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Understanding the Reach of the California Earned Income Tax Credit

Technical Appendices

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Appendix A. Data and methods

Data sources

This report uses two data sources: tax credit claims data for tax year 2021 that are aggregated and made publicly available by the California Franchise Tax Board (FTB), and American Community Survey (ACS) 5-year Summary Files for 2017-2021 that are constructed and made publicly available by the US Census Bureau.

FTB data. We primarily use zip code level totals of CalEITC claims processed, CalEITC amounts allowed, and YCTC amounts allowed in calendar year 2022 for TY 2021. These totals do not account for credits issued to people who resided in California in 2021, but lived out of state in 2022. FTB also suppresses the total number of claims and dollars allowed in zip codes where they are low enough to present a privacy concern (fewer than 20 claims, or fewer than 100 tax returns total).

“Allowed” refers to the amounts that filers claim, rather than the amount they receive as a refund. Filers who owe tax, and those with some types of outstanding debts, see their CalEITC and YCTC credits reduced by these amounts. According to custom tabulations by FTB, 9.3 percent of all CalEITC and YCTC dollars allowed for TY 2021 were intercepted to cover outstanding debts; more would have been intercepted had IRS not paused its State Income Tax Levy Program (SITLP) indefinitely in 2022. The [2022-23 budget](#) established that on or after 2024, the offset process will change so that these credits will only be intercepted to cover child and family support debts.

ACS data. From the ACS Summary Files, we draw estimates of zip code tabulation area (ZCTA)-level demographic characteristics: total population, number of people in poverty, race/ethnic population shares and poverty rates, non-citizen population shares, number of households with children under 18, number of families with income under \$30,000 a year or with no recorded earnings, and level of income inequality (ratio between 80th and 20th percentile family incomes).

ZCTAs are the Census Bureau’s census block-based approximate rendering of zip codes, which are produced by the U.S. Postal Services for mail delivery only, and do not have exact areal definitions. In most cases, ZCTAs correspond to zip codes. An obvious exception is the existence of PO Box area codes: for understanding demographic distributions, for example, researchers would prefer to count a person who receives mail at a PO Box at their home address, and PO Box zip codes thus do not have corresponding ZCTAs.

There are several other limitations of using these ACS data. First, the 5-year file provides an average set of characteristics for 2017-21, which would guarantee some level of difference from characteristics in 2022 (when tax returns were filed) even if those years did not contain the upheaval of the pandemic. Second, note that this sample of the ACS includes data from 2020, a year in which the survey experienced high levels of differential non-response among low-income families. As a result, the Census Bureau released the 2020 single-year data with notes for users to be cautious in their interpretations of outcomes based on the data. The data used in this report are more robust in the sense that 2020 makes up just a fifth of the sample from which Census estimates ZCTA-level characteristics.

Data cleaning

Although FTB provides claims data for 3,151 zip codes for Tax Year 2021, and ACS Summary Files provide estimates for 1,802 ZCTAs, this report describes patterns for about 1,300 zip codes. These zip codes account for more than 97 percent of dollars and claims.

Zip codes are omitted for several reasons.

1. **No valid ZCTA.** About 1.5 percent of all CalEITC and YCTC is issued to zip codes that cannot be matched to a ZCTA (for example, their mailing address is a PO Box), or to addresses in zip codes whose corresponding ZCTA has an estimated population of zero. The vast majority of zip codes omitted for this reason cannot be matched to a ZCTA.
2. **High margins of error.** One challenge of working with Summary File data at small geographies is that estimates of interest frequently have high margins of error. We follow [ESRI practice](#) for categorizing estimates into high, medium, and low reliability based on coefficient of variation—where an estimate with low reliability has a coefficient of variation under 0.4. We drop zip codes where the ZCTA has a low-reliability estimate of the number of people in poverty (under 100% of FPL), which we use as a key value throughout this analysis. Absent other exclusions, this would result in dropping 409 zip codes, and 0.8% of dollars. Similarly, we drop 6 zip codes with outlier ratios of claims to families with incomes under \$30,000.

Methods

This report uses two types of outcomes to examine the reach of the CalEITC: a claims ratio and a measure of how proportionally dollars are distributed. It also uses a simple calculation of the share of all claims made and dollars claimed by the end of February to describe early claiming.

The claims ratio is defined as the number of CalEITC claims divided by the estimated number of families in the zip code with incomes under \$30,000. This does not produce an estimate of the number of eligible people who receive CalEITC, but rather a way to look at how take-up varies across the state and between groups.

One limitation of comparing tax data to aggregate-level survey data is that tax returns are filed on behalf of tax units, which can differ in composition from the family units and households that are recorded in surveys. The number of people in each tax unit (the filer and their dependents) is likely smaller than the number of people living together, or related by birth, marriage, or adoption, and not all children living with their family at tax time may be qualifying for tax purposes (credits are calculated based on number of [qualifying children](#), who must live with the tax filer for at least half of the year). Estimates from California Poverty Measure data show that the average tax unit contains 2.12 people, while the average family unit is 2.48 people. In other words, one effect of using number of families as a denominator is that the total number of families is likely smaller than the true number of eligible tax units, and wrong by a larger extent in areas where large or multigenerational families are more common.

Another type of limitation with the ACS data is [how income is counted](#)— and how it is summarized at the aggregate level. Specifically, the summary file data does not distinguish between families with \$0 or negative net income and families with less than \$10,000 in income. It also mixes earned and unearned income in a definition of total income, ranging from wages/salaries, self-employment, interest and income from estates and trusts, social security, retirement and pensions, public assistance, and SSI and other disability income. Only wage/salary and self-employment income can be counted for CalEITC claiming.

Since most of the income from ineligible sources is likely claimed by older adults, using a denominator based on total income may suggest that two zip codes have equal shares of families with incomes under \$30,000, when one may have many residents who are older adults with incomes only from sources ineligible for CalEITC, while the

other might have many younger residents with primarily earned income. Given that on average older Californians are more likely to be white than younger Californians, this could have the effect of understating claiming in predominantly white, older zip codes relative to predominantly Latino and younger zip codes. We attempt to account in regression models for these limitations in how family income is defined, by including variables for the share of households that include children, and the share of families with no earners.

Finally, tax credit eligibility is based on adjusted gross income (AGI) rather than a simple sum total of tax unit income. People with incomes above the \$30,000 threshold are likely eligible for CalEITC, given that their eligibility is calculated after deductions, but it is not possible to estimate how many such people are eligible in data that do not report income at the individual level (and such an estimate would also rely on the assumption that income is precisely and accurately reported in survey data).

To measure the dollars ratio, we divide the share of the state’s CalEITC dollars allowed by the share of the state’s poverty population in the zip code. For example, a zip code would have a ratio of one to one if it had 1 percent of the state’s poverty population, and residents had claimed in total 1 percent of all CalEITC dollars allowed that year.

For both metrics, we describe change over time in terms of percent change between February 28 (mid-tax season) and the end of the calendar year (December 31).

Regressions. To better understand factors associated with variation in these metrics, we run a series of OLS regressions, with the claims ratio, dollars ratio, change over time, and share of claims made early as dependent variables. The independent variables are: share of population by race/ethnicity, share of residents who are non-citizens, share of households with children, share of families with no earners, ratio of 80th percentile for family income to 20th percentile (a measure of income inequality), and share of individuals with family income under the federal poverty level. Appendix C describes these models in greater detail.

One way that we use these regressions is to estimate the outcome of interest at realistic small, medium, and large values for the race/ethnic composition of a zip code (e.g., the claims ratio for a zip code with a median Latino population, where the share of residents who are Latino is at the 50th percentile statewide among zip codes). To do this, we re-run the models described above with a binary option for race/ethnicity, including just one group in the regression (e.g., share Latino). We then predict the outcome of interest at the 25th, 50th, and 75th percentile values for share of population in that group, holding all other variables at their median values. Appendix C contains complete output from these models.

Notable omissions

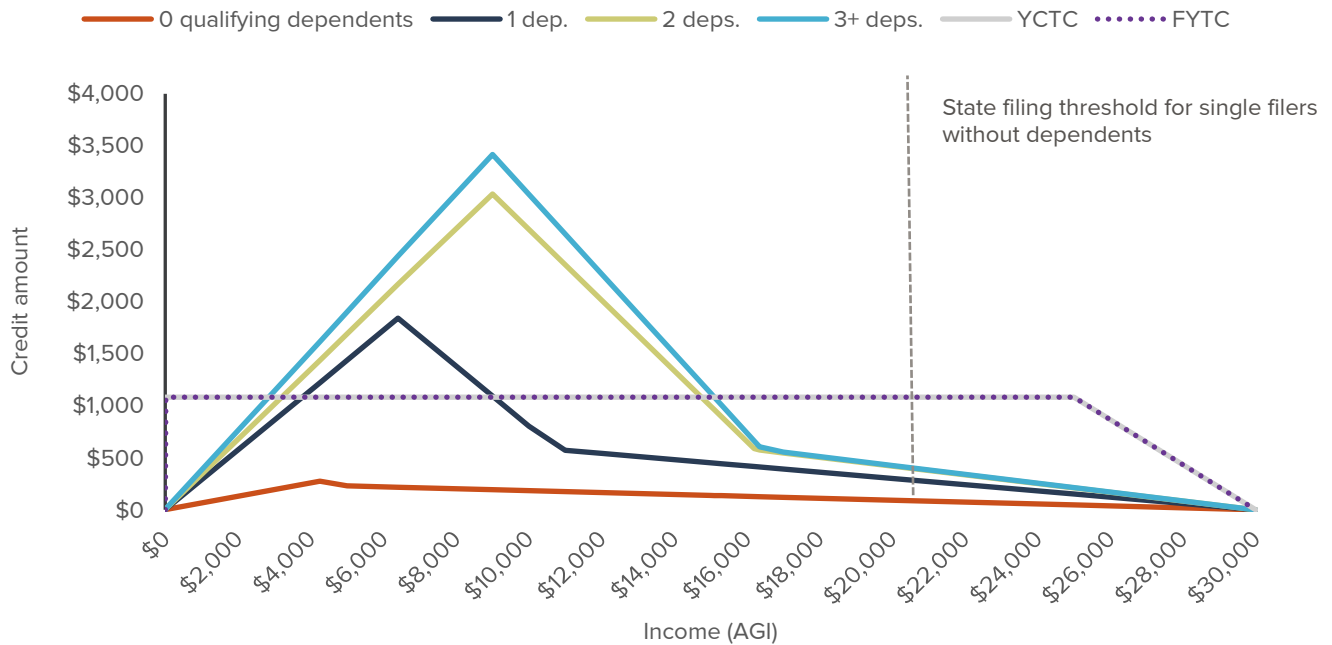
Several variables are undoubtedly relevant but omitted from these models. In fact, most factors related to credit eligibility and claiming are interrelated, making it challenging to estimate their influence separately. However, English language proficiency in particular would be useful to include in these models, given that tax forms are not produced in many languages, and research at the national level suggests that limited English proficiency may be associated with lower take-up of the federal EITC.¹ Nonetheless, the share of zip code residents who speak a language other than English at home is overwhelmingly correlated with the share who are Latino, and the share who speak a language other than English or Spanish is highly correlated with the share who are Asian.

¹ Thomson, Dana, Yiyu Chen, Lisa A. Gennetian, and Luis E. Basurto. 2022. [Earned Income Tax Credit Receipt by Hispanic Families with Children: State Outreach and Demographic Factors](#). *Health Affairs* 41 (12): 1725–1734.

Appendix B: Supplementary figures and tables

FIGURE B1

CalEITC is most generous for lowest income filers, who are largely not required to file tax returns

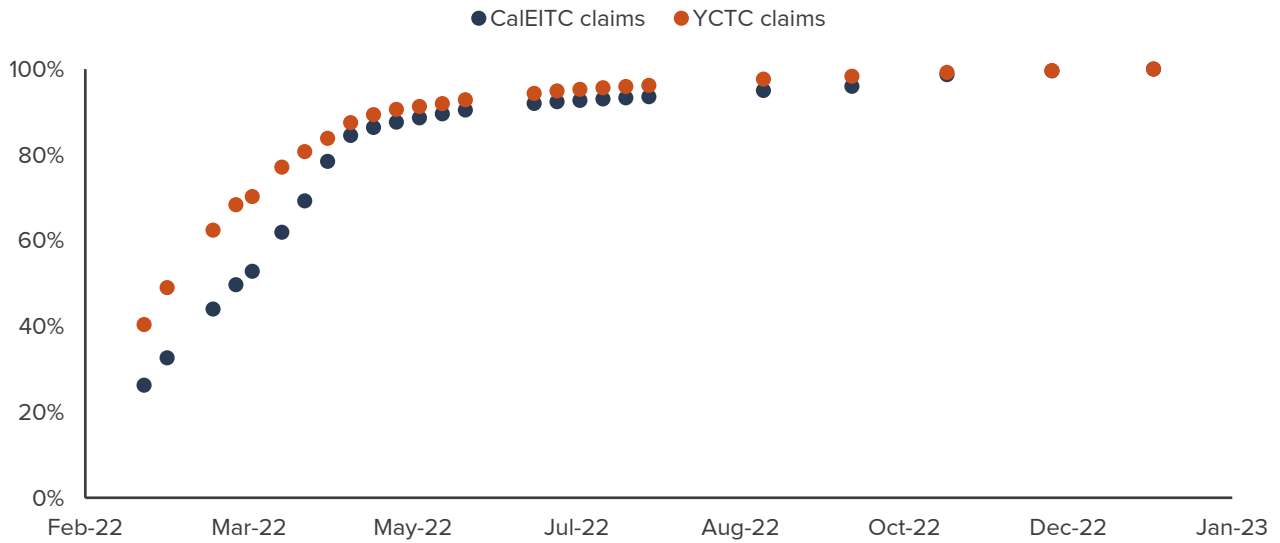


SOURCE: FTB [Eligibility and Credit Information](#).

NOTE: Chart shows credit amounts as of TY 2022 for single filers. Income at which credit amounts begin to decrease are slightly higher for married filers. For TY 2021, YCTC was not available to filers with \$0 in earned income.

FIGURE B2

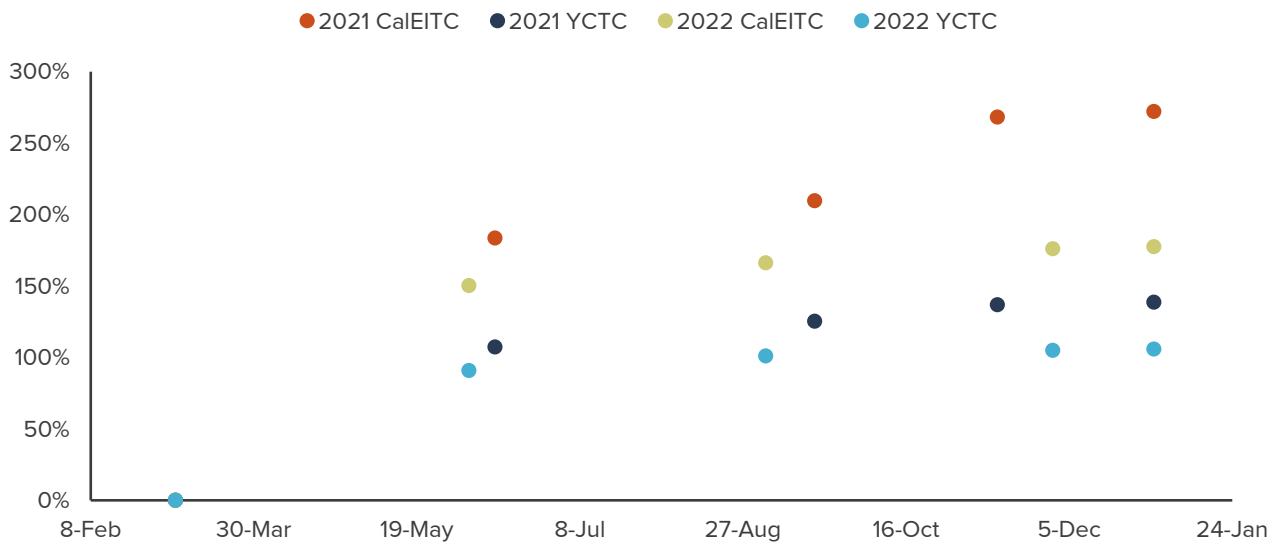
Cumulative credit claiming over the course of the year



SOURCE: Franchise Tax Board, TY 2021.

FIGURE B3

Change in dollars claimed relative to March, year over year

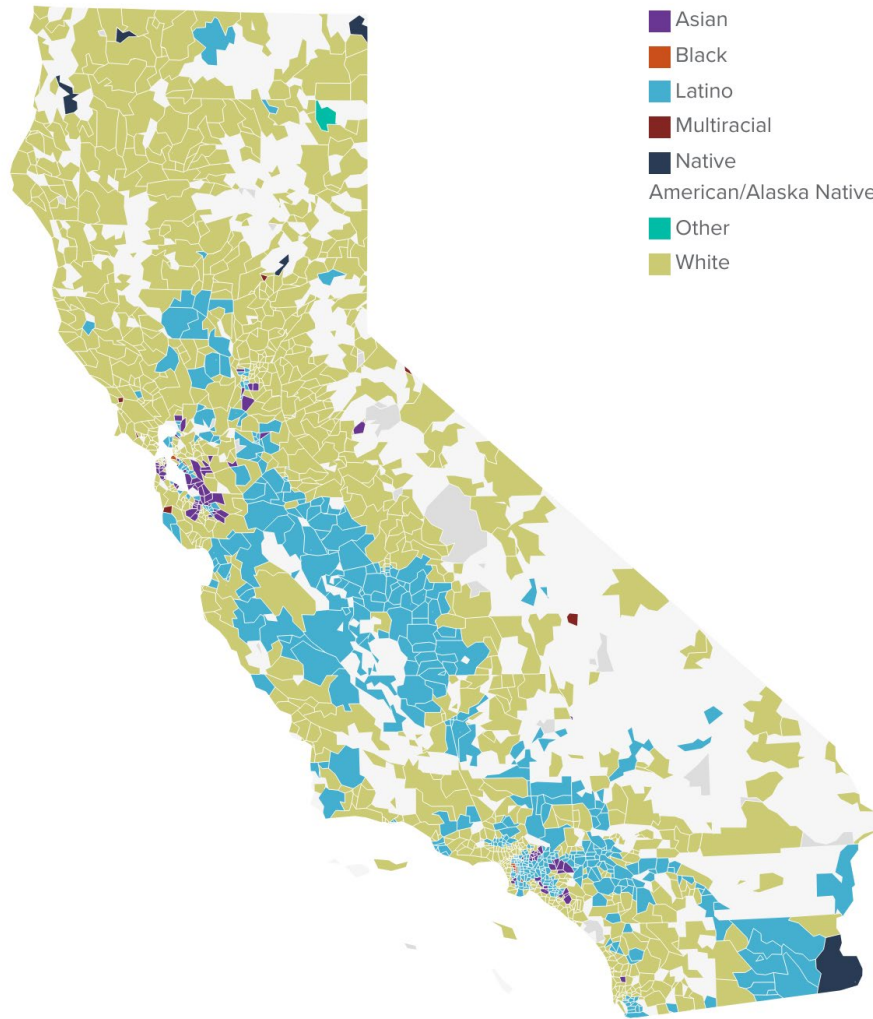


SOURCE: Franchise Tax Board, TY 2020 and TY 2021.

NOTE: Data points show some misalignment for weeks when same week data were not available.

FIGURE B4

In most of the state, the largest racial/ethnic group in a zip code is either white or Latino

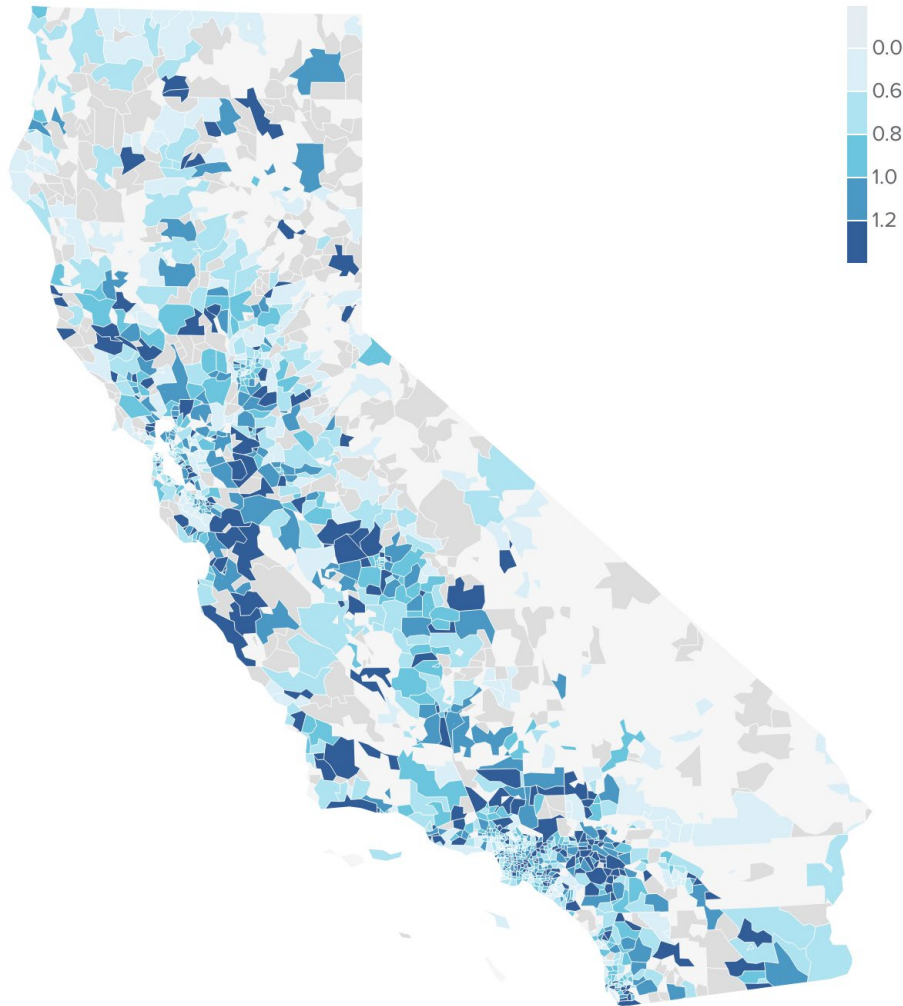


SOURCE: Author's analysis of ACS 5-year summary file data (2017-21).

NOTE: Map shows ZCTAs identified by most common race/ethnicity among residents.

FIGURE B5

Dollars ratios vary across the state, reflecting differences in local demographics and family structures



SOURCE: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File data (2017-21).

NOTE: Map shows ratio of zip code share of CalEITC dollars to zip code share of families with incomes under \$30,000, using claims as of December 31, 2022. Zip codes shaded grey omitted; see Appendix A for details.

TABLE B1

CalEITC claimants by filing status and number of dependents

| | Single | | Not single | |
|----------------------|-----------|------------|------------|------------|
| | N | % of total | N | % of total |
| 0 dependents | 2,410,473 | 67% | 203,111 | 6% |
| 1 dependent | 133,119 | 4% | 417,158 | 12% |
| 2 dependents | 53,937 | 1% | 240,715 | 7% |
| 3 or more dependents | 22,796 | 1% | 133,225 | 4% |

SOURCES: Franchise Tax Board (2022).

NOTES: Table shows total claims for TY 2021 by December 31, 2022. "Not single" includes the following filing statuses: head of household, married filing jointly, and qualified widower.

TABLE B2

Share of zip code population that belong to race/ethnic group, ranging from small to large

| | Min | p25 | p50 | p75 | Max |
|---|-----|-----|-----|-----|-----|
| White | 0% | 16% | 32% | 53% | 98% |
| Latino | 0% | 19% | 35% | 58% | 99% |
| Black | 0% | 1% | 3% | 7% | 77% |
| Asian | 0% | 4% | 10% | 19% | 76% |
| NA/AN, NHPI, multiracial, another race/ethnicity | 0% | 5% | 8% | 11% | 98% |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Percentiles refer to the Nth percentile among zip codes for population of a given group – e.g., a zip code where more of the population is white than in 25 percent of all zip codes. NA/AN indicates Native American/Alaska Native; NHPI indicates Native Hawaiian or Pacific Islander. Table shows population-weighted statistics for ~1,300 zip codes, excluding those with high margins of error on key measures of family income (see Appendix A for detailed methodology).

TABLE B3

Ranges of key metrics of interest

| | Min | p25 | p50 | p75 | Max |
|--------------------------------------|------|------|------|------|-------|
| Claims ratio | 0.00 | 2.65 | 3.24 | 3.97 | 20.31 |
| Dollars ratio | 0.00 | 0.80 | 0.98 | 1.20 | 5.97 |
| Share of CalEITC claims made by 2/28 | 0% | 22% | 27% | 31% | 59% |
| Share of YCTC \$ claimed by 2/28 | 0% | 33% | 39% | 45% | 87% |
| % change in dollars ratio | -50% | -9% | 10% | 33% | 399% |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Table shows population-weighted statistics for ~1,300 zip codes, excluding those with high margins of error on key measures of family income (see Appendix A for detailed methodology).

TABLE B4

Outcome of interest average value, by zip code race/ethnic demographics

| | Claims ratio | Dollars ratio | % of claims early | % of CalEITC \$ early | % of YCTC \$ early | N zip codes |
|---|--------------|---------------|-------------------|-----------------------|--------------------|-------------|
| Overall mean | 3.43 | 1.02 | 26% | 28% | 38% | 1,316 |
| Zip code at or above 75th percentile for share of population that are: | | | | | | |
| White | 3.27* | 0.83* | 24%* | 26%* | 36%* | 532 |
| Latino | 3.44 | 1.22* | 30%* | 32%* | 41%* | 260 |
| Black | 3.35 | 1.10* | 30%* | 32%* | 41%* | 254 |
| Asian | 3.49 | 0.94* | 22%* | 24%* | 33%* | 260 |
| NA/AN, NHPI, multiracial, another race/ethnicity | 3.37 | 0.91* | 25%* | 27%* | 37% | 389 |
| NA/AN | 3.20* | 0.99 | 30%* | 32%* | 43%* | 421 |
| NHPI | 3.51 | 1.05 | 27% | 29% | 39% | 269 |
| Other race/ethnicity | 3.38 | 0.96* | 25%* | 26%* | 36%* | 315 |
| Multiracial | 3.38 | 0.90* | 24%* | 26%* | 36%* | 370 |
| Low income (families under \$30k) | 2.59* | 0.95* | 32%* | 33%* | 42%* | 381 |
| Zip codes where a plurality of residents are: | | | | | | |
| White | 3.43 | 0.90* | 24%* | 26%* | 37%* | 754 |
| Latino | 3.43 | 1.16* | 30%* | 32%* | 41%* | 456 |
| Asian | 2.96 | 1.01 | 28% | 29% | 37% | 7 |
| Black | 3.33 | 0.86* | 21%* | 22%* | 32%* | 96 |
| NA/AN, NHPI, multiracial, another race/ethnicity | 1.30* | 0.67* | 40%* | 44%* | 50% | 5 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: * indicates difference between group mean and statewide mean is statistically significant at the 0.05 level. NA/AN indicates Native American/Alaska Native; NHPI indicates Native Hawaiian or Pacific Islander. Table shows population-weighted averages for ~1,300 zip codes, excluding those with high margins of error on key measures of family income (see Appendix A for detailed methodology).

TABLE B5

Claimants by preparer of state tax return

| | All claimants | | ITIN filers | |
|---|---------------|------|-------------|------|
| | CalEITC | YCTC | CalEITC | YCTC |
| Self-prepared (including both free and paid use of online software) | 41% | 34% | 10% | 9% |
| VITA | 2% | 1% | 2% | 1% |
| Paid preparer | 57% | 65% | 88% | 90% |

SOURCES: Franchise Tax Board (2022).

NOTES: Table shows claims by preparer type for TY 2021 by December 31, 2022.

Appendix C: Regression tables

As described in Appendix A, this report uses two types of OLS regressions to examine associations of local demographic characteristics with the claims ratio, the dollars ratio, early claiming of each credit, and change in dollars ratio over the course of the year. In both cases, the outcome of interest is the dependent variable, and the independent variables are zip code-level demographic characteristics. In other words, we examine the association between an increased share of the population who belong to a given group, and the outcomes of interest. Regressions use estimated total zip code population as analytic weights, and robust standard errors.

Table C1 shows results of regressing local characteristics on the outcomes of interest. The advantage of this approach is that it allows comparison between race/ethnic groups of associations with outcomes of interest. However, applying these coefficients to real population sizes—for example, predicting the claims ratio when a zip code population is 50 percent Latino—requires holding other populations constant at values that do not sum to 100 percent. Therefore, we run a second set of regressions.

Tables C3 to C7 nearly repeat the regressions summarized in Table C1, but define race/ethnic compositions in terms of single groups. Each outcome of interest thus sees at least 5 models: one where race/ethnic composition refers to share who are Latino and share who are not, another that refers to share white and share not white, and so on.

Table C2 then shows the predicted values for the outcomes of interest at 25th, 50th, and 75th percentile population shares for each race/ethnic group, based on Tables C3 through C7, respectively. These predicted values are calculated holding all other variables at their median values.

Sensitivity analyses

We run these models in several different ways, in case they are sensitive to alternative variable or model definitions.

First, we replace the denominator in ratios with the number of individuals in poverty according to the official poverty measure (below the federal poverty level)). Although this changes the coefficients, we find that relative values of interest—such as the distance of a predicted estimate from the statewide average—are virtually identical with the alternative denominator.

Take-up may be related to the methods that people use to file tax returns: whether they do so themselves, or with assistance. Although the IRS organizes volunteers to provide free tax preparation services for low-income filers through VITA, the Volunteer Income Tax Assistance program, only a fraction of CalEITC claimants file with help from VITA (1 percent, for TY 2022). More than half (57 percent) work with a paid preparer to submit a return, and that share is even higher for YCTC claimants (65 percent) and filers with ITINs (about 90 percent; see Appendix Table B5). Both **IRS** and **FTB** also facilitate options for low-income residents with relatively simple returns to file for free online.

Regression results are overall robust to including the number of business establishments in the zip code offering tax preparation services in 2018, which are surveyed as part of the Census Bureau's **County Business Patterns** program. The number of tax prep establishments is not associated with the claims ratio or the proportionality of credit dollars, and does not affect coefficients in those models. It is associated with the share of claims that happen early, and thus the change in dollar proportionality over the course of the year – for each additional establishment, the share of claims filed and dollars allowed by the end of February increases 0.2%. In both cases, this impacts coefficients only marginally.

Results are also robust to including the number of VITA sites in each zip code, as recorded on the IRS [Get Free Tax Prep Help](#) tool.

Finally, as noted above, some of the variables in these models are interrelated: for example, the share of residents who are non-citizens is negatively correlated with the share who are white, and positively correlated with the share who are Latino, as is the share of households that include children. Multicollinearity presents a problem for interpreting coefficients on the specific variables affected—they might or might not be significant, and they might change dramatically with small changes in variables included in the model— but coefficients on other variables are still interpretable, as are predictions based on models affected by multicollinearity (see, for example, [Multicollinearity in Regression Analysis](#)).

We take a few approaches to identifying and addressing this issue. First, we check the variance inflation factor (VIF) after each regression, and find that throughout, the share of the population who are white has the highest VIFs—between 3 and 5 in models that include all variables. With this in mind, we avoid citing coefficients directly. Instead, we rely on predicted values of dependent variables at specific white population sizes and describe trends in terms of sign only for coefficients on share low income.

Next, Table C1A shows versions of models in Table C1, showing the effects of stepping in key variables on coefficients. Notably, signs on coefficients for the “other” race/ethnicity group (NA/AN, NHPI, other, and multiracial) flip between models 2 and 3 for the claims and dollars ratios, which add the two variables closely related to race/ethnic composition: share of households with children, and share non-citizen. This group is largely not discussed in the main text of the report, since they make up small shares of most zip code populations.

Finally, we also run models exclusively with variables for income and households with children, to see if signs on factors determining eligibility are consistent when models do not contain multicollinear relationships (see Table C1B). Associations between the share of the population who are low income and the outcomes of interest remained constant. Associations between share of households with children and the claims and dollars ratios, however, were positive without including race/ethnic compositions, and negative in Table C1, when we include race/ethnic compositions. In other words, the high correlation between the share of households with kids and the share of residents who are Latino confounds our understanding of whether more households with kids is associated with higher claims and dollars ratios. This is not ideal, but it is also not the independent variable of interest in this report; as such, we avoid interpreting these coefficients in this report. And, given that the variable’s inclusion in the regression models is well justified, the problem is unavoidable. Repeating this analysis with individual-level data would better approach this particular question.

TABLE C1

Regressing all variables on all outcomes of interest

| | (1) | (2) | (3) | (4) | (5) |
|---|----------------------|----------------------|--------------------------------|----------------------------|---------------------------|
| | Claims ratio | Dollars ratio | % of CalEITC claims made early | % of YCTC \$ claimed early | % change in dollars ratio |
| % white | -2.378*** (0.285) | -1.010*** (0.079) | -0.111*** (0.014) | -0.110*** (0.025) | 0.816*** (0.102) |
| % Black | -2.138*** (0.466) | -0.415*** (0.138) | -0.040* (0.022) | -0.090*** (0.034) | 0.234* (0.141) |
| % Asian | -1.493*** (0.275) | -0.884*** (0.080) | -0.137*** (0.012) | -0.140*** (0.022) | 0.857*** (0.107) |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | -2.009** (0.936) | -0.393* (0.237) | 0.177*** (0.045) | 0.229*** (0.071) | -0.729** (0.285) |
| % non-citizen | -4.835*** (0.650) | -1.038*** (0.189) | -0.277*** (0.039) | -0.424*** (0.063) | 1.584*** (0.233) |
| % of households with children | -2.556*** (0.535) | -0.044 (0.140) | 0.143*** (0.019) | 0.134*** (0.034) | -0.386*** (0.128) |
| Ratio of 80th:20th percentile incomes | -0.014 (0.058) | -0.013 (0.012) | -0.011*** (0.002) | -0.017*** (0.003) | 0.037*** (0.012) |
| % of families with no earners | -7.956*** (0.821) | -1.317*** (0.185) | 0.241*** (0.035) | 0.251*** (0.079) | -0.893*** (0.215) |
| Federal poverty rate | -6.691*** (0.865) | -1.371*** (0.228) | 0.504*** (0.034) | 0.528*** (0.051) | -1.731*** (0.186) |
| Constant | 8.130*** (0.454) | 2.092*** (0.111) | 0.252*** (0.016) | 0.414*** (0.028) | -0.095 (0.105) |
| Observations | 1,315 | 1,315 | 1,308 | 1,307 | 1,261 |
| R-squared | 0.297 | 0.370 | 0.600 | 0.343 | 0.405 |
| Dependent variable mean | 3.416 | 1.016 | 0.266 | 0.384 | 0.177 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C1A

Stepping in independent variables

| | Claims ratio | | | Dollars ratio | | | % of CalEITC claims made early | | | % of YCTC \$ claimed early | | | % change in dollars ratio | | |
|---|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|---------------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (1) | (2) | (3) | (1) | (2) | (3) | (1) | (2) | (3) | (1) | (2) | (3) |
| % white | -0.556** (0.236) | -1.814*** (0.249) | -2.378*** (0.285) | -0.769*** (0.059) | -1.054*** (0.064) | -1.010*** (0.079) | 0.152*** (0.011) | 0.108*** (0.011) | 0.111*** (0.014) | 0.126*** (0.017) | 0.093*** (0.018) | 0.110*** (0.025) | 2.956*** (0.207) | 2.439*** (0.208) | 2.929*** (0.306) |
| % Black | 1.588*** (0.547) | -0.982** (0.429) | -2.138*** (0.466) | -0.473*** (0.152) | -0.335** (0.136) | -0.415*** (0.138) | -0.033 (0.027) | -0.054** (0.024) | -0.040* (0.022) | -0.078** (0.036) | 0.094*** (0.035) | 0.090*** (0.034) | 0.556 (0.414) | 0.805** (0.381) | 1.070*** (0.397) |
| % Asian | 0.079 (0.261) | 1.535*** (0.287) | -1.493*** (0.275) | -0.669*** (0.069) | -1.036*** (0.074) | -0.884*** (0.080) | 0.273*** (0.012) | 0.217*** (0.012) | 0.137*** (0.012) | 0.288*** (0.021) | 0.246*** (0.022) | 0.140*** (0.022) | 4.783*** (0.274) | 4.123*** (0.279) | 3.194*** (0.324) |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | 0.879 (1.094) | 0.207 (0.995) | -2.009** (0.936) | 0.267 (0.268) | 0.115 (0.242) | -0.393* (0.237) | 0.226*** (0.053) | 0.249*** (0.051) | 0.177*** (0.045) | 0.329*** (0.077) | 0.346*** (0.077) | 0.229*** (0.071) | 3.542*** (0.885) | 3.816*** (0.882) | 2.700*** (0.853) |
| Federal poverty rate | | 9.502*** (0.962) | -6.691*** (0.865) | | -2.158*** (0.211) | -1.371*** (0.228) | | 0.327*** (0.037) | 0.504*** (0.034) | | 0.246*** (0.046) | 0.528*** (0.051) | | 3.890*** (0.498) | 5.895*** (0.559) |
| % of households with children | | | -2.556*** (0.535) | | | -0.044 (0.140) | | | 0.143*** (0.019) | | | 0.134*** (0.034) | | | 1.382*** (0.381) |
| Ratio of 80th:20th percentile incomes | | | -7.956*** (0.821) | | | -1.317*** (0.185) | | | 0.241*** (0.035) | | | 0.251*** (0.079) | | | 3.117*** (0.685) |
| % of families with no earners | | | -0.014 (0.058) | | | -0.013 (0.012) | | | 0.011*** (0.002) | | | 0.017*** (0.003) | | | 0.104*** (0.039) |
| % non-citizen | | | -4.835*** (0.650) | | | -1.038*** (0.189) | | | 0.277*** (0.039) | | | 0.424*** (0.063) | | | 4.665*** (0.682) |

| | | | | | | | | | | | | | | | |
|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Constant | 3.615*** (0.110) | 5.494*** (0.223) | 8.130*** (0.454) | 1.391*** (0.033) | 1.818*** (0.054) | 2.092*** (0.111) | 0.343*** (0.005) | 0.278*** (0.008) | 0.252*** (0.016) | 0.448*** (0.007) | 0.400*** (0.011) | 0.414*** (0.028) | 1.558*** (0.077) | 2.327*** (0.116) | 2.263*** (0.306) |
| Observations | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,308 | 1,308 | 1,308 | 1,307 | 1,307 | 1,307 | 1,261 | 1,261 | 1,261 |
| R-squared | 0.011 | 0.211 | 0.297 | 0.217 | 0.340 | 0.370 | 0.374 | 0.447 | 0.600 | 0.178 | 0.200 | 0.343 | 0.383 | 0.413 | 0.491 |
| Dependent variable mean | 3.416 | 3.416 | 3.416 | 1.016 | 1.016 | 1.016 | 0.266 | 0.266 | 0.266 | 0.384 | 0.384 | 0.384 | 3.052 | 3.052 | 3.052 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C1B

Relationships between local income levels and outcomes of interest

| | Claims ratio | Dollars ratio | % of CalEITC claims made early | % of YCTC \$ claimed early | % change in dollars ratio | | | | | | | |
|--|-----------------------|----------------------|--------------------------------|----------------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
| % of families with incomes under \$10,000 | -17.596*** (1.544) | -3.589*** (0.510) | 0.479*** (0.101) | 0.283* (0.152) | -1.089** (0.509) | | | | | | | |
| % of families with incomes \$10-19,000 | -5.784*** (1.350) | -0.350 (0.439) | 0.396*** (0.087) | 0.193 (0.133) | -1.552*** (0.457) | | | | | | | |
| % of families with incomes \$20-29,000 | -6.205*** (1.071) | -0.225 (0.355) | 0.525*** (0.076) | 0.475*** (0.113) | -2.804*** (0.408) | | | | | | | |
| % households with children under 18 | 1.163*** (0.402) | 1.977*** (0.350) | 1.340*** (0.105) | 1.451*** (0.105) | 0.221*** (0.017) | 0.184*** (0.016) | 0.213*** (0.026) | 0.187*** (0.026) | - | 1.034*** (0.103) | -0.868*** (0.100) | |
| % of individuals under federal poverty level | - | 6.684*** (0.620) | - | 0.515*** (0.148) | 0.495*** (0.032) | 0.384*** (0.043) | 0.384*** (0.043) | 0.273*** (0.011) | - | 2.110*** (0.180) | 0.806*** (0.040) | 0.747*** (0.039) |
| Constant | 3.826*** (0.129) | 3.868*** (0.127) | 0.602*** (0.035) | 0.640*** (0.034) | 0.126*** (0.006) | 0.138*** (0.006) | 0.261*** (0.011) | 0.273*** (0.010) | 0.806*** (0.040) | 0.747*** (0.039) | | |

| | | | | | | | | | | |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Observations | 1,315 | 1,315 | 1,315 | 1,315 | 1,308 | 1,308 | 1,307 | 1,307 | 1,261 | 1,261 |
| R-squared | 0.143 | 0.284 | 0.160 | 0.207 | 0.403 | 0.418 | 0.155 | 0.148 | 0.245 | 0.255 |
| Dependent variable mean | 3.416 | 3.416 | 1.016 | 1.016 | 0.266 | 0.266 | 0.384 | 0.384 | 0.177 | 0.177 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C2

Predicted values for key metrics at small, mid, and large population shares of race/ethnic groups

| | | White | Latino | Black | Asian | NA/AN, NHPI, multiracial, and other | NA/AN | NHPI | Other race/ethnicity | Multiracial |
|-------------------------------------|-----------------|--------|--------|--------|--------|-------------------------------------|-------|--------|----------------------|-------------|
| Claims ratio | | | | | | | | | | |
| | 25th percentile | 3.93* | 3.23* | 3.61 | 3.68* | 3.79* | 3.60 | 3.62 | 3.64* | 3.84* |
| | 50th percentile | 3.68* | 3.55* | 3.60 | 3.64* | 3.63* | 3.60 | 3.61 | 3.62* | 3.63* |
| | 75th percentile | 3.37* | 4.02* | 3.60 | 3.57* | 3.48* | 3.60 | 3.60 | 3.58* | 3.46* |
| Dollars ratio | | | | | | | | | | |
| | 25th percentile | 1.18* | 0.88* | 1.03* | 1.10* | 1.11* | 1.04 | 1.05 | 1.05* | 1.13* |
| | 50th percentile | 1.08* | 1.02* | 1.03* | 1.07* | 1.05* | 1.04 | 1.04 | 1.05* | 1.06* |
| | 75th percentile | 0.94* | 1.23* | 1.05* | 1.02* | 1.00* | 1.04 | 1.04 | 1.04* | 0.99* |
| % of CalEITC claims made by Feb 28 | | | | | | | | | | |
| | 25th percentile | 27.2%* | 24.5%* | 25.8%* | 27.0%* | 26.3%* | 26.1% | 25.8% | 26.3%* | 26.5%* |
| | 50th percentile | 26.4%* | 25.9%* | 26.0%* | 26.5%* | 26.2%* | 26.1% | 25.9% | 26.2%* | 26.2%* |
| | 75th percentile | 25.4%* | 28.0%* | 26.2%* | 25.8%* | 26.0%* | 26.1% | 26.2% | 26.0%* | 25.9%* |
| % of YCTC dollars claimed by Feb 28 | | | | | | | | | | |
| | 25th percentile | 39.0%* | 36.7%* | 38.2% | 39.2%* | 38.3% | 38.2% | 37.9%* | 38.6%* | 38.5%* |
| | 50th percentile | 38.5%* | 38.1%* | 38.2% | 38.7%* | 38.3% | 38.3% | 38.0%* | 38.4%* | 38.3%* |
| | 75th percentile | 37.8%* | 40.1%* | 38.3% | 37.9%* | 38.3% | 38.3% | 38.4%* | 38.1%* | 38.2%* |

Change in dollars
ratio

| | | | | | | | | | |
|-----------------|--------|--------|--------|--------|--------|-------|--------|--------|--------|
| 25th percentile | 9.4%* | 31.2%* | 21.3%* | 13.8%* | 16.6%* | 19.4% | 21.7%* | 17.6%* | 14.9%* |
| 50th percentile | 16.8%* | 20.8%* | 20.4%* | 16.8%* | 18.8%* | 19.3% | 20.7%* | 18.5%* | 18.5%* |
| 75th percentile | 28.4%* | 3.9%* | 18.6%* | 22.4%* | 21.7%* | 19.6% | 19.1%* | 20.8%* | 22.8%* |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Percentiles refer to population-weighted values for each race/ethnic group, e.g., a zip code that has a higher share of its population being white than 25, 50, or 75 percent of all zip codes. * p<0.1; see Tables C3 – C7 for more detailed statistical significance.

TABLE C3

Regressing binary race/ethnic population shares on claims ratio

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| % non-citizen | -4.157*** (0.624) | -3.626*** (0.554) | -2.138*** (0.631) | -1.384** (0.660) | -3.473*** (0.611) | -2.109*** (0.621) | -2.106*** (0.618) | -2.142*** (0.618) | -3.660*** (0.601) |
| % of households with children | -1.598*** (0.528) | -2.211*** (0.521) | -0.360 (0.488) | -0.442 (0.482) | -0.964* (0.501) | -0.369 (0.486) | -0.356 (0.485) | -0.472 (0.488) | -1.064** (0.505) |
| Ratio of 80th:20th percentile incomes | -0.058 (0.057) | -0.004 (0.056) | -0.048 (0.057) | -0.032 (0.056) | -0.040 (0.057) | -0.050 (0.056) | -0.050 (0.056) | -0.042 (0.056) | -0.035 (0.057) |
| % of families with no earners | -7.643*** (0.815) | -8.027*** (0.780) | -8.695*** (0.824) | -8.646*** (0.800) | -9.313*** (0.784) | -8.611*** (0.804) | -8.672*** (0.804) | -8.741*** (0.808) | -9.613*** (0.787) |
| Federal poverty rate | -4.927*** (0.713) | -7.035*** (0.787) | -3.987*** (0.710) | -4.997*** (0.762) | -4.487*** (0.669) | -4.037*** (0.696) | -4.064*** (0.686) | -4.136*** (0.692) | -4.710*** (0.674) |
| % white | -1.527*** (0.228) | | | | | | | | |
| % Latino | | 2.008*** (0.218) | | | | | | | |
| % Black | | | -0.220 (0.416) | | | | | | |
| % Asian | | | | -0.796*** (0.243) | | | | | |

| | | | | | | | | | |
|--|----------|----------|----------|----------|-----------|----------|----------|-----------|-----------|
| % NA/AN, NHPI, multiracial, or another race/ethnicity | | | | | -5.676*** | | | | |
| | | | | | (0.942) | | | | |
| % NA/AN | | | | | | | | -0.663 | |
| | | | | | | | | (1.300) | |
| % NHPI | | | | | | | | -6.269 | |
| | | | | | | | | (7.362) | |
| % other race/ethnicity | | | | | | | | -18.141** | |
| | | | | | | | | (7.901) | |
| % multiracial | | | | | | | | | -6.986*** |
| | | | | | | | | | (1.097) |
| Constant | 6.842*** | 5.718*** | 5.589*** | 5.676*** | 6.522*** | 5.582*** | 5.608*** | 5.682*** | 6.658*** |
| | (0.413) | (0.343) | (0.343) | (0.350) | (0.414) | (0.347) | (0.351) | (0.345) | (0.428) |
| Observations | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 |
| R-squared | 0.257 | 0.291 | 0.229 | 0.237 | 0.256 | 0.229 | 0.230 | 0.232 | 0.260 |
| Dependent variable mean | 3.416 | 3.416 | 3.416 | 3.416 | 3.416 | 3.416 | 3.416 | 3.416 | 3.416 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C4

Regressing binary race/ethnic population shares on dollars ratio

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| % non-citizen | -1.172*** | -0.985*** | -0.220 | 0.201 | -0.796*** | -0.294 | -0.301 | -0.311 | -0.894*** |
| | (0.200) | (0.153) | (0.191) | (0.198) | (0.184) | (0.192) | (0.191) | (0.190) | (0.179) |
| % of households with children | 0.356** | 0.050 | 0.862*** | 0.826*** | 0.662*** | 0.878*** | 0.880*** | 0.850*** | 0.613*** |
| | (0.152) | (0.136) | (0.140) | (0.132) | (0.137) | (0.139) | (0.139) | (0.139) | (0.137) |
| Ratio of 80th:20th percentile incomes | -0.034*** | -0.009 | -0.033** | -0.018 | -0.026** | -0.030** | -0.030** | -0.028** | -0.024* |
| | (0.012) | (0.012) | (0.013) | (0.012) | (0.013) | (0.012) | (0.012) | (0.012) | (0.013) |
| % of families with no earners | -1.374*** | -1.521*** | -1.669*** | -1.803*** | -2.039*** | -1.806*** | -1.799*** | -1.822*** | -2.167*** |
| | (0.193) | (0.178) | (0.198) | (0.194) | (0.191) | (0.200) | (0.199) | (0.200) | (0.191) |

| | | | | | | | | | |
|--|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Federal poverty rate | -0.211 (0.202) | -1.180*** (0.205) | 0.026 (0.207) | -0.502** (0.209) | 0.002 (0.193) | 0.150 (0.207) | 0.157 (0.204) | 0.137 (0.206) | -0.091 (0.192) |
| % white | -0.647*** (0.066) | | | | | | | | |
| % Latino | 0.902*** (0.062) | | | | | | | | |
| % Black | 0.443*** (0.123) | | | | | | | | |
| % Asian | -0.558*** (0.073) | | | | | | | | |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | -2.052*** (0.271) | | | | | | | | |
| % NA/AN | 0.390 (0.473) | | | | | | | | |
| % NHPI | -0.963 (2.226) | | | | | | | | |
| % other race/ethnicity | -4.755** (2.242) | | | | | | | | |
| % multiracial | -2.661*** (0.296) | | | | | | | | |
| Constant | 1.607*** (0.111) | 1.134*** (0.084) | 1.058*** (0.091) | 1.139*** (0.089) | 1.413*** (0.102) | 1.072*** (0.092) | 1.077*** (0.093) | 1.099*** (0.092) | 1.483*** (0.103) |
| Observations | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 | 1,315 |
| R-squared | 0.268 | 0.356 | 0.216 | 0.251 | 0.250 | 0.209 | 0.209 | 0.211 | 0.261 |
| Dependent variable mean | 1.016 (1) | 1.016 (2) | 1.016 (3) | 1.016 (4) | 1.016 (5) | 1.016 (6) | 1.016 (7) | 1.016 (8) | 1.016 (9) |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C5

Regressing binary race/ethnic population shares on share of CalEITC claims filed by end of February

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| % non-citizen | -0.353*** (0.034) | -0.355*** (0.033) | -0.274*** (0.030) | -0.210*** (0.031) | -0.298*** (0.032) | -0.283*** (0.029) | -0.285*** (0.029) | -0.289*** (0.030) | -0.311*** (0.032) |
| % of households with children | 0.186*** (0.020) | 0.143*** (0.018) | 0.223*** (0.018) | 0.217*** (0.018) | 0.221*** (0.018) | 0.226*** (0.018) | 0.224*** (0.018) | 0.220*** (0.018) | 0.214*** (0.018) |
| Ratio of 80th:20th percentile incomes | -0.013*** (0.002) | -0.011*** (0.002) | -0.013*** (0.002) | -0.011*** (0.002) | -0.013*** (0.002) | -0.013*** (0.002) | -0.013*** (0.002) | -0.013*** (0.002) | -0.013*** (0.002) |
| % of families with no earners | 0.193*** (0.036) | 0.188*** (0.034) | 0.182*** (0.035) | 0.160*** (0.032) | 0.156*** (0.034) | 0.152*** (0.034) | 0.169*** (0.034) | 0.156*** (0.034) | 0.146*** (0.035) |
| Federal poverty rate | 0.677*** (0.035) | 0.572*** (0.035) | 0.682*** (0.034) | 0.602*** (0.034) | 0.701*** (0.034) | 0.698*** (0.034) | 0.705*** (0.034) | 0.701*** (0.034) | 0.694*** (0.034) |
| % white | -0.049*** (0.011) | | | | | | | | |
| % Latino | | 0.089*** (0.010) | | | | | | | |
| % Black | | | 0.073*** (0.019) | | | | | | |
| % Asian | | | | -0.086*** (0.011) | | | | | |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | | | | | -0.044 (0.040) | | | | |
| % NA/AN | | | | | | 0.287 (0.181) | | | |
| % NHPI | | | | | | | 1.165*** (0.231) | | |
| % other race/ethnicity | | | | | | | | -0.864** (0.335) | |
| % multiracial | | | | | | | | | -0.109** |

| | | | | | | | | | |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | | | | | | (0.049) |
| Constant | 0.212*** | 0.178*** | 0.169*** | 0.182*** | 0.179*** | 0.172*** | 0.167*** | 0.177*** | 0.189*** |
| | (0.015) | (0.012) | (0.013) | (0.013) | (0.015) | (0.013) | (0.013) | (0.013) | (0.015) |
| Observations | 1,308 | 1,308 | 1,308 | 1,308 | 1,308 | 1,308 | 1,308 | 1,308 | 1,308 |
| R-squared | 0.552 | 0.581 | 0.548 | 0.569 | 0.544 | 0.545 | 0.551 | 0.546 | 0.546 |
| Dependent variable mean | 0.266 | 0.266 | 0.266 | 0.266 | 0.266 | 0.266 | 0.266 | 0.266 | 0.266 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C6

Regressing binary race/ethnic population shares on share of YCTC dollars claimed by end of February

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| % non-citizen | -0.487*** | -0.506*** | -0.436*** | -0.365*** | -0.443*** | -0.437*** | -0.438*** | -0.444*** | -0.453*** |
| | (0.057) | (0.055) | (0.050) | (0.051) | (0.053) | (0.049) | (0.049) | (0.049) | (0.054) |
| % of households with children | 0.181*** | 0.131*** | 0.208*** | 0.201*** | 0.208*** | 0.209*** | 0.207*** | 0.201*** | 0.203*** |
| | (0.035) | (0.032) | (0.030) | (0.030) | (0.031) | (0.030) | (0.030) | (0.030) | (0.031) |
| Ratio of 80th:20th percentile incomes | -0.020*** | -0.018*** | -0.020*** | -0.018*** | -0.020*** | -0.019*** | -0.019*** | -0.019*** | -0.019*** |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| % of families with no earners | 0.202** | 0.206*** | 0.188** | 0.178** | 0.179** | 0.171** | 0.189** | 0.172** | 0.172** |
| | (0.079) | (0.077) | (0.077) | (0.074) | (0.075) | (0.076) | (0.076) | (0.075) | (0.076) |
| Federal poverty rate | 0.693*** | 0.587*** | 0.705*** | 0.612*** | 0.712*** | 0.706*** | 0.713*** | 0.706*** | 0.708*** |
| | (0.049) | (0.050) | (0.049) | (0.050) | (0.048) | (0.048) | (0.048) | (0.048) | (0.048) |
| % white | -0.034* | | | | | | | | |
| | (0.019) | | | | | | | | |
| % Latino | | 0.085*** | | | | | | | |
| | | (0.016) | | | | | | | |
| % Black | | | 0.027 | | | | | | |
| | | | (0.027) | | | | | | |
| % Asian | | | | -0.085*** | | | | | |

| | | | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | | | | (0.019) | | |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | | | | | | | | -0.009 | |
| | | | | | | | | (0.060) | |
| % NA/AN | | | | | | | | 0.267 | |
| | | | | | | | | (0.194) | |
| % NHPI | | | | | | | | 1.316*** | |
| | | | | | | | | (0.358) | |
| % other race/ethnicity | | | | | | | | -1.434** | |
| | | | | | | | | (0.618) | |
| % multiracial | | | | | | | | | -0.056 |
| | | | | | | | | | (0.074) |
| Constant | 0.369*** | 0.347*** | 0.340*** | 0.351*** | 0.343*** | 0.341*** | 0.335*** | 0.349*** | 0.350*** |
| | (0.026) | (0.022) | (0.023) | (0.022) | (0.024) | (0.022) | (0.023) | (0.023) | (0.025) |
| Observations | 1,307 | 1,307 | 1,307 | 1,307 | 1,307 | 1,307 | 1,307 | 1,307 | 1,307 |
| R-squared | 0.316 | 0.332 | 0.315 | 0.328 | 0.314 | 0.315 | 0.319 | 0.317 | 0.314 |
| Dependent variable mean | 0.384 | 0.384 | 0.384 | 0.384 | 0.384 | 0.384 | 0.384 | 0.384 | 0.384 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE C7

Regressing binary race/ethnic population shares on percent change in dollars ratio

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| % non-citizen | 1.995*** | 1.887*** | 1.292*** | 0.921*** | 1.571*** | 1.370*** | 1.372*** | 1.408*** | 1.675*** |
| | (0.212) | (0.215) | (0.186) | (0.181) | (0.202) | (0.185) | (0.183) | (0.185) | (0.204) |
| % of households with children | -0.676*** | -0.437*** | -1.017*** | -0.989*** | -0.958*** | -1.038*** | -1.025*** | -0.997*** | -0.909*** |
| | (0.128) | (0.127) | (0.115) | (0.114) | (0.116) | (0.115) | (0.114) | (0.116) | (0.116) |
| Ratio of 80th:20th percentile incomes | 0.055*** | 0.037*** | 0.055*** | 0.040*** | 0.051*** | 0.051*** | 0.051*** | 0.049*** | 0.049*** |
| | (0.012) | (0.013) | (0.013) | (0.013) | (0.013) | (0.013) | (0.013) | (0.013) | (0.013) |
| % of families with no earners | -0.643*** | -0.554*** | -0.506** | -0.346* | -0.265 | -0.303 | -0.406* | -0.311 | -0.178 |

| | | | | | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | (0.231) | (0.204) | (0.219) | (0.203) | (0.217) | (0.216) | (0.215) | (0.214) | (0.219) |
| Federal poverty rate | -2.839*** | -2.120*** | -2.928*** | -2.472*** | -3.038*** | -3.061*** | -3.098*** | -3.064*** | -2.974*** |
| | (0.213) | (0.189) | (0.209) | (0.193) | (0.210) | (0.214) | (0.211) | (0.212) | (0.209) |
| % white | 0.448*** | | | | | | | | |
| | (0.078) | | | | | | | | |
| % Latino | | -0.654*** | | | | | | | |
| | | (0.075) | | | | | | | |
| % Black | | | -0.547*** | | | | | | |
| | | | (0.111) | | | | | | |
| % Asian | | | | 0.521*** | | | | | |
| | | | | (0.095) | | | | | |
| % NA/AN, NHPI, multiracial, or another race/ethnicity | | | | | 0.743*** | | | | |
| | | | | | (0.248) | | | | |
| % NA/AN | | | | | | -1.471 | | | |
| | | | | | | (0.989) | | | |
| % NHPI | | | | | | | -8.528*** | | |
| | | | | | | | (1.616) | | |
| % other race/ethnicity | | | | | | | | 6.793** | |
| | | | | | | | | (2.668) | |
| % multiracial | | | | | | | | | 1.273*** |
| | | | | | | | | | (0.308) |
| Constant | 0.197** | 0.524*** | 0.586*** | 0.505*** | 0.444*** | 0.569*** | 0.606*** | 0.529*** | 0.371*** |
| | (0.100) | (0.084) | (0.089) | (0.090) | (0.096) | (0.089) | (0.089) | (0.091) | (0.096) |
| Observations | 1,261 | 1,261 | 1,261 | 1,261 | 1,261 | 1,261 | 1,261 | 1,261 | 1,261 |
| R-squared | 0.345 | 0.384 | 0.330 | 0.352 | 0.326 | 0.323 | 0.334 | 0.326 | 0.332 |
| Dependent variable mean | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 |

SOURCES: Author's analysis of Franchise Tax Board (2022) and ACS 5-year Summary File (2017-21) data.

NOTES: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.



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