Trends in EITC Take-Up and Receipt for California's Welfare Population, 1992-1999*

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SUMMARY

In this report, we examine the patterns and trends in EITC participation and amounts of credit received for adults on California's AFDC and adults on California's welfare (AFDC and TANF) caseloads for the period 1992-1999. Over the 1990s, EITC utilization rates and credits received by welfare recipient households in California increased, providing increasing levels of financial assistance to these households, in both absolute and relative (to labor market earnings) terms. Furthermore, our results indicate that an increasing fraction of households that appear to be eligible for the EITC actually claimed it over the 1990s. At the same time, our estimates suggest that sizeable numbers of California's working poor households who were eligible for the EITC did not claim it during the 1990s. We estimate that in 1999, only 73 percent of households in California that had been on welfare in the previous year but had wage and salary earnings in 1999 actually claimed the EITC on federal tax returns. Moreover, this participation rate was between 7 and 13 percentage points lower than for the U.S. as a whole. As a result, we estimate that in 1999 as many as 860,000 households in California who were eligible for the earned income credit did not receive it, foregoing as much as \$1.4 billion in tax credits from the federal government.

1. Introduction

Since its inception in 1975, the Earned Income Tax Credit (EITC) has grown into the largest federally funded means-tested cash assistance program in the United States. In 2002, for example, some 19.6 million tax filers received \$33.2 billion in earned income credits. In California, some 2.3 million filers received \$3.9 billion in credits, accounting for roughly 12 percent of the Nation's filers and amount of credit received.

The continuing support for and expansion of the EITC has often been attributed to the perception that it is a public assistance program that rewards work. Only low-income households with adults who work are eligible for the credit. Moreover, recent studies have suggested that the expansion of the EITC over the last 15 years was a major contributor in the rise of employment and decline in welfare use among female-headed households. The expansion of the EITC, especially during the 1990s, was accompanied by federal and state government efforts to reform their welfare programs, with these reforms also focused on encouraging work among disadvantaged families in order to encourage them towards greater financial self-sufficiency. In California, these reforms have been undertaken beginning with reforms of the State's past Aid to Families with Dependent Children (AFDC) program in the early 1990s and culminating in the California Work Opportunity and Responsibilities to Kids (CalWORKs) program, California's implementation of the Temporary Assistance to Needy Families (TANF) program that was enacted in 1998.

In this report, we examine the patterns and trends in EITC take-up and amounts of credit received for adults on California's AFDC and adults on California's welfare (AFDC and TANF) caseloads. More precisely, we analyze the incidence and amounts of earnings, and the incidence of tax filing and claiming of the EITC for adults in assistance units who were on AFDC or TANF in the fourth quarter of the year preceding the tax year. Because having wage and salary income is one of the necessary conditions for being eligible to claim the EITC, we present estimates both of the proportion of our samples that were employed (i.e., had wage earnings) during a particular tax year and of the average annual wage and salary earnings, since, as discussed below, the amount of the earned income credit one is eligible to receive depends on a household's earnings during a tax year. We use data on wages and salaries that are reported to California's Employment Development Department (EDD) for jobs covered by the State's Unemployment Insurance and Disability Insurance (UI/DI) system. We also present statistics on the incidence of federal tax filing in various years among the adults in our sample, since the EITC is provided to those who file tax returns.

In what follows, we provide a brief description of the structure of the EITC, describe the data we used in our analyses, present our findings and discuss some of their implications for welfare policy in the State.

2. Background on the EITC

The EITC is a refundable tax credit, meaning that it is paid out by the U.S. Treasury regardless of whether the taxpayer has any federal income tax liability. To receive the earned income credit, taxpayers file their regular tax return and fill out the six-line Schedule EIC that gathers information about qualifying children. To be eligible for the credit, a taxpayer must have both earned and adjusted gross income below a threshold that varies by year and by family size. Most

¹ See, for example, Meyer and Rosenbaum (2001) and Grogger (2003).

EITC payments go to taxpayers with at least one "qualifying child." A qualifying child needs to meet age, relationship, and residence tests. The age test requires the child to be younger than 19, younger than 24 if a full-time student, or any age if totally disabled. The relationship test requires the claimant to be the parent or the grandparent of the child or for the child to be a foster child.² Under the residence test the qualifying child must live with the taxpayer at least six months during the year.³

In 1999, taxpayers with two or more children could receive a credit of 40 percent of income up to \$9,540, for a maximum credit of \$3,816. Taxpayers (with two or more children) with earnings between \$9,540 and \$12,450 received the maximum credit. Their credit was reduced by 21.06 percent of earnings between \$12,450 and \$30,580. Table 1 shows the changes in the "parameters" of the EITC, including the income eligibility thresholds, credit rates, and phase-out (or implicit tax) rates, for the 1992-1999, the period we analyze. As indicated in Table 1, a small credit available for childless taxpayers between the ages of 24 and 65 with very low incomes was added in 1994. As of 1999, the credit rate for these taxpayers is 7.65 percent, with a maximum credit of \$347.

3. Data Used

Our analysis is based on annual cross-sectional samples of adults in AFDC/TANF assistance units that we refer to as annual "*Past Welfare Recipient*" samples, given that they consist of individuals who were on welfare in Quarter 4 in the year prior to the *tax year*⁵ for which the outcome variables we analyze are recorded.⁶ (The tax years analyzed are 1992 through 1999.)

The data on earnings are based on EDD earnings using the wage and salary earnings of adults in an assistance unit, where earnings are drawn from the EDD UI base wage file. Similarly, we aggregated all tax returns for individuals in these cases into a case level return. If anyone in a case files a return or claims the EITC, then the case filed a return or claimed the EITC. The size of the credit received by the case is the sum of the credits received by individuals in the case (joint returns, common in Unemployed Parent (UP) cases, were not double counted). Finally, all of the statistics reported in the tables in this report are weighted by the case-level weights.

Details of how the annual samples, sampling weights and variables analyzed were con-

² Until late 1999, a foster child was any child for whom the claimant cared for "as if the child is their own." The caring stipulation still holds, but now the child must also be placed in the home by an authorized placement agency. Prior to the 2001 tax legislation, EITC-eligible foster children also needed to live with the taxpayer for 12, rather than 6, months.

³In 1990 (tax year 1991) the residency and AGI tiebreaker (see below) tests replaced a support test, since in principle it is easier to verify where a child lives than it is to verify who supports a child. Under the support test the tax-payer had to pay for at least half the child's support, where items like transfer payments (i.e., AFDC and housing subsidies) and child support were not considered support provided by the taxpayer.

⁴ In subsequent years, the maximum credit and thresholds for the Phase-in and Phase-out ranges increased.

⁵ Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

⁶ It is important to note that the adults in these annual samples may have been on aid (on AFDC or TANF) in Tax Year *t*; our strategy for constructing these annual samples ensures is that they were on welfare in the last quarter of the year prior to the Tax Year.

structed are provided in the Appendix.

Estimates are presented below for six regions of the State as well as the entire State. These regions are those defined by the California Department of Social Services (CDSS)⁷ and are displayed in Figure 1.⁸ (Comparable statistics at the county level are available at http://www.econ.ucla.edu/hotz/Calif_EITC.) In Table 8, we provide a set of aggregate economic, poverty and public assistance program participation characteristics of these regions as of 1999.

In Table 2, we present the demographic characteristics of the annual Past Welfare Recipient samples by year and by region of the State.

4. Findings

4.1 Wage and Salary Earnings

We begin by examining the trends and cross-regional patterns in the fraction of house-holds/assistance units in our past welfare recipient samples in which adult members had some wage and salary income during the tax years 1992-99. As already noted, having some wage and salary income during a tax year is a necessary, although not sufficient, condition for being eligible to claim the EITC.

The incidence of households/assistance units that had positive wage and salary earnings in a particular tax year increased substantially over the eight-year period, 1992-1999 (Table 3). For the state as a whole, the fraction of households with positive earnings for adults on welfare in the quarter immediately preceding a particular tax year went from 0.37 to 0.69, an increase of 86.5 percent. The trends in the incidence of households with wage and salary earnings differed substantially across of the regions of the State. In 1992, the incidence of adults in welfare assistance units with positive earnings was the lowest in Los Angeles County at 0.31, while highest the Northern and Mountain counties at 0.42. But, over the 1990s, the incidence of adults with at least some annual earnings grew more rapidly in Los Angeles County (118.5 percent) followed by the other southern California counties (94.1 percent). In contrast, the incidence of positive earnings households grew most slowly in the Northern and Mountain counties (58.8 percent) and the Central and Farm counties (67.6 percent) over the 1990s.

Over this same period, the average *amount* of wage and salary earnings of adults on welfare grew by almost 176 percent in real terms, from \$2,273 to \$6,271. In contrast, mean income for all families in the western states of the U.S. increased by only 15.3 percent over the same pe-

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⁷ See Research and Development Division & Data Analysis and Publications Branch, *The Regions of California: Recommended Grouping of the Counties for Regional Studies*, California Department of Social Services, August 2002, for a discussion of how this regional classification system was derived.

⁸ The six regions, and the counties that comprise them, are: *Bay Area* (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Sonoma counties); *Southern California, excluding Los Angeles* (Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura counties); *Los Angeles county*; *Central/Southern Farm* (Fresno, Imperial, Kern, Kings, Madera, Merced, Monterey, San Benito, San Joaquin, San Lois Obispo, Stanislaus, Tulare counties); *Northern and Mountain* (Alpine, Butte, Calaveras, Del Notre, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, Tuolumne counties); and *Central Valley* (Colusa, El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba counties). See Research and Development Division & Data Analysis and Publications Branch, *The Regions of California: Recommended Grouping of the Counties for Regional Studies*, California Department of Social Services, August 2002.

riod. As with employment, those on welfare in Los Angeles County experienced the most rapid earnings growth over this period, increasing by 213.5 percent in real terms from 1992 to 1999. Over this same period, the earnings of those previously on welfare also increased markedly in the Central Valley and non-farm southern counties, increasing by 186.4 and 182.5 percent, respectively. In contrast, the earnings of adults on welfare grew more slowly in the Northern and Mountain (120.4 percent) and Central and Southern farm (140.5 percent) counties.

4.2 Incidence of Federal Tax Filing and of Claiming the EITC

We next examine trends in the incidence of the filing of federal tax returns and of claiming the EITC. Over the course of the 1990s, the fraction of past welfare recipients that filed federal tax returns nearly doubled from 0.32 to 0.63 (Table 4.) This increase is roughly on par with the increase in rates of employment/labor market earnings displayed in Table 3. The most rapid increases in filing rates occurred in Los Angeles county (122.1 percent), followed by the Southern California (101.4 percent), Central Valley (100.6 percent) and Bay area (99.7 percent) regions. The lowest rates of increase occurred in the Central & Southern Farm (73.9 percent) and Northern and Mountain (57.9 percent) regions. By 1999, past welfare recipients had tax filing rates in excess of 60 percent for all regions of the State except the Northern and Mountain region counties.

Over the same period, the fraction of past welfare recipients in the State of California that claimed the EITC increased by 140.6 percent, going from 0.23 in 1992 to over half of sample (0.56) in 1999. As with tax filing rates, the increases in EITC claiming rates for adults previously on welfare were the highest in Los Angeles county (167.7 percent) and lowest for the Northern and Mountain (82.2 percent) and Central and Southern Farm (101.2 percent) regions.

4.3 EITC Participation Rates

In the previous subsection, we examined the incidence of households that claimed the EITC among *all* past welfare recipients. Some of the households in this group did not claim the EITC because they were not eligible for it. ¹⁰ As noted above, to be eligible for the credit, households had to have some earned income during a particular tax year and, putting aside for a moment the small EITC available to childless taxpayers, must have and care for at least one qualifying child. We do not have access to sufficiently detailed data about all sources of a household's earnings nor the number of children and their residency status that would allow us to determine a household's exact EITC eligibility status.

In what follows, we approximate EITC participation rates among those welfare households in California deemed eligible by counting the fraction of households in our sample with positive EDD wage and salary income in a given tax year that claimed the EITC on their federal tax returns. Most of the households who worked would be eligible for the EITC, since rarely will their earnings exceed the EITC eligibility limits (which in all years exceed \$22,000) and most will have EITC-qualifying children (since they received welfare in the last quarter of the previous year). Moreover, similarly constructed participation rates have been used in past studies to assess

⁹ Mean family income, in 2001 dollars, increased from \$58,484 to \$67,438 from 1992 to 1999 in the western states, which represents a 15.3 percent increase. See *Current Population Survey*, Annual Demographic Supplements.

¹⁰ We also note that some households that claimed the credit may not have been eligible to receive it, i.e., their claims were noncompliant.

the rates of EITC participation in the U.S.¹¹ to which we can compare our estimates for California's welfare population.

Over the period 1992 through 1999, the EITC participation rate among those eligible for the credit increased by almost 50 percent, from 50 to 73 percent (Table 5). These participation rates roughly correspond with an estimated EITC participation rate of 75 percent for California in 1996 derived in a study funded by the Internal Revenue Service. EITC participation rates varied by region of the State. In 1999 Los Angeles County had the highest rate (0.75) while the Bay Area counties had the lowest (0.67). Los Angeles County saw the highest rate of improvement in EITC participation rates over the 1990s, increasing by 50 percent, while the Northern and Mountain counties showing the slowest improvement in participation rates (27.9 percent).

Even with these increases in EITC participation, a sizeable percentage of California's past welfare recipients who are eligible for the EITC—27 percent statewide in 1999—were still not claiming, and thus not receiving, this credit by the end of the 1990s. Moreover, in some regions of the state, as much as one-third of those that may be eligible for the credit are not receiving it. It also appears that rates of EITC participation among California's welfare recipients is lower than for the nation as a whole. Estimates of the national EITC participation rates for households with children range from 80 to 86 percent, with higher rates found for more recent years. That is, EITC participation rates for California's past welfare recipients are between 7 and 13 percentage points lower than those for the U.S. as a whole.

4.4 Average Amounts of EITC Received

Given the growth in generosity and coverage of the EITC over the 1990s, it is appropriate to ask how much of a financial benefit it provided to California's past welfare recipients. Among all households or assistance units during the 1990s, the average amount of the earned income credit received by the adults in past welfare assistance units increased more than 400 percent, going from an average of \$243 per assistance unit in 1992 to \$1,303 in 1999 (Table 6.) Among those past welfare units in which one or more adults earned income during the year, the average credit received more than doubled from \$1,139 in 1992 to \$2,345 in 1999. The average amounts of credit received and their rates of improvement over the 1990s varied by region of the State. For example, while the Central and Southern Farm and Northern and Mountain regions had among the highest average credits per assistance unit in 1992, \$281 and \$280, respectively, the

¹¹ See, for example, John Karl Scholz, "The Earned Income Tax Credit: Participation, Compliance, and Antipoverty Effectiveness," *National Tax Journal*, 41(1) (March 1994), pp. 63-87; Carolyn Hill, V. Joseph Hotz, Charles Mullin and John Karl Scholz, "EITC Eligibility, Participation and Compliance Rates for AFDC Households: Evidence from the California Caseload," final report for the State of California, University of California, Los Angeles, April 1999; and Len Burman and Deborah Kobes, "GAO Study of EITC Eligibility and Participation," Urban Institute, January 2001.

¹² Internal Revenue Service, "Participation in the Earned Income Tax Credit Program for Tax Year 1996," Washington, DC, January 31, 2002.)

Scholz estimated EITC participation rates to range from 80 to 86 percent based on date from 1990 (see John Karl Scholz, "The Earned Income Tax Credit: Participation, Compliance, and Antipoverty Effectiveness," *National Tax Journal*, 41(1) (March 1994), pp. 63-87). The Internal Revenue Service estimated the national EITC participation rate for 1996 to be 82 and 87 percent, depending on data sources used (see Internal Revenue Service, 2002, "Participation in the Earned Income Tax Credit Program for Tax Year 1996," January 31, Washington, D.C.). Finally, the Government Accounting Office estimated that the EITC participation rate for households with children was 86 percent for tax year 1999 (see U.S. General Accounting Office, *Earned Income Tax Credit Eligibility and Participation*, GAO-02-290R, Washington, DC, December 14, 2001).

average amounts received by households in these regions by 1999 were below the State average.

4.5 Ratio of EITC Amount to EDD Earnings

In order to gain a sense of how important the EITC became as a source of income to households previously on welfare, we present estimates of the average ratio of the earned income credit received by households to their annual EDD earnings during the 1990s and by region of the State (Table 7). From 1992 to 1999, the importance of the EITC credit relative to EDD earnings more than doubled, going from 0.14 in 1992 to 0.34 in 1992. As with the credit amounts, the relative importance of the EITC to earnings varied by region of the state over the 1990s. As of 1999, for example, the highest ratios of credits to earnings were found in Los Angeles county, where the average household credit was 38 percent of EDD earnings, while, on average, the credits were only 28 percent of earnings of households residing in Bay Area counties.

5. Discussion

The trends and patterns presented above clearly indicate that EITC utilization rates and credits received by welfare recipient households in California increased over the 1990s and these credits provided increasing resources to these households, in both absolute and relative (to earnings) terms. Furthermore, our results suggest that an increasing fraction of households that appear to be eligible for the EITC actually claimed it over the 1990s.

Nonetheless, our estimates suggest that sizeable numbers of households who were eligible for the EITC did not claim it. While it is possible that our estimates of rates of EITC participation are incorrect given our relatively crude approximation to determining eligibility for the credit, our estimates of participation rates in California appear to be lower than comparably estimated rates for the U.S. as a whole. The fact that EITC participation is not 100 percent in California and that the State's participation rates are lower than the rest of the country suggest that a significant number of California's working poor are foregoing a sizeable amount of cash assistance for the federal government. Using numbers for the 1999 tax year, ¹⁴ our estimated EITC participation rate of 73 percent in California imply that as many as 860,000 households who were eligible for the EITC did not receive it. Even if California only achieved the participation rate for the nation as a whole (86 percent in 1999), our estimates suggest that some 480,000 households in California were not receiving tax credits for which they were eligible. Furthermore, based on the total credits paid out on 1999 tax returns in California, the State's working poor failed to receive between \$800 million to \$1.4 billion in credits.

The above estimated shortfalls from the EITC to California's working poor clearly suggest that value to understanding the factors accounting for California's low EITC participation rates and scope for actions that might improve EITC participation in the State. In the remainder of this section, we briefly discuss various factors that may have accounted for the increasing utilization of the EITC in California and for the lower-than-average EITC participation rates in the State.

With respect to factors that may have caused the increased rates of EITC claiming, we suggest several. First, over this period, the generosity and coverage of the EITC increased. As the result of federal legislation that took effect in 1994, the credit rate for filing units with two or

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¹⁴ For the 1999 tax year, 19.2 million households in the U.S. claimed the EITC on their tax returns for a total amount of \$31.5 billion in credits. The corresponding numbers for the State of California were 2.3 million households and \$3.9 billion in total credits.

more children and with adjusted gross incomes below approximately \$9,000 were gradually increased from 19.5 percent in 1993 to 40 percent by 1996. The corresponding increases in "phase-in" tax credit rates for households with only one qualifying child were 18.5 percent in 1993 to 34.0 percent by 1996. Moreover, the size of the maximum credit was increased for households with two or more children (one qualifying child) from \$1,511 (\$1,434) in 1993 to \$3,816 (\$2,313) in 1999. Finally, the coverage of the EITC was expanded so that by 1999 households with two or more (one) qualifying children received a credit if their adjusted gross incomes were below \$30,095 (\$26,928). In 1993, the corresponding adjusted gross income threshold for households with either one or two or more qualifying children was \$23,050. All of these changes in the EITC itself would lead to larger credits for those who qualified for it *and* increased the incentives of low-income households to work and file for the credit over the decade of the 1990s.

Second, while the State of California experienced a severe recession beginning in 1991, over the remainder of the decade, California's economy improved, experiencing a substantial increase in jobs and growth in real wages. ¹⁸ This improvement in California's economy played a role in increasing the employment rates of the State's low-income population, increasing the fraction that had labor market earnings and, thus, were eligible to claim the EITC.

Third, the State's welfare system and its related welfare-to-work programs, instituted a variety of programmatic changes and rules aimed at moving those on public assistance "from welfare to work." These programs also likely increased the employment rates and the labor market earnings of past welfare recipients, which would have increased the fractions of low-income households, including past welfare recipients, who were eligible for the EITC.

With respect to the somewhat low EITC participation rates in California, especially in some of its counties, and the fact that the rates in California appear to be lower than those in the rest of the U.S., we offer several observations. First, we note that the differences in participation rates across regions and counties of the State may reflect differences in populations and their willingness to file tax returns. As the statistics in Table 2 make clear, the State's welfare populations differ in their racial and ethnic make-up by region. There is some evidence nationally that different racial and demographic groups have different propensities to file tax returns. For example, it has been argued that Hispanics and other ethnic groups in which there are sizeable proportions of recent, and possibly illegal, immigrants minimize their "contact" with government in California, especially since the passage of Proposition 189 in 1994. More careful analysis of the data is required in order to determine the importance of race and ethnicity in accounting for the observed regional differences in EITC participation rates.

Second, it is possible that households from different regions of the State may differ in their knowledge of the EITC and what they must do (file a tax return) to claim it. While the State, counties and various non-governmental organizations (NGOs) have undertaken efforts to in-

¹⁶ See V. Joseph Hotz and John Karl Scholz, "The Earned Income Tax Credit," in Robert Moffitt, ed., *Means Tested Transfers in the U.S.*, University of Chicago Press, forthcoming, for more details on the changes in the EITC over the 1990s.

¹⁵ These amounts are in current dollars.

¹⁷ See Hotz and Scholz, *ibid*. for a summary of the existing evidence on the employment incentive effects attributable to the expansion of the EITC.

¹⁸ See selected California Statistical Abstract, State of California Department of Finance, selected issues.

crease awareness of the EITC and, in some cases, provided tax preparation assistance for low-income populations, it is possible that these efforts were not equally distributed across the State. Furthermore, public service announcements and other information dissemination efforts about the EITC may have been constrained by differences in the coverage of radio and television media across the State. We note that the greatest gains in EITC participation and utilization over the 1990s occurred in Los Angeles county, which is a very large media market with print, radio and television outlets that specialize in and target various ethnic groups. Furthermore, it may be the case that commercial tax preparation services may be more readily available in Los Angeles County compared to other areas of the State, given the size and density of its population. Whether any or all of the above-noted factors play an important role in the incidence of EITC claims requires more refined and detailed analyses than can be undertaken in this report.

TABLE 1 Earned Income Tax Credit Parameters, 1992-1999 (in nominal dollars)

Year	Phase-in Rt	Phase-in Range	Max Credit	Phase-out Rte	Phase-out Range
1992ª	17.6 ¹ 18.4 ²	0-7,520	1,324 1,384	12.57 13.14	11,840 - 22,370 11,840 - 22,370
1993 ^a	18.5^{1} 19.5^{2}	0-7,750	1,434 1,511	13.21 13.93	12,200 - 23,050 12,200 - 23,050
1994	$ \begin{array}{c} 23.6^{1} \\ 30.0^{2} \\ 7.65^{3} \end{array} $	0-7,750 0-8,245 0-4,000	2,038 2,528 306	15.98 17.68 7.65	11,000 - 23,755 11,000 - 25,296 5,000 - 9,000
1995	$ \begin{array}{r} 34.0^{1} \\ 36.0^{2} \\ 7.65^{3} \end{array} $	0-6,160 0-8,640 0-4,100	2,094 3,110 314	15.98 20.22 7.65	11,290 - 24,396 11,290 - 26,673 5,130 - 9,230
1996	$ \begin{array}{r} 34.0^{1} \\ 40.0^{2} \\ 7.65^{3} \end{array} $	0-6,330 0-8,890 0-4,220	2,152 3,556 323	15.98 21.06 7.65	11,610 - 25,078 11,610 - 28,495 5,280 - 9,500
1997	$ \begin{array}{c} 34.0^{1} \\ 40.0^{2} \\ 7.65^{3} \end{array} $	0-6,500 0-9,140 0-4,340	2,210 3,656 332	15.98 21.06 7.65	11,930 - 25,750 11,930 - 29,290 5,430 - 9,770
1998	$ \begin{array}{c} 34.0^{1} \\ 40.0^{2} \\ 7.65^{3} \end{array} $	0-6,680 0-9,390 0-4,460	2,271 3,756 341	15.98 21.06 7.65	12,260 - 26,473 12,260 - 30,095 5,570 - 10,030
1999	$ \begin{array}{r} 34.0^{1} \\ 40.0^{2} \\ 7.65^{3} \end{array} $	0-6,800 0-9,540 0-4,530	2,312 3,816 347	15.98 21.06 7.65	12,460 - 26,928 12,460 - 30,580 5,670 - 10,200

Source: 1998 Green Book, Committee on Ways and Means, U.S. House of Representatives, U.S. Government Printing Office, page 867. 1998 through 2001 parameters come from Publication 596, Internal Revenue Service

^a Basic credit only. Does not include supplemental young child or health insurance credits.

¹ Taxpayers with one qualifying child.

² Taxpayers with more than one qualifying child.

³ Childless taxpayers.

TABLE 2
Demographic Characteristics of AFDC/TANF Assistance Units in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties
Proportion of Fam						
1992	0.781	0.756	0.739	0.718	0.747	0.771
1993	0.759	0.734	0.713	0.699	0.743	0.750
1994	0.751	0.721	0.710	0.692	0.744	0.743
1995	0.751	0.720	0.711	0.689	0.745	0.735
1996	0.751	0.724	0.733	0.667	0.733	0.733
1997	0.741	0.725	0.718	0.653	0.722	0.726
1998	0.738	0.743	0.720	0.660	0.711	0.722
1999	0.696	0.681	0.696	0.614	0.661	0.692
% Chg., 1992-99	-10.9%	-9.9%	-5.8%	-14.5%	-11.5%	-10.2%
Proportion of Fam	ily Group (U	UP) Cases				
1992	0.130	0.161	0.100	0.175	0.186	0.172
1993	0.134	0.168	0.111	0.185	0.194	0.184
1994	0.145	0.189	0.134	0.199	0.203	0.192
1995	0.147	0.195	0.142	0.205	0.201	0.198
1996	0.144	0.190	0.145	0.186	0.176	0.198
1997	0.141	0.186	0.140	0.175	0.160	0.202
1998	0.133	0.165	0.143	0.157	0.130	0.192
1999	0.123	0.183	0.131	0.149	0.117	0.187
% Chg., 1992-99	-5.4%	13.7%	31.0%	-14.9%	-37.1%	8.7%
Proportion of Case	s with Mix o	of Aid Codes	s among Ad	dults		
1992	0.089	0.083	0.160	0.107	0.067	0.057
1993	0.107	0.099	0.176	0.116	0.063	0.067
1994	0.103	0.090	0.156	0.109	0.053	0.065
1995	0.102	0.085	0.146	0.106	0.054	0.067
1996	0.105	0.086	0.122	0.147	0.090	0.069
1997	0.118	0.089	0.142	0.172	0.118	0.072
1998	0.129	0.092	0.137	0.183	0.159	0.086
1999	0.181	0.136	0.173	0.237	0.223	0.122
% Chg., 1992-99	103.4%	63.9%	8.1%	121.5%	232.8%	114.0%

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

Estimates for regions are averages of county-level statistics, weighted by county total population from the 2000 U.S. Census of Population.

TABLE 2 (Continued)
Demographic Characteristics of AFDC/TANF Assistance Units in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties
Average Number o	f Adult Fem	ales in Cas	e			
1992	0.962	0.953	0.974	0.948	0.928	0.947
1993	0.961	0.952	0.972	0.941	0.922	0.940
1994	0.957	0.947	0.968	0.935	0.913	0.938
1995	0.957	0.944	0.964	0.929	0.913	0.938
1996	0.956	0.947	0.961	0.934	0.911	0.935
1997	0.959	0.948	0.966	0.936	0.912	0.938
1998	0.961	0.950	0.967	0.936	0.913	0.935
1999	0.961	0.949	0.972	0.938	0.903	0.937
% Chg., 1992-99	-0.1%	-0.4%	-0.2%	-1.1%	-2.7%	-1.1%
Average Number o	f Adults in (Case				
1992	1.166	1.194	1.148	1.222	1.241	1.217
1993	1.181	1.206	1.156	1.227	1.244	1.226
1994	1.193	1.221	1.176	1.242	1.246	1.237
1995	1.196	1.222	1.175	1.246	1.247	1.247
1996	1.194	1.217	1.162	1.262	1.247	1.245
1997	1.196	1.213	1.172	1.263	1.257	1.256
1998	1.190	1.193	1.173	1.250	1.256	1.249
1999	1.195	1.205	1.183	1.255	1.263	1.264
% Chg., 1992-99	2.5%	0.9%	3.0%	2.7%	1.8%	3.9%
Average Number o	f Kids in Ca	ise				
1992	1.950	2.017	2.075	2.274	1.961	2.119
1993	1.961	2.035	2.098	2.272	1.960	2.115
1994	1.957	2.061	2.103	2.287	1.957	2.128
1995	1.960	2.061	2.100	2.274	1.954	2.137
1996	1.969	2.080	2.044	2.290	1.928	2.147
1997	1.995	2.106	2.069	2.318	1.947	2.196
1998	2.015	2.133	2.097	2.321	1.946	2.226
1999	2.053	2.167	2.132	2.337	1.945	2.253
% Chg., 1992-99	5.3%	7.4%	2.7%	2.8%	-0.8%	6.3%
Average Number o	f Kids, Ages	s 0-5, in Cas	e			
1992	0.864	0.898	0.941	0.971	0.790	0.922
1993	0.865	0.908	0.946	0.974	0.799	0.915
1994	0.854	0.910	0.921	0.976	0.795	0.916
1995	0.833	0.882	0.881	0.948	0.778	0.889
1996	0.798	0.849	0.817	0.928	0.728	0.866
1997	0.773	0.823	0.798	0.906	0.711	0.850
1998	0.743	0.795	0.748	0.866	0.689	0.809
1999	0.727	0.771	0.728	0.856	0.682	0.783
% Chg., 1992-99	-15.9%	-14.1%	-22.6%	-11.8%	-13.7%	-15.1%

TABLE 2 (Continued)
Demographic Characteristics of AFDC/TANF Assistance Units in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties
Proportion of Case	es with Some	e Whites				
1992	0.366	0.462	0.265	0.442	0.886	0.635
1993	0.351	0.433	0.259	0.423	0.875	0.629
1994	0.343	0.404	0.238	0.397	0.869	0.614
1995	0.338	0.389	0.229	0.387	0.868	0.605
1996	0.336	0.382	0.210	0.381	0.860	0.602
1997	0.325	0.371	0.206	0.369	0.856	0.592
1998	0.320	0.368	0.208	0.364	0.851	0.582
1999	0.303	0.348	0.207	0.352	0.845	0.572
% Chg., 1992-99	-17.2%	-24.7%	-21.9%	-20.4%	-4.6%	-9.9%
Proportion of Case	es with Some	e Blacks				
1992	0.307	0.151	0.354	0.101	0.021	0.168
1993	0.299	0.149	0.327	0.098	0.023	0.169
1994	0.288	0.138	0.298	0.094	0.024	0.168
1995	0.285	0.137	0.288	0.090	0.023	0.170
1996	0.282	0.137	0.284	0.091	0.024	0.170
1997	0.285	0.142	0.285	0.094	0.027	0.176
1998	0.287	0.148	0.292	0.101	0.027	0.182
1999	0.293	0.155	0.300	0.104	0.026	0.187
% Chg., 1992-99	-4.6%	2.6%	-15.3%	3.0%	23.8%	11.3%
Proportion of Case	es with Some	e Hispanics				
1992	0.235	0.337	0.403	0.414	0.058	0.153
1993	0.251	0.370	0.435	0.435	0.065	0.156
1994	0.272	0.411	0.481	0.470	0.070	0.176
1995	0.281	0.421	0.502	0.485	0.073	0.180
1996	0.282	0.422	0.514	0.497	0.076	0.178
1997	0.281	0.424	0.517	0.512	0.082	0.181
1998	0.274	0.420	0.509	0.512	0.082	0.181
1999	0.282	0.418	0.502	0.524	0.088	0.183
% Chg., 1992-99	20.0%	24.0%	24.6%	26.6%	51.7%	19.6%
Proportion of Case	es with Some	e Other Rac	e/Ethnicity	(Primarily A	Asians)	
1992	0.220	0.190	0.154	0.201	0.151	0.177
1993	0.219	0.181	0.147	0.194	0.149	0.173
1994	0.213	0.169	0.139	0.175	0.142	0.168
1995	0.208	0.164	0.129	0.163	0.137	0.167
1996	0.209	0.163	0.117	0.151	0.134	0.167
1997	0.213	0.163	0.116	0.141	0.132	0.168
1998	0.221	0.162	0.115	0.136	0.136	0.171
1999	0.221	0.168	0.117	0.131	0.136	0.168
% Chg., 1992-99	0.5%	-11.6%	-24.0%	-34.8%	-9.9%	-5.1%

TABLE 3
Incidence of and Average Annual Wage and Salary Earnings for Adults on AFDC/TANF in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State
Fraction of Welfa	are Recipien	nts in Yr t-1:	Qtr 4 Who	Had Positiv	e EDD Earn	ings in Tax	Year t
1992	0.39	0.37	0.31	0.41	0.42	0.39	0.37
1993	0.41	0.40	0.33	0.43	0.44	0.40	0.39
1994	0.47	0.45	0.41	0.49	0.48	0.46	0.45
1995	0.53	0.50	0.46	0.53	0.53	0.51	0.50
1996	0.58	0.54	0.51	0.57	0.55	0.54	0.54
1997	0.64	0.62	0.58	0.62	0.59	0.60	0.61
1998	0.69	0.67	0.64	0.66	0.63	0.66	0.66
1999	0.72	0.72	0.67	0.69	0.67	0.71	0.69
% Chg, 1992-99	86.9%	94.1%	118.5%	67.6%	58.8%	84.6%	90.1%
Average EDD Ea	rnings in T	ax Year t foi	r Welfare R	ecipients in	Yr t-1:Qtr 4		
1992	\$2,519	\$2,298	\$1,946	\$2,443	\$2,582	\$2,327	\$2,273
1993	\$2,578	\$2,388	\$2,098	\$2,597	\$2,552	\$2,340	\$2,373
1994	\$3,047	\$2,872	\$2,645	\$3,042	\$2,994	\$2,956	\$2,872
1995	\$3,914	\$3,418	\$3,138	\$3,594	\$3,618	\$3,626	\$3,461
1996	\$4,457	\$3,873	\$3,589	\$4,018	\$3,837	\$3,902	\$3,893
1997	\$5,425	\$4,784	\$4,537	\$4,766	\$4,472	\$4,739	\$4,774
1998	\$6,330	\$5,678	\$6,141	\$5,497	\$5,114	\$5,620	\$5,858
1999	\$6,771	\$6,493	\$6,101	\$5,875	\$5,691	\$6,663	\$6,271
% Chg, 1992-99	168.8%	182.5%	213.5%	140.5%	120.4%	186.4%	175.8%

Wage & Salary Data: Derived from match with data from Base Wage file, California Economic Development Department (EDD). See Appendix for details.

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

All dollar values are expressed in terms of 1999 dollars, using the CPI-U for the state of California. Estimates for regions are averages of county-level statistics, weighted by county total population from the 2000 U.S. Census of Population.

TABLE 4
Rates of Filing Federal Tax Returns and Claiming the EITC for Adults on AFDC/TANF in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State				
Fraction of Welfare Recipients in Yr t-1:Qtr 4 Who Filed Tax Return in Tax Year t											
1992	0.31	0.32	0.29	0.35	0.37	0.32	0.32				
1993	0.32	0.32	0.28	0.36	0.35	0.31	0.32				
1994	0.36	0.38	0.36	0.40	0.39	0.36	0.37				
1995	0.42	0.44	0.43	0.45	0.43	0.42	0.43				
1996	0.47	0.48	0.48	0.49	0.46	0.45	0.48				
1997	0.54	0.55	0.55	0.55	0.50	0.52	0.54				
1998	0.58	0.59	0.59	0.58	0.53	0.57	0.58				
1999	0.62	0.65	0.64	0.61	0.59	0.64	0.63				
% Chg, 1992-99	99.7%	101.4%	122.1%	73.9%	57.9%	100.6%	99.2%				
Fraction of Welfar	e Recipients	s in Yr t-1:Q	tr 4 Who C	laimed the l	EITC in Tax	: Year t					
1992	0.21	0.23	0.21	0.27	0.28	0.23	0.23				
1993	0.23	0.25	0.21	0.29	0.28	0.23	0.24				
1994	0.28	0.31	0.29	0.34	0.33	0.29	0.30				
1995	0.34	0.37	0.36	0.39	0.37	0.35	0.37				
1996	0.38	0.41	0.41	0.42	0.39	0.38	0.40				
1997	0.44	0.48	0.49	0.49	0.44	0.45	0.47				
1998	0.49	0.52	0.52	0.51	0.46	0.50	0.51				
1999	0.53	0.57	0.57	0.55	0.51	0.55	0.56				
% Chg, 1992-99	149.6%	146.5%	167.7%	101.2%	82.2%	145.0%	140.6%				

Tax Return Statistics: Derived from matches of individuals from MEDS with Federal Personal Tax Returns and provided by the California Franchise Tax Board.

Wage & Salary Data: Derived from match with data from Base Wage file, California Economic Development Department (EDD). See Appendix for details.

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

Estimates for regions are averages of county-level statistics, weighted by county total population from the $2000\ U.S.$ Census of Population.

TABLE 5
Estimates of EITC Participation Rates for Adults on AFDC/TANF in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State
Fraction of Adults	with Positiv	e EDD Eari	nings in Ta	x Year t tha	t Claimed th	e EITC	
1992	0.46	0.50	0.50	0.55	0.54	0.48	0.50
1993	0.46	0.51	0.48	0.56	0.54	0.48	0.50
1994	0.52	0.58	0.55	0.61	0.59	0.55	0.56
1995	0.56	0.63	0.63	0.66	0.62	0.59	0.62
1996	0.58	0.65	0.66	0.67	0.64	0.62	0.64
1997	0.63	0.70	0.70	0.71	0.68	0.66	0.69
1998	0.64	0.71	0.71	0.71	0.67	0.68	0.70
1999	0.67	0.73	0.75	0.73	0.69	0.71	0.73
% Chg, 1992-99	46.5%	44.4%	50.0%	33.3%	27.9%	46.6%	46.0%

Tax Return Statistics: Derived from matches of individuals from MEDS with Federal Personal Tax Returns and provided by the California Franchise Tax Board.

Wage & Salary Data: Derived from match with data from Base Wage file, California Economic Development Department (EDD). See Appendix for details.

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

Estimates for regions are averages of county-level statistics, weighted by county total population from the 2000 U.S. Census of Population.

TABLE 6
Average Amount of EITC Received by Adults on AFDC/TANF in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State				
Amount of EITC for Entire Sample in Tax Year t (i.e., was On-Aid in Yr t-1:Qtr 4)											
1992	\$213	\$238	\$240	\$281	\$280	\$227	\$243				
1993	\$241	\$275	\$250	\$323	\$291	\$249	\$269				
1994	\$416	\$488	\$454	\$545	\$489	\$436	\$473				
1995	\$592	\$714	\$717	\$765	\$657	\$642	\$698				
1996	\$724	\$846	\$870	\$892	\$772	\$751	\$834				
1997	\$903	\$1,075	\$1,078	\$1,072	\$916	\$943	\$1,036				
1998	\$1,039	\$1,222	\$1,218	\$1,185	\$980	\$1,075	\$1,170				
1999	\$1,164	\$1,370	\$1,357	\$1,277	\$1,105	\$1,245	\$1,303				
% Chg, 1992-99	446.9%	475.6%	466.1%	355.2%	294.7%	448.9%	436.8%				
Amount of EITC, i	n 1999 Doll	ars, for Indi	viduals in I	Filing Units	that Claime	ed EITC in T	Tax Year t				
1992	\$1,039	\$1,101	\$1,110	\$1,085	\$1,020	\$1,061	\$1,139				
1993	\$1,099	\$1,186	\$1,162	\$1,178	\$1,065	\$1,124	\$1,216				
1994	\$1,514	\$1,688	\$1,517	\$1,657	\$1,510	\$1,551	\$1,646				
1995	\$1,812	\$2,031	\$1,931	\$2,018	\$1,788	\$1,879	\$1,977				
1996	\$1,981	\$2,202	\$2,058	\$2,188	\$1,974	\$2,015	\$2,123				
1997	\$2,078	\$2,323	\$2,173	\$2,285	\$2,106	\$2,145	\$2,217				
1998	\$2,190	\$2,453	\$2,287	\$2,389	\$2,138	\$2,186	\$2,318				
1999	\$2,247	\$2,478	\$2,328	\$2,400	\$2,182	\$2,250	\$2,345				
% Chg, 1992-99	116.2%	125.1%	109.8%	121.1%	113.9%	112.1%	106.0%				

Tax Return Statistics: Derived from matches of individuals from MEDS with Federal Personal Tax Returns and provided by the California Franchise Tax Board.

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

All dollar values are expressed in terms of 1999 dollars, using the CPI-U for the state of California.

Estimates for regions are averages of county-level statistics, weighted by county total population from the $2000\ U.S.$ Census of Population.

TABLE 7
Ratio of Average Amount of EITC Received to Average EDD Earnings for Adults on AFDC/TANF in California, 1992-1999

Tax Year	Bay Area Counties	Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State
Ratio of Average E	ITC Receiv	ed in Tax Ye	ear t to Ave	rage EDD E	Earnings in T	Tax Year t	
1992	0.11	0.13	0.16	0.15	0.15	0.13	0.14
1993	0.12	0.15	0.15	0.16	0.15	0.13	0.14
1994	0.18	0.22	0.22	0.23	0.22	0.19	0.21
1995	0.23	0.29	0.34	0.29	0.26	0.26	0.29
1996	0.24	0.32	0.34	0.30	0.29	0.27	0.30
1997	0.25	0.32	0.36	0.31	0.31	0.28	0.32
1998	0.25	0.33	0.34	0.31	0.27	0.29	0.31
1999	0.28	0.33	0.38	0.32	0.29	0.30	0.34
% Chg, 1992-99	150.7%	148.7%	141.8%	118.4%	97.6%	138.0%	142.8%

Tax Return Statistics: Derived from matches of individuals from MEDS with Federal Personal Tax Returns and provided by the California Franchise Tax Board.

Wage & Salary Data: Derived from match with data from Base Wage file, California Economic Development Department (EDD). See Appendix for details.

Tax Year refers to the year in which any earnings were realized. In most cases, tax returns on these earnings are filed in the following calendar year, usually by April 15th.

All dollar values are expressed in terms of 1999 dollars, using the CPI-U for the state of California.

Estimates for regions are averages of county-level statistics, weighted by county total population from the 2000 U.S. Census of Population.

TABLE 8
Economic and Public Assistance Statistics for Regions of the State of California and the Entire State, 1999

Characteristic		Southern Calif. Counties, excl. LA	Los Angeles County	Central & Southern Farm Counties	Northern & Mountain Counties	Central Valley Counties	Entire State
County Unemployment Rate	3.2	3.8	5.9	11.7	6.9	4.8	5.2
Median Household Income	\$62,900	\$49,820	\$42,189	\$38,323	\$34,670	\$45,195	\$47,493
Median Family Income	\$71,892	\$55,564	\$46,452	\$42,456	\$41,912	\$52,611	\$53,025
Per Capita Income	\$30,770	\$22,194	\$20,683	\$16,555	\$18,429	\$21,782	\$22,711
% of All Individuals in Families with Income below Poverty Line	8.7	12.5	17.9	19.3	16.0	13.1	14.2
% of Children less than Age 18 in Fam. with Income below Poverty Line	10.2	16.2	24.2	25.5	20.5	17.3	19.0
% of Families with Income below Poverty Line	5.8	9.1	14.4	14.8	11.1	9.3	10.6
Ratio of AFDC/TANF FG Cases to Total No. of Females, Ages 15-44	0.095	0.144	0.242	0.309	0.289	0.223	0.189
Ratio of No. of Females on Medi-Cal to Total No. of Females, Ages 15-44	0.100	0.116	0.185	0.247	0.233	0.186	0.155

Notes: The data source for all entries, except for the unemployment, AFDC/TANF and Medi-Cal statistics, is the 2000 U.S. Census of Population. The unemployment rates are taken from the *California Statistical Abstract*, compiled by the State of California Department of Finance. The AFDC/TANF and Medi-Cal statistics are derived from MEDS data.

Estimates for regions are averages of county-level statistics, weighted by county total population from the 2000 U.S. Census of Population.

Figure 1. CDSS/DAPB Regions



APPENDIX: Description of Samples Used and Data Used in Report

A1. Samples Used

The data used to produce the estimates in this report are for individuals and assistance units drawn from California's Medi-Cal Eligibility Data System (MEDS). All analyses are based on annual samples of adults who were on AFDC/TANF in the 4th quarter of Year *t*-1. For these samples, county-level averages were calculated for various variables as of Year *t*, which we refer to as *Tax Year t*. We refer to these annual samples as "*Past Welfare Recipient*" samples, given that they consist of individuals who were on welfare in Quarter 4 in the year prior to the Tax Year for which the outcome variables we analyze are recorded. *However*, *it is important to note that the adults in these annual samples may have been on aid (on AFDC or TANF) in Tax Year t; our strategy for constructing these annual samples ensures is that they were on welfare in the last quarter of the year prior to the Tax Year.*

The annual Past Welfare Recipient samples are, themselves, derived from an overall sample drawn from the MEDS population. The latter sample, referred to as the "MEDS Sample," was drawn as follows:

- 1. Individuals who were adults in the MEDS population are the unit of analysis in the MEDS Sample. These adults were at risk for being selected into the sample *only* in the first month in which they were on aid (AFDC-FG or AFDC-UP aid codes). The data are left censored in January 1987. Thus, in January 1987, a random cross-section of the data was selected. Then, in each month, a random sample of first-time entrants is added. This sampling scheme leaves the data representative of the MEDS population at each pointing time. Once an individual is selected into the sample, the individual remains in the sample throughout the rest of the sampling period.
- 2. The sampling probabilities used to draw the MEDS Sample varied by counties in the State. These sampling probabilities were chosen to obtain approximately equal sample sizes from each of the counties. However, in 36 of the 58 counties, the 100% sampling rate utilized still leaves the sample size smaller than that attained in the remaining 22 counties. Since individuals are at risk for sampling only in the first month observed, their sampling probability corresponds to the county in which they first receive aid. Realized sampling rates slightly differ from the sampling probabilities because a true random sample was drawn. Sampling weights were constructed.
- 3. Three criteria we used for selecting individuals and cases for inclusion in the MEDS Sample:²⁰

¹⁹ The RAND Corporation determined the sampling probabilities for each county and drew the sample from the MEDS. RAND is in the process of producing a document detailing how the sample was constructed.

²⁰ While not reported herein, we reproduced all of the estimates presented in Tables 1 through 4 and Table 6 including some or all of the cases that were excluded based on these three criteria. None of trends described in this report were sensitive to relaxing any of the above criteria.

- We included/excluded cases from our MEDS Sample based on the quality of the information available for the case. In particular we included the following types of cases in our analysis sample: (a) Family Group (FG) cases that contained only one adult—most typically a female—and those Unemployed Parent (UP) cases that contained exactly two adults and (b) FG and UP cases that contained extra adults who were *not* on aid in the fourth quarter of the previous year. We excluded those cases from our analysis for which there were too many adults or which had conflicting aid codes. For example, one FG adult and 2 UP adults in the same case or cases that had five adults were excluded. The latter cases were excluded because we lack confidence in our ability to construct households that correspond to tax filing units in such cases.²¹
- Cases were also included/excluded cases based on having valid Social Security numbers (SSNs), including only those cases from the MEDS that had SSNs that had been verified with the Social Security Administration (SSA). Excluding cases without valid SSNs was necessary, given our need to match adults in the MEDS assistance units to EDD wage and salary data and federal tax returns. Eliminating unverified SSNs and cases with too many adults (described above) produces our MEDS Sample.
- Based on the wage and salary data from EDD Base Wage Files (described below) on individuals, we excluded cases that had reported wage income from more than 20 different employers in a given year.²²

A2. Sample Weights

We construct two distinct sets of weights for the observations in the MEDS Sample (and, thus, the annual Past Welfare Recipient samples). The first set is individual-based weights intended to make the sample representative of the MEDS populations when performing analysis at the individual level. These weights are the inverse of individuals' sampling probabilities. In particular, let p_i be the sampling probability of the ith individual. Then, $1/p_i$ is the ith individual's weight.

The second set is case-based weights. These latter weights make the sample representative of the MEDS population when performing analysis at the case level. They are the inverse of the probability that the case was sampled. For a case with n individuals, the following equation gives the probability the case is sampled:

$$p^{c} = 1 - \prod_{i=1}^{n} (1 - p_{i}).$$

Therefore, the appropriate weight for case-level analysis is $1/p^c$. These weights adjust for both the over-sampling of cases from small counties and the over-sampling of cases containing many

²¹ We believe that most of the excluded cases represent multiple households (assistance units) that fall under a common serial number in the MEDS database. However, counties differ in their use of assistant unit codes and MEDS lacks documentation on these codes. Therefore, we are unable to disaggregate assistance units within a serial number.

²² For example, some people have 200+ employers over a calendar year. In these cases, it is likely that multiple people are using the same SSN.

members.

A2. Data Sources Used, Matching Procedures, and Variables Analyzed

Demographic Characteristics of Assistance Units of Sampled Individuals:

For individuals and their associated AFDC/TANF assistance units in the annual Past Welfare Recipient samples, data on the demographic characteristics of these assistance units are drawn from the MEDS database. Summary statistics for these characteristics are presented in Table 2, by year and by region of the State.

Wage and Salary Earnings Variables:

To obtain wage and salary earnings data for the sampled adults, and other adults in the sampling unit at the time of inclusion in the annual Past Welfare Recipient samples, quarterly wage and salary earnings data from the California Employment Development Department (EDD) Base Wage Files were matched for these individuals by Social Security numbers (SSNs). We constructed *case-level earnings* for the annual Past Welfare Recipient samples based on the individual-level earnings recorded in the EDD Base Wage files for all of the adults in the assistance unit of those individuals on aid in Quarter 4, Year *t*-1. These case-level earnings were used to determine whether anyone in the associated assistance unit had positive EDD earnings. Table 3 contains estimates of both the incidence of positive EDD earnings and average levels of earnings, in 1999 dollars, by year and region of the State.

Federal Tax Return Information, including Incidence of EITC Claiming and Credit Amounts:

To obtain information on the rates of tax return filing, claiming of the EITC and amounts of the credit received adults in our samples, the California Franchise Tax Board (FTB) matched information from federal tax returns to the individuals in the assistance units in our annual Past Welfare Recipient samples based on SSNs and performed all of the analyses involving tax return data. All tax return for individuals in these cases were aggregated into a case- or assistance-unit-level return. If anyone in an assistance unit filed a tax return or claimed the EITC, then the case was recorded as filing a return and/or claiming the EITC. Finally, the size of the credit received by the case is the sum of the credits received by individuals in the case (joint returns, common in UP cases, were not double counted). The FTB provided only summary statistics from analyses of these individual- or assistance-unit-level data to the authors for use in this Report.