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Utilization of Income Tax Credits by Low-Income Individuals

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Abstract - *The Internal Revenue Service—a sub-agency that exists to collect revenue—has the task of administering and enforcing a wide array of social policy: from subsidies for college and child care expenses, to creating jobs in depressed areas, and assisting welfare recipients with employment. While these new or expanded credits represent a new paradigm in the delivery of social policy, little is known about who uses these programs and, equally important, who does not use these programs. Understanding utilization is a key to understanding how effective this means of transferring income is and whether we are reaching the targeted populations. This paper provides a framework for thinking about utilization of tax credits among low-income individuals, supported by existing research on credit utilization.*

With the existing data, it appears that utilization is by far the largest for the EITC, possibly because it is the oldest of these programs, the only refundable program, and the best targeted at low-income individuals. Utilization is low among low-income individuals in some tax credits because low-income individuals are not eligible. A redesign, including reducing complexity and administrative burdens or making these programs refundable, would result in the programs reaching those that they are ostensibly targeted towards.

Conditional on being eligible, one common factor associated with increasing participation in many of these programs is a high benefit to cost ratio and sophistication with the tax system, whether that be through the use of a paid preparer, higher education levels, or experience with the tax system. Policymakers should think creatively about reducing filing burdens to increase participation, such as through wider use of electronic filing.

This is our objective—to give you the broad-based tax relief you deserve—to cut taxes, to increase access to health insurance, and to make education more affordable. I can think of no goals that are more important as we look to provide for our families and to prepare America for a bright and prosperous new millennium.

—William V. Roth, Jr. (R-DE),
Senate Finance Committee Chairman, July 9, 1999

The Wootens of Salt Lake City are one of perhaps many low-income families who probably would have not filed for the Earned Income Tax Credit had not a tax preparer alerted them to it. "We were absolutely shocked that this was available," Becky Wooten said. There is evidence that many low-income families,

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like the Wootens, do not participate in the EITC and similar targeted tax credits that another EITC recipient says, "makes a huge difference for our family."

—Lesley Mitchell,
"Free Money Unclaimed,"
Salt Lake City Tribune, February 13, 2005.

INTRODUCTION

The political tension between embracing social programs yet disdaining the size of government has forced politicians to find unique ways to appeal to voters interested in new spending programs while reducing federal spending and taxes. "Tax relief" is a familiar chorus, as politicians promote new proposals not through direct spending programs, as was done in the heyday of the Great Society, but through tax programs. Perhaps it is no surprise that, in the name of tax relief, the Internal Revenue Service—a sub-agency that exists to collect revenue—has the task of administering and enforcing a wide array of social policy: from subsidies for college and child care expenses, to creating jobs in depressed areas, and assisting welfare recipients with employment. The recent "Katrina Emergency Tax Relief Act of 2005" highlights the significance of these tax credits; the law outlines special provisions to two of the tax credits specifically targeted at low-income individuals as a means of relief for hurricane victims (U.S. Congress, 2005).¹ While these new or expanded programs represent a new paradigm in the delivery of social policy, little is known about who uses these programs and, equally important, who does not use these programs.

Understanding utilization is a key to understanding how effective this means

of transferring income is and whether we are reaching the targeted populations. Utilization may be low among eligible taxpayers, suggesting that the goals of the programs are going unmet, or high among ineligible taxpayers, suggesting that government funds are being used in an unintended way. From a practical standpoint, understanding utilization helps predict current and future costs of programs, especially when programs are reauthorized on a regular basis.

The goal of this paper is to provide a framework for thinking about utilization of tax credits among low-income individuals, supported by existing research on credit utilization. In the second section, we broadly consider issues of measuring utilization and participation decisions among targeted, eligible and ineligible taxpayers. In the following two sections, we take the framework and apply it to a review of what we know about utilization in credits for individual taxpayers (third section) and employers (fourth section). One important contribution in these sections is to identify the credits that target low-income individuals, which is not always explicitly obvious from the statutory law. The shift in the provision of social programs through the tax system leads us to the fifth section, which draws upon the lessons of utilization learned from the welfare system. With all of that background, the sixth section considers what utilization should look like and suggests means of achieving that level of utilization. The seventh section concludes.

UTILIZATION

Before proceeding to the research on utilization, we begin by laying out a framework of conceptual and practical

¹ The bill allows qualified individuals to calculate their earned income tax credit and refundable child credit for the 2005 tax year if they reside in qualified areas and their earned income in 2005 is below their 2004 earned income. In addition, employers may claim the Work Opportunity Tax Credit for employees whose principal abode was in the Hurricane Katrina disaster area as of August 28, 2005.

issues confronted in the literature. One straightforward measure of utilization among low-income individuals is the number of recipients and the credit dollars received. These measures show the scope and cost of the program at a basic level and reflect changes in tax policy and environments over time.

Further measures of utilization address whether the income tax credits are targeted at low-income individuals. The tax credit parameters answer part of this. Presumably, policymakers set parameters for the targeted population in an effort to meet a set of policy goals, such as increased equity, employment, savings or education, while also considering budgetary concerns. To meet these goals, the tax credits have a set of categorical requirements that include: number of children, amount of savings, amount and type of education spending, welfare receipt status, economic status of county of residence, and work hours. Eligibility is also typically based on the income of the tax unit, again in an effort to help meet equity and/or budgetary goals. The credit may require that income is below a threshold at which point the credit is phased out to zero. In addition, most credits are non-refundable, such that taxpayers must have a minimum amount of income to have tax liability for the credit to offset. The design of the credit defines the targeted population. In practice, a measure of utilization that addresses whether the credit targets low-income taxpayers, relative to higher-income taxpayers, is the share of the credit received by low-income taxpayers. However, this measure does not measure how widespread credit utilization is among low-income taxpayers.

Normalizing the number of low-income claimants by a measure of the low income population identifies how intensely low-income individuals use a credit. Again, this will partly reflect the

parameters of the tax credit. That is, some low-income individuals may not receive the credit because they are ineligible due to insufficient income or lack of a categorical requirement such as children or qualifying expenses. This source of low participation rates may reflect program design to keep the costs of the credits low or very well-targeted. Low participation rates among low-income individuals may also reflect a failure of the credit to encourage intended behaviors, such as savings or education, because the requirements are too costly for low-income individuals to attain. The measure of utilization where the recipients are normalized by a measure of the low-income population also includes individuals who choose not to participate because the benefits of claiming the credit (reduced tax liability or refund from the IRS) exceed the cost of filing the credit (transaction costs associated with gaining information about the credit and filing the taxes, and stigma costs).² Policy parameters have the ability to affect this source of non-participation. If the benefits of the credit are greater than the costs of filing to individuals outside the targeted population, intentional non-compliance with the credit will increase this measure of utilization. Complex rules may cause unintentional non-compliance that is also captured in this broad measure of credit utilization.

Understanding the sources of participation and non-participation are significant for designing well-targeted credits and policies aimed at increasing utilization. For that reason, an additional measure of utilization is helpful—participation among the populations *eligible* for the credit. Empirical identification of the eligible population fully characterizes the scope of the targeted population and provides insights into how well a tax credit is designed to meet the needs of the low-income population. Combining

² See Moffitt (1983) and Slemrod and Yitzhaki (2002) for models of stigma, tax compliance and filing.

participation decisions with information on eligibility provides information about whether the targeted group actually receives the credit. Conditional on meeting the categorical and income requirements, the targeted population may not receive the credits if they do not file taxes or claim the credit or their employer does not claim on their behalf. In contrast, identifying ineligible taxpayers who claim the credit sheds light on the personal and credit characteristics that influence non-compliance.

We have been purposely vague when talking about the population of low-income individuals used to normalize the number of credit recipients, since the choice of population provides answers to different questions. Specifically, normalizing by only low-income taxpayers is useful for understanding how existing tax filers navigate the income tax system. In contrast, using the entire low-income population provides a baseline for considering the pool of potential tax-filers. These potential tax-filers may include those currently relying on the welfare system, whom tax credits are designed to encourage into the labor force. A second issue when defining the population is whether to consider participation and eligibility over a single year or multiple years. When considering how well targeted the credits are, "lifetime" measures may be more relevant. Multiple years also allow straightforward measurements of whether the tax credits encourage the intended behaviors.

The data demands for estimating eligibility and, therefore, utilization are formidable and much of the research presented in the following sections reflects compromises. In fact, the choices of how to normalize the measures of utilization, described conceptually above, are often

made because of data constraints. While administrative data may provide precise estimates of the number of taxpayers claiming the credits, it often lacks the demographic and financial information about the tax unit to determine eligibility. Of course, not everyone files taxes and so administrative data provides no information on the eligible who do not file. Survey data, which is often self-reported, may provide essential details for calculating eligibility, such as income or spending behavior, and income tax decisions. However, the accuracy of these data is often questionable, particularly given the complexity of the tax system. The two data sources are rarely linked, which requires creativity in estimating participation rates.

The following sections address whether the credits are targeted at low-income individuals, describe utilization of credits among this group and consider the findings of researchers who confront measuring utilization. As a caveat, we note that utilization, the focus of this paper, is only a first step in evaluating the effectiveness of tax credits for low-income individuals. A complete evaluation of effectiveness would include a consideration of the economic incidence of the credits, but that is beyond the scope of this paper.

PERSONAL INCOME TAX CREDITS— DESCRIPTION AND UTILIZATION³

Earned Income Tax Credit

Description

The federal Earned Income Tax Credit (EITC) originated in 1975 to encourage work, reduce unemployment and welfare caseloads, and to ease the burden of social security and self-employment taxes paid by low-income individuals with children

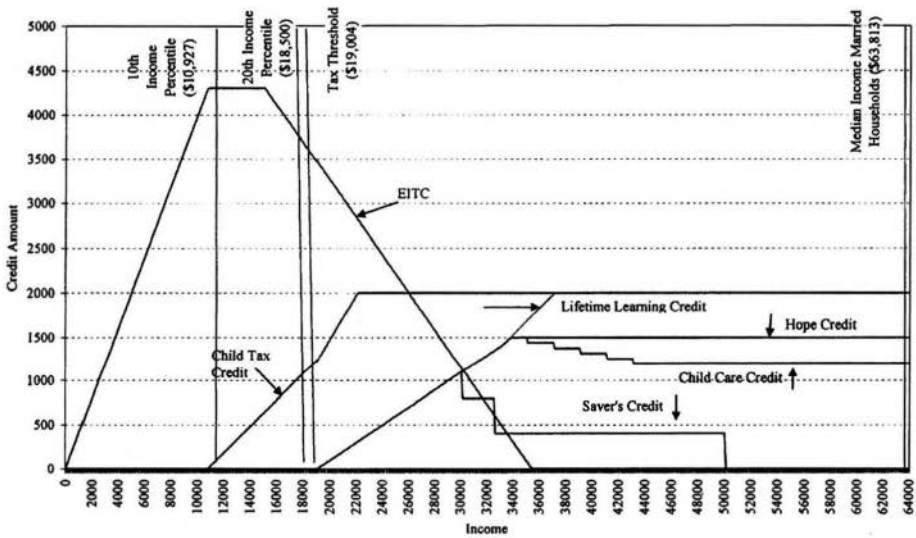
³ Appendix Table 1A summarizes the research on each personal income tax credit we consider. We do not directly address the child tax credit, adoption credit or elderly tax credit because they do not directly address social goals beyond, perhaps, equity and there is very little research on the utilization of these credits.

(Ventry, 2000). The structure of the EITC makes it clearly targeted at lower-income individuals. Specifically, the EITC is refundable and available to taxpayers with earnings below a threshold that varies based on family size and marital status. The current EITC has three regions, which vary based on a taxpayer's marital status and number of children: a phase-in region, which supplements earnings at a rate of 7.64 percent for childless taxpayers, 34.0 percent for taxpayers with one child, and 40.0 percent for taxpayers with two or more children; a plateau region, which provides a constant subsidy for earnings; and a phaseout region, which reduces the credit at a rate of 7.64 percent for childless taxpayers, 15.98 percent for taxpayers with one child, and 21.06 percent for taxpayers with two or more children. In the 2005 tax year, taxpayers with earnings up to \$35,263 can qualify for an EITC.

Figures 1, 2, and 3 show the value of the EITC for three hypothetical households at various income levels: joint filer with two children, head-of-household filer with one child, and a single filer. The figures highlight features that make the credit well targeted at low-income individuals: the credit is essentially phased out before the median income and the refundability of the credit implies that taxpayers with income below the tax threshold are eligible for the maximum credit.

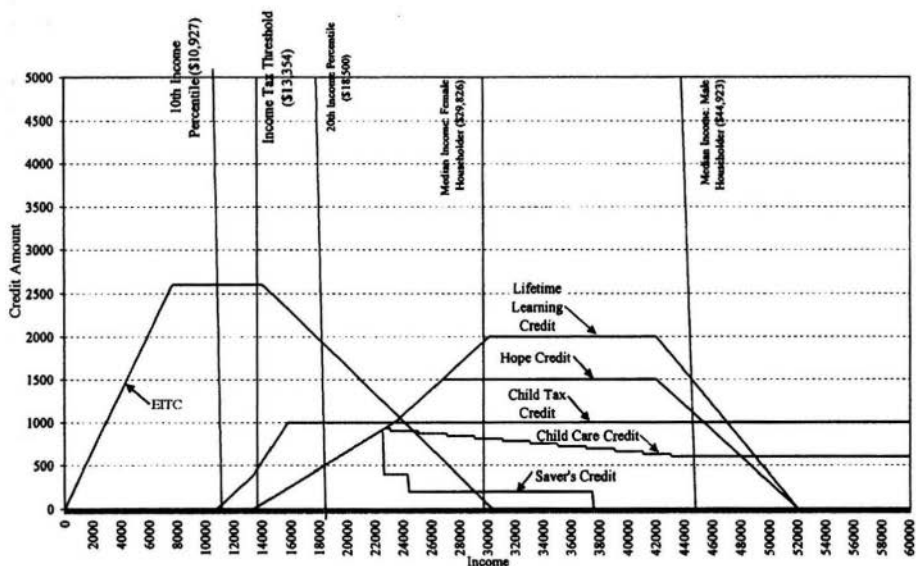
In order to claim the credit, a taxpayer must fill out a two-page schedule EIC to identify their dependent child(ren). The instructions for calculating the 2004 EITC in the 1040 form are seven pages long, plus the tax tables for calculating the value of the credit (IRS, 2004a; IRS, 2004c). In addition, a 55-page IRS publication 596 describes the EITC.

Figure 1. Ranges of Credits for Representative Married Filing Jointly, 2-Child Household, 2004 Tax Year



Notes: Assumes the taxpayer uses the standard deduction, no other deductions or exclusions, and the alternative minimum tax does not apply. Assumes the taxpayer uses the maximum expenses and meets all other eligibility criteria for each credit. Chart reflects that non-refundable credits are limited by tax liability, the refundable portion of the Child Tax Credit, and the phaseout of the education credits. The cited figure of Married Household refer to Married Couple Householder. 10th Income Percentile and 20th Income Percentile refer to all households. Sources: Census (2005) and authors' calculations from various IRS publications.

Figure 2. Ranges of Credits for Representative Head-of-Household Filing, 1-Child Household, 2004 Tax Year



Notes: Assumes the taxpayer uses the standard deduction, no other deductions or exclusions, and the alternative minimum tax does not apply. Assumes the taxpayer uses the maximum expenses and meets all other eligibility criteria for each credit. Chart reflects that non-refundable credits are limited by tax liability, the refundable portion of the Child Tax Credit, and the phaseout of the education credits. The cited figures refer to Male and Female Householders with no spouse present. The 10th income percentile and 20th income percentile refers to all households.

Sources: Census (2005) and authors' calculations from various IRS publications.

The EITC is not only the largest cash transfer program, with an estimated cost of \$33 billion in the 2004 fiscal year, but it is also perhaps the best-known and best-studied tax credit targeted at lower-income individuals (OMB, 2005). Since its inception, the federal EITC has greatly expanded in size and scope, mechanically increasing the number of eligible individuals. Additionally, 15 states, and the District of Columbia, currently operate their own EITCs based directly off the federal EITC or with similar features to the federal EITC.⁴ At least one city, San Francisco, also offers an EITC

(http://www.sfgov.org/site/wfc_index.asp?id=29174).

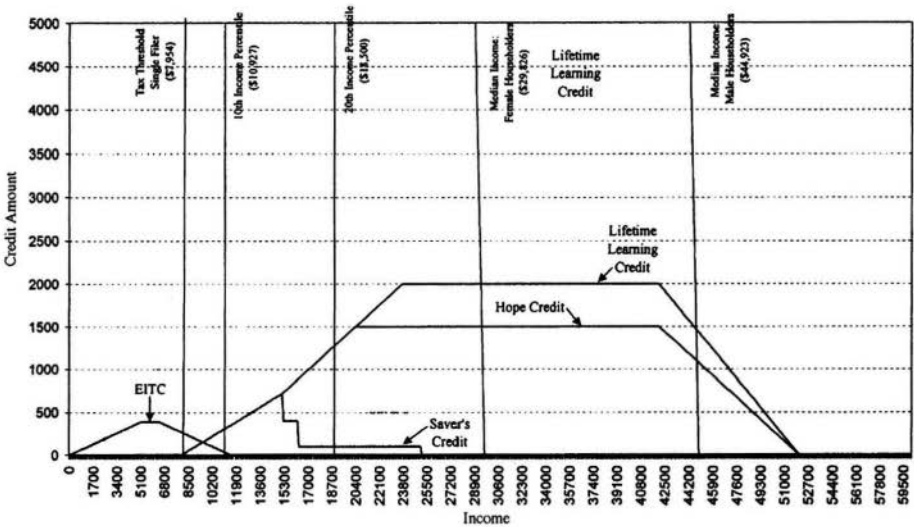
Utilization Among Low-Income Individuals

Estimates

In practice, Tables 1 and 2 show that 100 percent of the taxpayers receiving the EITC have adjusted gross income (AGI) below \$40,000, an income that represents less than two-thirds of all taxpayers. In fact, in early years, when the nominal income cut off for the EITC was lower, almost all recipients had income under \$25,000. Note that between 40.9 percent in 1995 and 26.3 percent in 2002 of all EITC

⁴ Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Minnesota, New Jersey, New York, Oklahoma, Oregon, Rhode Island, Vermont, and Wisconsin have state earned income tax credits. Colorado also has a credit, but it is available only in the years when the budget is not in deficit. Virginia will begin a program in 2006.

Figure 3. Ranges of Credits for Representative Single Filer, No-Children Household, 2004 Tax Year



Notes: Assumes the taxpayer uses the standard deduction, no other deductions or exclusions, and the alternative minimum tax does not apply. Assumes the taxpayer uses the maximum expenses and meets all other eligibility criteria for each credit. Chart reflects that non-refundable credits are limited by tax liability and the phaseout of the education credits. The cited figures refer to Male and Female Householders with no spouse present; Income Percentile refer to all households.
Sources: Census (2005) and authors' calculations from various IRS publications.

recipients reported fewer than \$10,000 in AGI, representing 47.3 to 36.5 percent of all EITC returns, respectively.

There is limited evidence of the dynamics of EITC usage and the work underscores some of the complicated data issues in measuring utilization. Dowd (2005), in this volume, uses a sample of taxpayers with a child and under 65 years old from the 1989 to 2003 Continuous Work History Sample. With this very select sample of taxpayers who filed taxes for all 15 years in the sample, he finds that the probability of claiming the credit at least once is 28 percent. Conditional on claiming the credit at least once, almost half of this 15-year sample receives the credit for three or fewer years. Among taxpayers who were in the data for at least three consecutive years, Dowd (2005) finds evidence of persistence in claiming the EITC. Taxpayer data alone obviously misses

the potentially important role of low-income individuals moving in and out of the income tax system. Horowitz (2002) estimates EITC eligibility in the 1975 to 1992 Panel Study of Income Dynamics (PSID). In sharp contrast to Dowd (2005), there is no information on actual EITC utilization, however Horowitz shows the average EITC-eligible-spell length is 3.55 years and there is a high recidivism rate in eligibility (31 percent after two years of ineligibility).

Several studies of the EITC focus on participation among the eligible population, with most concluding that more than three-quarters of eligible households claim the credit. In widely cited estimates, Scholz (1994) matched information from tax returns to data from the 1990 Survey of Income and Program Participation (SIPP) and estimated that most likely between 80 and 86 percent of eligible

TABLE 1
SHARES OF CREDIT RETURNS BY INCOME

AGI RANGE	YEAR							
	1995	1996	1997	1998	1999	2000	2001	2002
Earned Income Tax Credit								
Under \$10,000	47.3%	46.6%	43.9%	42.5%	41.2%	40.1%	38.7%	36.5%
\$10,000 under \$25,000	51.1%	49.8%	51.8%	51.0%	51.1%	50.9%	50.4%	48.9%
\$25,000 under \$40,000	1.5%	3.6%	4.4%	6.5%	7.8%	9.1%	10.9%	14.6%
\$40,000 and over	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Returns	19,334,395	19,463,835	19,391,177	19,704,708	19,258,717	19,277,223	19,593,122	21,703,189
Child Care Credit								
Under \$10,000	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
\$10,000 under \$25,000	21.6%	21.0%	19.4%	17.2%	14.9%	14.1%	14.1%	14.7%
\$25,000 under \$40,000	24.5%	23.4%	20.3%	21.0%	19.9%	19.5%	19.3%	20.1%
\$40,000 and over	53.9%	55.5%	60.2%	61.7%	65.2%	66.4%	66.6%	65.2%
Total Returns	5,964,251	5,974,147	5,795,532	6,128,156	6,182,192	6,368,100	6,184,506	6,185,853
Education Credit								
Under \$10,000	—	—	—	4.0%	3.3%	3.0%	2.9%	2.0%
\$10,000 under \$25,000	—	—	—	21.2%	23.3%	23.2%	24.4%	25.4%
\$25,000 under \$40,000	—	—	—	20.5%	21.6%	21.8%	22.8%	24.5%
\$40,000 and over	—	—	—	54.3%	51.8%	51.9%	49.9%	48.2%
Total Returns	0	0	0	4,652,597	6,436,654	6,815,315	7,212,553	6,475,135
Retirement Savings Contribution Credit								
Under \$10,000	—	—	—	—	—	—	—	0.8%
\$10,000 under \$25,000	—	—	—	—	—	—	—	38.2%
\$25,000 under \$40,000	—	—	—	—	—	—	—	36.1%
\$40,000 and over	—	—	—	—	—	—	—	24.8%
Total Returns	0	0	0	0	0	0	0	5,307,174

Source: IRS, Statistics of Income, Complete Year Data, Table 2 and Table 4.

TABLE 2
SHARES OF CREDIT DOLLARS BY INCOME

AGI RANGE	YEAR							
	1995	1996	1997	1998	1999	2000	2001	2002
Earned Income Tax Credit								
Under \$10,000	40.9%	38.6%	35.4%	33.1%	33.0%	31.1%	29.0%	26.3%
\$10,000 under \$25,000	58.9%	60.6%	63.5%	65.0%	64.7%	65.9%	66.9%	67.4%
\$25,000 under \$40,000	0.2%	0.8%	1.1%	1.9%	2.3%	3.0%	4.1%	6.3%
\$40,000 and over	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Credit (\$ thousands)	25,955,574	28,825,257	30,388,582	31,591,791	31,901,107	32,296,342	33,375,973	38,198,572
Child Care Credit								
Under \$10,000	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
\$10,000 under \$25,000	20.7%	19.5%	18.7%	16.2%	13.4%	12.9%	12.7%	11.9%
\$25,000 under \$40,000	23.8%	23.4%	19.6%	20.3%	19.8%	19.4%	19.3%	20.2%
\$40,000 and over	55.5%	57.0%	61.7%	63.5%	66.8%	67.6%	68.1%	68.0%
Total Credit (\$ thousands)	2,517,963	2,531,383	2,464,005	2,660,571	2,675,147	2,793,861	2,721,062	2,706,539
Education Credit								
Under \$10,000	—	—	—	1.2%	0.9%	0.9%	0.8%	0.3%
\$10,000 under \$25,000	—	—	—	18.1%	19.9%	20.7%	22.0%	18.9%
\$25,000 under \$40,000	—	—	—	20.6%	21.8%	23.2%	24.4%	25.2%
\$40,000 and over	—	—	—	60.1%	57.3%	55.2%	52.8%	55.7%
Total Credit (\$ thousands)	0	0	0	3,376,647	4,772,444	4,851,178	5,156,253	4,882,852
Retirement Savings Contribution Credit								
Under \$10,000	—	—	—	—	—	—	—	0.4%
\$10,000 under \$25,000	—	—	—	—	—	—	—	38.2%
\$25,000 under \$40,000	—	—	—	—	—	—	—	40.3%
\$40,000 and over	—	—	—	—	—	—	—	21.1%
Total Credit (\$ thousands)	0	0	0	0	0	0	0	1,058,218

Source: IRS, Statistics of Income, Complete Year Data, Table 2 and Table 4.

households receive the EITC. Because the IRS automatically calculated the EITC for eligible tax filers until the 1991 tax year, all of the non-participation in 1990 is a result of not filing taxes. In later tax years, non-participation can also include eligible individuals who filed a return but did not claim the credit.

Blumenthal, Erard and Ho (2005) use 1988 data from IRS Taxpayer Compliance studies and the 1989 Current Population Survey (CPS) to estimate a participation rate for the EITC. They report an overall participation rate of between 69.4 and 74.3 percent. For taxpayers with a legal obligation to file a tax return because their gross income is above the tax threshold, the authors estimate a participation rate of 89 percent, while the estimated rate was 30.6 to 39.0 percent for those who are not legally obligated to file (Blumenthal et al., 2005). In simulations of the 1999 tax year, they estimate a participation rate of 94.2 percent conditional on having income greater than the tax threshold. The authors note that the low participation among those who are at the lowest income levels may suggest that the EITC is less successful than traditional welfare programs in assisting those in need.

Using 1996 tax year data from the CPS matched to tax returns, the IRS (2002c) estimates an EITC filer rate, or the percentage of EITC-eligible beneficiaries to file a return, of at least 64.2 percent. Holtzblatt and McCubbin (2004) note that the rate from these data could be as high as 75 or 80 percent.⁵ Using the SIPP self-reported data about tax filing, the IRS also estimates an EITC filing rate of at least 73.5.

The General Accounting Office (GAO) (2001b), which estimated the EITC-eligible population from the CPS combined with data from the IRS on the number of eligible EITC claims, estimated a 1999 participation rate of 75 percent.

Holtzblatt and McCubbin, (2004) caution that this number might be closer to 81 percent if the GAO relaxed its assumption that all taxpayers who failed to appear at an audit were ineligible. Among households with one or two children, the GAO (2001) estimates very high participation rates of 96 and 93 percent, respectively. Rates for those with three or more children is estimated at 62.5 percent but, as Holtzblatt and McCubbin (2004) note, these data for taxpayers with three or more children may be less reliable because only two children were required for a taxpayer to qualify for the largest credit. Participation among childless taxpayers was much lower, at 44.7 percent.

At least three other papers focus on EITC participation among the welfare population, a group that is likely to have low earnings. Hill, Hotz, Mullin and Scholz (1999) estimated the federal EITC participation rate among households in four California counties that participated in a federal Aid to Families with Dependent Children (AFDC) waiver demonstration program. Using 1993 and 1994 federal tax return data, matched to state administrative data, Hill et al. (1999) estimate a participation rate between 42 and 84 among the EITC-eligible households (only 21 to 53 percent of the sample is eligible). The wide range of participation estimates reflects alternative data samples and difficulties implementing definitions of income and qualifying children in administrative data.

Fajnzylber (2004) also studies the California welfare recipient population using state administrative data matched to state tax data. Among families eligible for the EITC and receiving welfare benefits between 1993 and 1999, he estimates a participation rate of 64 percent. This relatively low number is driven by the fact that only 70 percent of the families with income in

⁵ The range is based on assumptions concerning invalid Social Security numbers in the CPS and those who refused to provide a Social Security Number to the CPS interviewer.

the EITC range in his sample filed a tax return. Of those filing, 92 percent claimed the EITC.

Finally, we identified one participation study for a state EITC. Hirasuna and Stinson (2004) find an overall participation rate of 61.0 to 68.8 in the Minnesota's Working Family Credit among eligible welfare households between 1995 through 1999. They use state welfare data merged with state income tax and wage data.

To this point we have shown participation-rate estimates among eligible taxpayers between 42 and 96 percent. The rates on the high end are in 1990 when the IRS calculated the EITC for income-eligible tax filing units, the income eligibility phased out at lower incomes, and families without children were ineligible. However, even in later years estimates suggest a participation rate below 100 percent because eligible tax units do not file taxes. Among subpopulations, participation is high among families with one or two children and low among welfare recipients, relative to the overall population. The range of estimates also highlights the sensitivity to using different data sources.

The size of the EITC combined with fears of high non-compliance has attracted a large literature on the utilization of the credit by ineligible taxpayers (see Holtzblatt (1991), McCubbin (2000b), Liebman (2000), GAO (2001), Scholz (1994)). When dividing the administrative data on the number of 1990 EITC recipients by the number of households eligible for the EITC based on survey

data, Scholz (1994) finds participation rates between 122 and 131 percent, suggesting that a large number of technically ineligible taxpayers file for and receive the credit. While studies estimate that EITC noncompliance declined in recent times, perhaps due to both simplification of the rules governing EITC eligibility and increased enforcement, a 1999 IRS (2002b) estimate of EITC noncompliance puts the rate at 27 to 32 percent of all EITC claims.

Influences

When considering the cost-benefit decision to claim the EITC, there is consistent evidence that higher benefits, in the form of a higher EITC, all else equal, are positively correlated with claiming the EITC (Scholz, 1994; GAO, 2001b; IRS, 2002c; Blumenthal et al., 2005).

On the cost side, characteristics associated with more time and money resources such as two-parent households (Hill et al., 1999; Scholz, 1994), fewer young children (Fajnzylber, 2005), number of children (IRS, 2002c), higher earnings (Scholz, 1994; IRS, 2002c), and better economic conditions at the county level (Fajnzylber, 2005) are positively correlated with claiming the EITC.

Anecdotal, the cost of gaining information about the credit is one barrier to utilization.⁶ For example, Maag (2005) reports that in 2001 only 58 percent of low-income parents in the National Survey of America's Families reported knowing about the EITC. Surveys suggest that lack of knowledge of the credit is systemati-

⁶ "It allowed us the American Dream," Julio Escobar said. ... After reading about EITC in a magazine, the Honduran immigrant asked his tax preparer to review his returns. The result: \$8,500 for three years' worth of credits from the IRS" (Huntley, 2005).

"Nilsabel Rivera walked into a United Migrant Opportunity Services office on the south side one morning to file her income taxes. A few minutes later, the single mother of two learned that she would receive a refund large enough for a down payment on a house.... For Rivera, who was filing for two years, it was the first time she had even heard about the earned income tax credit program. "I was clueless. I just knew I needed to do my taxes," Rivera said. (Thomas-Lynn, 2003).

"Alfredo Martinez didn't know about the Earned Income Tax Credit until he realized it meant \$106 more in his pocket when he got his income-tax refund last year." (Markley, 2005).

cally correlated with low education, low income, and Hispanic ethnicity (Maag, 2005; Richardson, 2002; Ross Phillips, 2001). In an attempt to directly increase information, many states, large cities and non-profits are now running outreach campaigns to educate their citizens about the EITC. For example, the Houston Asset Building Coalition lists "[I]ncrease awareness of the Earned Income Tax Credit (EITC) among low-income working families in Houston" as one of its goals.⁷ Anecdotal evidence suggests that outreach campaigns increase utilization (Berube, 2005; Office of the Mayor, 2005; Children's Services Council, 2004).

Statistically, taxpayers who are likely to have closer ties to the income tax system, which represents a lower cost of filing or gaining information about credits, are more likely to claim the EITC. These include those who live in states with an income tax (Scholz, 1994), those who are not on public assistance (Scholz, 1994; IRS, 2002c) or those who have been on public assistance for shorter rather than longer time periods (Hill et al., 1999). One might expect those who are not native English speakers to have a higher cost of understanding and navigating the income tax system and, in fact, Scholz (1994) and Hirasuna and Stinson (2005) find Hispanics less likely to file for the EITC, even if eligible. The IRS (2002c) also finds a high nonfiler rate in California and among Hispanics. In contrast, Fajnzylber (2005) finds that among California welfare recipients, Hispanic families, as well as black families, are more likely to both file a return and participate in the EITC. Likewise, higher education may be correlated with a lower cost of filing and gaining information, which is consistent with the IRS (2002c) and Hirasuna and Stinson

(2004, 2005) who find higher education positively correlated with claiming the EITC. However, conditional on eligibility, Scholz (1994) finds that more highly educated eligible taxpayers are less likely to report filing the EITC.

Some argue that the complexity of the credit creates costs that lower participation in the credit (White, 2005). A recent literature focuses on the ability of tax preparation sites to lower costs of filing and, therefore, increase participation in the EITC. Ignoring the potential endogeneity of the location of *free* tax preparation sites, Hirasuna and Stinson (2005) find that these tax preparation sites in higher-poverty neighborhoods in the Minneapolis-St. Paul area are correlated with greater participation in the state EITC program.

Berube, Kim, Forman and Burns (2002) note that almost 70 percent of EITC claimants rely on paid assistance to file a tax return and the remaining literature on tax-preparation focuses on paid preparers.⁸ Assuming that tax preparation services are not endogenous to communities with large numbers of EITC-eligible tax filers,⁹ Fajnzylber (2005) uses California administrative data to estimate that the addition of one tax preparation services in a zip code would increase the likelihood of filing a return and participating in the federal EITC by roughly ten percentage points. Using their 1988 TCMP data, Blumenthal et al. (2005) find that tax preparation services do not effectively increase EITC participation for eligible taxpayers. Kopczuk and Pop-Eleches (2005) use 1988 to 1999 SOI data on states to conclude that the tax-preparation industry exploited e-filing technology, inducing low-income individuals to file tax returns and claim the EITC by providing these individuals

⁷ The following is the link to a Los Angeles program: <http://www.eitc-la.com/>.

⁸ Berube et al. (2002) point out the possible tradeoff between increased participation and lower benefits as a function of fees charged by the tax-preparation industry.

⁹ He argues that preparation services increased in largely populated zip codes, and not necessarily in low-income zip codes.

a quick refund. They estimate that over the 1988 to 1999 period, a one-percent increase in the number of e-filing corresponds to a one-percent increase in the number of EITC claims.

The literature on EITC noncompliance addresses the cost-benefit decision of ineligible taxpayers utilizing the credit and the transaction costs as a barrier to eligible taxpayers using the credit. McCubbin (2000) suggests that approximately 30 percent of noncompliance in the EITC is an intentional decision related to improperly claiming children, and there also seems to be some intentional noncompliance associated with filing status errors and underreporting income. There is also evidence that a significant amount of EITC noncompliance is unintentional, resulting from the complexity of the tax code, the credit, and characteristics of low-income filers, such as complicated family relationships and low levels of education and language skills (Holtzblatt and McCubbin, 2004). Changes to program design and program administration reflect an attempt to raise the cost of participation among non-eligible individuals, although they certainly have the potential to change the costs of participation among eligible taxpayers as well. Despite the simplification of the credit as well as increased enforcement, the IRS does not know if these efforts are effective (IRS, 2002b).

One such effort is the pre-certification program, a pilot program begun by the IRS during the 2004 tax filing season requiring certain EITC claimants to prove a dependent meets the residency requirements to be a qualifying child prior to the IRS accepting an EITC claim (IRS, 2003). Based on preliminary data, the pre-certification program reduced the amount of EITC dollars claimed by ten percent, especially reducing claims with two or more qualifying children, and prevented at least \$4.5 million in erroneous EITC claims (IRS, 2005). However, the preliminary report could not determine

if the reduction in claims was a result of increased voluntary compliance among previously ineligible or a reduction in participation among eligible claimants (IRS, 2005).

Of all the tax credits considered in this paper, the EITC has by far the most research on all aspects of the credit. The remaining credits are non-refundable and have more categorical requirements, such as specific required expenses. The non-refundability of the remaining credits also implies that households with particularly low income, below the tax threshold, have no incentive to file taxes simply to claim the credit. There is, therefore, much less research for the other credits on why *eligible* recipients do not file the credit and much more focus on why taxpayers are ineligible for the credits.

Child and Dependent Care Credit

Description

The Child and Dependent Care Credit, a non-refundable credit aimed at assisting individuals with dependents to work or look for work, was estimated to cost nearly \$3 billion in fiscal year 2004 (OMB, 2005). The credit is available to taxpayers with taxable earnings for expenses paid to a non-dependent individual over the age of 19 to care for either a dependent child under the age of 13 or a dependent of any age who is not physically or mentally capable to care for him or herself while the taxpayer works or looks for work. If the taxpayer is filing a joint return, both the taxpayer and spouse must have earned income unless one spouse is a full-time student, and eligible expenses must be lower than the secondary earner's income. Since the 2003 tax year, taxpayers can claim up to \$3,000 of expenses per qualifying dependent, for up to a maximum of \$6,000. In years prior to 2003, the maximum eligible expense was \$2,400 per qualifying dependent, for a total maximum of \$4,800.

The credit is a percentage, based on the taxpayer's AGI, of expenses incurred while working or looking for work. Taxpayers with AGI at or below \$15,000 can claim 35 percent of expenses. The credit rate is reduced by one percent for each additional \$2,000 of adjusted gross income until \$43,000, where the credit rate reaches a constant and minimum rate of 20 percent. The credit does not fully capture all expenses made for child care because payments made to providers "off the books" are not eligible for the credit and eligible expenses must be reduced by any pre-tax dependent care benefits (Dependent Care Assistance Plans).¹⁰

Unlike the EITC, the Child Care credit is not specifically targeted to low-income individuals, although the progressive rate structure has the potential to benefit low-income individuals more. Returning to Figures 1 and 2, we show the value of the dependent and child care credit for a joint filer with two children and a head-of-household filer with one child, assuming the maximum child care expenses are paid for each child. It is striking to note how less well-targeted this credit is relative to the EITC for low-income taxpayers due to the nonrefundability. For incomes just above the tax threshold, the value of the credit is only the difference between the tax liability at the ten percent marginal tax rate and the tax threshold, implying a very low credit value. Although the credit rate is 35 percent for taxpayers with AGI below \$15,000, the figure for joint filers with two children highlights that this fea-

ture is obsolete because the tax threshold is far above \$15,000. The 35-percent credit rate is only marginally relevant for the head-of-households with one child.¹¹

For the federal child and dependent care credit, taxpayers must report the qualifying expenses and dependents on a two-page Form 2441, which is accompanied by four pages of instructions (IRS, 2004e).

Twenty-six states and the District of Columbia have a child and dependent care tax credit.¹² These credits are generally modeled after the federal credit, with the credit often calculated as a share of the federal credit. However, there are some key differences that make some state programs better targeted toward lower-income households: some states have income limits for credit eligibility and 13 states have refundable credits (National Center for Children in Poverty, 2005).

Utilization

Estimates

Tables 1 and 2 shows the utilization over time from SOI data. Approximately six million returns are filed claiming the child care credit and the dollar value of the credit is around \$2.5 billion for all the years in the tables. Because the credit is not refundable, almost no taxpayers claiming the credit have income below \$10,000. With no upper-end income limit, by the 2000s, more than two-thirds of all returns filed and dollars received are by taxpayers with more than \$40,000.

¹⁰ These pre-tax benefits provided by an employer are essentially valued at the pre-tax dollar contribution amount multiplied by the taxpayer's marginal tax rate. This is less relevant for low-income individuals because even if employers offer such plans (Eiler and Hrunig (2003)) report that only 30 percent of full-time workers in medium and large establishments were eligible for this benefit in 1997), the low-marginal tax rates faced by these taxpayers typically imply a low value of the Dependent Care Assistance Plans relative to the tax credit.

¹¹ Obviously, as a share of income, the credit value may be higher for eligible households with lower income.

¹² Arkansas, California, Colorado, Hawaii, Iowa, Louisiana, Maine, Minnesota, Nebraska, New Mexico, New York, Oregon and Vermont have refundable credits. Delaware, District of Columbia, Idaho, Kansas, Kentucky, Maryland, Massachusetts, Montana, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina and Virginia have non-refundable credits.

The existing literature on utilization of the Child and Dependent Care Credit among low-income individuals comes from studies of the progressivity of the credit. This research relies almost entirely on income tax data and finds that taxpayers at the bottom of the income distribution rarely use the credit due to a lack of refundability. For example, Altshuler and Schwartz (1996) note that in a 1983 cross section and a ten-year panel of tax return data, the lack of tax liability prevented virtually all taxpayers with dependents in the first decile and half of those in the second decile from benefiting from the credit even if they would have had expenses eligible for the child care credit. Using 1989 income tax data, Gentry and Hagy (1996) find that fewer than three percent of families with dependents and income below \$10,000 take the credit. Overall, they find that 15.7 percent of families with dependents claim the credit in 1989. Finally, with 1998 tax return data that is not restricted to families with dependents, Eiler and Hrungrung (2003) find that no taxpayers in the bottom two deciles receive a benefit and the benefit to those in the third decile is minimal.

A major limitation to using income tax data to estimate utilization is the inability to establish eligibility for the credit. Income tax data does not include the age of the children, the income distribution within a couple, or data on child care expenses if the tax unit did not claim the credit. To address some of these issues, Gentry and Hagy (1996) use data from the 1989 National Child Care Survey to estimate usage rates. They calculate that overall 29.9 percent of families with an age-eligible child report participating in the credit program, with participation roughly increasing with income. Their work highlights the shortcomings of using survey data as well because they find that 21 percent of families with income below \$5,000 report claiming the credit, which, given the nonrefundability of the credit,

suggests survey respondents are inaccurate in reporting their credit receipt. Conditioning on families who report working parents and positive child care expenses, just over 50 percent of those in the bottom third and top third of the income distribution report claiming the credit.

Influences

Gentry and Hagy's (1996) estimates using survey data suggest that there are eligible individuals who do not claim the credit. This is not the focus of their paper, so they do not investigate this question and, to our knowledge, there is little or no research that considers why eligible individuals do not file for the credit. One explanation addressed by Eiler and Hrungrung (2003) is that some families receive a larger tax benefit by choosing the Dependent Care Assistance Plans.

Most of what we know about what influences the utilization of the Child and Dependent Care Credit reflects the labor force participation and child care choices of families that make them eligible for the credit, rather than a decision of eligible families to file for the credit. Usage among low-income households is low because these taxpayers are not categorically eligible for the credit. Specifically, they do not have dependent children under the age of 13 or other qualifying dependents, they do not have qualifying child care expenses or they do not have two-earner families. Altshuler and Schwartz (1996), for example, find that fewer than 30 percent of 1983 taxpayers in the bottom two AGI deciles claim dependents. Gentry and Hagy (1996) find similar results using 1989 tax data.

Using the NCCS survey data that includes data on children's ages, child care expenses and earnings of both spouses in a couple, Gentry and Hagy (1996) find results consistent with tax data: families with low incomes do not use the tax credit because they have zero tax liability. They also find that the low-income families

are less likely to be eligible for the credit because they do not work or do not have qualifying child care expenses. A small share of low-income families are ineligible because their child care expenses are above the secondary earner's income. Single parents are more likely to claim the credit, conditional on income, probably reflecting the work requirement (that is, both spouses in a married couple must work). Conditional on having a child under the age of 13, families are more likely to utilize the credit if they have younger children, the mother is more educated, the family has fewer children, and the family uses child care centers or family day care centers for their child care. Again, these characteristics primarily reflect labor market and child care decisions that would make the family eligible for the credit.

Education Credits

Description

The 1997 Taxpayer Relief Act created two non-refundable tax credits for required tuition and fees for post-secondary education: the HOPE Credit and the Lifetime Learning Credit. Each eligible student may only claim one education credit in a tax year. The HOPE tax credit, which is only available for the first two years of post-secondary education, provides a 100-percent credit on the first \$1,000 of required tuition and fees and a 50-percent credit on the second \$1,000, for a total maximum credit of \$1,500. The Lifetime Learning Credit is, in contrast, available for an unlimited number of years, including graduate work. Until the 2003 tax year, the credit was equal to 20 percent of \$5,000 of required tuition and fees, for a total maximum credit of \$1,000. Beginning in the 2003 tax year, the credit was equal to 20 percent of \$10,000 of required tuition and fees, for a total maximum credit of

\$2,000 (Fitzpatrick and Maag, 2003). One important difference between the credits is that each eligible student in the tax unit may claim the HOPE credit, while the Lifetime Learning Credit is computed for the entire tax unit. The OMB (2005) estimates the Hope Credit cost at \$3.3 billion in 2004 and the Lifetime Learning Credit cost at \$2.2 billion.

To claim either credit, a taxpayer fills out Form 8863, where they are responsible for reporting the eligible student and expenses (IRS, 2004f). Two pages of instructions describe the eligibility requirements.

There are at least three reasons why the credits may not be well targeted at low-income taxpayers. First, like the Child and Dependent Care Credit, the education credits are non-refundable. The by-now-familiar Figures 1 through 3 show the effect of non-refundability, which has the same effect on the credit value as the Child and Dependent Care credit for our hypothetical families. What is not obvious in these figures is that taking one credit may preclude taking others for households that are eligible to claim multiple credits, if the credits reduce tax liability to zero. Second, while both education credits have inflation-adjusted income limitations, the maximum income is well above the median income. In 2004 both credits are phased out by one percent for each additional \$100 in AGI between \$85,000 and \$105,000 for joint filers and between \$42,000 and \$52,000 for singles and head-of-households (IRS, 2004f).¹³ Third, students cannot count required tuition and fees paid with non-taxable funds, such as scholarships and grants, but they can count required tuition and fees paid with loaned funds. As a result, students from low- and moderate-income families who qualify for the federal Pell Grant or similar state means-tested grant programs may receive little or no benefit

¹³ Figures 1 through 3 also illustrate how different phaseout ranges are for joint filers relative to others.

for the education credits, while wealthier students who receive student aid through various government subsidized loan programs can receive larger credits.

Utilization

Estimates

Tables 1 and 2 show the utilization of the education credits over time. In the 1998 tax year, the first year that the credits were available, the IRS reports that 4.6 million returns claimed an education credit. Since that time, the number of returns claiming an education credit has grown to 7.4 million in the 2003 tax year, according to preliminary data from the IRS (Balkovic, 2005). Table 2 shows the credit is not heavily utilized by low-income taxpayers. Around half of all returns filing for an education credit have AGI in excess of \$40,000 and more than half of the credit dollars accrue to this group.

Using the IRS Master File in the 2000 tax year, Long (2004) finds evidence consistent with Tables 1 and 2: only one percent of taxpayers with AGI less than \$10,000 claimed a credit, while 12.43 percent of those taxpayers with AGI between \$75,000 and \$100,000 claimed a credit. The evidence from survey data provides a different denominator as a comparison group. Using data from the National Postsecondary Student Aid Survey (NPSAS) from 1999 to 2000, the GAO (2002b) estimated that 40 percent of all college undergraduates received an education tax credit, but only four percent of all dependent undergraduates and nine percent of all independent undergraduates with family incomes less than \$20,000 received the credit.¹⁴

Conditional on being eligible for the credits, there is a wide range of partici-

pation rate estimates. The GAO (2002), using the 1999 to 2000 NPSAS, assumed that approximately 90 percent of undergraduates eligible for a credit claimed one, and found this assumption produced an estimate of the cost of the education credits that was 94 percent of the actual IRS estimate. However, they acknowledged that there is no reliable data on the rate that those eligible for the HOPE and Lifetime Learning Credits claim the credit because no dataset includes tax return information, post-secondary enrollment and degree information, and receipt of federal student aid programs, all of which are required to accurately assess eligibility (GAO, 2002b).¹⁵ A survey matched with administrative financial aid data of a 3,985 randomly selected University of California (UC) students conducted in 2000 by Hoblitzell and Smith (2001) also estimates a relatively high education credit participation rate: 78 percent for the 1999 tax year. Specifically, 37 percent of UC students were eligible and 29 percent report using a credit. Forty-five percent of those claiming the credit came from families with less than \$60,000 in annual income and 22 percent came from families with less than \$20,000.

Long (2004) notes that UC students tend to be wealthier than the national average, making it difficult to generalize from the Hoblitzell and Smith (2001) study. Using the 1999–2000 NPSAS, Long (2004) estimates that 43 percent of all undergraduates are eligible for an educational credit, but less than a third of eligible students acknowledged during the telephone interview portion of the NPSAS that they or their parents claimed the credit. Using two definitions of eligible students, she

¹⁴ Moreover, undergraduates with family incomes of less than \$20,000 also received a smaller average credit than those with higher family incomes.

¹⁵ The NPSAS has good information on enrollment, degree, and eligible expenses, but relies on self-reported or imputed data on income for students who do not apply for financial aid. Also, because the Lifetime Learning Credit is based on returns the Hope is based on students, it is difficult to accurately assess eligibility without making it household tax information, including income. Finally, income and tuition information are based on the academic year, while tax eligibility relies on the tax year.

consistently finds that slightly fewer than 30 percent of all eligible students claimed a credit, with dependent undergraduates having the lowest participation rate of all students, at approximately 20 percent. Long (2004) also notes that in the IRS Masterfile, almost 3,000 taxpayers with income over the income limit claimed the credit, suggesting utilization among ineligible taxpayers or simply errors in the data.

Studies of the education credits show a very wide range of participation rates among eligible taxpayers, including fewer than 30 percent up to 78 percent. As in the EITC estimates, the range of estimates highlights the sensitivity to using different data sources. The highest rates are those using administrative data on the number of filers, while the rates at the low end are based on self-reported tax credit information.

Influences

Eligibility clearly influences utilization. Like the literature on utilization of the Child and Dependent Care Tax Credit there is some focus on taxpayers not filing because they are not eligible. Both the GAO (2002) and Long (2004) find students were often ineligible for the credits due to the income limitations of the credit or lack of tax liability.

In addition, there is evidence that the larger the benefit is of filing the credit, the more likely a taxpayer is to file. Specifically, in the California survey data, Hoblitzell and Smith (2001) find that eight percent of main-campus students who did not claim a credit reported that the credit amount was too small to be worthwhile. Long (2004) notes that utilization is positively correlated with attending four-year institutions, holding independent status, living in states with higher tuition burdens, and relying on federal financial aid programs to finance education, all of which are correlates to higher tuition costs as a share of income and, therefore, higher benefits of the credit.

Information costs may be a large factor in non-filing. Long (2004) finds that only 33 percent of eligible parents in the 1999 National Household Education Survey reported knowledge of either credit. Characteristics positively correlated with awareness of the credit include income, education of the parent, children closer to college age, non-minority status and graduate-student status. Hoblitzell and Smith (2001) find that 59 percent of non-filers did not claim the credit because they believed they were ineligible and 27 percent of all non-filers said they were unaware of the credit. As some confirmation to the misinformation about the credit, the survey data show that most students believe they are ineligible because their income was too high, yet the administrative data indicates that most students were ineligible because of the non-taxable aid restriction. Presumably due to concerns about information, the University of California system provided additional information to assist their students in claiming the federal credits, including detailed information about their educational finances as well as a brochure about the credits (Hoblitzell and Smith, 2001). There is no evidence that we know of about whether these policies are successful.

Long (2004) also finds that demographics associated with lower costs of filing or gaining information about the credit are positively correlated with eligible taxpayers filing the credit. These include being married, being a dependent or having a parent with some college experience. Long (2004) also finds that eligible female and white students were more likely to claim the credit than male students and students from other racial groups.

Saver's Credit

Description

The Retirement Saver's Contribution Credit, "Saver's Credit," began in 2001

and is scheduled to expire in 2006. The goal is to provide incentives for low- to moderate-income households to save for retirement and to provide an alternative to the structure of most other retirement savings incentives that tend to benefit higher-income workers (Gale, Iwry and Orszag, 2004). The credit is a nonrefundable tax credit for contributions of up to \$2,000 (not indexed for inflation) made to an Individual Retirement Account (IRA) or an employer-defined contribution plan for households with low to moderate incomes. Joint filers with AGI (not indexed for inflation) of up to \$50,000, head-of-household filers with up to \$37,500 in AGI, and single filers with AGI of up to \$25,000 can receive a credit up to 50 percent of their contribution. For joint filers, each spouse may claim the credit. The percentage phases down quickly from 50 percent to ten percent between AGI of \$30,000 to \$32,501 for joint filers, \$22,500 to \$24,376 for head-of-household filers and \$15,000 to \$25,000 for single filers.¹⁶ In an effort to prevent taxpayers from moving money into an account only to claim the credit, the IRS reduces the amount of the credit if the taxpayer received distributions from certain pension and IRAs. The contribution eligible for the credit is reduced by distributions received in the tax year for which the credit is claimed, the two preceding tax years, and in the period after the end of the tax year, but before the due date for filing the return. This constraint may be particularly relevant for low-income taxfilers who are more likely to be liquidity constrained and rely on savings income.

The OMB (2005) estimates that the Saver's Credit cost \$970 million in 2004.

By now, the lines in Figures 1, 2 and 3 are not surprising. The nonrefundability of the credit does not allow taxpayers with income below the tax threshold to utilize the credit. Nonrefundability, combined with the marginal tax rate parameters and the credit phaseout lead to a quirk in the credit's design. Note that for the head-of-household and single taxpayers in our figures, the maximum credit of \$1,000 (50 percent of a \$2,000 contribution) is *never* attainable because their tax liability over the range where the 50-percent credit is in place is always below \$1,000.¹⁷ Likewise, joint filers can never attain the maximum \$2,000 credit.

To file for this credit, a taxpayer must list qualifying savings contributions for their family on the single-page Form 8880 (IRS, 2004d), which is accompanied by a single page of instructions.

Utilization

Estimates

Tables 1 and 2 show that in 2002, the first year of the credit, there were 5.3 million returns that claimed the saver's credit, at a cost of approximately \$1.1 billion. Once taxpayers have reached the tax threshold, the rapid phaseout rate of the credit ensures that lower-income families receive more of the credit: 75 percent of the returns and 80 percent of the credit dollars accrue to taxpayers with AGI below \$40,000.

The literature on utilization of the Saver's Credit focuses a great deal on the design features that make low-income

¹⁶ For joint filers with AGI \$0 to \$30,000, the rate is 50 percent; 30,001 to \$32,500, 20 percent; and \$32,501 to \$50,000, ten percent.

¹⁷ For example, in 2004 a head-of-household filer with one child has a standard deduction of \$7,150 and two personal exemptions of \$3,100 for a tax threshold of \$13,350. A head-of-household taxpayer with \$22,000 of income, still in the maximum 50-percent credit range, has taxable income of \$8,650 (\$22,000-\$13,350). With a marginal tax rate of ten percent, the tax liability is \$865, well below the maximum tax credit of \$1,000. The maximum tax credit is never available to head-of-households. The same is true for single filers. In 2004 the tax threshold is \$7,950 (\$4,850 standard deduction plus the \$3,100 personal exemption). With income in the maximum credit range and, therefore, a marginal tax rate of 10 percent, their tax liability is always below the credit amount.

individuals ineligible for the credit. Burman, Gale, Hall and Orszag (2004) use an Urban-Brookings Tax Policy Center microsimulation model to conclude that in 2004 approximately five percent of all filing units would use the credit with the benefits spread roughly evenly between the second, middle, and fourth cash income quintiles.¹⁸ However, only 0.2 percent of the lowest cash income quintile would receive a benefit. In simulations with refundability added to the credit structure, the lowest quintile would receive 15 percent of the benefits, the second quintile, 38 percent, and the middle quintile, 34 percent. Orszag and Hall (2003), using the same Tax Policy Center model, estimate that only 20 percent of those income eligible, in the 2003 tax year, would receive any benefit from the tax credit if they contributed to an IRA or 401(k), and only 0.1 percent of those income eligible would receive the maximum \$1,000 credit if they contributed the \$2,000 maximum.

Koenig and Harvey (2005) in this volume use actual tax return data to estimate utilization in the first year of the Saver's Credit. They use 2002 Statistics of Income data that is linked to W-2, and other tax forms that provide information on eligible savings contribution, to estimate the utilization of the Saver's Credit. They identify a sample of taxpayers that meet the following categorical requirements for the credit: at least age 18 years old, not a student,¹⁹ not a dependent. In estimating utilization, the authors assume that those

who report receiving the credit are eligible for the credit, even if their methodology does not show the individual as eligible, under the assumption that there are data errors that prevent them from correctly identifying all eligible individuals. Conditioning on positive tax liability in this group reduces the number of filers potentially eligible for the Saver's Credit by 40 percent. Overall, they estimate 14.2 percent of these categorically and income-eligible filers take the credit, with the utilization rate highest among heads-of-households. Further restricting the sample of filers who made contributions to a retirement account, the authors estimate that 66 percent of these tax filers took the credit.

Brady and Hrungr (2005) find that the so called "anti-churning rule," which reduces contributions eligible for the Saver's Credit by the amount of IRA and 401(k) distributions during the contribution year and the prior two years, reduces by up to 18 percent the number of taxpayers that otherwise fully qualify for the credit and have eligible contributions. Overall, they find that approximately 55 percent of all eligible taxpayers take the credit.²⁰

Influences

"Ineligibility because the credit is not refundable" is one explanation for why low-income individuals do not use the Saver's Credit. Another explanation for potentially low utilization is that low-income taxpayers do not save in tax-deferred retirement savings plans. Koenig

¹⁸ The tax model uses 1999 SOI data, 2000 CPS along with the Survey of Consumer Finances and SIPP.

¹⁹ They cannot distinguish full- from part-time students, and only full-time students are ineligible. However, even assuming all students were eligible for the saver's credit does not change their estimates greatly.

²⁰ However, they do not categorize all those that take the credit as eligible. Specifically, they categorize about 600,000 taxpayers who took the credit (about 11.5 percent of taxpayers with a credit) as ineligible. If, in fact, these taxpayers are incorrectly coded as ineligible, and their number is added to both the numerator and denominator, the take-up rate would increase to 58 percent. The authors are only able to identify taxpayers as students if they took the HOPE or Lifetime Learning Credits. As such, they may be overestimating the eligible population and underestimating the take-up rate. The difference in estimated take-up rates between Brady and Hrungr (2005) and Koenig and Harvey (2005) may be due in part to their methods of identifying full-time students.

and Harvey (2005) show that fewer than 13 percent of taxpayers in the first three AGI deciles save in tax deferred savings plans. Brady and Hrung (2005) show that of the taxpayers who would have qualified for a Saver's Credit in 2001 (the year before the credit was in effect) based on the criterion of age, AGI, and the presence of earnings (but without regard to having positive tax liability), fewer than 25 percent contributed to an IRA or a 401(k)-type plan.²¹ The authors also find that, at least in its first year, the credit does not appear to have greatly increased the number of low-income individuals contributing to retirement accounts: nearly 80 percent of those who took the credit in 2002 had contributed to a retirement account in 2001.

The benefit of the credit appears to influence the utilization of the credit. Koenig and Harvey (2005) show that eligible non-claimants are eligible for smaller credit amounts than eligible claimants, although the credit for those who should have claimed the credit is quite significant. A large randomized field experiment among H&R Block clients in the low- and middle-income St. Louis neighborhoods during the 2005 tax filing season (Duflo, Gale, Liebman, Orszag and Saez, 2005) also sheds light on the how the design of the credit may affect participation. The authors, in conjunction with H&R Block, offered matching contributions in addition to the Saver's Credit to savings of zero percent, 20 percent or 50 percent at the time of tax preparation. They found that the match rate had a large and positive effect on take-up of the IRA contribution.

Given that all the data used to date on the utilization of the Saver's Credit is from the first year of the credit, lack of informa-

tion about the credit may be an important influence for those not using the credit. As support for this hypothesis, Brady and Hrung (2005) show that tax payers using paid preparers are much more likely to claim the credit than those filing their own taxes. Koenig and Harvey (2005) find that eligible taxpayers who claimed the credit were more likely to use a professional tax preparer or a computer software program to complete their returns than those eligible taxpayers who did not claim the credit. Duflo et al. (2005) find that take-up of the matching IRA contribution was strongly related to the specific tax professional who worked with the client. They also find that take-up of the IRA for those eligible for the Saver's Credit was only slightly higher than for those not eligible, which the authors believe may be related to the complexity of the rules governing the Saver's Credit.

As in the case with other credits we have considered, those individuals facing lower costs of filing seem more likely to utilize the credit. Duflo et al. (2005) find that take-up was also higher for married filers and increased with income.

EMPLOYER-CLAIMED INCOME TAX CREDITS²²

The Federal tax system also has a number of credits targeted at low-income individuals through employers of low-income individuals. Generally there are two types: (1) the categorically targeted, i.e., those that target hiring specific types of employees, typically those who received government aid; and (2) the geographically targeted, i.e., those that target the hiring of employees from a geographi-

²¹ Using 1996 Statistics of Income (SOI) data linked to information from W-2 forms, Joulfaian and Richardson (2001) find that participation in eligible savings is relatively low for single-earner households, households with dependents, lower-wage earners, those with smaller amounts of non-labor income or those who face lower marginal tax rates. The Congressional Budget Office (2003), using 1997 tax data, found that utilization of tax-deferred retirement plans was substantially less likely for workers with lower levels of adjusted gross income.

²² Appendix Table 2A summarizes the research on each employer-claimed income tax credit.

cal region that has high poverty and unemployment rates. The employers can be corporations or individual taxpayers with, for example, sole proprietorships.

Categorically Targeted Employer-Claimed Tax Credits

Description

The largest of the credits that targets specific types of employers is the Work Opportunity Tax Credit (WOTC), which began in 1996 and was recently extended to include wages paid in 2005. The WOTC requires employees to be certified with a state employment security agency (SESA) before starting work by either (1) receiving certification from the SESA on the day the employee begins work or (2) completing a request for certification (IRS, 2002a) on or before the employer makes the job offer and submitting the form by the 21st day after the individual begins work (IRS, 2004g). Eligible employees for the WOTC include: vocational rehabilitation referrals; economically disadvantaged youth, which are defined as 18- to 24-year-olds who live in an Empowerment Zone, an IRS-specified Enterprise Community, or hail from a family that currently or recently received food stamps; economically disadvantaged Vietnam veterans; Supplemental Security Income recipients; economically disadvantaged former convicts; and workers who have received AFDC or Temporary Assistance for Needy Families (TANF) for at least nine of the previous 18 months. Certified employees must work a minimum of 120 hours and the credit rate is 25 percent of wages for work up to 400 hours. If the employee works more than 400 hours, a 40 percent subsidy rate applies up to a maximum of \$6,000 in wages, result-

ing in a maximum credit of \$2,400 (IRS, 2004g).²³

When filing taxes, the employer claims the WOTC for all certified employees by reporting the number of qualified employees and their hours on Form 5884, a single-page form with two pages of instructions (IRS, 2004h). The OMB (2005) estimated the WOTC cost to be \$205 million in the 2004 fiscal year.

The Small Business Job Protection Act established the WOTC in order to improve upon its predecessor, the Targeted Job Tax Credit (TJTC), which existed from 1978 until the end of 1994. The TJTC had a more generous credit rate of 40 or 50 percent and defined at-risk youth somewhat differently—as 19- to 23-year-olds who were in families earning less than 70 percent of the Bureau of Labor Statistics lower living standard for each of the last six months (Joint Committee on Taxation, 1996). The goal in updating the TJTC to the WOTC was to "...[create a] program whose design will focus on individuals with poor workplace attachments, streamline administrative burdens, promote longer-term employment, and thereby reduce costs relative to the prior-law program (Joint Committee on Taxation, 1996, 97)."

The Tax Reform Act of 1997 created a second large-scale employer tax credit aimed at low-income individuals—the Welfare to Work (WtW) Program—as a way to encourage firms to hire long-term welfare recipients. Firms are eligible to receive a credit for 35 percent of wages paid in the first year of employment and 50 percent in the second year (for the first \$10,000 in wages, resulting in a maximum credit of \$8,500 for both years) for a certified employee who works at least 400 hours. Certifiable employees must have received TANF for at least 18 consecutive

²³ Prior to the Tax Reform Act (TRA) 1997, the credit required eligible employees to work a minimum of 400 hours and paid 35 percent of wages up to \$6,000 for a maximum credit of \$2,100 (Joint Committee on Taxation, 1996). Also the age requirement for at-risk youth was 25.

months prior to being hired, have become ineligible for assistance from the state or federal government or belong to a family that received TANF for any 18-month period after August 1997 and within two years of being hired (IRS, 2004g).²⁴ The certification process is identical to the process for the WOTC. To claim the credit an employer must file form 8861, a single-page form with two pages of instructions requiring the employer to report the total amount of qualified first-year and second-year wages paid to qualified employees (IRS, 2004i). The program was recently extended to include wages paid for employees starting work in 2004. OMB (2005) estimates a \$60 million tax expenditure in 2004 for the WtW credit.

Utilization

Estimates

Tables 3 and 4 show the utilization of the WOTC and WtW over time. Of course, there is no need to show the share claimed on behalf of low-income individuals because the credits explicitly require low-income individuals to be the targets. The Tables show a large increase in the number of returns filed (particularly those filed by individuals) and credit amounts (particularly those filed by corporations) since the inception of the WOTC. By 2002, the utilization of the WOTC is comparable in return and dollars to the last year of the TJTC. The WtW credit has also seen dramatic growth in the utilization; five years after its enactment, the credit dollars have increased almost five fold.

Research on the utilization of the categorically targeted employer-claimed tax credits has two dimensions. One is the firm's utilization decision and the second is the number of individuals affected by firms utilizing the credit.

Because the firm ultimately decides whether to file for the credit, we begin

with estimates of firm utilization. IRS data show that in 1999, about one out of 790 corporations and one out of 3,450 individuals with a business affiliation reported the WOTC on their tax returns (GAO, 2002a). These dramatically low participation rates are even smaller than those for the former TJTC. Using a Department of Labor 1979 and 1980 survey of 5,859 firms, Bishop and Montgomery (1986) find that while 13 percent of firms that reported knowledge of the TJTC claimed the credit, only 2.25 percent of all firms surveyed claimed the TJTC. Bishop and Kang (1991) also find dramatically low participation rates for the TJTC, using a Gallup survey, designed by the National Center for Research in Vocational Education, of 3,412 firms. Bishop and Kang (1991) estimate that participation was 4.3 percent in 1980, 3.5 percent in the first part of 1981, and only 2.7 percent for the end of 1981/beginning of 1982.

While these estimates are shockingly low, the target of these programs is the eligible employees, not the employer. For this reason, although ultimately the firm decides whether to file for the WOTC, the goal of the program is arguably to provide jobs for as many of the eligible population as possible. For this reason, participation rates among eligible employees may be a more meaningful participation rate.

Hamersma (2003) estimates the participation rate of the targeted population in the WOTC and WtW credits. She focuses on participation rates among those meeting the welfare eligibility criteria because identifying other eligible groups, such as ex-felons, is impossible in survey data. The numerators are the number of employees certified for the WOTC or WtW by the Department of Labor. The number of employees certified may exceed the number subsidized due to the minimum hours worked requirement,

²⁴ The WtW credit cannot be claimed for wages that have already been used to claim the WOTC or Empowerment Zone credits.

TABLE 3
EMPLOYER TAX RETURNS: TAX YEARS 1995-2003
 (All Figures Are Estimates Based on Samples)

Item	Tax Year								
	1995 (1)	1996 (2)	1997 (3)	1998 (4)	1999 (5)	2000 (6)	2001 (7)	2002 (8)	2003 (9)
All individual returns	118,218,327	120,351,208	122,421,991	124,770,662	127,075,145	129,373,500	130,255,237	130,076,443	130,423,626
All corporate returns	4,474,167	4,631,370	4,710,083	4,848,888	4,935,904	5,045,274	5,135,591	5,266,607	N/A
Work opportunity tax credit									
Individual	N/A	5,290	7,304	7,823	8,483	8,301	9,988	17,690	17,150
Corporate	N/A	671	2,653	2,000	2,086	2,297	1,789	1,752	U
Total	N/A	5,961	9,957	9,823	10,569	10,598	11,777	19,442	U
Welfare to work tax credit									
Individual	N/A	N/A	*35	2,349	1,549	2,936	3,058	3,615	3,535
Corporate	N/A	N/A	*8	538	1,082	986	678	785	U
Total	N/A	N/A	0	2,887	2,631	3,922	3,736	4,400	U
Jobs credit ²									
Individual	18,613	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Corporate	2,910	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	21,523	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Empowerment zone credit ¹									
Individual	239	460	686	3,100	4,752	5,073	6,745	17,250	22,553
Corporate	193	464	630	402	420	479	559	1,657	U
Total	432	924	1,316	3,502	5,172	5,552	7,304	18,907	U
Tentative empowerment zone credit ¹									
Individual	250	461	849	3,105	4,757	5,100	7,627	19,564	25,539
Corporate	330	697	861	539	587	675	795	2,544	U
Total	580	1,158	1,710	3,644	5,344	5,775	8,422	22,108	U

Notes:

N/A - Not applicable; U - Unavailable at time of publication.

* Estimate should be used with caution due to small number of sample returns it is based on.

¹For Tax Years 2002 and 2003, the empowerment zone credit data includes the renewal community employment credit.

²Represents prior year returns included in the 1995 individual income returns statistics.

Source: Statistics of Income Division, personal correspondence.

TABLE 4
EMPLOYER TAX CREDIT AMOUNTS: TAX YEARS 1995-2003
 (All Figures Are Estimates Based on Samples; Money Amounts Are in Thousands of Dollars)

Item	Tax Year								
	1995 (1)	1996 (2)	1997 (3)	1998 (4)	1999 (5)	2000 (6)	2001 (7)	2002 (8)	2003 (9)
Work opportunity tax credit									
Individual	N/A	8,473	15,436	29,044	32,197	30,406	33,151	55,029	54,865
Corporate	N/A	6,896	118,757	232,675	221,678	235,689	207,201	216,235	U
Total	N/A	15,369	134,193	261,719	253,875	266,095	240,352	271,264	U
Welfare to work tax credit									
Individual	N/A	N/A	*55	2,587	5,335	10,595	16,269	14,593	13,117
Corporate	N/A	N/A	*51	18,185	77,357	91,973	97,891	102,419	U
Total	N/A	N/A	0	20,772	82,692	102,568	114,160	117,012	U
Jobs credit ²									
Individual	38,992	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Corporate	174,361	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	213,353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Empowerment zone credit ¹									
Individual	8,497	10,810	19,091	22,088	26,728	21,948	24,274	61,262	83,449
Corporate	7,409	9,382	13,223	19,118	21,645	23,527	23,401	59,695	U
Total	15,906	20,192	32,314	41,206	48,373	45,475	47,675	120,957	U
Tentative empowerment zone credit ¹									
Individual	9,489	11,863	23,047	27,488	31,469	42,468	38,763	101,247	157,672
Corporate	10,684	21,532	36,694	36,647	44,181	56,259	64,073	146,014	U
Total	20,173	33,395	59,741	64,135	75,650	98,727	102,836	247,261	U

Notes:

N/A - Not applicable; U - Unavailable at time of publication.

* Estimate should be used with caution due to small number of sample returns it is based on.

¹For Tax Years 2002 and 2003, the empowerment zone credit data includes the renewal community employment credit.

²Represents prior year returns included in the 1995 individual income returns statistics.

Source: Statistics of Income Division, personal correspondence.

yet the number of subsidized employees is not collected by the government. Using the SIPP, she calculates the number of eligible²⁵ individuals in two ways. The first uses the number of those potentially eligible for the credit based on a certain demographic characteristic. Due to data limitations, this characteristic is youth recipients of food stamps. The second estimate uses the number of the eligible and newly hired, which eliminates those who are out of the labor force. She estimates a WOTC participation rate between 0.2 and 3.3 percent for the potentially eligible and between 0.3 and 16.6 percent conditional on them being new hires. The total eligible population for the WtW credit cannot be disentangled from those who could be claimed under the WOTC using SIPP data. As a compromise, Hamersma (2003) estimates a 1999 participation rate for a sample eligible for either the WOTC or the WtW: respondents who received at least nine months of welfare in the past 18 months. Her estimates are between 3.7 and 5.7 percent for all individuals meeting the welfare criteria and, conditioning on respondents who were new hires, she estimates the participation rate between 9.3 and 32.4 percent.

These estimates are comparable to the TJTC numbers estimated by Katz (1998). Using CPS and Department of Labor data from the mid to late 1980s, he estimates that nine percent of economically disadvantaged youth who were both eligible and employed were claimed under the credit.

As the current research highlights, there are data limitations that prevent comprehensive studies of participation. It is impossible to identify the eligible population using survey data, along a number of dimensions, including cat-

egorical eligibility. However, the most generous estimates suggest that fewer than one-third of all estimated eligible individuals participate in the programs as they have been designed.

Influences

Firms that may benefit more from the credits, because they hire more of the targeted employees, are more likely to file for the credit. The GAO (2002a) using IRS data show that corporations in retail trade, hotel and food services, and non-financial services accounted for approximately three-quarters of total corporate WOTC dollars for 1999. The GAO reports that those knowledgeable about the WOTC, including federal and state government officials, report high utilization among retail and service businesses because of their high turnover and demand for low-skilled workers (GAO, 2002a).²⁶ Likewise, Bishop and Kang (1991) find that employers paying low wages, employing low-skilled workers and offering non-secure jobs were all significant determinants of using the TJTC.

The high costs of complying with the credit requirements may also influence utilization. For example, Hamersma (2003) points to evidence that the minimum-hours requirement may be a major reason for the low participation in the WtW and WOTC credits. Her evidence comes from a GAO study, which showed that certified employees are often not employed long enough to meet the hours requirement to be claimed by the employer (Hamersma, 2003). The persistent finding that larger firms are more likely to participation in these credits (GAO, 2002a; Bishop and Montgomery, 1986; Bishop and Montgomery, 1993; Bishop and Kang, 1991) also suggest that compliance costs are a large

²⁵ This estimate is still only the potentially eligible because a firm must have tax liability to claim the credit.

²⁶ There is mixed evidence on whether firms "churn" employees, i.e., hire them for the minimum amount of hours necessary to utilize the credit, before releasing them (GAO, 2001a; Hamersma and Heinrich, 2004).

influence on utilization. Bishop and Kang (1991) specifically find that firms better able to cover the fixed costs of participating because they have a personnel office or are a multi-establishment firm all suggest that compliance costs influence participation decisions.

Bishop and Kang (1991) find that the following indicators of low incremental cost are significant in determining use of the TJTC: lower-than-average wages (so the credit pays a larger percentage of the total wage bill), having hired an employee in the previous quarter, and being a non-union employer.

Knowledge of the credit also seems to be a factor in firms taking the credit, although knowledge could clearly be endogenous to the benefit of the firm taking the credit. Bishop and Montgomery (1986) find higher participation rates among employers who know of the credit. They also find that government outreach in the form of personal contact by a representative of a government agency or local business organization is positively correlated with utilization. Employers who had been contacted by an outreach program were 63 percent more likely to participate in TJTC than those who knew about the credit from another source, according to estimates conducted by the Department of Labor using a survey of 5,859 employers in 28 labor markets.

There is indirect evidence that the potential for employee stigma could also influence the participation rate in the employer-based tax credits. The issue is that employees have to identify themselves to employers as members of an at-risk group that is certifiable for the credit and this imposes a stigma cost on the employees being hired (see a summary in Dickert-Conlin and Holtz-Eakin (2000)).

Geographically Targeted Tax Credits

Description

There are two federal-level geographically targeted tax credits: Empowerment Zones (EZ) and Renewal Community (RC). The Omnibus Budget Reconciliation Act of 1993 established the EZ, and the Community Renewal Tax Relief Act of 2000 created the RC, which both provide credits to individual or corporate employers based on the census tract location of the employer and employees living in the area. The goal of these credits is to revitalize distressed urban and rural communities through increased employment opportunities and wages for members of targeted communities. Generally, the EZ requires a minimum of 20- to 35-percent poverty levels and 6.3-percent unemployment rates and the RC requires a minimum of 20-percent poverty levels and 9.45-percent unemployment rates (GAO, 2004). The only condition on the type of person hired for the firm is that the employee needs to live within the designated zone. A list of designated areas is found at www.irs.gov and <http://www.ezec.gov/Communit/ruralezec.html>. An employer can determine its own and its employees' eligibility through the Housing and Urban Development (www.hud.gov/crlocator) website or a toll-free number (IRS, 2004g).

The EZ credit is for 20 percent of the first \$15,000 in wages, for a maximum of \$3,000, while the RC credit is for 15 percent of the first \$10,000 for a maximum of \$1,500. The OMB (2005) estimates tax expenditures of \$1.08 billion in tax revenue from the EZ/EC²⁷ and RC.

To file for these credits, a firm must fill out form 8844, which involves reporting wages paid to the qualified employee and

²⁷ ECs are Enterprise Communities. They are geographically targeted areas that get a special allowance for depreciation and some further tax preference on offering bonds. OMB does not break down this estimate further. GAO (2002a) points out that the EZ/RC wage credit makes up the majority of the credit dollars.

showing that the firm had some tax liability.²⁸ The actual paperwork is a page long and the document has instructions about how to check eligibility of an employee.

Several states also have credits available based on the geographic location of employees' homes and where they do most of their work. Most of these programs work similar to the federal program, and in fact use the same name as the federal program.²⁹

Utilization

Estimates

Tables 3 and 4 show that the utilization of the EZ and RC credits has grown extensively since 1995. The introduction of the RC in 2002 accompanied a dramatic jump in the number and dollar-amount of credits claimed by both individuals and corporations. The geographically targeted credits have no way of distinguishing if credit dollars are claimed for disadvantaged employees in the region.

The GAO (1999) surveyed 2,400 employers in 1997 and found that 33 percent of large urban businesses, 70 percent of small urban businesses, and 47 percent of rural businesses indicated that they did not use any of the tax advantages of the EZ credit, including the wage credit, that year.

The IRS can identify the number of firms claiming the credit; however, finding the number of firms eligible to claim the credit is not easy. The GAO (2004) cites the following matching problem.

[A]ccording to IRS officials, the agency cannot reliably link businesses claiming the employment credit with specific EZs or RCs due to two factors. First, ac-

cording to IRS officials the addresses business owners list on tax forms do not necessarily correspond with the location of their business operations, but may be a residence or the address where the business is incorporated. Second, the IRS form used to claim the EZ and RC Employment Credits does not require the taxpayer to identify the EZ(s) or RC(s) where the business operations eligible for the credit are located. (32-3)

This matching problem makes it prohibitively difficult to characterize the eligible population for each credit by location, so that meaningful participation rates are not available.

Influences

The GAO (1999) survey found that employers who did not use the tax incentives claimed that they either did not know about them (40 percent), did not qualify for them because the employees did not live in an EZ or were family members (35 percent), did not have tax liability (five percent), or found them too complicated to use (eight percent). The remaining respondents either did not answer the question or gave other reasons.

Like the categorically targeted tax credits, there is evidence that employer size is positively correlated with using these geographically targeted credits, perhaps because the economies of scale lower the cost of complying. The GAO (1999, 2004), in a 1997 survey of 2,400 employers in the nine original Empowerment Zones,³⁰ finds that large urban employers were more likely than small urban employers to use the Empowerment Zone wage credit. Bershadker and Brashares

²⁸ This is a little more complicated for carry-forward credits used for previous years.

²⁹ GAO (2004) lists Alaska, Delaware, Idaho, Kansas, Montana, New Hampshire, Nevada, North Dakota, South Dakota, and Wyoming as the only states that do not have some sort of geographically based credit for employers. Many of these states offer special credits for hiring or training employees in certain industries or other job-related credits that are not based on geographic location of employees.

³⁰ These include Atlanta, Baltimore, Chicago, Detroit, Philadelphia / Camden, New York, the Kentucky Highlands, the Mississippi Mid-Delta, and the Rio Grande Valley in Texas.

(2000), using 1996 and 1997 IRS tax form data, show that among individuals claiming the credit, 22 percent have AGI over \$500,000, but this represents over 65 percent of the total amount of claims. Among corporations claiming the credit, 18 percent of the corporate returns had assets over \$100 million, and these 18 percent represent 52 percent of the dollar amount claimed.

The benefits may be largest to firms that are most likely to employ persons in these designated areas, and Bershadker and Brashares (2000) found that 61 percent of claiming firms report that their business is in manufacturing.

Faulk (2001) examines the factors influencing a firm's decision to participate in Georgia's EZ program, the Job's Tax Credit (JTC). The JTC, like the EZ credit, provides a tax credit to firms based on their county of location.³¹ The JTC, however, is only available for firms in certain industries, is based on the number of jobs created by the firm (instead of wages), and counts toward state tax liability. Using corporate income tax returns of firms that were eligible to take the credit and the Georgia Department of Labor's ES202 data to identify which ones actually took the credit, Faulk (2001) finds a high participation rate of 70 of the 151 firms in the sample. The analysis finds that the following were significant in determining if a firm claims the credit: having tax liability, previously taking the credit, employing more workers, the number of eligible jobs credited, being headquartered in Georgia, and being a "start up" firm. The results suggest that a lack of information and a small credit amount are the primary reasons why the credit is not taken.

In summary, almost nothing is known about the participation in geographically targeted EZ programs, except for the number of firms claiming the credit and

the dollar amount of their credits. What little we know about the incentives to participation comes from a single study on a Georgia state program. Lack of data on eligible employees in an area and actual hires is the primary source of poor utilization estimates.

UTILIZATION OF INCOME TAX CREDITS RELATIVE TO SOCIAL INSURANCE PROGRAMS

Historically, social goals targeted at low-income individuals were more likely to be met through expenditure programs. Although the design and incentives may be quite different, the literature on utilization of these programs may shed light on what influences take-up of tax credits. In some cases, the tax credits may be aimed at replacing welfare payments, so a clear understanding of the decisions to participate in these spending programs may be useful.

Given that, historically, most social insurance programs for low-income individuals were entitlement programs designed to provide short-term aid, the focus in the literature measuring participation is almost entirely on non-participation by eligible persons, rather than on how program design leaves some ineligible. Yet, like the tax credits, estimates of participation in social spending programs vary widely both across programs and across eligible subpopulations (Currie, 2004).

One caveat to the work on participation is consistent with the tax credit research: data. Currie (2004) notes that survey data provide imprecise measures of the eligible population because of a lack of precise information about key variables such as assets, earnings or disability status. This, in, turn makes it difficult to estimate eligibility and utilization in spending programs.

³¹ County characteristics, such as unemployment rate, average manufacturing wage, poverty rate, and per capita income, determine the credit levels.

Often cited in the literature on utilization of public programs are stigma, transaction costs, and lack of information, which are not necessarily mutually exclusive explanations. Although the application and utilization systems in spending programs have the potential to play a larger role in participation decisions, relative to tax credits, there is little empirical evidence that stigma does play a large role. Currie (2004) notes that there was no observable change in food-stamp participation rates after the introduction of electronic debit cards, which presumably would reduce the stigma associated with program participation.

However, there is a great deal of evidence that transaction costs are an important influence in the decision of those eligible to participate. Specifically, researchers find that when transactions costs are lowered, through means of less frequent recertification periods (Kabbani and Wilde, 2003), links with other spending programs (Ziliak, Gunderson and Figlio, 2003), and business-community involvement (Currie, 2004), participation is higher. For spending programs, an obvious business-community involvement comes from, for example, health care providers seeking reimbursement for treatment. While, in the tax-credit system, the links are direct in the case of employer-based tax credits, they are indirect in the case of tax preparation firms.

There is some evidence that the lack of information may result in a lack of participation (see, for example, the Daponte, Osborne, Sanders and Taylor (1999) food-stamp study). However, Currie (2004) concludes that this reason may be more important in smaller programs than in larger ones.

There is also evidence that when benefits are higher, participation is higher. Because spending programs are traditionally not tied to work, these links between characteristics and higher benefits are often the opposite of those for tax credits.

For example, participation tends to be counter cyclical, with higher participation when the economy is doing poorly (Blank and Wallace, 1999; Council of Economic Advisors, 1999; Currie and Grogger, 2001; Figlio and Ziliak, 1999; Ziliak et al., 2003). Blank and Ruggles (1996) find that a lower earnings potential due to lower education and higher numbers of children is associated with higher participation.

Overall, there is a tendency in the welfare literature to focus much more on the dynamic utilization of the programs (see Moffitt (1992) and Blank and Ruggles (1996)). Perhaps this is a function of the view that spending programs are temporary safety nets, rather than long-term systems of support. The existing work on the dynamic use of tax credits, including work by Altshuler and Schwartz (1996), Dowd (2005) and Horowitz (2005), highlights the severe data constraints facing researchers on this topic, but also suggests a productive avenue for future research.

WHAT SHOULD THE UTILIZATION LOOK LIKE AND HOW CAN WE GET THERE?

Until now, this paper has provided a positive analysis of the utilization of tax credits among low-income individuals. The question of what utilization among low-income individuals should look like remains. The answer to this question depends, in part, on the goal of the tax credits. Assuming the goal is to redistribute income and/or encourage behavior such as working and savings with the minimal possible distortions, we proceed with some thoughts on what utilization should look like.

Who?

Presumably, the families with poor labor force participation records and those with long histories of welfare par-

ticipation stand to gain the most from income transfers within the income-tax system. Utilized credits have obvious private and, potentially, social benefits. For example, credits tied to earnings or direct human capital investments, such as education, may raise the utility of the recipient through higher income and greater self-sufficiency, but may also positively affect society by reducing dependency on government funded transfer programs, raising civic responsibility, increasing tax revenues, and producing gains in labor productivity and knowledge.³² Likewise, the utilization of credits that subsidize child-care expenses or encourage savings not only raises the disposable income of the recipients, but may again reduce dependency on government-funded programs such as welfare or social security. Child-care and savings credits may also have the potential to mitigate market failures arising from asymmetric information such as the quality of child care or the need for income in old age, which could be efficiency-improving activities (Blau, 2003). Subsidizing child care may also benefit society by helping to produce more productive adults, assuming that more expensive child care is correlated with higher-quality child care (Gentry and Hagy, 1995).

How?

The question of how we should encourage utilization of tax credits brings us unavoidably to a discussion of tradeoffs. For example, policies that make the credits more accessible to the most needy individuals are expensive. In some cases, the particularly well-targeted credits come at the expense of making compliance with the program prohibitively costly. The following discussion suggests

ways of encouraging utilization, while addressing obvious tradeoffs in doing so.

Well-Targeted

Utilization should be well-targeted. Obviously, for low-income individuals to utilize tax credits aimed at accomplishing social policy, they must be eligible for the credit. On the individual tax side, non-refundable tax credits will not reach the lowest-income individuals, who pay little or no federal income taxes. Perhaps not surprisingly, the EITC, which is the only fully refundable credit in the individual tax code, has the highest estimates of program participation of any tax credit aimed at low-income taxpayers. The tradeoff to making a program more well-targeted at low-income individuals by allowing refundability is the cost of the program or resistance to using the tax system to accomplish social goals (Burman, 2003; Toder, 2000).

At higher incomes, there are also tradeoffs in keeping the credits well-targeted. High marginal tax rates that phase out eligibility restrict credits to low-income individuals, which has the potential to discourage work.

In an effort to keep the credits well-targeted, many of the tax credits place strict categorical requirements on the taxpayers. For example, the education credits restrict the type of spending that qualifies for the Hope and Lifetime Learning Credit, and the Saver's Credit limits the credit value for those who received distributions from their retirement accounts. Employers face strict requirements about who they can hire and how long those employees must work to qualify for the employer-based credits. The tradeoff is that many individuals and employers do not use the credits because they do

³² Heckman, Lochner and Cossa (2003) show the potential for the EITC to raise the human capital of those who would otherwise not work, but lower the human capital investment of low-skilled individuals who choose work over human capital investment due to the EITC.

not meet the strict requirements. The participation rate in employer-based credits, such as the WOTC and WtW credits, are particularly low, perhaps in part due to these categorical restrictions. Even a highly utilized program like the EITC requires earned income, which implies that the program will not be used by those who are unable to work due to disability or other factors.

There is the possibility that tax credits are poorly targeted because of the timing of the encouraged behavior and the tax credit. If the goal is to increase utilization, the timing of tax credits may be a limitation. Specifically, liquidity constraints may prevent individuals from engaging in the economic behavior that qualifies for a credit. For example, the educational tax credits provide reimbursement for college expenses in a lump-sum benefit, significantly after those expenses were incurred. The same is true for the child- and dependent-care credit. As a result, those who may be in most need of assistance do not have the means to engage in the behavior because the program is administered through the tax system rather than through a federal agency. In contrast, there are fewer transaction costs associated with simply filing taxes once a year, rather than more frequently. In another sense, tax programs can provide a superior measurement of income because income is calculated on an annual basis rather than over a shorter time period. Thus, tax programs may be able to differentiate between a more permanent low-income period and a temporary one.

Simple

To increase the utilization of these tax credits, they should be simple to claim, conditional on eligibility. This includes information about the existence of the credits and about how to actually file the credit. Evidence on the EITC, the

Saver's Credit, and the TJTC suggests that many individuals and firms do not even know the programs exist. Even among individuals using credits, utilization could be more effective if taxpayers were more informed. For example, evidence on education credits suggests that individuals do not know which credits provide them with the largest benefits (GAO, 2005).

One simplifying measure might include bundling credits together. Currie (2004) finds evidence that when applications for multiple welfare programs are integrated, take-up among all those eligible may well increase. Currie (2004) also finds that there are spillover effects in utilization between programs. There have been multiple calls or proposals for bundling tax credits to simplify the process. Cherry and Sawicky (2000), Ellwood and Liebman (2000), and Carasso, Rohaly, and Steuerle (2003) are a few of the recent proposals to either reform the EITC in combination with the dependent exemption and/or the Child Tax Credit.

A tradeoff to making the credits more accessible through refundability, reduction in categorical requirements, and increasing simplicity of filing is the potential for increased non-compliance, either intentional or non-intentional.

CONCLUSION

There is much work that needs to be done in understanding how these tax programs are utilized, particularly if social programs continue to be provided through the tax system rather than through direct programs. It will be especially important to expand data collection efforts to get data needed to accurately assess participation.

With the existing data, it appears that utilization is by far the largest for the EITC, possibly because it is the oldest of these programs, the only refundable pro-

gram, and the best targeted at low-income individuals. Additionally, the EITC is the only program that does not require the individual to pay for a good or service, but instead provides an incentive to earn income.

Utilization is low among low-income individuals in some of these tax credits because low-income individuals are not eligible. A redesign in these programs would result in the programs reaching those that they are ostensibly targeted towards. In some cases, this means reducing complexity and administrative burdens, while, in others, it requires making these programs refundable or more generous so a "typical" low-income filer can actually claim a credit.

Conditional on being eligible, one common factor associated with increasing participation in many of these programs is a high benefit-cost ratio and sophistication with respect to the tax system, whether that be through the use of a paid preparer, higher education levels, or experience with the tax system. Policymakers should think creatively about reducing filing burdens to increase participation (e.g., through wider use of electronic filing).

The big tradeoff to making these programs more accessible is the potential increase in utilization among individuals who are not eligible. There is little or no information on how program changes influence the intentional or unintentional non-compliance of these tax credits. Again, better data would help fill some of these gaps in our knowledge.

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**APPENDIX TABLE 1A
INDIVIDUAL INCOME TAX CREDITS**

Tax Program	Participation Estimates	Data Used	Factors Influencing Participation
Earned Income Tax Credit, an individual tax credit targeted at low-income workers.			
Blumenthal, Erard and Ho (2005)	69.4–74.3%	Blumenthal et al. estimated the number of eligible households from either 1988 IRS TCMP Phase III for tax filers and the 1988 IRS TCMP Phase IX Nonfiler Survey for tax nonfilers. EITC claims were based on IRS data on the number of 1988 EITC claims.	Factors associated with increasing participation: larger benefits.
Fajnzyblber (2004)	64%	Fajnzyblber estimated the number of EITC-eligible units based on individuals in the AFDC/TANF program between 1993 and 1999 in California, from Department of Social Services MediCal Eligibility Data, who had positive earnings, as reported to California's Unemployment Insurance Program. The number of EITC claims was based on a match performed by California's Franchise Tax Board.	Factors associated with increasing participation: tax preparation services; maximum benefit; improved county economic conditions; black; Hispanic. Factors associated with decreasing participation: single parent; young children.
Hill, Hotz, Mullin and Scholz (1999)	42–84%	Hill et al. use data from the California Work Pays Demonstration Project (CWPDP) for the number of AFDC assistance units from four counties—Alameda, Los Angeles, San Bernardino and San Joaquin—and quarterly wage and salary information from the state's unemployment insurance records for the number of EITC-eligible individuals. EITC credits claimed comes from federal income tax returns for the years 1993 and 1994.	Factors increasing participation: use of a paid preparer; recent entrants to welfare; two-parent households.
Hirasuna and Stinson (2004)	61.0–68.8%	Hirasuna and Stinson estimate the number of eligible claimants by merging data from the state of Minnesota's Department of Human Services, Department of Economic Security and Department of Revenue for the period 1995 to 1999. The number of actual claims was based on tax data from the Department of Revenue.	Factors associated with increasing participation: residing in a suburban county; size of maximum credit; Asian Americans; older parents. Factors associated with decreasing participation: residing in a rural county; less than a high school education.
Hirasuna and Stinson (2005)	N/A	Hirasuna and Stinson estimate their model based on data from the state of Minnesota for the period 1995 through 1999. Data from the Department of Human Services, Department of Revenue, and Department of Economic Security were merged with data from Accountability Minnesota and the AARP on free tax preparation sites.	Factors increasing participation: free tax preparation sites in high-poverty areas; size of credit; income range of credit; female head; married. Factors decreasing participation: residing in suburban area; Hispanic; American Indian; less than a high school education; family size; age of household head.
Kopczuk and Pop-Eleches (2005)	N/A	Kopczuk and Pop-Eleches estimated participation based on 1988 through 1999 IRS tax return data.	Factors associated with increasing participation: electronic filing.

APPENDIX TABLE 1A (CONTINUED)
INDIVIDUAL INCOME TAX CREDITS

Tax Program	Participation Estimates	Data Used	Factors Influencing Participation
Scholz (1994)	75–131%	Scholz used the 1990 SIPP, matched to tax returns, for the number of EITC-eligible tax units. For the number of EITC claims, Scholz used four different sources: 1) Green Book estimates, 2) Green Book estimates, adjusted by the 1988 IRS Taxpayer Compliance Measurement Program (TCMP), 3) IRS claims, and 4) 1990 SIPP self-reported information on participation in the EITC. Scholz also did a calculation adjusting the number of EITC-eligible tax units by including those units that filed a 1040EZ and using IRS data to estimate the number of claims.	Factors associated with increasing participation: larger benefits; married; residing in state with an income tax. Factors associated with decreasing participation: self-employment income; receipt of public assistance; larger family size; male; Hispanic; education; working in private household occupations.
U.S. GAO (2001)	75%	The GAO used the 2000 March CPS to estimate the number of EITC-eligible recipients. The number of EITC claims was based on 1999 IRS data.	Factors associated with increasing participation: one or two qualifying children.
U.S. Internal Revenue Service (2002)	64.2–73.5%	The IRS used 1997 CPS data matched to tax returns for the number of EITC-eligible units. IRS tax data was used to calculate the number of EITC claims. The IRS also used 1997 SIPP to estimate the number of EITC-eligible units.	Factors associated with increasing participation: income; credit size. Factors associated with decreasing participation: credit; residing in South or West region; residing in California, New York, Texas, or Florida; no qualifying children; not completing a high school education; Hispanic; receipt of public assistance.
Educational Tax Credits, tax credits targeted at families with college students			
Hoblitzell and Smith (2001)	78%	Hoblitzell and Smith estimate the number of education credit claims in the University of California system based on a survey. The number of eligible survey respondents is based on survey data matched to administrative data.	N/A
Long (2004)	27.3–29.4%	Long estimated the number of educational tax credits based on self-reported use in the 1999–2000 NPSAS. The number of eligible students eligible for the educational tax credits was based on the 1999–2000 NPSAS.	Factors associated with increasing participation: female students; white students; married filers; parents with college experience. Factors associated with decreasing participation: graduate students that relied less on federal student aid programs.

Child and Dependent Care Credit,
a tax credit targeted at assisting
parents with child care expenses
while working

Altshuler and Schwartz. (1996)

17.8%

Altshuler and Schwartz used the University of Michigan panel of tax return data for years 1979–1988. The number of eligible claimants is constructed by the number of returns claiming a dependent. The number of claimants is the number of returns claiming the credit.

N/A

Gentry and Hagy (1996)

15.7–29.9%

Gentry and Hagy utilize the 1989 Child Care Survey to estimate participation rates by dividing the number of families that reported claiming the credit by the number of families with children under the age of 13 (the number of eligible recipients). They also estimate participation based on 1989 SOI data. In the SOI estimates, the numerator is the number of returns claiming the credit and the denominator is the number of returns claiming a dependent.

Factors associated with increased participation include younger children, higher levels of education for the mother, and use of child care centers or family day care centers. Factors associated with decreased participation include larger family size.

**APPENDIX TABLE 2A
EMPLOYER CLAIMED INCOME TAX CREDITS**

Tax Program	Participation Estimates	Data Used	Factors Influencing Participation
Categorically Targeted Employer Claimed Tax Credits			
Hammersma (2003)	WOTC: 0.2-3.3% All Eligible, 0.3-16.6% New Hires Only. WOTC & WtW: 0.9-5.7% All Eligible, 2.3-32.4% New Hires Only.	Department of Labor Certifications and SIPP	
U.S GAO (2002)	1/750 corporations and 1/3450 individuals with a business affiliation reported the WOTC on their returns in 1999.	IRS Statistics of Income sample for 1999	Larger Firms, corporations in retail trade, hotel and food services, and non-financial services.
Montgomery (1986)	2.25% of firms surveyed participated in the TJTC.	Department of Labor survey of 5,859 employers in 28 labor markets	Size of establishment, flexibility in firing employees, non-union firms, learning about the credit from a government representative, past participation, unskilled work available conditional on knowledge of the credit.
784 Bishop and Montgomery (1993)	The total sample had a participation rate between 2.7 and 4.3%. Participation rates weighted by firm size range between 14.6% and 21.3% for the TJTC.	Surveys conducted by Institute for Research on Poverty and National Center for Research in Vocational Education of 3,412 employers.	Not Discussed
Bishop and Kang (1991)	10% of eligible youth hired are claimed under TJTC.	1982 survey by the National Center for Research in Vocational Education conducted by Gallup Organization of employers.	Pre-1981: Offering new employees more than standard training, offering less specific training, low capital investment per worker, lower than average wage rates, having fired an employee in 4th quarter 1979. After 1981: Being non-union, having higher capital investments per employee, not having fired an employee in 4th quarter 1979.
Katz (1998)	9% of economically disadvantaged youth who were both eligible and employed were claimed under the TJTC.	Department of Labor certifications, unpublished tabulations from U.S House of Representatives. CPS was used to calculate the population of economically disadvantaged youth.	Regulatory Burden, lack of support by administering agencies, stigma for targeted workers.
Geographically Targeted Tax Credits			
U.S GAO (2004)	Total numbers of EZ wage credits are reported; no participation rate is given.	IRS's Statistics of Income databases of corporate and individual tax returns for 1995 through 2001. (Samples of tax returns.)	Cited results of survey from 1999 GAO report.

U.S GAO (1999)	According to the survey response, 42% of the large urban businesses, 6% of the small urban businesses, and 32% of the rural businesses used the EZ wage credit.	GAO's own mailed survey to 2,400 businesses in the nine original empowerment zones.	The survey differentiated by size of firm and urban vs. rural classification. Knowledge of the credit as well as having eligible employees also were major factors of respondents who gave reasons for not using the credit.
Bershadker and Brashares (2000)	Numbers of filers and credit dollar amounts are given.	A special extract of IRS Individual Master File is used as well as the Empowerment Zone Supplement to the Corporate SOI sample.	Claimants are characterized by AGI for individuals and total assets for corporate returns.
Faulk (2001)	46.35% (70/151) of eligible firms took Georgia's Job Tax Credit.	Georgia Department of Labor ES202 data identifies which firms took the credit. Corporate income tax returns show firms that were eligible to take the credit.	Probability of participation increased with: tax liability, decreased size of firm, if the firm had previously taken the credit, and if the number of jobs credited increased. Participation decreased with: larger firms, firms not headquartered in Georgia, and firms that were start-ups.