



PPIC

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Income Inequality and the Safety Net in California

Technical Appendices

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Appendix A: Data Sources

We rely on detailed survey data from the US Census and Bureau of Labor Statistics to estimate the distribution of income in California and to examine the demographic characteristics of families across the distribution. The core survey micro-data we analyze comes from the Current Population Survey (CPS) from 1980–2015 and the American Community Survey (ACS) from 2005–2014. The CPS is fielded between February and April of each year and asks respondents about their income in the previous calendar year. The ACS is fielded on a rolling basis and asks respondents' income in the previous twelve months. As is usual practice, we treat responses to the 2015 CPS as referring to 2014, while responses to the 2014 ACS refer to 2014.

In addition, we use an augmented version of the ACS data for 2012–2013 which underlies the California Poverty Measure research, a joint effort between PPIC and the Stanford Center on Poverty and Inequality (Bohn, Danielson, Levin, Mattingly, and Wimer, 2013; Wimer, Mattingly, Kimberlin, Danielson, and Bohn, 2015). Each of these three main data sources is described below.

Current Population Survey

We use the Annual Social and Economic Supplement (ASEC) of the CPS, which is administered by the US Census Bureau and the Bureau of Labor Statistics (BLS). The CPS is a representative sample of the noninstitutionalized civilian population. Although administered only once per year, the CPS-ASEC includes relatively detailed questions focusing on annual income and labor market experiences. It is administered between February and April of each year, and the results are released towards the end of the same calendar year. We access the CPS via the Integrated Public Use Microdata series CPS data (IPUMS-CPS) published by the Minnesota Population Center at the University of Minnesota (King et al. 2015). These data are harmonized, meaning that the variable names and coding are consistent over time.

Since the CPS is designed to be cross-sectional, rather than longitudinal, we are unable to follow individuals or families over time.¹ For this reason, we can only make inferences based on representative populations or cohorts across the cross-sections of the CPS. The CPS is designed to be representative of state-level populations but does not permit robust analysis within more narrowly defined regions or subgroups. The advantage of the CPS for our purposes is that its long time series that allows us to track income and labor market activity over more than three decades.

As described in the text, the CPS-ASEC redesigned questions on income and health insurance between the 2014 and 2015 surveys (pertaining to income for the previous calendar years 2013 and 2014, respectively). Survey questions were changed to better capture income and health insurance use, especially among low income families. As a result, our calculations of the income distribution in 2014 are not directly comparable to previous years. Furthermore, the 2014 CPS-ASEC sample was split into two subsamples that were asked either the new or old income and health insurance questions. Calculations of the income distribution from either subsample have larger standard errors as a result. For these reasons, we interpret changes in the income distribution based on the CPS between 2012–2014 with caution, and we rely more heavily on the consistent data series and larger sample size from the ACS.

¹ A smaller subsample of the CPS is surveyed multiple times over the course of 16 months, but the small sample size does not permit analysis of the entire income distribution in enough detail for our purposes.

American Community Survey

The ACS is a large-scale population survey administered by the US Census Bureau that represents roughly a 1 percent sample of US residents. We exclude those living in group quarters. The resulting California sample is over 350,000 observations annually. The ACS provides detailed economic and demographic information on individuals and households. The ACS asks less detailed questions about program participation and income sources than the CPS-ASEC, and is only available from 2005–2014. However, the ACS has the significant advantage of very large sample sizes, allowing us to perform detailed analyses within socioeconomic subgroups in California. Like the CPS, the ACS is a cross-sectional survey representing snapshots of the California population at various points in time. As with the CPS, we access harmonized ACS data published by the Minnesota Population Center at the University of Minnesota (Ruggles et al. 2015).

California Poverty Measure Data

Our third major source of data comes from the California Poverty Measure (CPM) research, a joint effort between PPIC and Stanford’s Center on Poverty and Inequality (Bohn et al., 2013 and Wimer et al., 2015). These data are built upon the ACS with enhancements using other survey and administrative data to more accurately estimate the range of resources and expenses for families in California. This research is based upon the methodology of the Census Bureau’s Supplemental Poverty Measure, with California-specific improvements (for more detail see Bohn et al., 2013 and Wimer et al., 2015). The CPM data are available for 2011–2013. We use the most recent two years of CPM data, pooling the years to increase the robustness of our detailed calculations. Because economic conditions did not change drastically between 2012 and 2013, we lose little information in pooling the data. This pooled 2012–2013 data forms the basis for our analysis of the distribution and inequality of income for California families, as well as the mitigating impact of taxes and government programs.

Appendix B: Methodology

In this section, we discuss key methodological choices adopted for this research. These include: 1. How income and resources are defined; 2. The level at which we perform our analyses (the family); 3. How these values are standardized over time and across families; and 4. Metrics used to measure inequality.

Definition of Income and Resources

In this report, we use a number of different measures of income and resources. Indeed, one of the goals of this work is to highlight the difference between official income and poverty statistics and those based on a more comprehensive definition. We make use of four primary definitions: “official income,” “pre-tax work and retirement income,” “after-tax work and retirement income,” and “comprehensive income.” Table B1 describes the categories of cash and near-cash resources included in each definition.

Official income is comprised of all cash income received before taxes paid or tax credits received. As described in the text, this measure of income is what is commonly used in official income and poverty statistics reported by the US Census Bureau and other agencies. It incorporates all of the income sources recorded in the major population surveys used for wide-ranging purposes in the US.

TABLE B1

Income definitions

	Official income and poverty statistics	Pre-tax work and retirement income (WRI)	After-tax WRI	CPM Comprehensive income
Income from work, investments, UI, business, retirement, and miscellaneous	X	X	X	X
State and federal payroll and income taxes paid			X	X
Tax credits received				X
Social Security	X	X	X	X
Supplemental Security Income (SSI)	X			X
CalWORKs (TANF) and General Assistance	X			X
CalFresh (SNAP)				X
Free and reduced price school breakfast and school lunch				X
WIC				X
Federal rental assistance				X

Official income measures some sources of income—such as all cash income from working and all cash income from retirement sources—but not others. Hence we define the second category as “work and retirement income,” which is comprised of income from work and retirement, as well as other work-related sources such as unemployment insurance, business income, as well as other cash from investments and miscellaneous sources. Although more precision in this measure might also be appealing, we must create a definition that is feasible to measure in available data. Because we are also interested in the entire income distribution, not only income received by people currently employed, we choose to combine income from working as well as from Social Security and retirement in this measure. The third measure of income subtracts state and federal income and payroll taxes and paid. Due to data limitations, we are unable to measure sales taxes or property taxes.

Our last measure is referred to as “comprehensive income.” Official income and poverty statistics fall short in providing a comprehensive estimate of resources families have to meet their needs. In particular, the official income statistics do not account for taxes paid or tax credits received, nor do they account for the cash value of in-kind benefits like CalFresh (California’s Supplemental Nutrition Assistance Program) and housing subsidies. The Earned Income Tax Credit (EITC) and CalFresh are today the largest social safety net programs. Therefore, failing to account for their impact on family economic well-being is problematic. However, all of these resources are not currently measured in the ACS. For this reason, in our CPM research we have built these major categories of resources into the California sample of the ACS. Included in our measure of “comprehensive income” are all the categories of income counted in the official income and poverty statistics as well as taxes paid less tax credits received (EITC and refundable Child Tax Credit), CalFresh, WIC, school breakfast and lunch, and federal rental assistance.

Standardization of Income and Resource Measures

To compare income and resources over time and across families, it is necessary to make a number of adjustments. We summarize these adjustments here.

Units of analysis

Our analysis of income centers on the family rather than the individual. This allows us to take account of virtually all Californians rather than only those who are employed. Individuals share resources within families or relationships of their choosing, and these relationships are captured to a reasonable extent in the survey data on which our analysis is based. We assume that individuals share resources with family members they reside with. In the analyses using the CPM, the concept of family is broadened to include cohabiting partners and foster children (for more detail, see Bohn et al. 2013). Our unit of analysis can range from single adult units to multigenerational families. For some analyses we examine characteristics of the head of the family, defined as the oldest member with the lowest roster number. For some analyses we examine characteristics of all members of the family, such as how many are employed or the number of adults and number of children.

Normalization for family size and other adjustments

Families vary substantially in size and composition. This means their income is likely to vary as well. For example, because California families are on average larger than families in the rest of the country (2.94 persons compared to 2.63, respectively²), not adjusting for family size can understate income differences. This is especially true for median-income families and below, where the size differences between families in California and elsewhere are largest. To facilitate the analysis, we adjust family income to be comparable across various sizes. We normalize family income to be representative of a common family size: two adults and two children. Our adjustment factor uses federal poverty thresholds, which provide equivalent standard of living for families of different sizes. Specifically, we apply a factor equal to the ratio of the threshold for a family of four to the threshold for a given family size. The dollar value for normalized family income used throughout the study represents the total family income for a family of four with two children.

Inflation adjustment

We adjust our data for inflation, using the CPI-U Research Series. We adjust all dollar amounts to the latest year available, which is either 2013 or 2014, depending on the analysis. In addition, ACS responses are adjusted

² Census Bureau Quick Facts 2009-2013.

globally using a Census-provided variable that roughly translates the responses from the rolling reference period of the survey into calendar year amounts.

Handling top-coded income values

Extremely high income values are recoded by the Census Bureau in the CPS and ACS to preserve the privacy of respondents in the public use micro data we rely upon. In the ACS, incomes higher than the 99.5th percentile are top-coded with the average value of incomes above that threshold for California. In the 2014 ACS, the top-coded value for individual wages was \$455,000. This prevents us from analyzing the very highest levels of the income distribution. Top-coding in the CPS is more restrictive, permitting no detailed analysis beyond the 95th percentile.

Approaches to Calculating Inequality

Researchers use a number of metrics to measure income inequality. Our goal is to assess the income distribution widely speaking, and not just a single metric of inequality. Thus, we prefer to describe the distribution of income using percentiles and income deciles. This lends itself naturally to using income ratios as our primary measure of income inequality. We examine ratios of income at a number of points in the distribution, but most often report 90/10 ratio, 90/50 and 50/10 ratios. These ratios have the additional benefit of being straightforward to interpret: the 90/10 ratio is simply the 90th percentile income divided by the 10th percentile income, and likewise for the other ratios we report. Other common inequality measures such as the Gini coefficient are much less intuitive.

Simulations of Inequality

We re-estimate the income distribution and measures of inequality under two counterfactual scenarios in which poverty and deep poverty are eliminated. These provide context for understanding how shifts in the factors related to inequality may change the picture of income in California. To do this, however, requires a number of assumptions. We briefly discuss the methodological approach here.

We model how the income distribution would shift if poverty or deep poverty were eliminated. To do this, we add resources to family comprehensive income to bring all those in poverty (or deep poverty) to precisely the poverty level income as measured by their CPM poverty threshold (or one-half of the threshold). We then recalculate percentiles of the appropriate income distributions and comprehensive income ratios. This method holds constant the income of all other families at or above the poverty (or deep poverty) line. Note also that these simulations do not take into account necessary expenses (related to work and medical costs), which are subtracted from family resources before calculating CPM poverty status.

Appendix C: Detailed Estimates

Historical Trends in the Income Distribution

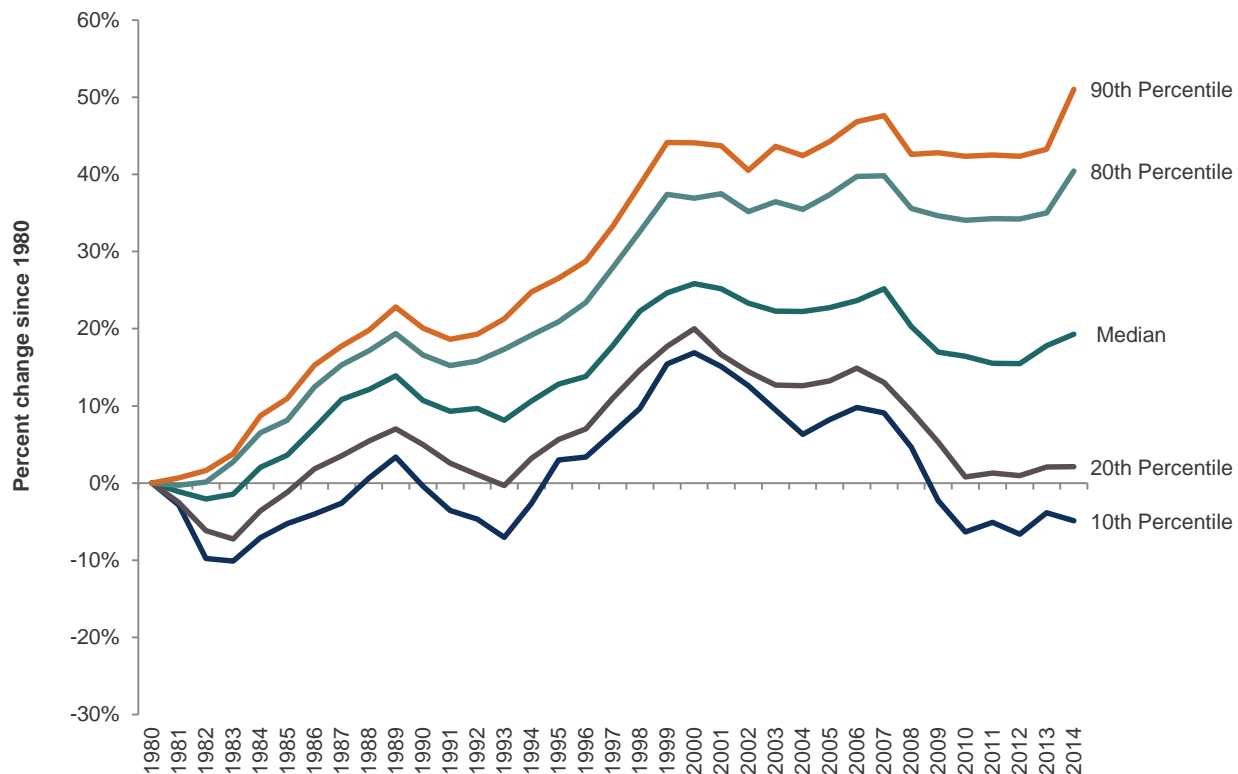
This section provides additional background on the long term trends in family income based on the 1980–2015 CPS and the 2005–2014 ACS. Both surveys contain information on income through 2014.

The first set of figures use CPS data; they complement Figure 1 in the text. Figure C1 provides historical trends in the income distribution for the US excluding California. Figure C2 plots income ratios for both California and the rest of the US (based on Figure 1 of the report and Figure C1).

Compared to 1980, family incomes have grown more outside California than within California. Top incomes outside California (the 90th percentile) were 51 percent higher in 2014 than in 1980, compared to a 40 percent increase in California. Low incomes outside California (the 10th percentile) were 5 percent lower in 2014 than in 1980, compared to 19 percent lower in California. While the gap between high and low incomes has trended upwards throughout the country (Figure C2), increases—especially during recession periods—have been larger in California. However, gaps between middle and low income families (the 50/10 ratio) or middle and high income families (the 90/50 ratio) are relatively similar in the US and California.

FIGURE C1

Historical trend in income distribution for the US excluding California

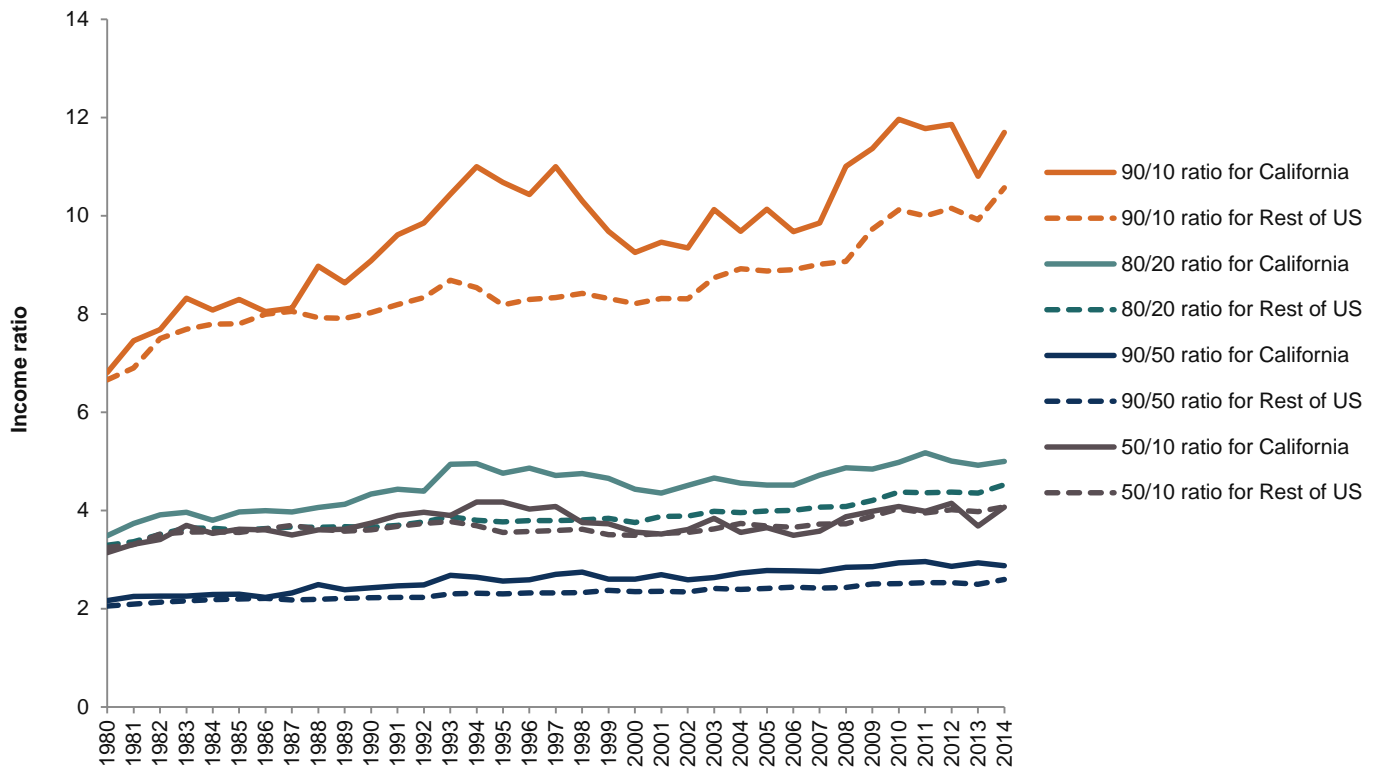


SOURCE: Author's calculations from Current Population Survey ASEC for the US excluding California.

NOTE: Chart shows changes in pre-tax cash or "official" income at the family level. This includes income received from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. See Appendix B for additional detail. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four. In 2014 the CPS-ASEC used revised income questions, so the most recent year of data is not strictly comparable to previous years and should thus be interpreted with caution. See note 3 of the report.

FIGURE C2

Income inequality in California and the rest of the US



SOURCE: Author’s calculations from Current Population Survey ASEC.

NOTE: Figure shows ratios of pre-tax cash or “official” income. This includes income received from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four. See text for explanation of income ratios. In 2014, the CPS-ASEC revised survey questions regarding income, which means that the most recent year of data is not strictly comparable to previous years, and should thus be interpreted with caution. See note 3 of the report for more details.

The next set of tables and figures use ACS data to document differences between California and the US as well as differences across various measures of income in survey data.

First, Table C1 summarizes changes in official income and income inequality for the US excluding California, complementing Table 1 of the report. As of 2014, income levels are roughly similar in the US and California up through the middle of the distribution. Top incomes are lower in the rest of the country than they are in California. However, California’s families had higher income levels across the board in 2007 than families in the rest of the country. Table C2 shows the same calculations, but bases them on work and retirement income instead of official income.

TABLE C1

Official income and income inequality in the US outside of California

	10th percentile	20th percentile	50th percentile (median)	80th percentile	90th percentile	90/10	80/20	90/50	50/10
2007 (pre-recession peak)	\$18,000	\$32,000	74,000	\$136,000	\$181,000	10.3	4.2	2.4	4.2
2011 (recession low point)	\$15,000	\$27,000	68,000	\$130,000	\$173,000	11.7	4.7	2.6	4.6
Change during recession (2007–2011)	-16.0%	-14.4%	-8.2%	-4.6%	-4.0%	14.3%	11.4%	4.5%	9.4%
2014 (most recent)	\$15,000	\$28,000	69,000	\$134,000	\$179,000	11.6	4.7	2.6	4.5
Change during recovery (2011–2014)	3.7%	3.2%	1.7%	3.2%	3.0%	-0.7%	-0.0%	1.3%	-1.9%
Net change since 2007	-12.9%	-11.7%	-6.6%	-1.6%	-1.1%	13.5%	11.4%	5.9%	7.2%

SOURCES: Authors' calculations from American Community Survey for the US excluding California.

NOTES: Dollar amounts are rounded to the nearest \$1,000. Table shows pre-tax cash or "official" income. This includes income received from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. See appendix for more detail. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four.

TABLE C2

Work and retirement income, California and the rest of the US

	10th percentile	20th percentile	50th percentile (median)	80th percentile	90th percentile	90/10	80/20	90/50	50/10
California									
2007 (pre-recession peak)	\$17,000	\$31,000	\$75,000	\$152,000	\$208,000	12.1	4.8	2.7	4.4
2011 (recession low point)	\$12,000	\$25,000	\$65,000	\$141,000	\$195,000	16.5	5.6	3.0	5.5
Change during recession (2007–2011)	-30.8%	-20.0%	-13.6%	-7.3%	-6.2%	35.5%	15.9%	8.7%	24.8%
2014 (most recent)	\$13,000	\$26,000	\$68,000	\$145,000	\$198,000	15.7	5.6	2.9	5.4
Change during recovery (2011–2014)	6.4%	3.0%	4.2%	2.7%	1.5%	-4.6%	-0.3%	-2.6%	-2.1%
Net change since 2007	-26.3%	-17.6%	-10.0%	-4.8%	-4.7%	29.3%	15.5%	5.8%	22.2%
Rest of US									
2007 (pre-recession peak)	\$16,000	\$31,000	\$74,000	\$136,000	\$181,000	11.2	4.3	2.4	4.6
2011 (recession low point)	\$13,000	\$27,000	\$67,000	\$129,000	\$173,000	13.8	4.9	2.6	5.4
Change during recession (2007–2011)	-22.6%	-15.3%	-8.5%	-4.8%	-4.2%	23.8%	12.4%	4.8%	18.2%
2014 (most recent)	\$13,000	\$27,000	\$69,000	\$133,000	\$178,000	13.9	4.9	2.6	5.4
Change during recovery (2011–2014)	2.6%	2.8%	2.0%	3.2%	3.1%	0.4%	0.3%	1.1%	-0.6%
Net change since 2007	-20.6%	-12.9%	-6.6%	-1.6%	-1.1%	13.5%	11.4%	5.9%	7.2%

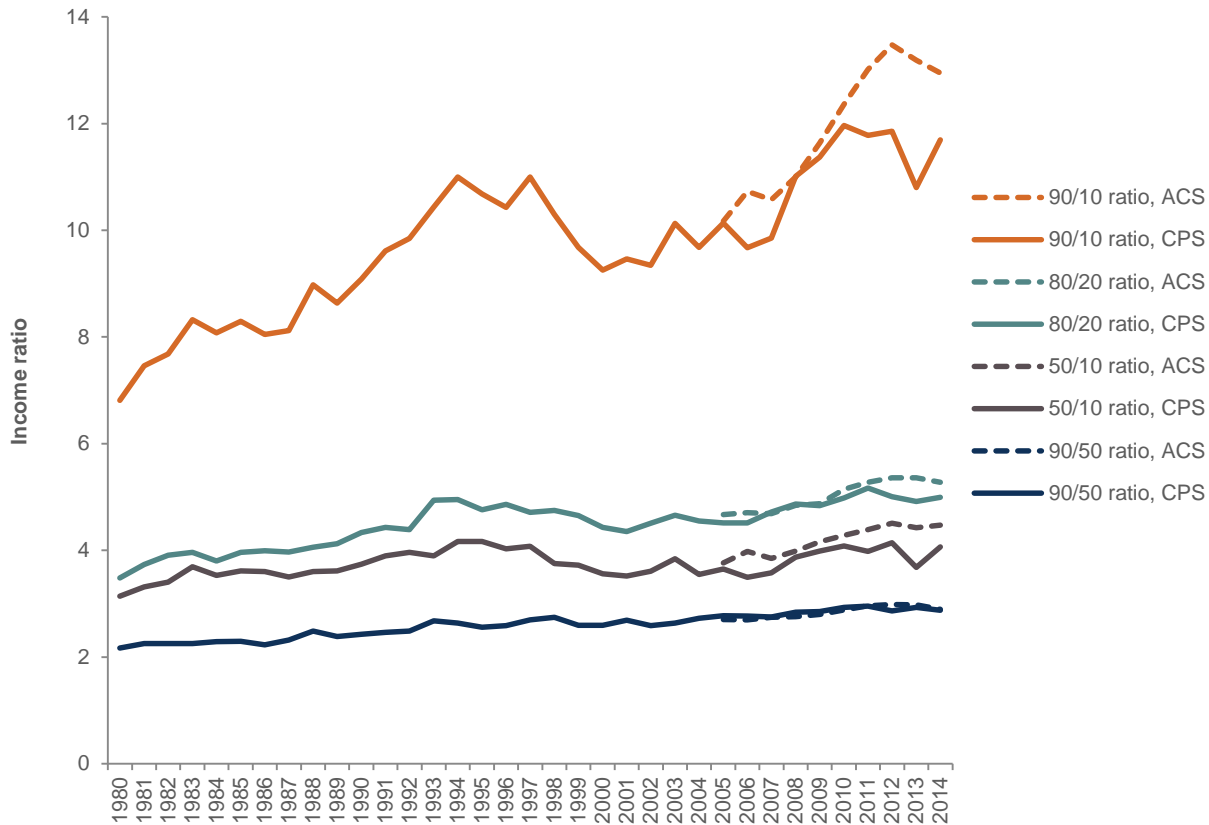
SOURCES: Authors' calculations from American Community Survey.

NOTES: Dollar amounts are rounded to the nearest \$1,000. Table shows pre-tax cash or "official" income. This includes income received from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. See Appendix B for more detail. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four.

Figure C4 compares inequality metrics for California computed in the CPS and in the ACS for the years 2005–2014. These ratios are generally somewhat larger when computed in ACS. The differences are most pronounced in 2013 and 2014, the years in which the income questions and sample sizes are in flux in the CPS. Additional years of data will clarify how enduring this divergence is.

FIGURE C4

Income inequality in California, measured in CPS and ACS



SOURCE: ACS for California, 2005–2014 and CPS-ASEC for California, 1980–2015.

NOTE: Income ratios calculated based on “official” or pre-tax cash income. This includes income received from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four. See Appendix B for more detail. In 2014, the CPS-ASEC revised survey questions regarding income, which means that the most recent year of data is not strictly comparable to previous years, and should thus be interpreted with caution. See note 3 of the report for more details.

Last, Table C3 provides official income distribution and inequality estimates by county (or county group), complementing Table 3 of the report.³ In order to reduce the margin of error on these estimates, we pool 2013 and 2014 ACS data for these tabulations, and (in the last column) compare to 2006–2007 pooled estimates.

³ Counties shown grouped are not individually identifiable in the 2013 and 2014 ACS.

TABLE C3

Official income distribution by county, 2013–2014

County/County group	10th percentile	Median	90th percentile	90/10 ratio	Change in median since 2006–07
Alameda	\$19,000	\$90,000	\$233,000	12.1	-3.8%
Alpine-Amador-Calaveras-Inyo-Mariposa-Mono-Tuolumne	12,000	71,000	82,000	15.2	-3.9%
Butte	12,000	55,000	156,000	13.0	-7.7%
Colusa-Glenn-Tehama-Trinity	16,000	57,000	159,000	9.9	-3.0%
Contra Costa	23,000	97,000	237,000	10.5	-8.0%
Del Norte-Lassen-Modoc-Plumas-Siskiyou-Nevada-Sierra	10,000	61,000	163,000	17.1	-10.1%
El Dorado	20,000	91,000	224,000	11.2	-10.2%
Fresno	9,000	44,000	144,000	16.5	-19.5%
Humboldt	11,000	52,000	149,000	13.6	-12.6%
Imperial	6,000	45,000	133,000	21.0	-4.7%
Kern	10,000	49,000	149,000	14.6	-8.0%
Kings	0	41,000	128,000	n/a	-14.3%
Lake-Mendocino	12,000	51,000	161,000	13.8	-13.2%
Los Angeles	15,000	60,000	186,000	12.8	-8.3%
Madera	5,000	45,000	125,000	23.1	-9.8%
Marin	24,000	126,000	311,000	13.0	2.5%
Merced	11,000	42,000	129,000	11.3	-17.4%
Monterey-San Benito	14,000	57,000	178,000	12.8	-16.5%
Napa	24,000	83,000	224,000	9.4	-0.1%
Orange	20,000	82,000	220,000	11.2	-9.3%
Placer	26,000	101,000	219,000	8.5	-3.5%
Riverside	15,000	61,000	163,000	10.6	-13.7%
Sacramento	15,000	65,000	182,000	12.5	-15.3%
San Bernardino	12,000	55,000	155,000	13.2	-18.4%
San Diego	17,000	74,000	200,000	11.9	-9.6%
San Francisco	19,000	100,000	283,000	14.9	3.3%
San Joaquin	13,000	57,000	157,000	12.0	-16.1%
San Luis Obispo	10,000	73,000	196,000	20.4	-5.9%
San Mateo	30,000	114,000	278,000	9.4	-1.2%
Santa Barbara	10,000	61,000	203,000	20.2	-10.3%
Santa Clara	25,000	107,000	263,000	10.7	-2.7%
Santa Cruz	13,000	76,000	217,000	16.8	-9.8%
Shasta	13,000	59,000	153,000	11.9	-10.7%
Solano	16,000	79,000	190,000	11.7	-8.4%
Sonoma	22,000	81,000	206,000	9.3	-10.1%
Stanislaus	14,000	55,000	153,000	11.1	-17.6%
Sutter-Yuba	16,000	54,000	138,000	8.8	-13.5%
Tulare	10,000	40,000	124,000	12.5	-17.7%
Ventura	21,000	84,000	212,000	9.9	-9.8%
Yolo	4,000	62,000	191,000	n/a	-16.4%

SOURCES: Authors’ calculations from American Community Survey for California.

NOTES: Dollar amounts are rounded to the nearest \$1,000. Table shows “official” or pre-tax cash income from earnings, business, investment, retirement, unemployment insurance, cash welfare programs (SSI, TANF, GA) and other sources and does not account for taxes paid or tax credits received. These amounts are calculated at the family level, adjusted for inflation to 2014 dollars, and normalized for a family of four. See Appendix B for more detail. Counties shown in groups cannot be individually identified in the ACS.

Detailed Estimates of Family Resources, 2012–2013

This section provides detailed estimates for the work and retirement income (WRI), after-tax WRI, and comprehensive income (CI) distributions as calculated in the 2012–2013 CPM. These detailed estimates underlie or complement analyses in the report.

The first set of tables and figures provide detailed estimates for Figure 2 of the report. Table C4 shows percentiles of the income distribution using the three income definitions. At the low end of the CI distribution benefits from safety net programs shift the distribution up. Beginning at the 40th percentile, the CI distribution is compressed relative to the WRI distribution; this reflects the effect of taxes. The after-tax WRI distribution shows the effect of taxes alone on work and retirement income. The histograms (Figure C5 and Figure C6) plot the first and last distributions (WRI and CI) in more detail, first showing all families below the 90th percentile (for scale) and then showing all families up to the median of income.

TABLE C4

Distributions of work and retirement income, after-tax work and Retirement income, and comprehensive income

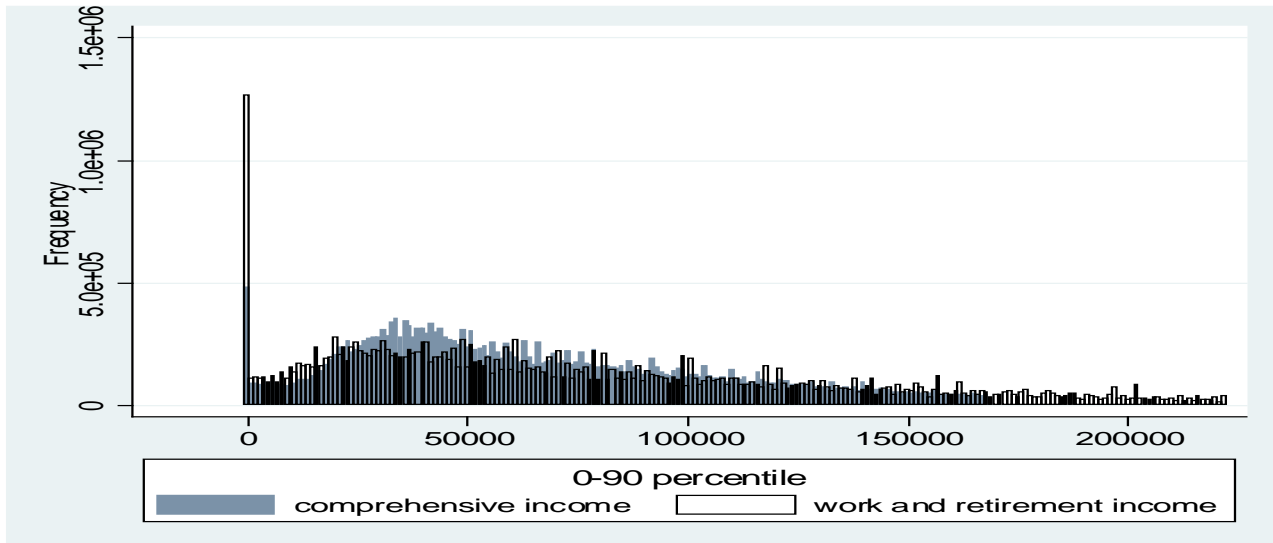
Percentile	Work and retirement Income (WRI)	After-tax WRI	Comprehensive income
10th	\$13,000	\$12,000	\$21,000
20th	\$27,000	\$25,000	\$32,000
30th	\$39,000	\$37,000	\$41,000
40th	\$54,000	\$49,000	\$51,000
50th	\$71,000	\$63,000	\$64,000
60th	\$92,000	\$78,000	\$79,000
70th	\$118,000	\$97,000	\$98,000
80th	\$155,000	\$123,000	\$123,000
90th	\$222,000	\$169,000	\$169,000

SOURCES: Authors' calculations from pooled 2012 and 2013 CPM data

NOTES: All dollar amounts are rounded to the nearest \$1,000, adjusted to 2013 dollars and normalized to represent a four member family. Percentile of the distribution is calculated at the family level.

FIGURE C5

Distribution of income up to the 90th percentile

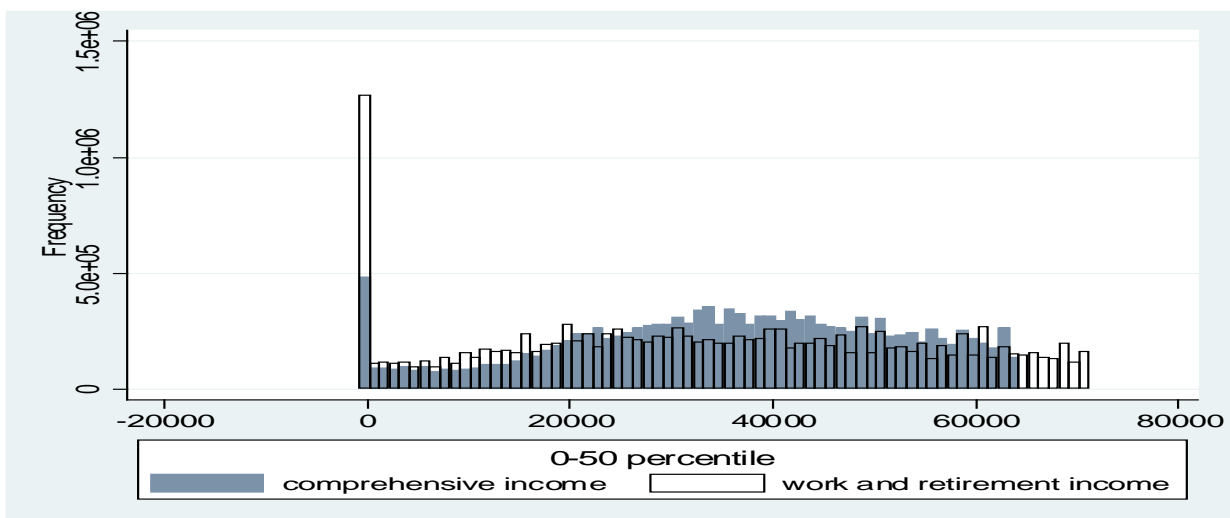


SOURCES: Authors' calculations from pooled 2012 and 2013 CPM data.

NOTES: All dollar amounts are adjusted to 2013 dollars and normalized to account for family size. Percentile of the distribution is calculated at the family level.

FIGURE C6

Distribution of income up to the 50th percentile



SOURCES: Authors' calculations from pooled 2012 and 2013 CPM data.

NOTES: All dollar amounts are adjusted to 2013 dollars and normalized to account for family size. Percentile of the distribution is calculated at the family level.

Table C5 presents within-decile mean amounts and mean shares of CI from safety net programs and groups of programs. Due to top coding in the data, means are not calculated for the 10th decile. These estimates supplement Table 4 of the report.

TABLE C5

Mean dollar amounts and mean share of comprehensive income from grouped income sources

Decile:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Mean amount									
After-tax work and retirement (WRI)	\$7,000	\$19,500	\$29,500	\$42,000	\$55,000	\$70,500	\$87,500	\$109,000	\$142,500
EITC / CTC	\$500	\$1,500	\$2,000	\$1,500	\$500	\$500	\$0	\$0	\$0
SSI	\$1,000	\$2,000	\$1,500	\$1,000	\$500	\$500	\$500	\$500	\$500
Nutrition assistance	\$1,000	\$2,000	\$1,500	\$1,000	\$500	\$0	\$0	\$0	\$0
Rental assistance	\$500	\$1,500	\$1,500	\$500	\$0	\$0	\$0	\$0	\$0
CalWORKs / GA	\$500	\$500	\$500	\$500	\$0	\$0	\$0	\$0	\$0
Mean share									
After-tax work and retirement (WRI)	65.8%	73.2%	81.3%	90.8%	96.1%	98.3%	99.0%	99.4%	99.6%
EITC/CTC	3.2%	4.8%	4.9%	2.9%	1.2%	0.4%	0.1%	0.0%	0.0%
SSI	7.2%	7.1%	3.8%	1.9%	1.3%	0.8%	0.6%	0.4%	0.3%
Nutrition assistance	17.5%	6.6%	4.6%	2.6%	1.0%	0.4%	0.2%	0.1%	0.0%
Rental assistance	3.0%	5.7%	3.8%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%
CalWORKs, GA	3.3%	2.5%	1.6%	0.9%	0.4%	0.2%	0.1%	0.1%	0.0%

SOURCES: Authors' calculations from the 2012–2013 CPM.

NOTES: Means are calculated for comprehensive incomes within each decile. Due to top coding in the data, the 10th decile is not shown. All dollar amounts are rounded to the nearest \$500, adjusted to 2013 dollars and normalized to represent a four member family. Percentages may not sum to 100. Nutrition assistance includes CalFresh, the school breakfast program, the National School Lunch Program, and WIC.

Next, Table C6 provides inequality metrics (90/10, 80/20, 90/50, and 50/10 ratios) for the three income concepts. The last two columns present the percent change in these metrics, comparing the WRI to the after-tax WRI and the after-tax WRI to the CI distributions. These estimates supplement Table 5 of the report.

TABLE C6

Inequality metrics for the work and retirement income, after-tax work and retirement income, and comprehensive income distributions

Inequality metric	Work and Retirement Income (WRI)	After-Tax WRI	Comprehensive Income	Change, WRI to After-Tax WRI	Change, After-Tax WRI to CI
90/10	17.0	13.5	8.1	-20.4%	-40.1%
80/20	5.8	4.9	3.9	-16.8%	-20.8%
90/50	3.1	2.7	2.6	-14.3%	-1.9%
50/10	5.4	5.0	3.1	-7.2%	-38.9%

SOURCES: Authors' calculations from pooled 2012 and 2013 CPM data

NOTES: All dollar amounts are rounded to the nearest \$1,000, adjusted to 2013 dollars and normalized to represent a four member family. Percentile of the distribution is calculated at the family level.

Table C7 shows percentiles of the after-tax WRI and CI distributions and inequality metrics within the three largest counties (Los Angeles, Orange, and San Diego) and six groups of the remaining 55 counties.

TABLE C7

After-tax work and retirement and comprehensive income distributions and inequality within regions

	10th percentile	20th percentile	Median	80th percentile	90th percentile	90/10 ratio	80/20 ratio	50/10 ratio
A. After-tax work and retirement income								
Northern Region	\$9,000	\$21,000	\$52,000	\$99,000	\$133,000	14.6	4.7	5.7
Sacramento Area	\$11,000	\$25,000	\$63,000	\$117,000	\$155,000	13.6	4.6	5.5
Bay Area	\$17,000	\$33,000	\$81,000	\$153,000	\$212,000	12.2	4.6	4.7
Central Valley and Sierra	\$9,000	\$19,000	\$48,000	\$96,000	\$129,000	14.8	5.0	5.5
Central Coast Region	\$13,000	\$26,000	\$61,000	\$122,000	\$165,000	12.2	4.7	4.5
Inland Empire	\$13,000	\$25,000	\$57,000	\$109,000	\$145,000	11.5	4.4	4.5
Los Angeles County	\$11,000	\$22,000	\$56,000	\$114,000	\$158,000	14.9	5.1	5.3
Orange County	\$17,000	\$31,000	\$74,000	\$138,000	\$189,000	11.4	4.5	4.5
San Diego County	\$13,000	\$28,000	\$66,000	\$124,000	\$167,000	13.0	4.4	5.1
B. Comprehensive income								
Northern Region	\$18,000	\$27,000	\$54,000	\$99,000	\$133,000	7.4	3.7	3.0
Sacramento Area	\$21,000	\$32,000	\$64,000	\$118,000	\$156,000	7.5	3.7	3.1
Bay Area	\$25,000	\$38,000	\$82,000	\$153,000	\$212,000	8.6	4.1	3.3
Central Valley and Sierra	\$19,000	\$28,000	\$51,000	\$96,000	\$129,000	6.9	3.5	2.7
Central Coast Region	\$19,000	\$30,000	\$62,000	\$122,000	\$165,000	8.8	4.0	3.3
Inland Empire	\$21,000	\$31,000	\$59,000	\$109,000	\$145,000	6.9	3.5	2.8
Los Angeles County	\$20,000	\$30,000	\$58,000	\$114,000	\$158,000	7.9	3.8	2.9
Orange County	\$23,000	\$36,000	\$75,000	\$139,000	\$189,000	8.4	3.9	3.3
San Diego County	\$20,000	\$33,000	\$66,000	\$124,000	\$167,000	8.4	3.7	3.3

SOURCES: Authors' calculations from the 2012–2013 CPM.

NOTES: Regions defined as Northern: Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity; Central Valley & Sierra: Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, Tuolumne; Sacramento: El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba; Bay Area: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma; Central Coast: Monterey, San Benito, San Luis Obispo, Santa Barbara, Ventura; Inland Empire: Imperial, Riverside, San Bernardino. Los Angeles, Orange and San Diego counties shown separately. All dollar amounts are adjusted to 2013, rounded to the nearest \$1,000, and normalized to represent a four member family. For definitions of income, see Appendix B.

Table C8 provides details of the deep poverty and poverty simulations, which are discussed in the third section of the report. The first column shows baseline percentiles and income ratios for the CI distribution. The next two columns provide results from two simulations. Both of these scenarios are static or “accounting” simulations, that assume no other changes to family resources except for the one considered.

In the first simulation, families with CI below half the poverty threshold (in deep poverty) are allocated exactly enough additional resources to raise them to the deep poverty CPM threshold. Note that we do not count expenses against total resources in this simulation although CPM poverty rates are calculated by comparing net resources (total resources minus child care, commuting, and out-of-pocket medical expenses) to a poverty threshold. If we did include expenses, the amount necessary to raise a family to the relevant threshold would be higher. The second column shows that boosting the resources of families below the deep poverty threshold would not change the distribution of CI as measured by the 10th percentile and above. In other words, families in deep poverty have

income below the 10th percentile. At the same time, on average families living below half of the CPM poverty threshold are allocated \$5,000 in this simulation (bottom row). Although this simulation allocates substantial resources to families in deep poverty, because it affects a small share of all families in the state, it does not alter inequality as measured by several standard metrics.

The final column repeats this simulation, but allocates enough resources to boost all families below 100 percent of the CPM poverty threshold to precisely poverty level. This simulation affects more families and does increase the 10th and 20th percentiles of the CI distribution, as well as lower income ratios. On average, families below poverty are allocated \$8,000 to boost them exactly to the poverty threshold.

TABLE C8

Simulations: Allocation of resources to move all families to deep poverty and to poverty threshold

	Comprehensive income (actual)	Raise those below half the poverty threshold to half the poverty threshold	Raise those in poverty to poverty threshold
90th percentile	\$169,000	\$169,000	\$169,000
80th percentile	\$123,000	\$123,000	\$123,000
Median	\$64,000	\$64,000	\$64,000
20th percentile	\$32,000	\$32,000	\$34,000
10th percentile	\$21,000	\$21,000	\$29,000
90/10 ratio	8.1	8.1	5.9
80/20 ratio	3.9	3.9	3.6
50/10 ratio	3.1	3.1	2.2
Mean amount transferred	–	\$5,000	\$8,000

SOURCES: Authors’ calculations from the 2012–2013 CPM.

NOTES: Percentiles of comprehensive income shown. All dollar amounts are rounded to the nearest \$1,000, adjusted to 2013 dollars and normalized to represent a 4 member family. Percentiles are calculated at the family level. Scenarios assume no changes in the income distribution aside from the amounts assigned to those in poverty and in deep poverty.

Table C9 undergirds Figure 3 of the report, providing more detail on how individual social safety net programs affect the income distribution. The table shows percentiles of the income distribution and inequality metrics beginning with WRI and then adding individual safety net programs or groups of programs (one at a time rather than additively). These calculations are static or “accounting” in the sense that we add or subtract program benefits from family resources and do not take into account any behavioral or dynamic responses.

TABLE C9

Income distributions for varying income concepts

	10th percentile	20th percentile	Median	80th percentile	90th percentile	90/10 ratio	80/20 ratio	50/10 ratio
After-tax work and retirement income (WRI)	\$12,000	\$25,000	\$63,000	\$123,000	\$169,000	13.5	4.9	5.0
After-tax WRI + CalWORKs, GA	\$13,000	\$26,000	\$63,000	\$123,000	\$169,000	12.6	4.7	4.7
After-tax WRI + rental housing assistance	\$14,000	\$26,000	\$63,000	\$123,000	\$169,000	11.7	4.7	4.4
After-tax WRI + EITC/CTC	\$14,000	\$27,000	\$63,000	\$123,000	\$169,000	12.2	4.5	4.5
After-tax WRI + CalFresh, WIC, and school meals	\$15,000	\$27,000	\$63,000	\$123,000	\$169,000	11.4	4.5	4.3
After-tax WRI + SSI	\$15,000	\$26,000	\$63,000	\$123,000	\$169,000	11.1	4.7	4.1
Comprehensive Income	\$21,000	\$32,000	\$64,000	\$123,000	\$169,000	8.1	3.9	3.1

SOURCES: Authors’ calculations from the 2012–2013 CPM.

NOTES: All dollar amounts are rounded to the nearest \$1,000, adjusted to 2013 dollars and normalized to represent a four member family. Percentiles are calculated separately for each income concept shown in the table and are calculated at the family level. Nutrition assistance includes CalFresh, the school breakfast program, the National School Lunch Program, and WIC.

Table C10 provides additional information to complement Figures 4, 5, and 6 of the report. The table shows various estimates of overrepresentation in the low end of the income distribution among sub-groups of families with specified socioeconomic characteristics. Column 1 shows the share of each type of family with after-tax WRI that places them in the bottom quintile (below the 20th percentile) of the distribution. By construction, 20 percent of all families statewide are in the first quintile. However, some sub-groups are overrepresented in the bottom quintile and some are underrepresented. The most overrepresented groups are single parents, families with less than a high school education, and families with adults who are either not in the labor force or who are unemployed. The most underrepresented groups are families with multiple adults and no children, families with a college degree or higher, and families with full-time work.

Column 2 of Table C10 then judges families’ placement in the after-tax WRI distribution by comparing their CI to the after-tax WRI distribution. In effect, this holds the after-tax WRI distribution constant while adding resources from the social safety net to family incomes. We note that this exercise simply takes into account additional resources from the social safety net as families actually use it in California. It assumes no change in the social safety net (e.g., expansion, higher take-up, etc.) or dynamic response (e.g., more or less earnings). Because resources from the social safety net are either zero or positive, families can only move up in the after-tax WRI in this exercise. Because social safety net programs essentially assist only families in the bottom half of the income distribution, we focus on shifts up from the first quintile.

Column 2 indicates that social safety net resources move 6 percent (rounded) of all families that start the first quintile above the first quintile of the after-tax WRI distribution. Column 3 categorizes the change for each sub-

group as either more than that for all families (105% or greater the percent change for all families), the same as for all families (95%–105% of the all families percent change), or less than that for all families (under 95% of the all families percent change). Columns 4 and 5 indicate whether families in a particular sub-group are overrepresented in the first quintile of the after-tax WRI distribution when judged by their after-tax WRI, and whether families in a particular sub-group are overrepresented in the first quintile of the after-tax WRI distribution when judged by their CI.

TABLE C10

Overrepresentation of families in the bottom quintile of WRI distribution, by selected characteristics

	(1)	(2)	(3)	(4)	(5)
	Share in first quintile of the after-tax WRI distribution	Share in first quintile of after-tax WRI distribution after adding social safety net resources (Comprehensive Income)	Change relative to all families	Overrepresented in first quintile before social safety net?	Overrepresented in first quintile after social safety net?
All families	20%	14%	-	-	-
Youngest child					
Age 5 or under	26%	12%	more	Y	N
Between ages 6 and 12	21%	10%	more	Y	N
Between ages 13 and 17	17%	8%	more	N	N
Family composition					
One adult, one or more children	44%	22%	more	Y	Y
One adult, no children	28%	24%	less	Y	Y
Two or more adults, one or more children	19%	8%	more	N	N
Two or more adults, no children	9%	6%	more	N	N
Level of education (highest within family)					
Less than high school	52%	34%	more	Y	Y
High school graduate	31%	20%	more	Y	Y
Some college	21%	14%	same	Y	N
College degree or higher	8%	6%	less	N	N
Employment status (among adults age 25–64)					
Not in the labor force (NILF)	57%	45%	less	Y	Y
Unemployed	58%	44%	less	Y	Y
Part-time work	40%	28%	less	Y	Y
Full-time work	7%	3%	more	N	N
Immigration status (oldest family member)					
Immigrant non-citizen	33%	23%	more	Y	Y
Citizen born in the United States	17%	12%	less	N	N
Naturalized citizen or born abroad citizen	18%	10%	more	N	N
Race/ethnicity (oldest family member)					
White, not Latino	14%	11%	less	N	N
Black, not Latino	30%	13%	more	Y	N
Latino, any race	28%	19%	more	Y	N
Asian, not Latino	18%	12%	more	N	N
Other, not Latino	24%	16%	same	Y	N

	(1)	(2)	(3)	(4)	(5)
	Share in first quintile of the after-tax WRI distribution	Share in first quintile of after-tax WRI distribution after adding social safety net resources (Comprehensive Income)	Change relative to all families	Overrepresented in first quintile before social safety net?	Overrepresented in first quintile after social safety net?
Geographic region					
Northern counties	24%	18%	less	Y	N
Sacramento Area	20%	14%	same	N	N
Bay Area	15%	10%	same	N	N
Central Valley and Sierra	27%	17%	more	Y	N
Central Coast	20%	15%	less	N	N
Inland Empire	21%	14%	more	Y	N
Los Angeles County	23%	15%	more	Y	N
Orange County	16%	11%	less	N	N
San Diego County	18%	13%	less	N	N

SOURCE: Authors' calculations from pooled 2012 and 2013 CPM data.

NOTE: Quintile cut points defined using statewide WRI distribution. In column 3, "more" indicates change that is greater than 1.05 times the overall change, and "less" indicates change that is less than 0.95 times as much the overall change.

Table C11 provides median income based on the three main concepts for each socioeconomic sub-group we analyze, which complements the preceding table as well as Table 6 of the report. Overall, WRI median income is highest (\$71,000), while after-tax WRI and CI median incomes are quite similar (\$64,000 vs. \$63,000). Across sub-groups CI is markedly higher than after-tax WRI for groups with relatively low median incomes. Judged by CI, median income for the sub-groups we consider ranges down to \$28,000 for those who are unemployed or out of the labor force and up to \$102,000 for those with a college degree or higher.

TABLE C11

Median Income within Demographic Groups

	Work and retirement income (WRI)	After-tax WRI	Comprehensive income
All persons	\$71,000	\$64,000	\$63,000
Youngest child			
Age 5 or under	52,000	48,000	52,000
Between ages 6 and 12	62,000	56,000	58,000
Between ages 13 and 17	71,000	63,000	64,000
Family composition			
One adult, one or more children	33,000	31,000	41,000
One adult, no children	54,000	48,000	49,000
Two or more adults, one or more children	64,000	58,000	60,000
Two or more adults, no children	105,000	91,000	92,000
Level of education (highest within family)			
No high school diploma	26,000	24,000	32,000
High school diploma	42,000	39,000	43,000
Some college	61,000	55,000	57,000
College degree or higher	125,000	102,000	102,000
Employment status (among adults age 25–64)			
Not in the labor force	19,000	19,000	28,000
Unemployed	19,000	19,000	29,000
Part-time work	36,000	33,000	38,000
Full-time work	96,000	79,000	80,000
Immigration status (oldest family member)			
Immigrant non-citizen	40,000	37,000	41,000
Citizen born in the United States	82,000	72,000	73,000
Naturalized citizen or born abroad citizen	72,000	64,000	65,000
Race/ethnicity (oldest family member)			
White, not Latino	94,000	80,000	81,000
Black, not Latino	55,000	49,000	53,000
Latino, any race	46,000	41,000	45,000
Asian, not Latino	87,000	74,000	75,000
Other, not Latino	69,000	61,000	62,000

SOURCES: Authors' calculations from the 2012–2013 CPM.

NOTES: All dollar amounts are adjusted to 2013 dollars, rounded to the nearest \$1,000, and normalized to represent a four member family. Calculations are at the family level. Median income within geographic regions is shown in Table C7.

The final two tables (Table C12 and Table 13) provide results of a multivariate assessment of (1) the over- or under-representation of families in each income distribution and (2) the association family between socioeconomic characteristics and the odds of being in the bottom quintile. Essentially, these models test whether the socioeconomic characteristics of families examined above, taken together, lead to different conclusions than when taken one by one. We find little evidence of that, and for the sake of simplicity have presented univariate results in the report (Figures 4–6).

Table C12 shows the results of OLS models that regress demographic characteristics and indicators for region of residence on percentile in each of the three income distributions we consider. Percentiles are measured as 0–95 rounded to whole numbers. The samples are identical across the three distributions and include families in the 95 percentile and lower of the WRI distribution.

In general, coefficients do not vary markedly across the three models. Holding other included characteristics constant, single parent families are 6–13 percentile points lower down in the distribution than families with no children or with at least two adults and children. At the same time, families with younger children are not markedly lower in the three distributions than families with older children; the estimates are substantively small and are insignificantly different from zero for four of the six estimates.

As compared with those employed full-time, families with part-time work, who are unemployed, and who are out of the labor force are placed substantially lower in the three distributions (by 20 to 33 percentile points). Similarly, those with less than a college degree are 13 to 24 percentile points lower down in the three distributions, holding other factors constant. Looking across race/ethnicity and citizenship status, families with oldest members who are not citizens are 9–10 percentile points lower in the three distributions, while naturalized citizens are placed 5–6 percentile points lower. Families with younger adults and that have more members are lower down in the three distributions than families with fewer members and older adults. There are differences across regions in the state, but the regression-adjusted estimates are smaller than for many of the demographic variables in the models, ranging between -3 percentile points lower for Northern counties as compared with Los Angeles and +5 percentile points for the Bay Area as compared with Los Angeles.

TABLE C12

Linear regression models of percentile in the WRI, after-tax WRI, and comprehensive income distributions

	(1) WRI	(2) After-tax WRI	(3) Comprehensive income
One adult, no children	12.0*	10.6*	6.48*
	(0.31)	(0.31)	(0.31)
Two or more adults, children	9.95*	10.0*	7.86*
	(0.24)	(0.24)	(0.24)
Two or more adults, no children	12.9*	13.3*	11.1*
	(0.27)	(0.27)	(0.27)
Youngest child 5 or under	-0.78*	-0.53	0.54*
	(0.21)	(0.21)	(0.21)
Youngest child age 6–12	-0.37	-0.16	0.19
	(0.21)	(0.21)	(0.21)
Family members: 2	8.47*	8.33*	7.38*
	(0.20)	(0.21)	(0.21)
Family members: 3	5.20*	5.46*	5.44*
	(0.17)	(0.17)	(0.17)
Family members: 5	-5.01*	-5.13*	-4.69*
	(0.20)	(0.20)	(0.19)
Family members: 6–8	-8.71*	-8.86*	-7.84*
	(0.22)	(0.22)	(0.22)
Family members: 9 or more	-14.0*	-14.3*	-12.1*
	(0.52)	(0.52)	(0.53)
Family work status: no adults 25–64	-21.1*	-18.2*	-17.6*
	(0.23)	(0.23)	(0.23)
Family work status: not in labor force	-33.1*	-31.0*	-28.9*
	(0.19)	(0.19)	(0.19)
Family work status: unemployed	-30.9*	-29.5*	-28.3*
	(0.26)	(0.26)	(0.26)
Family work status: part time	-21.1*	-20.3*	-20.2*
	(0.14)	(0.14)	(0.15)
Highest Education: less than high school	-23.9*	-24.0*	-22.9*
	(0.18)	(0.18)	(0.18)
Highest education: high school	-19.1*	-19.1*	-18.4*
	(0.15)	(0.15)	(0.15)
Highest education: some college	-13.2*	-13.0*	-12.7*
	(0.12)	(0.12)	(0.12)
Citizenship: oldest person is immigrant, non-citizen	-8.57*	-8.75*	-9.89*
	(0.16)	(0.16)	(0.16)
Citizenship: oldest person is citizen born abroad or naturalized	-5.02*	-5.15*	-5.11*
	(0.15)	(0.15)	(0.15)
Black, not Latino	-6.84*	-7.02*	-4.38*
	(0.21)	(0.21)	(0.20)
Latino, any race	-5.23*	-5.24*	-5.49*
	(0.14)	(0.14)	(0.14)
Asian, not Latino	-2.74*	-2.87*	-2.42*
	(0.18)	(0.18)	(0.18)
Other, not Latino	-4.35*	-4.46*	-3.80*
	(0.31)	(0.31)	(0.31)
Age of oldest member: under 25	-21.9*	-22.9*	-24.3*

	(1) WRI	(2) After-tax WRI	(3) Comprehensive income
	(0.27)	(0.27)	(0.28)
Age of oldest member: 25–34	-11.4*	-12.9*	-13.0*
	(0.22)	(0.22)	(0.22)
Age of oldest member: 35–44	-5.60*	-6.81*	-7.05*
	(0.20)	(0.20)	(0.20)
Age of oldest member: 45–54	-4.91*	-5.99*	-6.12*
	(0.19)	(0.19)	(0.19)
Age of oldest member: 55–64	-4.10*	-4.91*	-4.87*
	(0.18)	(0.19)	(0.19)
Northern counties	-3.46*	-3.30*	-3.61*
	(0.28)	(0.28)	(0.28)
Sacramento Area	0.53*	0.68*	0.51
	(0.20)	(0.20)	(0.21)
Bay Area	4.75*	4.87*	4.80*
	(0.14)	(0.14)	(0.14)
Central Valley and Sierra	-0.90*	-0.87*	-0.87*
	(0.17)	(0.17)	(0.17)
Central Coast	2.28*	2.43*	1.95*
	(0.27)	(0.27)	(0.27)
Inland Empire	0.75*	0.87*	0.57*
	(0.16)	(0.16)	(0.16)
Orange County	2.48*	2.61*	2.28*
	(0.19)	(0.19)	(0.19)
San Diego County	0.65*	0.81*	0.48
	(0.19)	(0.19)	(0.19)
Constant	64.3*	64.7*	67.1*
	(0.36)	(0.36)	(0.36)
Observations	267,365	267,365	267,365
R-squared	0.505	0.499	0.485

SOURCE: Authors' calculations from the 2012–2013 CPM.

NOTES: Results from ordinary least squares regression models where the outcome variable is the percentile of each of the income distributions. Standard errors in parentheses. Significance of coefficients noted as * p<0.01. Omitted categories are single parent family, highest education in family is college, maximum work in family is full time, Los Angeles County, four member family, citizen oldest member of family, white oldest member of family, and age of oldest member is 65 years or older. Percentile of the distribution is calculated at the family level.

Table C13 presents results from logistic models of the odds of being in the first quintile of the after-tax WRI relative to the middle, and to the high quintiles. Columns 1 and 2 contrast the first quintile (0-20th percentile) and deciles 3–5 (30th percentile—median), while columns 3 and 4 contrast the first quintile and the fifth quintile (80th percentile and above). Because we expect safety net resources to shift families who are, roughly, in the bottom half of the income distribution up—but not families higher up in the distribution—we might expect that coefficients would become insignificantly different from 1 (e.g., an even odds) in column 2 as compared with column 1, but we would not expect this for column 4 as compared with column 3. This is in fact the case.

Focusing on the odds of being in the first quintile of the after-tax WRI distribution vs. the middle, the regression-adjusted odds of being in the bottom quintile are significant and less than one for families with multiple adults (both with and without children) as compared with single parents in column 1, but are insignificant in column 2. Relative to families with teenaged children, odds of being in the first quintile are significantly above one in

column 1, but are insignificant in column 2. Looking at level of education, no differences remain for families with some college as compared to those with a college degree in column 2, and the higher than even odds for those with a high school degree or less than a high school degree are markedly smaller. The changes across columns 1 and 2 are quite small for the work status categories, and are fairly small for those with younger adults in the family and for families with immigrant adults. Holding other factors constant, Families with a black oldest member are more likely to be in the first quintile than white-headed families in column 1, but are significantly less likely to be in the first tin column 2. The differences between Asian and other-race families are above one in column 1, but are smaller (and, in the case of other-race families, insignificant) in column 2. Finally, the odds of being in the first quintile are even or significantly lower for all counties and regions (as compared with Los Angeles County) in both column 1 and column 2. Once safety net resources are taken into account, significant estimates for the Inland Empire, Orange County, and San Diego County turn insignificant (again as compared with Los Angeles).

TABLE C13

Logistic regression models, odds of having bottom quintile after-tax WRI income

	(1) Low vs. low-middle		(3) Low vs. high	
	After-tax WRI	Comprehensive income	After-tax WRI	Comprehensive income
Highest Education: less than high school	2.73* (0.079)	1.46* (0.046)	59.3* (4.73)	40.9* (3.52)
Highest Education: high school	1.67* (0.043)	1.14* (0.032)	19.4* (0.85)	14.1* (0.70)
Highest education: some college	1.31* (0.030)	1.02 (0.026)	6.91* (0.22)	5.09* (0.18)
Family work status: no adults 25–64	11.2* (0.52)	9.83* (0.54)	19.3* (1.36)	29.3* (2.35)
Family work status: not in labor force	25.8* (0.79)	23.0* (0.74)	76.5* (3.99)	105.0* (6.04)
Family work status: unemployed	16.5* (0.60)	17.5* (0.65)	118.0* (9.67)	157.0* (13.6)
Family work status: part time	6.95* (0.16)	7.00* (0.19)	34.3* (1.59)	40.8* (2.05)
One adult, no children	0.81* (0.037)	2.37* (0.12)	0.37* (0.036)	0.76 (0.10)
Two or more adults, one or more children	0.82* (0.031)	1.01 (0.042)	0.36* (0.031)	0.39* (0.046)
Two or more adults, no children	0.50* (0.024)	1.13 (0.063)	0.077* (0.0076)	0.14* (0.018)
Youngest child 5 or under	1.79* (0.071)	1.12 (0.054)	1.99* (0.13)	1.44* (0.12)
Youngest child age 6–12	1.40* (0.057)	1.06 (0.053)	1.54* (0.10)	1.15 (0.099)
Citizenship: oldest person is immigrant, non-citizen	1.79* (0.046)	2.10* (0.060)	6.19* (0.30)	7.61* (0.43)
Citizenship: oldest person is naturalized	1.37* (0.036)	1.12* (0.033)	2.77* (0.12)	2.19* (0.11)
Age of oldest member: under 25	6.64* (0.33)	8.04* (0.45)	66.5* (10.7)	109.0* (18.5)
Age of oldest member: 25–34	2.80* (0.12)	3.38* (0.17)	6.16* (0.42)	9.30* (0.74)
Age of oldest member: 35–44	2.79* (0.11)	3.32* (0.17)	2.39* (0.15)	3.81* (0.29)

	(1)	(2)	(3)	(4)
	Low vs. low-middle After-tax WRI	Comprehensive income	Low vs. high After-tax WRI	Comprehensive income
Age of oldest member: 45–54	2.63* (0.10)	2.99* (0.14)	2.58* (0.16)	3.92* (0.28)
Age of oldest member: 55–64	2.05* (0.079)	2.18* (0.10)	2.05* (0.12)	2.68* (0.17)
Black, not Latino	1.69* (0.057)	0.57* (0.023)	3.50* (0.21)	1.65* (0.12)
Latino, any race	1.21* (0.029)	1.22* (0.032)	3.77* (0.16)	3.63* (0.17)
Asian, not Latino	1.49* (0.047)	1.15* (0.039)	1.51* (0.070)	1.32* (0.073)
Other, not Latino	1.52* (0.074)	1.10 (0.059)	2.17* (0.18)	1.79* (0.17)
Northern counties	0.95 (0.043)	1.01 (0.050)	1.66* (0.13)	1.57* (0.14)
Sacramento Area	0.84* (0.030)	0.89* (0.035)	0.98 (0.059)	0.92 (0.062)
Bay Area	0.76* (0.019)	0.80* (0.022)	0.51* (0.019)	0.53* (0.023)
Central Valley and Sierra	0.96 (0.027)	0.98 (0.030)	1.35* (0.073)	1.30* (0.079)
Central Coast	0.71* (0.034)	0.85* (0.045)	0.66* (0.056)	0.75* (0.070)
Inland Empire	0.85* (0.023)	0.96 (0.029)	1.01 (0.048)	1.04 (0.056)
Orange County	0.84* (0.029)	0.98 (0.037)	0.69* (0.037)	0.76* (0.046)
San Diego County	0.81* (0.027)	0.96 (0.035)	0.89 (0.049)	1.02 (0.064)
Constant	0.038* (0.0025)	0.012* (0.00096)	0.029* (0.0034)	0.0089* (0.0014)
Observations	131,818	129,152	113,193	96,836

SOURCE: Authors' calculations from the 2012–2013 CPM.

NOTES: Standard errors in parentheses. Significance of coefficients noted as * $p < 0.01$. All models based on deciles of the after-tax WRI distribution. Low vs. low-middle indicates first or second decile (1) vs. third through fifth deciles (0) while low vs. high indicates first or second decile (1) vs. ninth or tenth decile (0). After-tax WRI used to place families in columns 1 and 3; comprehensive income used to place families in columns 2 and 4. Omitted categories are single parent family, highest education in family is college, maximum work in family is full time, Los Angeles County, citizen oldest member of family, white oldest member of family, and age of oldest member is 65 years or older.

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