	Percent
Eligibility Errors				
Rules for Everyone				
Claimed single or head of household status; should have used married filing separately	1,187	13	2,013	18
Does not satisfy at least one of the remaining eligibility rules for everyone	266	3	338	3
Additional Rules for EITC with Qualifying Child				
Correct income over limit for EITC with qualifying child(ren)	593	6	762	7
Qualifying child is also qualifying child of someone with higher modified AGI	832	9	1,504	14
Other[1]	90	1	167	2
Additional Rules for EITC without a Qualifying Child				
Child claimed is not the taxpayer's qualifying child and taxpayer does not meet all requirements for EITC without qualifying child(ren)	873	9	1,636	15
Claimed EITC without qualifying children but does not meet all requirements	299	3	54	0
Other	73	1	31	0
Error corrected in processing[2]	463	5	542	5
Taxpayer unwilling or unable to appear for audit[3]	1,240	13	2,058	19
Credit Amount Errors				
Income reporting error	2,557	27	1,095	10
Child claimed is not the taxpayer's qualifying child	541	6	817	7
Other errors and combinations	56	1	67	1
Error corrected in processing[2]	260	3	42	0
Total[‡]	9,321	100	11,118	100

[1] Other includes issues such as the qualifying child does not have an SSN valid for employment or the taxpayer did not provide documentation.

[2] To be comparable to the tax year 1997 table this row includes stratum 1.

[3] These 1.2 million taxpayers were not actually audited. Rather, they are taxpayers represented in the sample by 165 taxpayers who did not appear for audit and therefore had their EITC claims disallowed. In this table the entire amount of EITC claims is reported as an overclaim.

Detail may not add to total due to rounding.

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