

GAO

Report to the Chairman and the Ranking  
Minority Member, Subcommittee on  
Health, Committee on Ways and Means,  
House of Representatives

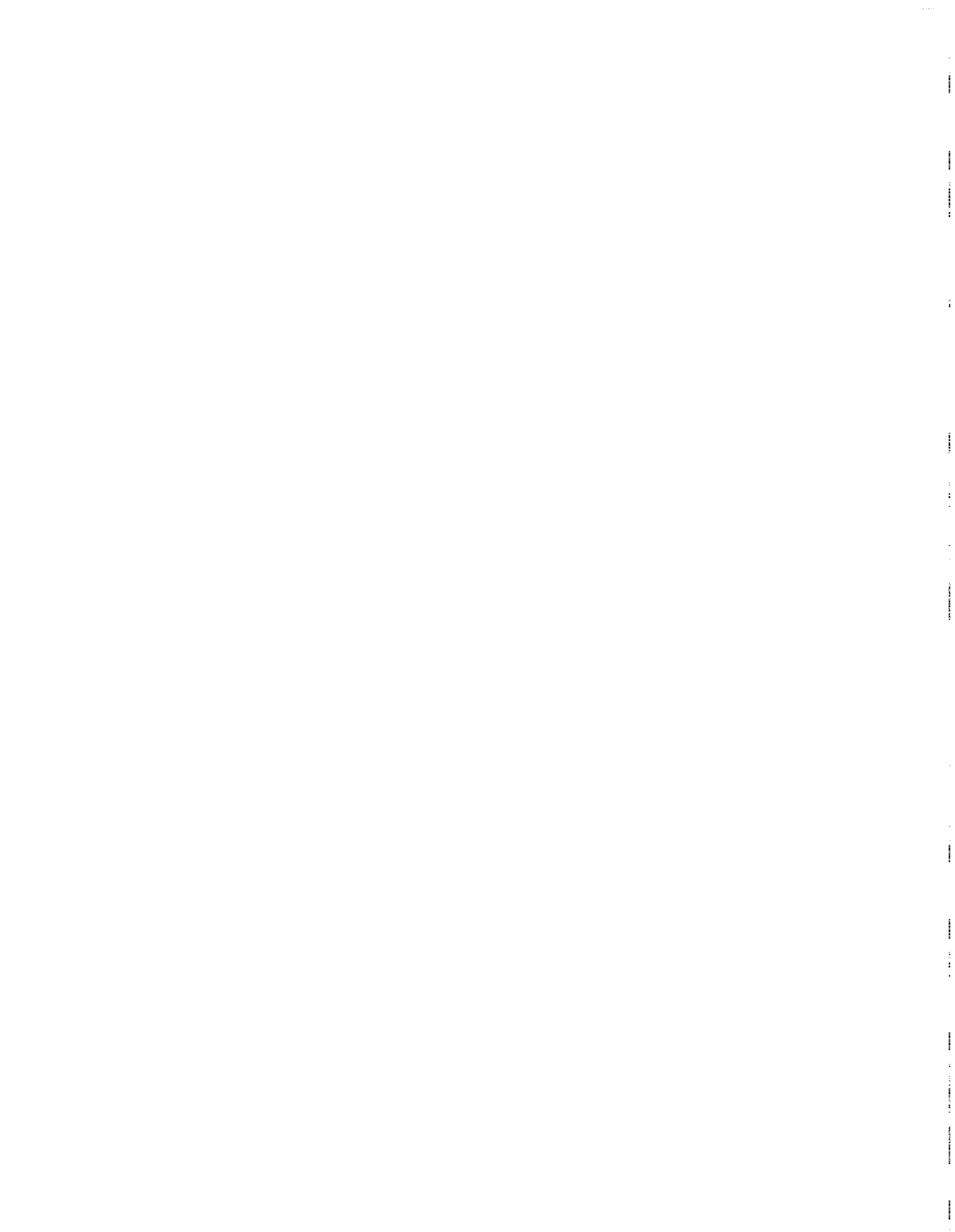
April 1994

## TAX POLICY

# Health Insurance Tax Credit Participation Rate Was Low



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General Government Division

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May 2, 1994

The Honorable Fortney H. (Pete) Stark, Chairman  
The Honorable William Thomas, Ranking Minority Member  
Subcommittee on Health  
Committee on Ways and Means  
House of Representatives

This report completes our work on your request for information on the health insurance tax credit, which was established to encourage low-income workers to purchase private health insurance coverage for their families. You asked us to describe the administration of the health insurance tax credit and to study the effect of the tax credit on the purchase of health insurance. Our September 1991 fact sheet on the administrative aspects of the health insurance tax credit responded to the first part of your request.<sup>1</sup> This report responds to the second part on the effect of the credit on the purchase of health insurance by low-income families.

This report discusses (1) the estimated participation rate, in part to determine whether the potentially eligible population was aware of the health insurance credit; and (2) the health insurance tax credit's influence on low-wage workers' purchase of health insurance. The observations in this report are based on data from two random samples of tax year 1991 tax returns claiming the earned income tax credit, responses from a postcard survey mailed to taxpayers in the sample, interviews with 48 potentially eligible earned income credit taxpayers, and reviews of several independent studies. Only the data from our samples of tax returns may be generalized to the population of taxpayers who claimed the earned income tax credit and the health insurance tax credit.

During our work on this request, the health insurance tax credit was repealed by the Omnibus Budget Reconciliation Act of 1993. We discussed our preliminary findings with your staff and they requested that we complete this work, as much of the information would be helpful in discussions on health care reform.

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## Results in Brief

There is no clear measure of the size of the population eligible for the health insurance credit. However, on the basis of comparisons between the Census Bureau's Current Population Survey (CPS) and Internal

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<sup>1</sup>See Tax Administration: Administrative Aspects of the Health Insurance Tax Credit (GAO/GGD-91-110FS, Sept. 12, 1991).

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Revenue Service (IRS) data, we estimated that about one-quarter of those who potentially were eligible actually claimed the health insurance credit in 1991. We identified two reasons for this: (1) those eligible may not have been aware of the credit, and (2) the credit may not have been sufficient to encourage them to purchase insurance coverage.

Our study indicated that a lack of awareness may have prevented more eligible taxpayers from taking the health insurance credit. IRS conducted an extensive outreach campaign in 1991 and 1992 regarding the basic Earned Income Tax Credit (EITC), but it did not emphasize the health insurance credit per se in its awareness-raising efforts. The Center on Budget and Policy Priorities (CBPP), a low-income advocacy group that has also promoted the basic EITC, likewise did not give much attention to the health insurance credit in its outreach efforts. Our interviews with a small sample of low-income taxpayers suggested that they were unaware of the health insurance credit, and they may have learned about it only after purchasing insurance coverage.

Income was the major factor determining whether a family purchased health insurance. Our analysis of randomly selected tax year 1991 tax returns showed that EITC recipient families with annual incomes above \$10,000 were 3.4 times more likely to pay for health insurance than those with incomes below \$10,000. This analysis also showed that those with only one employer, rather than several, were more likely to receive the health insurance credit.

We found that the health insurance credit reimbursed only a small percentage of taxpayers' reported costs of health coverage. Also, other studies have found a low response to health insurance subsidies. Therefore, the health credit, as it existed, probably did not provide much incentive to encourage families to purchase insurance if they otherwise would not have done so. The maximum health insurance credit available in 1991 was \$428. Our analysis of tax year 1991 tax returns showed that the health insurance credit paid, on average, \$233, or 23 percent, of the average reported health insurance premium of \$1,029 for credit recipients. This \$1,029 average annual premium for recipients represented only a fraction of the total cost of employer-provided health insurance, because employers generally pay a significant part of the cost. A limited number of studies by other researchers that have addressed this issue have similarly found that income was the primary determinant of whether individuals purchased health insurance, and neither individuals nor employers were very responsive to health insurance subsidies.

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## Background

The Omnibus Budget Reconciliation Act of 1990 provided an additional credit to taxpayers who qualified for the EITC and contributed toward the purchase of health insurance for a qualifying child.<sup>2</sup> The health insurance credit was intended to offer an incentive to low-income (EITC-eligible) taxpayers to purchase health insurance coverage for their children. Even taxpayers with no tax liability could receive the credit in the form of a tax refund. The law took effect on January 1, 1991.

For tax year 1991 over 13.3 million taxpayers received approximately \$9.9 billion in basic EITC payments, while about 2.3 million also received health insurance credits totalling \$496 million. The Omnibus Budget Reconciliation Act of 1993 revised the provisions of the EITC and repealed the health insurance credit effective December 31, 1993.

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## Eligibility for the Credit

Qualified health insurance expenses for which the credit was available were premiums paid during the tax year for health insurance coverage that included one or more qualifying children. These expenses included only those relating to the cost of coverage. Thus, medical expenses such as co-payments or other deductibles, as well as other out-of-pocket medical expenses, were not qualified as health insurance expenses.

In addition, qualified insurance expenses did not include amounts paid by an employee who contributed to his or her employer-sponsored health plan on a pretax basis. For example, employees who made contributions toward health insurance through flexible benefit plans paid taxes on gross wages less those contributions. Such contributions did not qualify for the health insurance tax credit. However, if the employee contributed to an employer-sponsored plan an amount that was included in taxable income, that amount was eligible for the credit.

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## Calculating the Credit

The health insurance credit was calculated on the basis of a taxpayer's earned income. For tax year 1991, over the phase-in range (incomes between \$1 and \$7,100), the credit was 6 percent of earned income. In the second range, for earned incomes between \$7,100 and \$11,250, the credit remained at its maximum (\$428). In the last range, for higher earned incomes (\$11,250 through \$21,250), the credit phased out at a rate of 4.285 percent of earned income and disappeared for earned incomes of more than \$21,250.

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<sup>2</sup>In order to be a qualifying child, an individual must satisfy a relationship test, a residency test, and an age test.

The allowable credit was limited to no more than the actual cost to the taxpayer of premiums paid for family coverage. Thus, the credit was limited to the lesser of the amount calculated by the taxpayer on the basis of earned income or the actual qualified health insurance expenses. For example, a person with earned income of \$6,500 and one qualifying child for whom the taxpayer was paying \$30 a month (\$360 per year) in health insurance premiums could have received a health insurance credit of no more than \$360. In this example, the maximum health insurance credit allowed was \$392, but the credit was limited to the actual amount paid (\$360).

## Limited Participation in the Health Insurance Credit

IRS data show that 2.3 million low-income taxpayers received the health insurance credit in tax year 1991. An unpublished Employee Benefit Research Institute (EBRI) analysis of the Census Bureau's 1992 CPS estimated that almost 9 million low-income families could have qualified for the health insurance credit in 1991, based on their eligibility for the EITC and having had private health coverage. We used the IRS data on the number of taxpayers who received the credit and the EBRI estimate of the eligible population to estimate the health insurance credit participation rate of about 26 percent in 1991. This was significantly lower than the participation rate for the basic EITC, which was estimated to be between 80 and 86 percent in 1990.<sup>3</sup>

We obtained from EBRI a tabulation of the 1992 CPS, which estimated that about 8.8 million families appeared to meet the eligibility requirements for the health insurance credit in 1991 (see table 1).<sup>4</sup> Because CPS does not track the number of people who qualify specifically for the health insurance credit, we used a tabulation of CPS data to estimate the number as accurately as possible. This figure actually reflects, based on CPS definitions, the number of families that had a worker with an adjusted gross income under \$21,250; had children under age 18; and had private health insurance at some time in 1991. These parameters do not match precisely with the Internal Revenue Code's eligibility criteria for the health insurance credit. For example, CPS families are not the same as taxpayers

<sup>3</sup>See Scholz, John Karl. "The Earned Income Tax Credit: Participation, Compliance and Antipoverty Effectiveness." Institute for Research on Poverty, Discussion Paper No. 1020-93. University of Wisconsin, Madison (August 1993).

<sup>4</sup>The CPS is conducted monthly by the Bureau of Census and provides data on employment status, income, and other characteristics of families across the United States. In the March 1991 supplement to the survey, interviewers asked questions regarding families' health insurance status. It is from the CPS that GAO and research institutes collect most of their demographic and statistical information of this nature on the U.S. population.

units, children shown as part of a family in CPS may not be qualifying children according to the eligibility criteria, CPS does not track whether families paid for health insurance or whether insurance was extended to children in the household, and CPS measures income somewhat differently from the Code. Due to inadequacies in the data, we were unable to determine the extent to which each of these differences may over- or undercount the population potentially eligible for the health insurance credit. (See app. I.)

**Table 1: Potentially Eligible Health Insurance Credit Population in 1991**

	Millions of families	Percent of total
Private coverage		
Employer coverage <sup>a</sup>	7.8	63.4
Other private coverage	1.0	8.1
<b>Total private coverage</b>	<b>8.8</b>	<b>71.5</b>
No health insurance	3.5	28.5
<b>Total</b>	<b>12.3</b>	<b>100.0</b>

Note: Sampling errors associated with EBRI tabulations of the 1992 CPS are less than plus or minus 6 percent at the 95 percent confidence level.

<sup>a</sup>Employer coverage is that provided in some way, either directly or indirectly, through one's employer. The data do not indicate to what degree health care premiums are subsidized by employers.

Source: Employee Benefit Research Institute Unpublished Tabulation of the 1992 CPS Information.

According to IRS data, 2.3 million taxpayers received the health insurance credit in 1991. If, according to EBRI tabulations of CPS data, 8.8 million families were eligible for the health insurance credit, the participation rate for tax year 1991 was only 26 percent, which is significantly lower than the participation rate for the basic EITC, which was estimated to be between 80 and 86 percent in 1990.<sup>5</sup>

An alternative to estimating the participation rate in the program is to look at the credit's success in terms of the target population (families who qualified for the credit as well as those without insurance who theoretically would be encouraged to purchase coverage as a result of the credit's availability). We defined the target population as all low-income (EITC-eligible) taxpayers with children; the credit was intended to offer an incentive to encourage taxpayers to purchase health insurance coverage for their children. According to EBRI tabulations of CPS data, 3.5 million

<sup>5</sup>Scholz, John Karl, op. cit.

potentially eligible families were uninsured in 1991 (see table 1). If this total were added to the 8.8 million families who were potentially eligible and had privately provided health coverage in that year, the target population would have been 12.3 million. With this 12.3 million as the denominator, the health insurance credit would have had a participation rate of only 19 percent. Given either scenario, the health insurance credit participation rate was significantly lower than the participation rate for the EITC, which was estimated to be between 80 and 86 percent of the eligible population in 1990.<sup>6</sup>

## Limited Outreach May Have Affected Awareness and Participation

Lack of outreach specifically pertaining to the health insurance credit may have resulted in low taxpayer awareness of the credit. Because the health insurance credit was first offered in 1991, extensive outreach efforts would have been required to inform low-income taxpayers of the credit's availability. IRS' outreach efforts regarding the EITC were extensive in 1991 and 1992, as were those conducted by the CBPP low-income advocacy group, but neither outreach program emphasized the health insurance credit.

IRS officials in various divisions said that while IRS has promoted the EITC widely, it was not active in promoting the health insurance credit. IRS' annual business plans for 1991 and 1992 dictated that the agency conduct a major outreach program regarding the EITC in those years. IRS promoted the EITC nationwide through various channels and under the coordination of several IRS divisions. IRS' EITC outreach efforts included radio, television, and newspaper advertisements; posters and mail stuffers; coverage in Publication 596 and on various federal tax forms; question and answer columns and tax information supplements in newspapers; and a folder of information distributed to Volunteer Income Tax Assistance sites and other interest groups for use in their outreach efforts or for distribution to potentially eligible taxpayers themselves. The outreach materials providing more detailed information on the EITC (such as the folder of information distributed to volunteers and IRS Publication 596) also described the two supplemental credits (the health insurance and young child credits), or they at least mentioned that these credits were available to qualifying taxpayers. IRS did not promote the health insurance credit independently from the EITC. According to one IRS official, the health insurance credit was not promoted independently because the first criterion in qualifying for the health insurance credit is EITC eligibility.

<sup>6</sup>Scholz, John Karl, op.cit.



CBPP also conducted an extensive nationwide EITC awareness-raising campaign in 1991 and 1992 but, like IRS, promoted the health credit only secondarily. The co-coordinator of the EITC outreach campaign at CBPP told us that although the EITC is widely supported by low-income advocacy groups and appears to have a high participation rate, the health insurance credit did not receive such support. Because CBPP was not a strong proponent of the health insurance credit, it did not actively promote the credit.

CBPP did not support the health insurance credit for several reasons, according to the EITC campaign co-coordinator. First, he said that the health insurance credit made it more difficult to teach people about the EITC and made the EITC more complicated for low-income taxpayers. In addition, he believes the credit did not subsidize health insurance costs sufficiently to encourage families to purchase health insurance. Finally, IRS did not monitor the quality of health insurance coverage being reimbursed by the credit. The CBPP was also concerned that health insurance providers would take advantage of the availability of the health insurance credit to offer "flimsy" health insurance policies to low-income families specifically to qualify them for the credit.<sup>7</sup>

## Low Level of Awareness of the Health Insurance Credit

A lack of awareness may have been a contributing factor for the low participation in the health insurance credit in 1991. In March and April 1993, we interviewed taxpayers at IRS taxpayer service sites in six cities regarding their awareness of the health insurance credit.<sup>8</sup> Of the 233 taxpayers screened, 48 said they qualified for the EITC. Of those, 35 said they were unaware of the health insurance credit. Those taxpayers who were aware of the credit typically learned about it from the Schedule EIC while they completed their tax returns.<sup>9</sup> At that point, only those who had already paid for health coverage could claim the credit. If taxpayers learned of the credit's availability only when completing their tax returns, it was too late for the credit to have any impact on their decisions to purchase health insurance for the prior year.

<sup>7</sup>The Oversight Subcommittee of the House Committee on Ways and Means held hearings on March 4, 1993, to discuss the sale of inferior policies to low-income families and potential abuses of the health insurance credit.

<sup>8</sup>The taxpayers interviewed were selected at random from those who happened to walk into the selected IRS service sites while we were there.

<sup>9</sup>Not all EITC recipients filed the Schedule EIC (see table II.1). Prior to tax year 1991, IRS awarded the basic EITC to taxpayers who appeared to qualify for the credit regardless of whether they filed a Schedule EIC or not. In tax year 1991, IRS began sending a form letter requesting additional information from taxpayers not filing the Schedule EIC who appeared to qualify for the credit.

Responses to our nationwide postcard survey sent in May and June of 1993 (including follow-up) to 1,839 randomly selected EITC recipients from our basic EITC only and health insurance credit samples<sup>10</sup> also indicated a lack of awareness. About one-third of basic EITC only recipients who responded to the survey (128 out of 366 responding) indicated that they had family health insurance at some time in 1991 but did not claim the health insurance credit.<sup>11</sup> (See app. I for a detailed discussion of the methodology.) We believe possible explanations for this are that (1) they were unaware of the credit, (2) they had insurance for a short period of time and did not include it when the tax return was prepared, and (3) they may not have actually qualified for it because the employer paid the full cost of family coverage. However, on average, 75 percent of workers employed by companies that offered health benefits paid some portion of the cost for family coverage in 1990.<sup>12</sup> Thus, it was unlikely that many of the 128 respondents who indicated they had family insurance coverage some time during the year worked for employers that paid 100 percent of the cost of their family coverage. Therefore, many of these 128 respondents probably paid some part of their family health insurance coverage and did not claim the health insurance tax credit for which they were eligible. Either they were unaware of the credit, or they had health insurance for only a short period of time and did not include it when they prepared their returns.

## Subsidies May Not Increase Health Insurance Coverage Among Low-Income Population

Taxpayers' income, not subsidies, was the major difference between those taxpayers who claimed the credit and reported having health insurance and taxpayers not claiming the health insurance credit. Analysis of our two samples of 1991 tax returns revealed significant differences between taxpayers who claimed the basic EITC only in 1991 and those who claimed the health insurance credit in that year. Both income and number of employers were sources of differences as to whether or not taxpayers claimed the health insurance credit and, we assume, had health insurance coverage. The most important difference was income.

<sup>10</sup>Our two samples of returns were randomly selected from the universe of 13.3 million taxpayers who received the EITC for tax year 1991. Throughout this report, we refer to those who received the EITC but not the health insurance credit as the "EITC only" population (10,982,192 taxpayers), even though they may have received other supplemental credits, such as the young child credit. We refer to taxpayers who received the EITC as well as the health insurance credit as the "health insurance credit population" (2,247,032 taxpayers).

<sup>11</sup>These results are based on postcards mailed to 928 basic EITC only recipients, 366 of whom responded.

<sup>12</sup>This figure is based on the Health Insurance Institute of America's 1990 Employer Survey. The survey results are given at the 95-percent confidence interval with a sampling error of plus or minus 2 percent.

## Income Is Most Significant Difference Between EITC and Health Credit Recipients

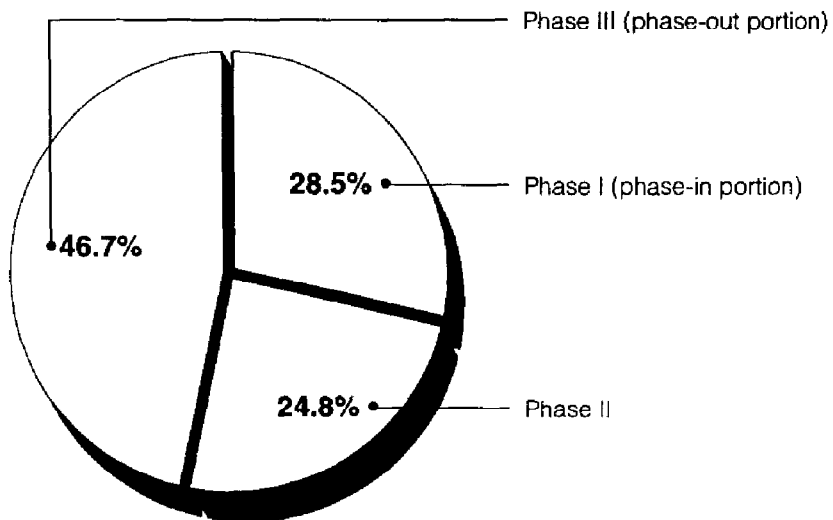
Analysis of our samples of tax year 1991 tax returns showed that adjusted gross income (AGI) was the most significant factor determining whether or not a taxpayer would have claimed the health insurance credit. EITC taxpayers with AGIs greater than \$10,000 were 3.4 times more likely to have claimed and received the health insurance credit in 1991 than those with incomes below \$10,000.

The health insurance credit recipient population had an average AGI 29.8 percent higher than that of the EITC only population (\$14,019 compared with \$10,799, respectively, as shown in table II.2).<sup>13</sup> AGI varied by the IRS region in which taxpayers lived. However, despite regional variation, the difference between the AGIs reported by the EITC only and health insurance credit populations was statistically significant at the national level as well as in each individual region. AGI is the only variable we studied that was statistically significantly different between the two populations in every region. Although taxpayers in IRS' North-Atlantic region paid the highest average premiums (\$1,254) because they had the highest average AGI, their average health insurance credit reimbursement was low (\$209, or 17 percent). Conversely, although taxpayers in the Southeast region had the lowest average health care premiums (\$924) because they had the lowest average AGI, their average reimbursement rate was higher (\$250, or 27 percent). (Tables II.3 and II.7 highlight the differences in demographics between the EITC and health insurance credit populations by IRS region.)

The higher average income among the health insurance credit recipient population also accounts for a greater distribution of this group in the "phase-out" portion of the EITC. (As discussed earlier, with AGIs greater than \$11,250 the EITC began to "phase out" and became \$0 for AGIs of more than \$21,250.) Our analysis of samples of tax year 1991 tax returns shows that both the EITC only and health insurance credit recipient populations fell predominantly in the phase-out portion of the EITC cycle (AGIs greater than \$11,250). However, the proportion was much greater for the health insurance credit population: 47 percent of the EITC only population fell in the phase-out portion, compared with 73 percent of the health insurance credit population (see figs. 1 and 2).

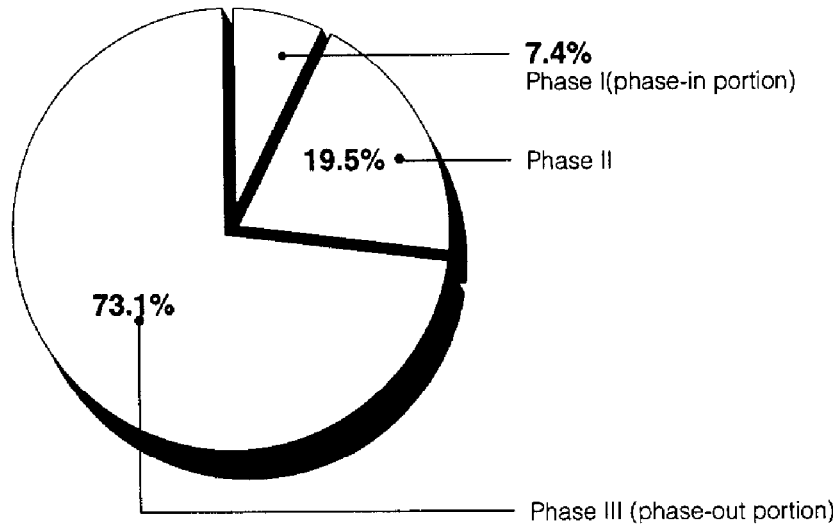
<sup>13</sup>All estimates derived from our samples of tax returns are given at the 95 percent confidence interval with associated sampling errors of less than plus or minus 10 percent, unless otherwise stated.

**Figure 1: Distribution of EITC Recipients by Phase of EITC Cycle (1991)**



Source: GAO random sample of 957 EITC recipients in 1991.

**Figure 2: Distribution of Health Insurance Credit Recipients by Phase of EITC Cycle (1991)**



Source: GAO random sample of 942 health insurance credit recipients in 1991.

Another factor differentiating between the two populations that helps to explain why one group claimed and received the credit and presumably had health insurance while the other did not was the number of employers reported on tax returns. The health insurance credit recipients were more likely to have one employer (60 percent) than EITC only recipients (54 percent). (See tables II.1 and II.2.)

In our samples of tax year 1991 tax returns, taxpayers who were self-employed were 1.5 times and taxpayers with one employer were 1.3 times more likely to have received the health insurance credit than those with multiple employers. Thus, the number of employers taxpayers worked for over the course of a year appeared to have an impact, although less significant than AGI, on the likelihood that they would have health insurance.

Taxpayers with more than one employer may be more likely to be working part-time or on a temporary basis for several employers. Such workers are

less likely to be offered health coverage by their employers than those working full-time for one employer.

We looked at other demographic characteristics, such as number of dependents and taxpayer filing status, to see if they differed between the two populations and may have had an impact on whether taxpayers purchased health insurance or not. (See table I.1.) However, these differences did not help to explain why one group claimed the health insurance credit while the other did not.

### Health Insurance Credit Probably Does Not Encourage Low-Income Families to Purchase Health Coverage

Health insurance coverage for individuals is not generally available in small, incremental packages, and individuals therefore must incur large premiums to obtain coverage. However, employer-subsidized coverage usually significantly reduces the cost to the covered employee. According to the Health Insurance Association of America, the average cost of individually purchased family health insurance under an employer-sponsored plan was \$4,260 in 1991.<sup>14</sup> According to this source, the average employer subsidy of family insurance coverage, if any, was about 72 percent of the insurance premium, depending on the type of plan offered. The Association also reported that in 1991, 77 percent of all employees worked in firms offering health insurance (although about 11 percent of full-time employees and 86 percent of part-time employees were ineligible for their employers' plans). Forty-two percent of firms offered some type of health insurance to employees in 1990.<sup>15</sup>

Because the health insurance credit reimbursed recipients for a small percentage of their reported health insurance costs, we believe the credit did not likely encourage many families to purchase coverage. Although we could not determine from our analysis whether the health insurance credit actually increased coverage among low-income families, several studies we reviewed indicated that subsidies of health insurance premiums, offered to either individuals or employers, were not likely to increase coverage greatly.

<sup>14</sup>Health Insurance Association of America figures presented in this report are based on the Association's 1990 and 1991 nationwide Employer Surveys. At the 95 percent confidence level, the sampling errors for the 1990 and 1991 surveys are plus or minus 2 percent.

<sup>15</sup>This percentage varied by type, location, and size of industry. For example, only 32 percent of retail trade firms offered health coverage, compared with 55 percent of manufacturing firms. Thirty-five percent of firms in the South offered health coverage to employees, compared with 51 percent in the Northeast. Only 27 percent of firms with fewer than 10 employees offered health benefits to workers.

The average health insurance premium reported by health insurance credit recipients in our 1991 sample was \$1,029, and the average health insurance credit received by our sample population was \$233. (See table II.2.) Four taxpayers out of 942 in our sample reported insurance premiums in 1991 below \$25, and 1 reported a premium of \$6,060. However, almost all (88 percent) of those in our sample of health credit recipients reported premiums under \$2,000: 61 percent reported premiums under \$1,000, and 80 percent reported premiums under \$1,500. Thirty-six taxpayers in our sample received \$20 or less in credit, based on their AGIs and reported insurance premiums, while 113 taxpayers received the maximum credit of \$428. The health insurance credit reimbursed an average of 23 percent of taxpayers' reported costs of coverage.

### Other Studies Indicated Income Was Key Factor Influencing the Purchase of Insurance

The studies we reviewed also indicated income was the key factor influencing an individual to purchase insurance. In addition, some studies investigated whether subsidizing health insurance costs would increase demand for the insurance. The subsidies studied appeared to have little effect, whether they were in the form of reductions in premium prices for individual policies or for employers who offered coverage to their employees.

Two studies by a researcher then at the Urban Institute,<sup>16</sup> which address the demand for health insurance, indicated that income was the prime factor affecting demand for health insurance coverage: the higher a family's income, the greater the demand for health insurance. One study based on a model of the demand for individual, nongroup, health insurance found that income was the primary determinant of whether individuals purchased nongroup health insurance. A hypothetical 28-year-old, married, white male living in Maryland was found to have a 25-percent chance of purchasing self-pay, nongroup insurance if his income was below \$5,000; a 30-percent chance with income between \$5,000 and \$10,000; a 42-percent chance with income between \$10,000 to \$20,000; and a 57-percent chance with income above \$20,000.

This study found that such factors as the individual's age, race, marital status, frequency of employment turnover, and level of risk aversion, as well as the presence of children, each affected demand, but to a lesser

<sup>16</sup>Katherine Swartz, "The Demand for Self-Pay Health Insurance: An Empirical Investigation." Unpublished, June 1988; Katherine Swartz, "Characteristics of Workers Without Employer-Group Health Insurance." *Trends in Health Benefits*, July 1989, pp. 101-114.

extent than income.<sup>17</sup> This study also indicated that older individuals were more likely to buy health insurance, as were those who were caucasian, married, had one full-time job, were highly risk-averse, and had children. However, none of these factors showed as great an impact on demand for health insurance as did income. The other study on workers' characteristics corroborated these findings.

### Studies Also Indicated That Subsidies May Have Had Little Effect on Coverage

The Urban Institute researcher's study on demand for health insurance showed that significant reductions in the price of premiums for self-pay, nongroup health insurance did not greatly increase the low-income individual's demand for health insurance coverage.<sup>18</sup> According to the study, about 40 percent of adults would purchase nongroup health insurance for themselves or their families, assuming actual health insurance premiums. A subsidy of 10 percent of the premium amount would increase coverage by 1.0 percent, and a subsidy equal to 75 percent of the cost of coverage probably would increase coverage by about 13 percent. Thus, subsidies in this range would appear to have little effect on the purchase by individuals of nongroup health insurance policies.<sup>19</sup>

A study by RAND, a nonprofit policy analysis research institution, and funded by the U.S. Department of Labor in large part supported these findings.<sup>20</sup> This study estimated that about 50 percent of all families not offered health insurance coverage through their employers would purchase coverage on their own. According to this study, the figure is lower for low-income families: only 20 percent of families with incomes below \$5,000 in 1988 would have purchased coverage on their own. Overall, families' demand for health insurance appeared to increase as subsidies reduced the price of coverage, although low-income families were far less responsive to subsidies than those at higher income levels. The study concluded that large subsidies would be required to increase

<sup>17</sup>We were not able to test for most of these variables in our analysis because such information as age, race, and level of risk aversion are not included in tax returns.

<sup>18</sup>In the recent study, *Tax Incentives and the Decision to Purchase Health Insurance: Evidence from the Self-Employed*, Jonathan Gruber and James Poterba found that subsidies may have a significant effect on the demand for health insurance coverage among higher income workers. The study supports our principal finding that income is the primary factor affecting the demand for coverage. (Working Paper No. 4435, National Bureau of Economic Research, Cambridge, MA, August 1993.)

<sup>19</sup>For the same hypothetical man mentioned above, with all other factors held constant, the probability of his purchasing insurance went up only slightly as his premium dropped in price. This man had a probability of purchasing insurance of 0.40 if his premium was \$120 per month, compared to 0.43 if the premium was halved to \$60 per month.

<sup>20</sup>M. Susan Marquis and John L. Buchanan, "Subsidies and National Health Care Reform: The Effect on Workers Demand for Health Insurance Coverage," in *Health Benefits and The Workforce*. U.S. Department of Labor, Washington, D.C., 1992. pp. 85-92.



participation rates significantly, and many workers may still not purchase coverage due to low income levels.

Another study by two senior economists at RAND investigated individuals' purchases of group insurance, i.e., the supply and demand for health insurance among workers.<sup>21</sup> This study found that most workers (82 percent) were employed by firms that offered health insurance to employees. Of those, 2 percent did not take the employer-provided coverage and did not have insurance coverage from other sources. Those who did not take the employer-provided coverage were largely low-wage, young workers who worked predominantly part-time in small firms or on a seasonal or temporary basis. Thus, they were less able to afford the cost of coverage and refused offers for coverage even if subsidized by employers. These economic and demographic characteristics matched those of the 18 percent of workers who were not offered insurance by employers, suggesting that they, too, were unlikely to purchase health insurance even if subsidized. The authors concluded that although tax credits or subsidies "may stimulate some additional purchase of insurance," such mechanisms are unlikely to do very much.

Subsidies of up to 50 percent of insurance costs offered to employers similarly may not increase their provision of health insurance to low-income workers. A study published in the Journal of the American Medical Association evaluated whether small employers (with under 20 employees) who did not provide health insurance to employees would do so if given a 50-percent reduction (subsidy) in the price of coverage.<sup>22</sup> The researchers found that in the first year the subsidy was offered (1988), it resulted in a 3.5 percentage point increase in the number of small employers surveyed that began offering insurance and had not offered insurance in the preceding year.<sup>23</sup> Over time, the researchers estimated that the subsidy may increase the number of firms offering insurance by as much as 16.5 percent. However, the authors believed this to be an upper limit of the subsidy's impact, and they noted that even under ideal conditions, these results highlighted the limitations of voluntary programs to increase employer coverage.

<sup>21</sup>Long and Marquis, "Gaps in Employer Coverage: Lack of Supply or Lack of Demand?" Health Affairs, Supplement 1993, pp. 282-293. This study was based on the 1988 CPS and addressed the supply and demand for health insurance among workers.

<sup>22</sup>Thorpe, et.al. "Reducing the Number of Uninsured by Subsidizing Employment-Based Health Insurance: Results From a Pilot Study." Journal of the American Medical Association, February 19, 1992, pp. 23-30.

<sup>23</sup>These findings are based on a 1989 survey of 1,006 small employers in New York State, 485 of which did not offer insurance in the preceding year.

Researchers directing The Robert Wood Johnson Foundation's Health Care for the Uninsured Program found that most small employers (generally with 25 or fewer employees) were not willing to offer health insurance to their employees even if premium reductions of 25 to 50 percent of prevailing rates were offered.<sup>24</sup> The primary reasons cited by employers for not offering coverage were the high cost of doing so, the high cost to employees (because small groups are seen as higher risk by insurers), and employees (often low-wage or temporary) not demanding coverage.

A study performed by RAND and funded by the U.S. Department of Labor suggested that small employers may be more responsive to subsidies than indicated by the Robert Wood Johnson researchers.<sup>25</sup> This study reported that 41 percent of small employers currently offered insurance to employees. They estimated that the percent of small firms offering coverage would increase by about 6 percentage points with a 5-percent subsidy and an additional 6 percentage points for each added 5-percent subsidy, up to 20 percent. However, they concluded that moderate subsidies of 15 percent, for example, would make "only modest progress in reducing the number of firms who do not insure their workers."

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## Objectives, Scope, and Methodology

Our objectives were to (1) estimate the participation rate, in part to determine whether the population of low-income taxpayers was aware of the health insurance credit; and (2) assess whether the health insurance credit influenced low-income families to purchase health insurance.

To estimate the participation rate, we used the 1992 CPS, which contained 1991 data, for information on the uninsured population and the number of families who were potentially eligible for the health insurance credit in 1991. We reviewed other data sources, the Survey of Income and Program Participation and Current Population Survey, for example, and we used data tabulations from the EBRI to estimate the size of the population that might have qualified for the health insurance credit in 1991.

To explore the awareness of the health insurance credit among the potentially eligible population, we interviewed staff at the Center on Budget and Policy Priorities (CBPP) and IRS officials in various divisions

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<sup>24</sup>W.D. Helms, et. al. "Mending the Flaws in the Small-Group Market." *Health Affairs*, Summer 1992, pp. 7-27.

<sup>25</sup>Arleen Leibowitz and Michael Chernew, "The Firm's Demand for Health Insurance," in *Health Benefits and The Workforce*. U.S. Department of Labor, Washington, D.C., 1992. pp. 77-83.

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regarding their health insurance credit outreach efforts. We also screened 233 taxpayers who were visiting IRS taxpayer service sites in San Francisco, Atlanta, Philadelphia, Albany, Cincinnati, and Chicago over a period of 1 day; and we interviewed 48 of these taxpayers who said they were eligible for the EITC.

To examine the influence of the health insurance credit on low-income taxpayers' purchase of health coverage, we analyzed data from two statistically random samples of tax year 1991 tax returns. (See app. I for a detailed discussion of the methodology used.) To identify differences between individuals who claimed the credit and those who did not, we obtained information on the demographic characteristics of taxpayers who received the basic EITC only (957 taxpayers in our sample) and those who received the EITC and the supplemental health insurance credit (942 taxpayers in our sample).<sup>26</sup> We did not verify the accuracy of information contained in the tax returns, nor did we verify the adequacy of the health insurance policies purchased by health insurance credit recipients.

We also sent a nationwide postcard survey to 928 basic EITC only and 911 health insurance credit recipients from our samples of 1991 returns in order to determine (1) if respondents had health insurance and whether it was purchased through their employers or individually; and (2) if respondents were employed and, if so, whether employment was full- or part-time.<sup>27</sup> Finally, we gathered information from studies on the price of health insurance nationwide and the effect of prices on the demand for health insurance to determine if subsidies lowering the price of health insurance were likely to increase coverage rates. (See app. II for the detailed results of our analysis.)

In order to learn about the health insurance credit and studies pertaining to the credit, we reviewed relevant literature and interviewed U.S. government officials and experts in the fields of health policy and health insurance. We discussed the information in this report related to IRS with an Assistant to the Commissioner who agreed with the basic message as it affected IRS. We conducted our field work between January 1993 and September 1993, in accordance with generally accepted government auditing standards.

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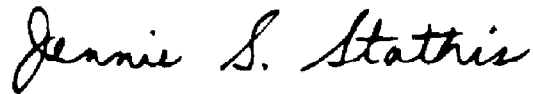
<sup>26</sup>The estimates presented in this report, which we developed from our two random samples of taxpayers, are given as point estimates and have associated sampling errors of plus or minus 10 percent of the given estimate at the 95 percent confidence level, unless otherwise indicated.

<sup>27</sup>We did not send postcards to 60 of the 1,899 of the sample taxpayers in our sample because they were under IRS review or audit.

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We plan no further distribution of this report until 30 days after its issuance date, unless you publicly release its contents earlier. After 30 days, we will send copies to various congressional committees, Members of Congress, the Secretary of the Treasury, and other interested parties.

Major contributors to this report are listed in appendix III. Please contact me on (202) 512-5407 if you have any questions about the report.



Jennie S. Stathis  
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**Abbreviations**

AGI	Adjusted Gross Income
CPS	Current Population Survey
CBPP	Center on Budget and Policy Priorities
EBRI	Employee Benefit Research Institute
EITC	Earned Income Tax Credit
IRS	Internal Revenue Service

# Sampling and Data Analysis Methodology

This appendix describes the methodology we used to determine the participation rate in the health insurance tax credit and the factors affecting demand for health insurance. Information is included concerning (1) selection of our tax return sample, (2) analysis of tax return data, (3) the use of CPS and IRS data to estimate the health insurance credit participation rate, and (4) administration of the postcard survey.

## Selection of Tax Return Sample

We obtained from IRS a computer tape containing the names and Social Security Numbers of 13.3 million taxpayers who received the EITC for tax year 1991, including about 2.3 million who also received the health insurance credit in that year. We stratified the 13.3 million EITC recipients into 2 groups: group A, which received the basic EITC and the health insurance credit (2.3 million taxpayers); and group B, which received the basic EITC only (11 million taxpayers). We selected 2 statistically random samples of tax returns—1,000 from group A and 1,000 from group B. We requested from IRS the original tax returns selected for our sample. IRS was not able to locate 59 of the returns, which reduced our sample size to 1,941.

We eliminated 42 of the selected tax returns from our samples because of incomplete or conflicting data on the tax returns. Thus, we conducted our data analysis on the remaining 1,899 tax returns: 957 from the universe of basic EITC only recipients and 942 from the universe of those who received both the EITC and the health insurance credits.

Estimates listed in this report show point estimates developed on the basis of random sampling. Because we used random samples of returns from the universe of taxpayers who received the EITC in 1991, we also computed sampling errors to assess the reliability of results. Point estimates by themselves are not adequate representations of statistical results because the population value being estimated can fall within a range around the point estimate. Accordingly, we calculate range estimates, also known as confidence intervals, to indicate the precision of the estimate. The range estimate, designated as the confidence interval, is computed by adding and subtracting the sampling error from the point estimate.

For the point estimates displayed in this report, the sampling error amounts to less than plus or minus 10 percent of the estimate at the 95 percent confidence level, unless otherwise stated. For example, a point estimate of 26 percent has an associated sampling error of less than plus or minus 2.6 percentage points. Thus, we can say that we are 95-percent



confident that the population value being estimated is somewhere in the range between 23.4 percent and 28.6 percent. There is a 5-percent chance that the value being estimated is outside the stated range for the populations of basic EITC only or health insurance credit recipients.

## Analysis of Tax Return Data

We used logit analysis, a form of loglinear modeling, to test associations between the independent variables (taxpayer demographic characteristics) and the outcome of whether or not the taxpayer received the health insurance credit. We performed statistical significance tests to see whether the variables differed between the samples of basic EITC only and health insurance credit recipients and computed expected frequencies for each taxpayer characteristic to determine which factors appeared to be influential in determining whether a family received the health insurance credit in 1991. We then computed odds ratios to determine the likelihood of a taxpayer receiving the health credit, given the various demographic characteristics (such as number of dependents, taxpayer filing status, etc.).

The objective of the multivariate analysis was to determine which variables, after we controlled for the effects of other variables, had statistically significant relationships with the outcome. To accomplish this, we compared a series of logit models that allowed for associations among the independent variables but varied in terms of the effects of the independent variables on the outcome. We began with a base model that postulated no association between the variables and the outcome, and we built a series of hierarchical models varying one variable at a time. For each model tested, we chose the one that fit most closely with the data. In the final model, the only two variables that showed a significant effect were adjusted gross income and number of employers. The expected frequencies obtained from the preferred model were used to estimate the odds on receiving the health credit and the odds ratios to indicate how greatly those odds varied by income and number of employers. Using the odds ratios, we were able to determine to what extent one outcome was more likely than another given a set of demographic characteristics (e.g., how much more likely one taxpayer was to receive the health credit than another, given their AGIs). Table I.1 shows the expected case frequencies, odds, and odds ratios.

**Appendix I  
Sampling and Data Analysis Methodology**

**Table I.1: Expected Case Frequencies, Odds, and Odds Ratios Based on the AGI, Number of Employers Model, and Filing Status**

Adjusted gross income	Number of employers	Taxpayer filing status	EITC only cases	EITC & health credit cases	Odds on receiving health credit	Odds ratios: employer effect	Odds ratios: AGI effect
<\$10,000	0 <sup>a</sup>	HH	15.516	8.484	.5468	1.52	1.00
		MFJ	16.163	8.837	.5468	1.52	1.00
	1	HH	157.472	75.528	.4796	1.33	1.00
		MFJ	58.799	28.201	.4796	1.33	1.00
	2	HH	77.359	26.641	.3444	.96	1.00
		MFJ	20.084	6.916	.3444	.96	1.00
3	HH	46.336	16.664	.3596	1.00	1.00	
	MFJ	24.271	8.729	.3596	1.00	1.00	
≥\$10,000	0 <sup>a</sup>	HH	10.076	18.924	1.8782	1.52	3.43
		MFJ	14.245	26.755	1.8782	1.52	3.43
	1	HH	192.255	316.745	1.6475	1.33	3.44
		MFJ	83.474	137.526	1.6475	1.33	3.44
	2	HH	66.424	78.576	1.1830	.96	3.43
		MFJ	64.133	75.867	1.1830	.96	3.43
	3	HH	24.157	29.843	1.2354	1.00	3.44
		MFJ	53.235	65.765	1.2354	1.00	3.44

**Legend**

HH=Head of household  
MFJ=Married filing jointly

Note 1: The numbers displayed in this table are expected frequencies based on the preferred model from the categorical data analysis.

Note 2: The observed data that gave rise to these expected frequencies excluded 45 (out of 1,899 total) cases involving persons whose filing status was 'single,' as their number was too small to include in these multivariate analyses.

<sup>a</sup>Majority with 0 employers had a Schedule C or F attached to the return indicating the taxpayer was self-employed. Other cases in this group did not indicate the source of their income.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

According to this model, an EITC recipient was 3.4 times more likely to receive the health insurance credit if the taxpayer's AGI was \$10,000 or more than if the AGI was less than \$10,000. EITC recipients with a single employer were also 1.3 times more likely to claim the health insurance credit than taxpayers showing multiple employers (regardless of the taxpayer's AGI).

## Use of CPS and IRS Data to Estimate Participation Rate

We used the 1992 CPS, containing 1991 data, for information on the uninsured population and the number of families who appeared to be eligible for the health insurance credit in 1991. As mentioned previously the CPS is conducted monthly by the Census Bureau and collects primarily labor force data on the civilian noninstitutional population. CPS interviewers poll about 60,000 households across the country regarding their income, employment, and other issues throughout each year. In the March supplement to the annual survey, interviewers ask questions regarding families' health insurance status. The CPS provides a cross-sectional ("snapshot") view of families' insurance status; the survey does not provide information on changes in health insurance status over the previous year or on the duration of coverage. A positive response to the CPS March supplement questions regarding health insurance coverage denotes at least some coverage during the previous year.<sup>1</sup>

We obtained a tabulation of the 1992 CPS from the Employee Benefit Research Institute (EBRI) showing that 8.8 million families appeared to meet the eligibility requirements for the health insurance credit in 1991. This figure reflected the number of families that had a worker; reported an AGI under \$21,250 (the eligibility ceiling for 1991); had at least one child under age 18; and reported having private health insurance at some time in 1991. These characteristics do not match exactly with the IRS eligibility criteria because CPS and IRS do not use the same definitions of key variables (such as taxpayers and families), and they track demographic characteristics somewhat differently.

Several caveats must be considered in using CPS data to estimate the size of the population eligible for the health insurance credit and in comparing CPS figures to IRS data on the population that actually received the credit. First, sampling errors must be considered in using the CPS (or any other sample survey). Interviewing techniques, the way in which various answers are interpreted, respondents' inability to recall information, errors in imputing missing responses, and errors in tabulating and processing responses account for nonsampling variability, the extent of which is not known. Some researchers believe that these errors have resulted in what appears to be underreporting of income in the CPS, particularly in relation to IRS estimates of income. Unreported income in CPS data would result in overestimation of the size of the population eligible for the health insurance tax credit, which would cause the participation rate estimate to be too low. Second, CPS counts families in

<sup>1</sup>However, some researchers believe that those surveyed may respond to the question with information concerning their current health insurance status rather than their status during the survey period (the previous year).

such a way that its figure may significantly underrepresent the number of families or taxpayers eligible for the health insurance credit. CPS counts all related members of a household as one family, although there may be more than one taxpaying unit for EITC purposes in each CPS family.<sup>2</sup> This would cause a participation rate estimate to be too high. Third, CPS defines children (either “own” or “related”) as those under age 18 and uses no residency test.<sup>3</sup> In determining eligibility for the health insurance credit, the Code defines qualifying children as those under age 19 (or under age 24 if full-time students) who lived in the household for more than 6 months of the tax year (12 months for eligible foster children) that bear a certain relationship to the taxpayer. The impact of these differences on the estimated size of the eligible population is unknown. Fourth, CPS does not track whether insurance coverage is extended to children, nor whether the householder paid a premium for coverage. As a result, the CPS figure may overestimate the eligible population because only those otherwise-eligible taxpayers who actually paid a premium for health insurance and extended coverage to one or more qualifying children would be eligible to claim the health insurance credit.<sup>4</sup> To the extent this overestimates the eligible population the estimated participation rate would be too low. Finally, what CPS considers to be household income differs slightly from the definition of earned income used in determining EITC and health

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<sup>2</sup>CPS defines families as two or more individuals living together in a household who are related by birth, marriage, or adoption. One family member is the householder. Two or more people living in the same household who are related to one another, but not related to the householder, form an unrelated subfamily and are not included in the count of families by CPS. If a subfamily is related to the householder (e.g., a young married couple living with the husband's or wife's parents, or the daughter and grandchild of the householder), the members of the related subfamily are counted as members of the householder's family. Households are defined as all the persons who occupy a housing unit. A household includes the related family members and all unrelated persons living in the household.

<sup>3</sup>CPS defines “own” children in a family as sons and daughters, including stepchildren and adopted children, of the householder. “Related” children include “own” children and all other children living in a household who are related to the householder by blood, marriage, or adoption. CPS does not require that a child live in a household for a certain period of time to be considered a child of that householder.

<sup>4</sup>Statistics from the Health Insurance Association of America, “The Health Insurance Tax Credit and Medicaid Expansion: Eligible Populations” (Washington, D.C., 1991) indicate that in 1990 approximately 25 percent of those working for employers who offered health benefits paid nothing for their family coverage. If this holds true for the low-income population, our EBRI estimate of the eligible population would have to be reduced by 25 percent (because a taxpayer who paid nothing for coverage is ineligible for the health credit). HIAA data also show that the low-income population tends to work for employers (especially small firms) and in industries (retail and service sectors, for example) that are less likely to offer health benefits to employees.

insurance credit eligibility.<sup>5</sup> However, the CPS definition of income fits closely with the definition of AGI. Thus, we believe the different definitions of income are immaterial in the comparison of CPS and IRS data for our purposes. Although we know there are biases in the various data sources, we were unable to determine their net effect.

## Administration of Postcard Survey

In May and June 1993 (including follow-up), we sent a postcard survey to 1,839 taxpayers (928 basic EITC only recipients and 911 health insurance credit recipients) from our samples of tax year 1991 tax returns.<sup>6</sup> The postcard survey asked two two-part questions of taxpayers: (1) At any time during 1991 or 1992, did any children living in your home (age 18 or younger) have health insurance? and (2) In 1991 and in 1992, were you employed? The possible answers to question 1 were as follows: health coverage bought through my/my spouse's employer; health coverage bought by me/my spouse on our own; or no health insurance. For question 2, possible answers were as follows: employed mostly full-time; employed mostly part-time; or mostly unemployed. We sent out 2 mailings of the postcard survey, the first to all 1,839 taxpayers and the second to those who did not respond to the first mailing. We received responses from 810 taxpayers: 366 (39.4 percent) from our sample of EITC recipients and 444 (48.7 percent) from our sample of EITC only and health insurance credit recipients. (See tables I.2 through I.5.)

The overall response rate of the postcard survey was 44 percent, which was not sufficient to allow us to project the survey results over the entire population of EITC only and health insurance credit recipients. Therefore, we did not weight the responses in order to estimate what the results would indicate for the sample as a whole. However, we found that the characteristics of the population that responded to the postcard survey were for the most part similar to the characteristics of the 1,839 taxpayers in our sample population. One exception pertains to AGI: We found that the postcard respondent population of the basic EITC only recipients had a higher average AGI than the sample population overall. The postcard

<sup>5</sup>For the purposes of EITC and Health Credit eligibility, earned income includes the following: wages, salaries and tips; union strike benefits; long term disability benefits; self employment earnings; voluntary salary deferrals; U.S. combat pay and military subsistence allowance; meals and lodging provided by employers; anything of value received for services performed. CPS data include all of the above as income, as well as accrued interest on retirement accounts.

<sup>6</sup>We did not send postcard surveys to 60 of the 1,899 sample taxpayers used in our analysis because they were under IRS audit at the time of our review.

Appendix I  
Sampling and Data Analysis Methodology

respondent population showed an average AGI of \$11,806, compared to \$10,799 for the entire basic EITC only sample population.

**Table I.2: Postcard Survey Responses for 1991, for Taxpayers Who Received the Basic EITC Only**

Source of family coverage	Employed mostly full-time	Employed mostly part-time	Mostly unemployed	Total
Employer sponsored	80	16	8	104
Purchase own coverage	20	1	3	24
No health insurance	148	43	36	227
<b>Total</b>	<b>248</b>	<b>60</b>	<b>47</b>	<b>355<sup>a</sup></b>

<sup>a</sup>Eleven EITC only respondents did not answer all questions and are not captured in this matrix.

Source: GAO postcard survey.

**Table I.3: Postcard Survey Responses for 1992, for Taxpayers Who Received the Basic EITC Only**

Source of family coverage	Employed mostly full-time	Employed mostly part-time	Mostly unemployed	Total
Employer sponsored	83	14	7	104
Purchase own coverage	18	5	3	26
No health insurance	137	40	50	227
<b>Total</b>	<b>238</b>	<b>59</b>	<b>60</b>	<b>357<sup>a</sup></b>

Nine EITC only respondents did not answer all questions and are not captured in this matrix.

Source: GAO postcard survey.

Appendix I  
Sampling and Data Analysis Methodology

**Table I.4: Postcard Survey Responses for 1991, for Taxpayers Who Received the EITC and Health Insurance Credit**

Source of family coverage	Employed mostly full-time	Employed mostly part-time	Mostly unemployed	Total
Employer sponsored	219	10	22	251
Purchase own coverage	96	10	10	116
No health insurance	34	15	23	72
<b>Total</b>	<b>349</b>	<b>35</b>	<b>55</b>	<b>439<sup>a</sup></b>

<sup>a</sup>Five health insurance credit respondents did not answer all questions and are not captured in this matrix.

Source: GAO postcard survey.

**Table I.5: Postcard Survey Responses for 1992, for Taxpayers Who Received the EITC and Health Insurance Credit**

Source of family coverage	Employed mostly full-time	Employed mostly part-time	Mostly unemployed	Total
Employer sponsored	210	10	15	235
Purchase own coverage	90	9	8	107
No health insurance	46	16	35	97
<b>Total</b>	<b>346</b>	<b>35</b>	<b>58</b>	<b>439<sup>a</sup></b>

<sup>a</sup>Five health insurance credit respondents did not answer all questions and are not captured in this matrix.

Source: GAO postcard survey.

# Supplemental Tables

The tables in this appendix provide additional details on GAO's analysis of the EITC and health insurance credit recipient populations. We provide this data based on their potential usefulness in the ongoing health care reform debate. These tables are based on our two nationwide statistical random samples of tax year 1991 tax returns. The EITC only population sample consisted of 957 tax returns, and the health insurance credit sample consisted of 942 tax returns. Our sample data is projectable over the 1991 EITC only population of about 11 million families, or the 1991 health insurance credit population of about 2.2 million families. Data in these tables can be projected to the appropriate population at a 95 percent confidence level with associated sampling errors of less than plus or minus 10 percent, unless otherwise stated.

Table II.1 presents information pertaining to the two samples. The demographic characteristics are presented for each sample population separately and include data on adjusted gross income stratified in \$5,000 increments; type of return filed; preparer of sample tax returns; filing status of sample taxpayers; number of employers shown on sample tax returns; number of sample taxpayers who filed supplemental IRS schedules or forms; and the number of sample returns analyzed from each IRS region.

**Table II.1: Demographic Characteristics of EITC and Health Insurance Credit Recipients in GAO Samples**

Tax year 1991				
Demographic characteristic	EITC only sample		Health insurance credit sample	
	Number	Percent	Number	Percent
Adjusted gross income:				
Less than \$5,000	169	17.7	36	3.8
\$5,000 to \$9,999	274	28.6	145	15.4
\$10,000 to \$14,999	283	29.6	330	35.0
\$15,000 or more	231	24.1	431	45.8
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
Type of return filed:				
1040 (paper return)	250	26.1	285	30.3
1040A	367	38.4	294	31.2
1040 (electronic)	340	35.5	363	38.5
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
Preparer of return:				
Taxpayer/spouse	446	46.6	472	50.1
Paid preparer	505	52.8	465	49.4
Other	6	0.6	5	0.5

(continued)



**Appendix II  
Supplemental Tables**

Tax year 1991

Demographic characteristic	EITC only sample		Health insurance credit sample	
	Number	Percent	Number	Percent
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
Filing status:				
Married	325	34.0	368	39.1
Head of household	599	62.6	562	59.7
Single	33	3.5	12	1.3
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
Number of employers:				
None shown	57	6.0	63	6.7
One	513	53.6	567	60.2
Two	236	24.7	191	20.3
Three	72	7.5	68	7.2
Four	56	5.9	32	3.4
Five	9	0.9	32	3.4
More than five	14	1.5	7	0.7
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
IRS Region:				
North-Atlantic	77	8.0	85	9.0
Mid-Atlantic	97	10.1	98	10.4
Southeast	237	24.8	314	33.3
Central	90	9.4	98	10.4
Southwest	160	16.7	135	14.3
Midwest	93	9.7	121	12.9
Western	203	21.3	91	9.7
<b>Total</b>	<b>957</b>	<b>100.0</b>	<b>942</b>	<b>100.0</b>
Schedules filed: <sup>a</sup>				
Schedule EIC	903	94.4	930	98.7
Schedule A	50	5.2	66	7.0
Schedule C or F	107	11.2	164	17.4
Form 2441	78	8.2	172	18.3

Note: Percentages may not add to 100 due to rounding.

<sup>a</sup>Taxpayers may file any or all of these schedules. Therefore, the figures do not add to 100 percent.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

**Appendix II  
Supplemental Tables**

Table II.2 shows the averages of each of the key variables in the two samples. The most significant difference between the two groups was AGI; however, the number of employers was also statistically significant.

**Table II.2: Averages of Key Variables**

Tax year 1991		
Demographic characteristic	EITC only population	Health credit population
Adjusted gross income	\$10,799	\$14,019
Number of children claimed	1.4	1.5
Number of dependents claimed	1.7	1.7
Number of employers	1.6	1.5
Number of W-2 forms submitted	1.7	1.5
Credits received:		
Basic EITC	\$784	\$719
Health insurance credit	<sup>a</sup>	\$233
Young child credit	\$228	\$234
Child care credit	\$500 <sup>b</sup>	\$443
Cost of health coverage claimed	<sup>c</sup>	\$1,029

Note: Averages based on sample data.

<sup>a</sup>EITC only population did not receive the health insurance credit.

<sup>b</sup>The sampling error for the average child care credit received by EITC recipients is plus or minus 14 percent.

<sup>c</sup>EITC only population did not report health coverage costs.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

Table II.3 shows AGI in \$5,000 increments and the proportion of each sample that fell into the AGI categories, by IRS region. The highest and lowest average AGIs for both the EITC only and health insurance credit recipient populations in tax year 1991 were found in the IRS North-Atlantic and Southeast regions, respectively. Despite regional variation, the difference between the AGIs reported by the EITC only and health insurance credit populations was statistically significant at the national level as well

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as in each individual region. Sampling errors associated with regional estimates are all less than plus or minus 11.5 percent for the EITC population and 9 percent for the health insurance credit population.

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**Table II.3: Adjusted Gross Income Distribution for Basic EITC Only and Health Insurance Credit Recipients in GAO Samples, by IRS Region**

Tax year 1991

Region and credit	Adjusted gross income								Total Number
	Less than \$5,000		\$5,000 to \$9,999		\$10,000 to \$14,999		\$15,000 or more		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>Sample total</b>									
EITC	169	17.7	274	28.6	283	29.6	231	24.1	957
Health credit	36	3.8	145	15.4	330	35.0	431	45.8	942
<b>North-Atlantic</b>									
EITC	13	16.9	17	22.1	23	29.9	24	31.2	77
Health credit	2	2.4	12	14.1	23	27.1	48	56.5	85
<b>Mid-Atlantic</b>									
EITC	14	14.4	32	33.0	23	23.7	28	28.9	97
Health credit	2	2.0	11	11.2	45	45.9	40	40.8	98
<b>Southeast</b>									
EITC	45	19.0	72	30.4	73	30.8	47	19.8	237
Health credit	12	3.8	59	18.8	115	36.6	128	40.8	314
<b>Central</b>									
EITC	17	18.9	24	26.7	26	28.9	23	25.6	90
Health credit	5	5.1	13	13.3	34	34.7	46	46.9	98
<b>Southwest</b>									
EITC	29	18.1	41	25.6	54	33.8	36	22.5	160
Health credit	5	3.7	25	18.5	41	30.4	64	47.4	135
<b>Midwest</b>									
EITC	16	17.2	22	23.7	26	28.0	29	31.2	93
Health credit	7	5.8	16	13.2	37	30.6	61	50.4	121
<b>Western</b>									
EITC	35	17.2	66	32.5	58	28.6	44	21.7	203
Health credit	3	3.3	9	9.9	35	38.5	44	48.4	91

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

The difference between the incomes of taxpayers who received the EITC only and those who received the health insurance credit is illustrated by looking at the two groups in terms of federal poverty levels (see table II.4). Fifty-four percent of the EITC only population fell below the federal poverty level in 1991, compared with 29 percent of the health insurance credit recipient population. Eighty-three percent of the EITC only population lived below 150 percent of the poverty level in 1991, compared with 69 percent of the health insurance credit population (see table II.6).

Because of the difference in magnitudes of the potential credit, the EITC (maximum \$1,235) had a much greater impact on taxpayers' after tax AGIS than the health insurance credit (maximum \$428). Unlike the EITC, which benefits many recipients by raising their after tax AGIS above the poverty level, the health insurance credit was not large enough to have such an impact. When we included the EITC amount in taxpayers' AGIS, the percentage of those living below the poverty level declined (see table II.4). The EITC brought 7 percent of both EITC only and health insurance credit recipients (or nearly 1 million taxpayers) above the federal poverty level in 1991. The health insurance credit only decreased slightly the percentage of health insurance credit recipients living below poverty. One percent of health insurance credit recipients (or about 22,000 taxpayers) were brought above the poverty level as a result of the health insurance credit. Adding the supplemental young child and child and dependent care credits to taxpayers' AGIS, however, did not increase AGIS enough to lift the status of any of those in our sample above the poverty level.

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**Table II.4: Impact of EITC and Supplemental Credits on Recipients' Poverty Status**

Tax year 1991		
	Percent of EITC only population below poverty level	Percent of health insurance credit population below poverty level
AGI	54	29
AGI+EITC	47	22
AGI+EITC+HIC <sup>a</sup>	47	21
AGI+EITC+HIC <sup>a</sup> +YCC	47	21
AGI+EITC+HIC <sup>a</sup> +YCC+CARE	47	21

Legend

HIC=health insurance credit  
YCC=young child credit  
CARE=child and dependent care credit

<sup>a</sup>EITC only population did not receive the health insurance credit.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

Table II.5 shows the national weighted average poverty thresholds by family size at the poverty level and at 150 percent of the poverty level. Table II.6 shows the percentage of EITC and health insurance credit recipients that fall below these poverty levels by IRS region. The incomes are based on taxpayers' reported AGIs and do not include any benefits received from the various EITC credits.

**Table II.5: 1991 National Weighted Average Poverty Thresholds**

Family size	Weighted poverty threshold	150 percent of the weighted poverty threshold
One	\$6,932	\$10,398
Two	8,865	13,298
Three	10,860	16,290
Four	13,924	20,886
Five	16,456	24,684
Six	18,587	27,881
Seven	21,058	31,587
Eight	23,605	35,408
Nine or more	27,942	41,913

Source: Bureau of the Census, 1992 Current Population Survey (CPS).

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**Table II.6: Percentage of EITC Only and Health Credit Recipient Populations Below the Federal Poverty Thresholds**

Tax year 1991

Region	Weighted poverty threshold		150 percent of the weighted poverty threshold	
	Percent of EITC only population	Percent of health credit population	Percent of EITC only population	Percent of health credit population
North-Atlantic	42	25	69	60
Mid-Atlantic	50	22	78	64
Central	54	35	79	70
Southeast	54	29	85	71
Southwest	54	35	87	74
Midwest	46	30	77	72
Western	64	21	89	60
Sample average	54	29	83	69

Note: Sampling errors for regional figures given in the above table are all less than plus or minus 11.5 percent.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

The reported cost of insurance and the health insurance credit reimbursement rate both varied by region (see tables II.7 and II.9). Taxpayers in the IRS North-Atlantic region paid the highest average premiums: \$1,254, representing 9 percent of taxpayers' AGIs in that region.<sup>1</sup> However, because these taxpayers also had the highest average AGI in the nation, their average health insurance credit was low (only \$209), yielding less than a 17 percent reimbursement rate. Taxpayers in the IRS Southeast region showed the lowest average health care premiums: \$924, representing 7 percent of taxpayers' AGIs in that region. Conversely, because taxpayers in the Southeast region showed the lowest average AGI, their average health insurance credit was high (\$250), yielding the highest reimbursement rate of 27 percent.

Table II.7 shows how the average reported cost of health insurance, health insurance credit amount, and the health insurance credit reimbursement rate varied by IRS region.

<sup>1</sup>Estimates showing regional averages of the cost of coverage and the health insurance credit have associated sampling errors of less than plus or minus 22 percent in all cases.

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**Table II.7: Average Adjusted Gross Income, Reported Health Coverage Cost, Health Insurance Credit Amount, and Reimbursement Rates for Health Insurance Credit Recipients, by IRS Region**

Tax year 1991				
Region	Average AGI	Average coverage cost	Average health credit	Percentage of cost reimbursed
North-Atlantic	\$14,707	\$1,254	\$209	16.6
Mid-Atlantic	14,359	1,112	249	22.4
Southeast	13,802	924	250	27.1
Central	14,055	963	219	22.7
Southwest	13,922	938	227	24.2
Midwest	14,028	1,215	220	18.1
Western	14,544	1,049	223	21.3

Note: The sampling errors associated with the average cost of coverage and average health insurance credit amount in each region are all less than plus or minus 22 percent.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

Table II.8 shows sample taxpayers' reported health insurance costs by AGI (in \$500 and \$5,000 increments, respectively). Over 60 percent of health insurance credit recipients in our sample reported costs of less than \$1,000, and 88 percent reported costs less than \$2,000 in 1991.



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**Table II.8: Reported Health Insurance Costs for Health Insurance Credit Recipients in GAO Sample, by AGI**

Tax year 1991						
AGI	Reported health insurance cost					Total <sup>a</sup>
	Less than \$500	\$500 to \$999	\$1,000 to \$1,499	\$1,500 to \$1,999	More than \$2,000	
Less than \$5,000	24	5	0	3	4	<b>36</b>
Percent	66.7	13.9	0.0	8.3	11.1	<b>100.0</b>
\$5,000 to \$9,999	62	38	17	12	16	<b>145</b>
Percent	42.8	26.2	11.7	8.2	11.0	<b>100.0</b>
\$10,000 to \$14,999	96	92	71	30	41	<b>330</b>
Percent	29.1	27.9	21.5	9.1	12.4	<b>100.0</b>
\$15,000 to \$19,999	95	115	82	27	43	<b>362</b>
Percent	26.2	31.8	22.7	7.5	11.9	<b>100.0</b>
\$20,000 or more	26	19	10	4	10	<b>69</b>
Percent	37.7	27.5	14.5	5.8	14.5	<b>100.0</b>
<b>Total number<sup>a</sup></b>	<b>303</b>	<b>269</b>	<b>180</b>	<b>76</b>	<b>114</b>	<b>942</b>
<b>Total percent</b>	<b>32.2</b>	<b>28.6</b>	<b>19.1</b>	<b>8.1</b>	<b>12.1</b>	<b>100.0</b>

<sup>a</sup>Percentages may not add to 100 due to rounding.

Source: GAO sample of 942 health insurance credit recipients in tax year 1991.

Table II.9 shows sample taxpayers' reported health insurance costs in \$500 increments, by IRS region.

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**Table II.9: Reported Health Insurance Costs for Health Insurance Credit Recipients in GAO Sample, by IRS Region**

Tax year 1991						
IRS Region	Reported health insurance cost					Total <sup>a</sup>
	Less than \$500	\$500 to \$999	\$1,000 to \$1,499	\$1,500 to \$1,999	More than \$2,000	
North- Atlantic	24	27	11	2	21	<b>85</b>
Percent	28.2	31.8	12.9	2.4	24.7	<b>100.0</b>
Mid-Atlantic	28	26	23	9	12	<b>98</b>
Percent	28.6	26.5	23.5	9.2	12.2	<b>100.0</b>
Central	42	23	15	7	11	<b>98</b>
Percent	42.9	23.5	15.3	7.1	11.2	<b>100.0</b>
Southeast	97	101	67	26	23	<b>314</b>
Percent	30.9	32.2	21.3	8.3	7.7	<b>100.0</b>
Southwest	42	43	26	11	13	<b>135</b>
Percent	31.1	31.9	19.3	8.2	9.6	<b>100.0</b>
Midwest	34	29	23	11	24	<b>121</b>
Percent	28.1	24.0	19.0	9.1	19.8	<b>100.0</b>
Western	36	20	15	10	10	<b>91</b>
Percent	39.6	22.0	16.5	11.0	11.0	<b>100.0</b>
<b>Total<sup>a</sup></b>	<b>303</b>	<b>269</b>	<b>180</b>	<b>76</b>	<b>114</b>	<b>942</b>
<b>Percent</b>	<b>32.2</b>	<b>28.6</b>	<b>19.1</b>	<b>8.1</b>	<b>12.1</b>	<b>100.0</b>

<sup>a</sup>Percentages may not add to 100 due to rounding.

Source: GAO sample of 942 health insurance credit recipients in tax year 1991.

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**Table II.10: Distribution of the Universe  
of EITC Tax Returns, by IRS Region**

Tax year 1991

<b>Universe</b>	<b>Basic EITC only returns</b>	<b>Percent</b>	<b>Health insurance credit returns</b>	<b>Percent</b>	<b>Total</b>
Southeast	2,776,829	25.3	714,172	31.8	<b>3,491,001</b>
Western	2,090,403	19.0	231,537	10.3	<b>2,321,940</b>
Southwest	1,796,313	16.4	339,913	15.1	<b>2,136,226</b>
Mid-Atlantic	1,135,598	10.3	235,977	10.5	<b>1,371,575</b>
Central	1,116,984	10.2	252,200	11.2	<b>1,369,184</b>
Midwest	1,087,534	9.9	291,460	13.0	<b>1,378,994</b>
North- Atlantic	978,531	8.9	181,773	8.1	<b>1,160,304</b>
<b>Total</b>	<b>10,982,192</b>	<b>100.0</b>	<b>2,247,032</b>	<b>100.0</b>	<b>13,229,224</b>

Source: IRS supplied data and IRS Annual Report for 1991.

**Table II.11: Distribution of GAO's  
Sample of EITC Tax Returns, by IRS  
Region**

Tax year 1991

<b>Sample</b>	<b>Basic EITC only returns</b>	<b>Percent</b>	<b>Health insurance credit returns</b>	<b>Percent</b>	<b>Total</b>
Southeast	237	24.8	314	33.3	<b>551</b>
Western	203	21.2	91	9.7	<b>294</b>
Southwest	160	16.7	135	14.3	<b>295</b>
Mid-Atlantic	97	10.1	98	10.4	<b>195</b>
Central	90	9.4	98	10.4	<b>188</b>
Midwest	93	9.7	121	12.9	<b>214</b>
North- Atlantic	77	8.0	85	9.0	<b>162</b>
<b>Total</b>	<b>957</b>	<b>100.0<sup>a</sup></b>	<b>942</b>	<b>100.0</b>	<b>1,899</b>

<sup>a</sup>Detail does not add to total due to rounding.

Source: GAO samples of 1,899 EITC recipients in tax year 1991.

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**Table II.12: Individual Tax Returns Filed, by IRS Region**

Tax year 1991

<b>IRS region</b>	<b>Individual returns</b>	<b>EITC and health insurance credit returns</b>	<b>Basic EITC only returns</b>	<b>Health credit returns</b>
Southeast	21,417,538	3,491,001	2,776,829	714,172
Western	19,321,596	2,321,940	2,090,403	231,537
Southwest	14,800,011	2,136,226	1,796,313	339,913
Mid-Atlantic	15,154,014	1,371,575	1,135,598	235,977
Central	14,038,934	1,369,184	1,116,984	252,200
Midwest	14,932,423	1,378,994	1,087,534	291,460
North-Atlantic	14,301,480	1,160,304	978,531	181,773
<b>Total</b>	<b>113,965,996</b>	<b>13,229,224</b>	<b>10,982,192</b>	<b>2,247,032</b>

Source: IRS supplied data and IRS Annual Report for 1991.

**Table II.13: Percentage of Individual Tax Returns Filed, by IRS Region**

Tax year 1991

<b>IRS region</b>	<b>Individual returns</b>	<b>EITC and health insurance credit percent of region</b>	<b>Basic EITC only percent of region</b>	<b>Health credit percent of region</b>
Southeast	18.8	16.3	13.0	3.3
Western	17.0	12.0	10.8	1.2
Southwest	13.0	14.4	12.1	2.3
Mid-Atlantic	13.3	9.1	7.5	1.6
Central	12.3	9.8	8.0	1.8
Midwest	13.1	9.2	7.3	2.0
North-Atlantic	12.5	8.1	6.8	1.3
<b>Total</b>	<b>100.0</b>	<b>11.6</b>	<b>9.6</b>	<b>2.0</b>

Source: GAO calculations based on IRS supplied data and IRS Annual Report for 1991.

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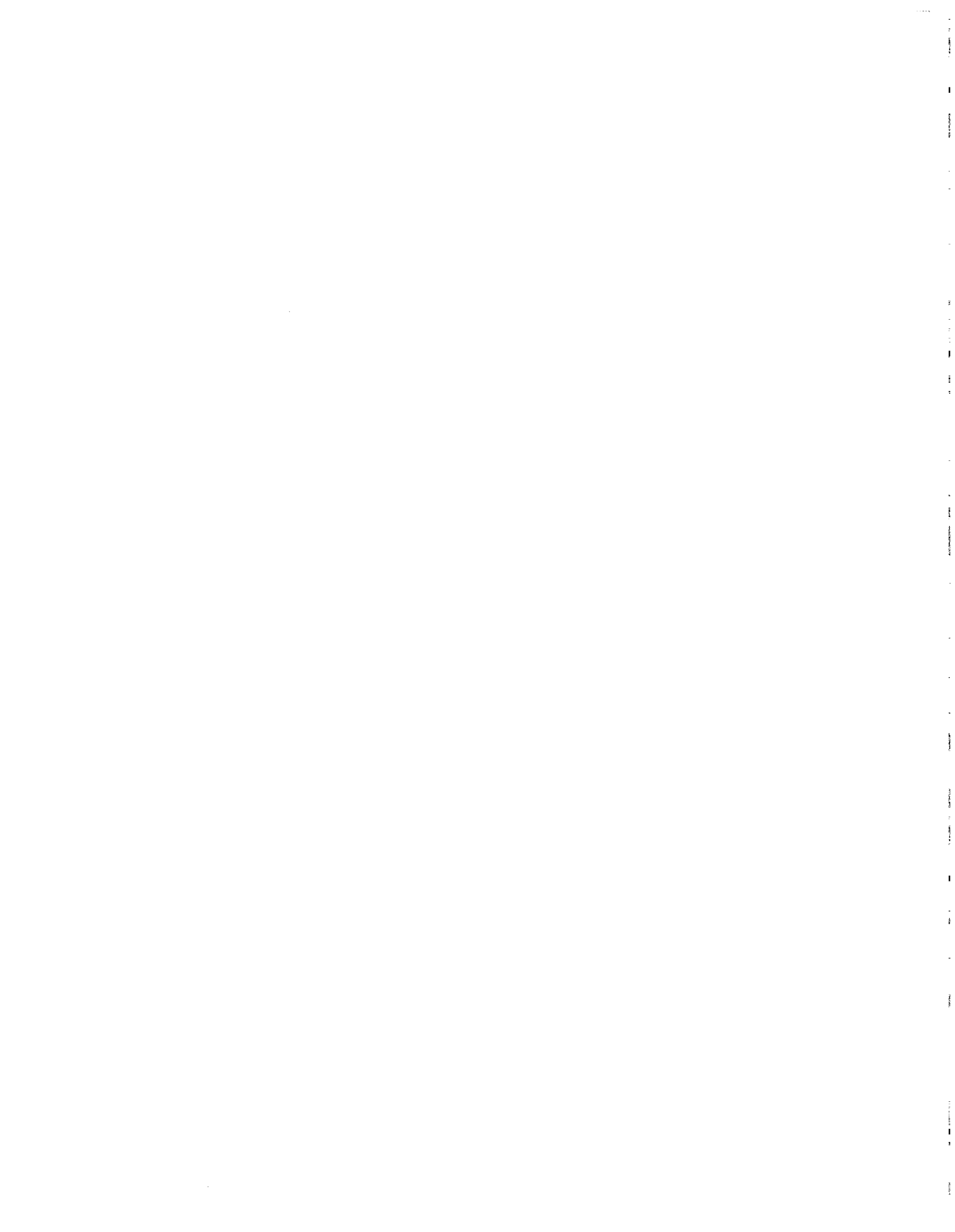
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