



**PPIC**

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INSTITUTE OF CALIFORNIA

# Geography of Child Poverty in California

## Technical Appendices

### CONTENTS

Appendix A. Data and Methodology	2
Table A1	4
Table A2	5
Table A3	6
Table A4	7
Appendix B. Detailed Tables and Supplementary Figures	8
Table B1	9
Table B2	10
Table B3	12
Table B4	12
Table B5	13
Table B6	13
Figure B1	14
Table B7	16
Figure B2	18
Table B8	19
Table B9	21
Table B10	24
Table B11	26
References	28

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## Appendix A. Data and Methodology

This appendix briefly reviews the data and methodology used to create the California Poverty Measure (CPM), then gives additional detail about the regional and PUMA-level geographies used in the report. Next, we list and describe the concepts that underlie the indicators provided on the online interactive tool (Table A2 and accompanying text). Finally, we describe the decision rules used to suppress unreliable estimates. Note that descriptive statistics for PUMAs are given in Table B1 and descriptive statistics for the state and for regions are given in Table B2.

### California Poverty Measure Data

This report relies on 2011–2014 estimates from the CPM, a joint effort of researchers at PPIC and the Stanford Center on Poverty and Inequality (Bohn et al. 2013; Wimer et al. 2015). The CPM is a research effort to create a detailed, California-specific estimate of the Census Bureau’s Supplemental Poverty Measure (Renwick and Fox 2016), a more up-to-date and comprehensive picture of poverty. To do so, CPM researchers augment single-year American Community Survey (ACS) public-use micro data with additional data sources, including the Current Population Survey (CPS), administrative records from the Department of Social Services, and 3-year ACS datasets. This report pools four years of CPM micro-data (i.e. we do not use multi-year ACS datasets).

The prime goal of the CPM is to describe poverty based on updated methodologies that make improvements in the following general areas: (1) allow poverty thresholds to vary across regions according to housing cost, (2) count all resources that families have on hand to meet basic needs, rather than just pre-tax cash income, (3) update the definition of family units to include cohabiting adults and other family types. For details on each of these improvements, see Bohn et al. (2013) and Wimer et al. (2015). In summary, updated poverty thresholds that vary according to housing cost and tenure result in CPM thresholds across the state that range from about \$19,802 to \$37,428 in 2014 (for a family of four with two children) and average (weighted) \$31,000—compared to a single federal poverty threshold of \$24,008. Poverty thresholds are based on representative amounts spent on food, clothing, shelter, and utilities and are adjusted county-by-county for variation in housing costs. On the family resource estimates, we count both cash and near-cash resources in family budgets and subtract non-discretionary expenses that reduce a family’s disposable income. Specifically, we estimate all cash income (from work, retirement savings, unemployment insurances, business, etc.) any cash welfare payments received (SSI, General Assistance, and TANF), and net out taxes paid or tax credits received (federal Earned Income Tax Credit and Child Tax Credit). We then include the cash value of major safety net programs including SNAP, the school breakfast and lunch program, WIC, and federal housing subsidies. Two types of necessary expenses are deducted from the resulting “gross resource” calculation: out-of-pocket medical expenses and work-related expenses (principally child care and commuting).

California Poverty Measure estimates result in poverty rates for the state that are substantially higher than those from official poverty measure estimates, but not markedly different from Supplemental Poverty Measure estimates for California. Over 2011–2014, the CPM estimates 21.2 percent in poverty compared to 16.1 percent from official estimates. The higher poverty rate compared to official poverty estimates results principally from the inclusion of variable housing cost in the CPM as well as out-of-pocket expenses that reduce family disposable income. However, counting safety net resources mitigates poverty in the state; without the additional resources counted in the CPM, we estimate that the poverty rate would be 29.4 percent, 8.2 points higher.

Because the CPM research is based on detailed individual-level records from the ACS, many additional geographic and demographic breakdowns of the data are possible. The next sections describe some of the available detail and also how we restrict our analysis to ensure accuracy.

## Geographic Definitions

We rely on single-year ACS microdata on individuals in California, which reports place of residence down to the “Public-Use Micro Area” (PUMA) level. These are geographic regions defined by the Census Bureau that contain at least 100,000 residents, and (after 2010) are collections of census tracts. Because the PUMAs are designed to give as much detail as permissible, they do not necessarily correspond to commonly understood geographic areas like county, city, or municipality. In populous areas, PUMAs are often a fragment of a city jurisdiction, but in less populous areas, they may be a collection of cities. Across California, PUMAs range substantially in size, especially according to land area. In Los Angeles County alone, there are 69 PUMAs, but in the less populous far north and far east of the state, there are often no more than one PUMA per county (or less). This limits our ability to draw geographically precise estimates of poor populations in rural parts of the state.

PUMA geographic definitions changed between the 2011 ACS and the 2012 and later ACS surveys. To harmonize across all four years of data, we use a crosswalk developed by the [Missouri Census Data Center](#) to map Census-provided Public Use Microdata Areas (PUMAs) based on the 2000 and the 2010 Decennial Censuses. We reweight individuals in the 2011 survey whose PUMA does not map uniquely to 2012-forward PUMAs according to the population allocation factors created by the Missouri Census Data Center.

In some analyses, we rely on county geographic indicators. Once again, not all counties in California are separately identifiable in the ACS, given disclosure limitations. As a result, we present estimates for 33 counties and 6 county groups. Those county groups are defined as:

- Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne
- Colusa, Glenn, Tehama, Trinity
- Del Norte, Lassen, Modoc, Nevada, Plumas, Sierra, Siskiyou
- Lake, Mendocino
- Monterey, San Benito
- Sutter, Yuba

For purposes of understanding broad trends across the state, we also define 9 regions that are collections of counties, which are themselves collections of PUMA (Table A1).

**TABLE A1**

## Region definitions

Region	Counties in region	Number of local areas (PUMA)
Northern	Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity	8
Sacramento area	El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba	18
Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma	57
Central Valley and Sierra	Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, Tuolumne	28
Central Coast	Monterey, San Benito, San Luis Obispo, Santa Barbara, Ventura	8
Inland Empire	Imperial, Riverside, San Bernardino	37
Los Angeles County	Single county	69
Orange County	Single county	18
San Diego County	Single county	22

# Data Concepts

Table A2 lists and defines concepts that are used both in the report and shown in the interactive web tool.

**TABLE A2**

Data definitions

Concept	Definition
Young child	Child is 0–5 years of age, inclusive.
Child's race/ethnicity	Hispanic (any race) and, among non-Hispanics: White, African-American, Asian, and all other.
Parent(s) of child	Refers to a child's parent(s) and/or guardian. Biological parent or parents identified using family relationship variables in the IPUMS-ACS dataset; if no biological parent(s) are present, we identify a guardian. The guardian is selected based on descending order of priority in the household structure: head of household, spouse of householder, parent of householder, other relative of householder, and so on.
Parent(s) educational attainment	Highest level of education completed by a child's parent(s). If two parents are present, the higher of the two education levels is selected. Three levels are defined: less than high school (no high school diploma or GED), high school (diploma or GED), more than high school (at least some college attendance, credential, or degree).
Parent(s) work status	Highest employment status of a child's parent(s). If two parents are present, the better of the two employment statuses is selected. Four levels are defined: full-time, part-time, unemployed, not in the labor force. The distinction between employed, unemployed, and not in the labor force is based on current status, and the distinction between full-time and part-time work for those who report employment is based on the typical hours they report having worked per week in the past year.
Parent(s) age	Age of oldest parent and/or guardian.
Parent(s) immigration status	Any parent/guardian is foreign-born and not naturalized (persons born abroad to U.S. parents are excepted).
Parent(s) English proficiency	Any parent not proficient in English, where proficiency is determined by self-reported language ability. Following research standards (see Gambino, Acosta, and Grieco, 2014), we identify proficiency as speaking only English or speaking English very well.
Single parent status	The parent and/or guardian identified is unmarried.
Parent(s) commute time	Among parent(s) who are working, one-way time from home to work. If two parents are working, the average commute time is used.
Extreme commute	Incidence of a one-way commute time greater than 60 minutes. If two parents are working, based on average commute time.
Housing cost	Household's reported rental or mortgage cost, including property tax and property insurance, but not including utilities.
Housing burden	Reported housing cost is 50% or more of total family resources (before subtracting necessary expenses). Calculated at the household level; if multiple family units share a dwelling, their combined resources are the basis.
Overcrowded housing	At the household level, either the number of people per bedroom is greater than 2 or the number of people per room is greater than 1 (or both), based on Blake, Kellerson, and Simic (2007).
Moved	Family moved in the past year.
Family resources	CPM family unit's total resources are comprised of 1. Cash income from work: wages, salary, 2. Cash income from other sources: self-employment, retirement, unemployment insurance, investment income, 3. Cash or near-cash from social safety net programs: CalFresh, CalWORKs, Supplemental Security Income, General Assistance, Earned Income Tax Credit, Child Tax Credit, federal housing subsidies, WIC, school meals, 4. Minus state and federal taxes paid
Average resource shares	Share of resources from work = (wages, salary) / (total resources); share of resources from safety net = (resources from social safety net programs) / (total resources). Each of these calculations is made for every family, and the average is calculated across all families in a given geographic area.
CPM poverty threshold	Determined by family size and composition, county of residence, and whether own (with or without a mortgage) or rent.
CPM poverty rate	Family resources is under 100% of the CPM poverty threshold, which varies by family size, housing tenure, and county.
CPM deep poverty rate	Family resources (as defined above) is under half of CPM threshold (as defined above).
Poverty gap	The difference between family resources and poverty threshold (both as defined above); can be calculated as a dollar amount or a percentage.

## Data Suppression

To ensure proper interpretation of the estimates and ensure accuracy, we suppress data when it is based on too few survey respondents and/or when the estimates have unacceptably wide margins of error. Note that, for valid data, margins of error are also provided in the [extractable dataset](#).

Although we pool four years of ACS microdata for California which includes nearly 148,000 young children, because we also examine the variation across PUMAs and demographic characteristics, some subgroup sample sizes become too small. Table A3 summarizes the sample size across PUMAs and demographic subgroups.

**TABLE A3**

Sample size range across local areas and demographic subgroup

Subgroup	Minimum sample size	Maximum sample size	Mean sample size	Median sample size	Local areas with < 20 observations (number)
Young children	137	1,258	558	525	-
Among young children:					
Poor	8	497	133	114	8
White	-	420	150	151	12
Hispanic	12	1,151	286	238	2
Asian	-	356	65	47	63
Black	-	185	22	11	173
Immigrant parent(s)	10	614	177	156	1
Parent(s) not English proficient	10	625	165	144	4
Single parent	20	622	196	170	-
Young parent	1	214	69	61	42

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: "Local areas" refer the 265 PUMAs in California. See Table A2 for detailed variable definitions and text for column definitions.

We use the sample size in combination with the standard error of our estimates to determine reliability. Because there is no single standard in the research literature, we explored a number of possibilities for suppressing data that is unreliable. Table A4 summarizes the number of PUMAs that would be suppressed under alternate criteria, for each variable of interest. In the first column, we require the sample size to be 20 or higher. Most local areas pass this criteria except for variables pertaining to race-ethnic subgroups. Second, we explore the number of local areas where the variable of interest has extreme variability, based on the standard error. Specifically, we test whether the t-statistic (ratio of the estimate to standard error) fails to exceed the critical value at a 99 percent confidence level (where the critical value is calculated for the given sample size).<sup>1</sup> More local area-variable combinations fail to pass this criteria, indicating that the point estimates are not statistically different from zero, at a high level of confidence. Finally, we apply both rules: suppress the PUMA-level data if the 99 percent confidence test is violated, and make an exception for large samples ( $n > 50$ ) where we may, in fact, be detecting true "zeros". In all definitions we also suppress any PUMAs with null values. In an abundance of caution, we choose to rely on this third, hybrid, approach for our baseline analyses. Although this results in missing data for some local areas and some variables, we are more confident in the accuracy of the estimates. For analyses that utilize across-PUMA variation (such as the multi-level models described below), we have tested our results to the alternative options and find similar results.

<sup>1</sup> Note that for variables of interest that are medians, we suppress cells for which the t-statistic of the mean value is not sufficiently large.

**TABLE A4**

Data suppression across local areas, for all variables pertaining to young children

Variable	Number of local area values suppressed based on:		
	Sample size < 20	T-statistic < 99% confidence level critical value	T-statistic, except for large samples
CPM poverty status	0	2	0
CPM deep poverty status	0	53	0
Number CPM poor	0	2	0
Number CPM deep poor	0	54	0
Increase in poverty in absence of safety net (percentage point)	0	24	0
Increase in number poor in absence of safety net	0	25	0
<b>Poverty rate among:</b>			
White	13	99	34
Hispanic	3	20	9
Asian	72	195	133
Black	173	204	199
Immigrant parent(s)	1	23	10
Parent(s) not English proficient	4	25	13
Single parent	0	14	7
Young parent	42	69	60
<b>Share of poor with:</b>			
Parent(s) at most less than high school	8	52	28
Parent(s) at most high school	9	58	27
Parents(s) greater than high school	8	6	5
Parent(s) at most unemployed	19	177	39
Parent(s) at most part-time	8	47	22
Parent(s) employed full-time	8	10	8
CalFresh	8	7	7
CalWORKs	8	49	28
EITC	8	3	1
Housing burden	8	10	9
Overcrowded	8	15	12
Moved in last year	11	66	27
Extreme Commute	31	209	38
Median parent(s) commute time (minutes)	8	1	1
<b>Resource estimates:</b>			
Average share of resources from work (%)	8	3	2
Average share of resources from safety net (%)	8	0	0
Median poverty gap (\$)	8	1	1
Median resources (\$)	8	2	2
Median CPM threshold (\$)	8	0	0
Median earnings (\$)	8	0	0
Median resources from safety net (\$)	8	6	5
Median housing cost (\$)	8	0	0

SOURCE: Author calculations from the 2011-2014 California Poverty Measure.

NOTES: "Local areas" refer the 265 PUMAs in California. See Table A2 for detailed variable definitions and text for column definitions.

## Appendix B. Detailed Tables and Supplementary Figures

### Detailed Estimates

Table B1 provides summary statistics at the geographic level of the PUMA, which is smallest level of geography shown in the [online interactive tool](#). The table gives the range of values for each indicator, the mean across all PUMAs in the state (excluding those suppressed due to imprecision of the estimates), and the mean of the margin of error at the 99% level. Table B2 provides the same estimates for the state as a whole and for each of the nine regions we define.

Tables B3, B4, and B5 provide regional estimates for selected indicators, and explicitly compare them with estimates for young children who are not in poverty. The indicators highlighted in these tables focus on education, employment, housing stress, and commute times. Finally, Table B6 lists county-level average CPM thresholds for a families with young children (adjusted to represent a family of four). In the table counties are shown in reverse order of the amount of the threshold.



**TABLE B1**

Summary statistics for variables of interest for young children, across local areas

Variable	Number of local areas with values suppressed	Min	Max	Mean	Mean margin of error (99%)
CPM poverty rate (%)	0	0.037	0.683	0.238	0.079
CPM deep poverty rate (%)	0	0.004	0.168	0.055	0.041
Number CPM poor	0	265	9,513	2,845	971
Number CPM deep poor	0	31	2,245	651	476
Increase in poverty in absence of safety net (percentage point)	0	0.005	0.321	0.137	0.063
Increase in number poor in absence of safety net	0	39	5,969	1,671	759
<b>Poverty rate (%) among:</b>					
White	34	0.008	0.478	0.145	0.122
Hispanic	9	0.010	0.690	0.315	0.136
Asian	133	-	0.880	0.155	0.142
Black	199	0.052	0.998	0.439	0.271
Immigrant parent(s)	10	0.009	0.743	0.369	0.166
Parent(s) not English proficient	13	0.017	0.753	0.390	0.177
Single parent	7	0.056	0.723	0.352	0.160
Young parent	60	0.091	0.953	0.404	0.246
<b>Share of poor (%) with:</b>					
Parent(s) at most less than high school	28	0.003	0.760	0.340	0.183
Parent(s) at most high school	27	0.037	0.691	0.254	0.172
Parents(s) greater than high school	5	0.132	0.999	0.444	0.196
Parent(s) at most unemployed	39	-	0.450	0.079	0.091
Parent(s) at most part-time	22	0.019	0.646	0.222	0.161
Parent(s) employed full-time	8	0.218	0.855	0.507	0.207
CalFresh	7	0.310	0.921	0.668	0.194
CalWORKs	28	0.037	0.755	0.345	0.186
EITC	1	0.274	0.957	0.538	0.215
Housing burdened (%)	9	0.108	0.930	0.369	0.196
Overcrowded (%)	12	0.049	0.909	0.509	0.199
Moved in last year (%)	27	0.031	0.565	0.196	0.150
Extreme Commute (%)	38	-	0.497	0.096	0.123
Median parent(s) commute time (minutes)	1	6	45	21	10
<b>Resource estimates:</b>					
Average share of resources from work (%)	2	0.171	0.800	0.476	0.150
Average share of resources from safety net (%)	0	0.151	0.709	0.426	0.121
Median poverty gap (\$)	2	3,383	25,959	8,208	3,585
Median resources (\$)	0	12,937	37,665	27,053	4,367
Median CPM threshold (\$)	0	23,767	37,724	30,701	493
Median earnings (\$)	5	0	32,800	12,569	5,140
Median resources from safety net (\$)	0	2,542	17,593	8,246	2,664
Median housing cost (\$)	0	5,887	31,405	12,387	3,552

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Percentages shown as decimals. “Local areas” refer the 265 PUMAs in California. See Technical Appendix A for detailed variable definitions and text for column definitions. Valid local area values are based upon whether the data meets at least one of the two suppression criteria summarized in Technical Appendix A.

**TABLE B2**

Statewide and regional poverty rates

Variable	Statewide	Northern	Sacramento	Bay Area	Central Valley and Sierra	Central Coast	Inland Empire	Los Angeles	Orange	San Diego
CPM poverty rate	0.250	0.219	0.199	0.204	0.243	0.296	0.225	0.299	0.266	0.248
CPM deep poverty rate	0.057	0.058	0.046	0.046	0.058	0.064	0.049	0.067	0.064	0.061
Number CPM poor	754,051	14,734	36,483	112,223	98,683	47,776	90,922	230,019	61,842	61,368
Number CPM deep poor	172,615	3,921	8,362	25,086	23,469	10,371	19,817	51,515	14,869	15,205
Increase in poverty in absence of safety net (percentage point)	0.147	0.193	0.162	0.080	0.235	0.111	0.176	0.159	0.087	0.117
Increase in number poor in absence of safety net	442,843	12,999	29,722	43,874	95,562	17,911	71,013	122,638	20,308	28,816
<b>Poverty rate (%) among:</b>										
White	0.136	0.197	0.162	0.099	0.143	0.117	0.145	0.132	0.117	0.163
Hispanic	0.337	0.251	0.259	0.348	0.285	0.396	0.265	0.380	0.394	0.356
Asian	0.129	0.157	0.130	0.103	0.163	0.116	0.103	0.154	0.162	0.119
Black	0.265	0.551	0.225	0.295	0.325	0.198	0.235	0.256	0.347	0.224
Immigrant parent(s)	0.398	0.286	0.307	0.325	0.351	0.473	0.346	0.458	0.465	0.421
Parent(s) not English proficient	0.417	0.303	0.282	0.389	0.347	0.491	0.340	0.473	0.493	0.443
Single parent	0.370	0.344	0.348	0.357	0.346	0.440	0.323	0.390	0.419	0.395
Young parent	0.374	0.354	0.390	0.387	0.330	0.471	0.314	0.386	0.439	0.425
<b>Share of poor (%) with:</b>										
Parent(s) at most less than high school	0.371	0.189	0.247	0.321	0.417	0.475	0.354	0.406	0.369	0.317
Parent(s) at most high school	0.255	0.258	0.265	0.241	0.270	0.214	0.279	0.260	0.246	0.236
Parents(s) greater than high school	0.374	0.553	0.488	0.438	0.313	0.311	0.367	0.334	0.385	0.447
Parent(s) at most unemployed	0.076	0.112	0.128	0.061	0.114	0.037	0.109	0.063	0.043	0.067
Parent(s) at most part-time	0.209	0.313	0.268	0.262	0.178	0.168	0.216	0.203	0.185	0.171
Parent(s) employed full-time	0.505	0.344	0.379	0.545	0.417	0.625	0.436	0.511	0.609	0.566
CalFresh	0.693	0.774	0.743	0.615	0.846	0.648	0.773	0.686	0.636	0.546
CalWORKs	0.354	0.455	0.470	0.271	0.499	0.263	0.420	0.370	0.209	0.231
EITC	0.515	0.629	0.565	0.503	0.461	0.454	0.534	0.510	0.546	0.572
Housing burden	0.323	0.237	0.280	0.371	0.248	0.295	0.293	0.330	0.384	0.383
Overcrowded	0.549	0.283	0.389	0.494	0.462	0.583	0.471	0.666	0.669	0.480
Moved in last year	0.188	0.228	0.271	0.165	0.233	0.189	0.245	0.143	0.205	0.167
Extreme Commute	0.097	0.018	0.070	0.080	0.113	0.058	0.119	0.125	0.093	0.050
Median parent(s) commute time (minutes)	20	10	20	20	20	20	20	30	20	20

Variable	Statewide	Northern	Sacramento	Bay Area	Central Valley and Sierra	Central Coast	Inland Empire	Los Angeles	Orange	San Diego
<b>Resource estimates:</b>										
Average share of resources from work (%)	0.472	0.355	0.362	0.570	0.327	0.598	0.404	0.469	0.580	0.523
Average share of resources from safety net (%)	0.441	0.540	0.524	0.345	0.591	0.341	0.497	0.437	0.354	0.395
Median poverty gap (\$)	7,835	7,262	6,652	8,513	7,012	7,880	7,336	8,057	9,213	7,808
Median resources (\$)	26,111	22,744	25,171	30,265	20,985	28,277	24,134	27,003	29,506	28,112
Median CPM threshold (\$)	31,007	26,059	27,725	33,351	24,947	32,286	28,646	31,102	33,907	31,526
Median earnings (\$)	12,101	6,243	5,630	17,779	5,431	17,378	9,076	12,606	16,928	14,580
Median resources from safety net (\$)	8,353	10,287	9,842	7,109	10,195	6,708	9,645	8,466	7,614	7,144
Median housing cost (\$)	10,909	8,007	9,602	13,573	7,500	11,562	9,307	11,128	13,603	12,205

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Percentages shown as decimals. See Technical Appendix A for detailed variable definitions and text for column definitions. No regional or state indicators violate our suppression rules, therefore all are shown for all variables.

**TABLE B3**

Work status of parents for poor vs non-poor young children

	Full-time employed			Part-time employed			Unemployed		
	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor
Statewide	50%	84%	0.6	21%	8%	2.5	8%	2%	4.7
Northern	34%	79%	0.4	31%	12%	2.5	11%	1%	7.8
Sacramento area	38%	84%	0.5	27%	9%	2.8	13%	1%	9.2
Bay Area	55%	89%	0.6	26%	7%	3.9	6%	1%	7.8
Central Valley and Sierra	42%	80%	0.5	18%	10%	1.8	11%	2%	4.8
Central Coast	62%	88%	0.7	17%	7%	2.5	4%	1%	5.2
Inland Empire	44%	81%	0.5	22%	10%	2.1	11%	2%	4.5
Los Angeles	51%	82%	0.6	20%	9%	2.2	6%	2%	3.2
Orange	61%	90%	0.7	18%	6%	3.2	4%	1%	5.9
San Diego	57%	88%	0.6	17%	6%	2.9	7%	2%	4.2

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Shown is share of young children whose parent(s) have given employment status. The “best” employment status is measured if more than one parent is present.

**TABLE B4**

Educational attainment of parents for poor vs non-poor young children

	More than high school			High school			Less than high school		
	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor
Statewide	37%	72%	0.5	25%	17%	1.5	37%	11%	3.4
Northern	55%	74%	0.7	26%	18%	1.4	19%	8%	2.4
Sacramento area	49%	77%	0.6	26%	15%	1.8	25%	8%	3.2
Bay Area	44%	82%	0.5	24%	11%	2.1	32%	6%	5.1
Central Valley and Sierra	31%	60%	0.5	27%	24%	1.1	42%	16%	2.6
Central Coast	31%	70%	0.4	21%	17%	1.3	48%	13%	3.6
Inland Empire	37%	66%	0.6	28%	22%	1.2	35%	12%	3.1
Los Angeles	33%	68%	0.5	26%	19%	1.4	41%	14%	2.9
Orange	38%	79%	0.5	25%	12%	2.1	37%	9%	4.2
San Diego	45%	80%	0.6	24%	13%	1.8	32%	7%	4.7

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Shown is share of young children whose parent(s) have given educational level. The “best” level is measured if more than one parent is present.

**TABLE B5**

Housing condition and commuting trends for poor vs non-poor young children

	Overcrowded dwelling			Housing burdened			Moved in past year			Extreme commute			Commute time		
	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor	Poor	Non-poor	Ratio to not poor
Statewide	55%	29%	1.9	32%	4%	8.4	19%	15%	1.2	10%	10%	0.9	27	29	0.9
Northern	28%	21%	1.4	24%	2%	10.4	23%	20%	1.2	2%	6%	0.3	10	15	0.7
Sacramento area	39%	20%	2.0	28%	3%	10.7	27%	18%	1.5	7%	9%	0.8	20	22.5	0.9
Bay Area	49%	22%	2.2	37%	5%	7.9	16%	14%	1.2	8%	11%	0.8	20	25	0.8
Central Valley and Sierra	46%	31%	1.5	25%	1%	19.5	23%	19%	1.2	11%	10%	1.2	20	20	1.0
Central Coast	58%	29%	2.0	29%	4%	7.8	19%	15%	1.3	6%	7%	0.9	20	20	1.0
Inland Empire	47%	28%	1.7	29%	3%	9.9	25%	17%	1.4	12%	17%	0.7	20	25	0.8
Los Angeles	67%	40%	1.7	33%	4%	7.4	14%	13%	1.1	13%	11%	1.1	30	27.5	1.1
Orange	67%	32%	2.1	38%	5%	7.5	21%	15%	1.4	9%	8%	1.2	20	22.5	0.9
San Diego	48%	22%	2.1	38%	6%	6.5	17%	15%	1.1	5%	5%	0.9	20	20	1.0

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: For the first three sets of information, table shows the share of young children whose family and/or parent(s) have the given characteristic. The final columns show the median one-way commute time for parents of children in each group.

**TABLE B6**

CPM thresholds by county (ordered from highest to lowest), average over 2011–2014

County	Average CPM threshold (\$)
Statewide	30,806
San Francisco	37,093
San Mateo	36,984
Marin	35,946
Santa Clara	35,143
Orange	34,139
Santa Cruz	33,861
Ventura	33,359
Santa Barbara	32,644
Alameda	32,199
Napa	32,102
Contra Costa	31,984
San Diego	31,620
Sonoma	31,447
Los Angeles	31,216
San Luis Obispo	30,489
Placer	30,347
Solano	30,326
Monterey, San Benito	30,006
Yolo	29,277
Riverside	28,975
Nevada, Sierra	28,674
El Dorado	28,188
San Bernardino	27,969
Sacramento	27,791
San Joaquin	27,014
Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne	26,967

County	Average CPM threshold (\$)
Lake, Mendocino	26,749
Stanislaus	26,663
Shasta	26,551
Butte	26,018
Humboldt	25,603
Sutter, Yuba	25,272
Del Norte, Lassen, Modoc, Plumas, Siskiyou	25,087
Colusa, Glenn, Tehama, Trinity	25,087
Madera	25,053
Fresno	24,989
Kern	24,926
Merced	24,674
Kings	24,542
Tulare	24,022
Imperial	23,846

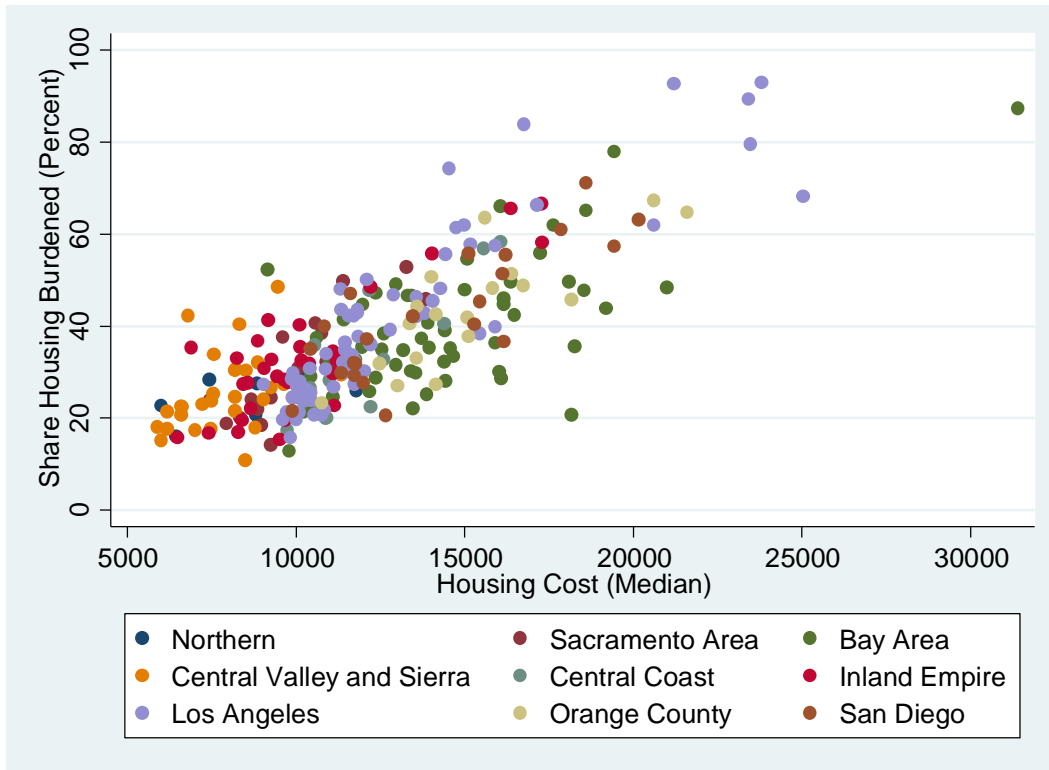
SOURCES: Author calculations from 2011–2014 California Poverty Measure.

NOTES: Table shows threshold for a family of four who rent their dwelling, averaged between 2011–2014 in 2014 dollar terms.

## Supplementary Figures and Tables

FIGURE B1

Housing costs vary across the state and, correspondingly, so does housing burden among poor families with young children



SOURCE: Author calculations from the 2011-2014 California Poverty Measure.

NOTE: Each dot represents one local area (PUMAs), and colors indicate the region of the state. Local areas are suppressed if do not meet the sample size and/or margin of error criteria (see Technical Appendix A for details). For each local area, we calculate the share of poor families where housing costs exceed 50 percent of resources (housing burden) and the median housing cost for the area.

## Individual-Level Models of Poverty Status

We examine the correlates of poverty status at the individual level using regression analysis. Specifically, we estimate linear probability models of poverty status among young children based on their characteristics, their family characteristics, and their location. Note that these models do not identify causes of poverty or the full scope of how characteristics interact with each other. Instead, these models summarize common characteristics of poor young children across the state. We find that, not surprisingly, each characteristic alone is strongly associated with poverty status (Models 1–7). Because many of these characteristics overlap among young children, models that control for all characteristics simultaneously result in attenuated coefficients (Models 8–11). Education and work variables stand out for having the largest coefficients after controlling for other factors. This is shown also in Figure B2 (select coefficients only, from Model 9).

After controlling for demographic and/or work and educational characteristics, the Inland Empire and Central Valley and Sierra regions stand out as having the lowest odds of poverty among young children (Models 10–11).

**TABLE B7**

OLS models of poverty status among young children

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Black	0.265** (0.00506)							0.101** (0.00500)	0.0241** (0.00489)	0.0485** (0.00531)	0.00223 (0.00509)
Hispanic	0.337** (0.00152)							0.0978** (0.00224)	0.0395** (0.00247)	0.0470** (0.00286)	0.0201** (0.00281)
Asian	0.129** (0.00342)							-0.0374** (0.00347)	-0.0369** (0.00334)	-0.0965** (0.00398)	-0.0678** (0.00380)
Other Race	0.150** (0.00457)							0.0472** (0.00437)	0.0139** (0.00421)	-0.0137** (0.00477)	-0.0159** (0.00453)
Parent(s) immigrant		0.398** (0.00202)						0.147** (0.00292)	0.117** (0.00281)	0.135** (0.00294)	0.107** (0.00283)
Parent(s) young			0.374** (0.00346)					0.0913** (0.00322)	0.0227** (0.00313)	0.0868** (0.00322)	0.0248** (0.00312)
Parent(s) not English proficient				0.417** (0.00214)				0.156** (0.00306)	0.0984** (0.00303)	0.154** (0.00305)	0.0970** (0.00302)
Single parent					0.370** (0.00191)			0.194** (0.00226)	0.0231** (0.00257)	0.177** (0.00232)	0.0176** (0.00257)
Parent(s) less than high school						0.530** (0.00255)			0.211** (0.00380)		0.209** (0.00388)
Parent(s) high school						0.329** (0.00243)			0.106** (0.00323)		0.102** (0.00336)
Parent(s) some college						0.221** (0.00195)			0.0714** (0.00252)		0.0632** (0.00276)
Parent(s) at most Part-time employed							0.452** (0.00332)		0.234** (0.00333)		0.232** (0.00332)
Parent(s) at most unemployed							0.608** (0.00640)		0.388** (0.00597)		0.393** (0.00596)
Parent(s) not in labor force							0.554** (0.00367)		0.302** (0.00384)		0.304** (0.00383)
Northern Region										0.0959** (0.00708)	0.0324** (0.00686)
Sacramento Area										0.0638** (0.00452)	0.0180** (0.00443)
Bay Area										0.0602** (0.00308)	0.0404** (0.00301)
Central Valley and Sierra										0.0349** (0.00349)	-0.0169** (0.00352)



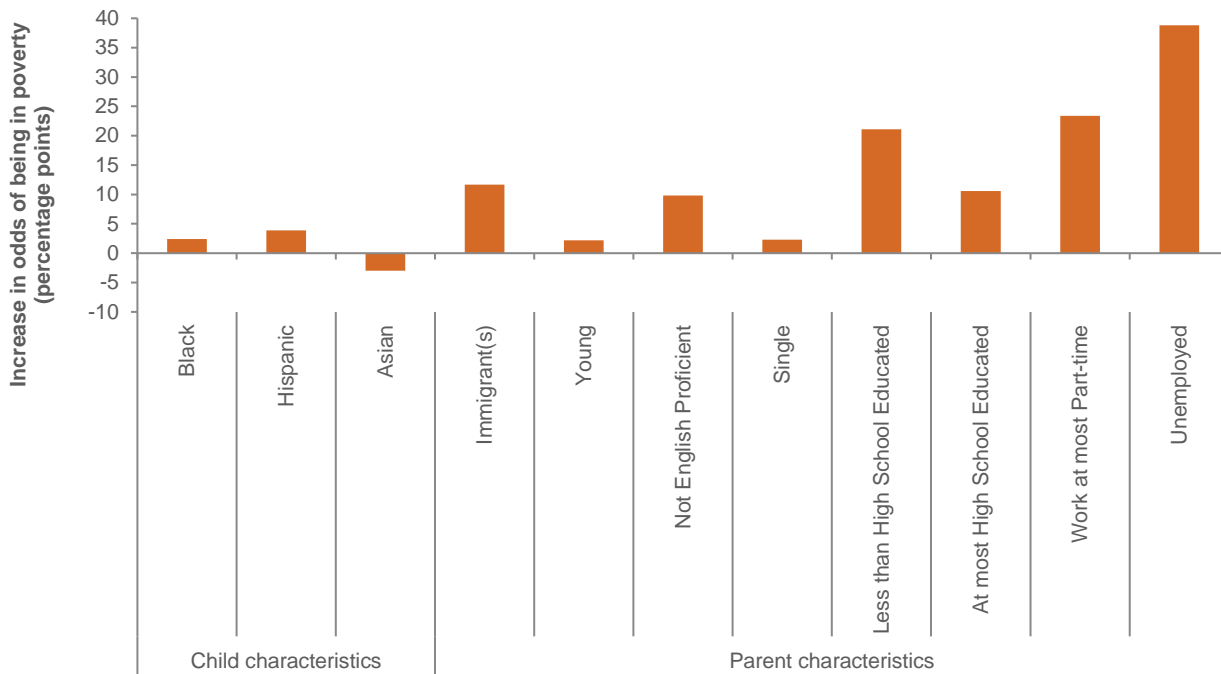
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Central Coast										0.0851**	0.0622**
										(0.00490)	(0.00474)
Inland Empire										0.0372**	-0.00802*
										(0.00349)	(0.00349)
Los Angeles										0.0805**	0.0467**
										(0.00300)	(0.00297)
Orange										0.0981**	0.0761**
										(0.00419)	(0.00405)
San Diego										0.0937**	0.0665**
										(0.00402)	(0.00391)
Observations	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770
R-squared	0.269	0.208	0.073	0.204	0.203	0.335	0.254	0.353	0.417	0.359	0.422

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Standard errors in parenthesis. \*\* p<0.01, \* p<0.05. Reference group, where applicable: white, parent(s) college educated, parent(s) employed full time.

**FIGURE B2**

Educational attainment and work status of parents are highly predictive of young children’s poverty status



SOURCES: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Coefficient estimates from a linear probability model of poverty status for young children (age 0-5), see Table B7 model 9; select coefficients shown.

## Individual-level models of safety net benefit receipt

Similar to the previous section, we also model whether individual children are in families that receive various social safety net benefits, according to the CPM. Once again, these linear probability models correlate characteristics and program benefit receipt, rather than modeling participation. However, we do control for various factors that are associated with eligibility and participation. In terms of eligibility, our main models (columns 2-9) include level of earned income and whether family income is below 100 percent or between 100–150 percent of the federal poverty line. Column 1 controls for earnings in a less flexible way, using only a flag for any earned income, to show that the choice of how to control for earnings does not substantively affect the other coefficients of interest in the model.

**TABLE B8**

Linear probability model of safety net program benefit receipt, among young children

	Any Safety Net			CalFresh		CalWORKs		EITC	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Black	0.179** (0.00443)	0.193** (0.00411)	0.118** (0.00396)	0.171** (0.00463)	0.140** (0.00467)	0.177** (0.00452)	0.142** (0.00457)	0.0561** (0.00506)	0.0130* (0.00512)
Hispanic	0.134** (0.00242)	0.144** (0.00224)	0.0958** (0.00218)	0.0258** (0.00253)	0.00370 (0.00258)	0.0148** (0.00246)	-0.00741** (0.00252)	0.0711** (0.00276)	0.0434** (0.00283)
Asian	0.0720** (0.00326)	0.119** (0.00304)	0.0474** (0.00295)	0.0976** (0.00343)	0.0643** (0.00348)	0.0647** (0.00334)	0.0340** (0.00341)	0.128** (0.00375)	0.0903** (0.00382)
Other Race	0.0700** (0.00395)	0.112** (0.00366)	0.0356** (0.00351)	0.0725** (0.00413)	0.0383** (0.00414)	0.0539** (0.00403)	0.0234** (0.00405)	0.0588** (0.00451)	0.0193** (0.00454)
Parent(s) less than high school	0.318** (0.00350)	0.265** (0.00324)	0.189** (0.00311)	0.197** (0.00366)	0.155** (0.00368)	0.141** (0.00357)	0.107** (0.00360)	0.0517** (0.00400)	0.0133** (0.00403)
Parent(s) high school	0.364** (0.00299)	0.307** (0.00278)	0.229** (0.00269)	0.159** (0.00314)	0.115** (0.00318)	0.0968** (0.00306)	0.0608** (0.00311)	0.162** (0.00343)	0.122** (0.00349)
Parent(s) some college	0.321** (0.00240)	0.283** (0.00223)	0.199** (0.00220)	0.106** (0.00251)	0.0599** (0.00260)	0.0529** (0.00245)	0.0156** (0.00254)	0.162** (0.00275)	0.120** (0.00285)
Parent(s) immigrant	0.0357** (0.00251)	0.0274** (0.00232)	0.0183** (0.00220)	0.00325 (0.00262)	0.00264 (0.00260)	-0.00783** (0.00255)	-0.00972** (0.00254)	-0.133** (0.00286)	-0.137** (0.00285)
Parent(s) young	0.0726** (0.00276)	0.0560** (0.00256)	0.0506** (0.00241)	0.107** (0.00288)	0.103** (0.00285)	0.0633** (0.00281)	0.0608** (0.00278)	0.0912** (0.00315)	0.0888** (0.00312)
Parent(s) not English proficient	0.0912** (0.00269)	0.0633** (0.00250)	0.0616** (0.00235)	0.00467 (0.00281)	0.00581* (0.00278)	-0.0294** (0.00274)	-0.0297** (0.00272)	-0.0427** (0.00308)	-0.0432** (0.00305)
Single Parent	0.157** (0.00215)	0.151** (0.00199)	0.129** (0.00189)	0.169** (0.00224)	0.161** (0.00223)	0.117** (0.00219)	0.107** (0.00218)	0.0936** (0.00245)	0.0820** (0.00244)
Earnings \$10,000-20,000		0.137** (0.00317)	0.0200** (0.00312)	0.0948** (0.00358)	0.0398** (0.00368)	-0.0285** (0.00349)	-0.0748** (0.00360)	0.373** (0.00391)	0.313** (0.00404)
Earnings \$20,000-30,000		0.218** (0.00322)	0.0374** (0.00333)	0.103** (0.00364)	0.0185** (0.00393)	-0.00832* (0.00355)	-0.0793** (0.00384)	0.397** (0.00398)	0.306** (0.00431)
Earnings \$30,000-40,000		0.354** (0.00327)	0.0873** (0.00368)	0.0411** (0.00369)	-0.0840** (0.00434)	-0.0692** (0.00360)	-0.174** (0.00425)	0.475** (0.00403)	0.340** (0.00476)
Earnings \$40,000-50,000		0.483** (0.00338)	0.137** (0.00410)	0.0344** (0.00381)	-0.129** (0.00484)	-0.0312** (0.00371)	-0.169** (0.00474)	0.423** (0.00417)	0.247** (0.00531)
Earnings \$50,000+		0.0246** (0.00175)	-0.373** (0.00343)	-0.0447** (0.00197)	-0.230** (0.00405)	-0.0394** (0.00192)	-0.196** (0.00396)	-0.00227 (0.00216)	-0.204** (0.00444)
Poor based on OPM	0.318** (0.00245)	0.364** (0.00270)	0.100** (0.00321)	0.481** (0.00305)	0.352** (0.00379)	0.311** (0.00297)	0.202** (0.00371)	0.192** (0.00333)	0.0574** (0.00416)

	Any Safety Net			CalFresh		CalWORKs		EITC	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Near poor based on OPM	0.341** (0.00286)	0.267** (0.00313)	0.105** (0.00319)	0.269** (0.00353)	0.191** (0.00377)	0.131** (0.00345)	0.0644** (0.00368)	0.219** (0.00387)	0.135** (0.00413)
Flag: any earned income	0.111** (0.00176)								
Northern Region			0.562** (0.00613)		0.277** (0.00724)		0.215** (0.00708)		0.275** (0.00794)
Sacramento Area			0.497** (0.00465)		0.246** (0.00550)		0.224** (0.00537)		0.248** (0.00603)
Bay Area			0.449** (0.00399)		0.212** (0.00471)		0.177** (0.00461)		0.222** (0.00516)
Central Valley and Sierra			0.503** (0.00417)		0.284** (0.00492)		0.236** (0.00482)		0.256** (0.00540)
Central Coast			0.472** (0.00491)		0.215** (0.00580)		0.165** (0.00567)		0.204** (0.00636)
Inland Empire			0.500** (0.00417)		0.258** (0.00493)		0.206** (0.00482)		0.265** (0.00540)
Los Angeles			0.483** (0.00391)		0.212** (0.00462)		0.212** (0.00452)		0.258** (0.00507)
Orange			0.476** (0.00451)		0.213** (0.00533)		0.157** (0.00521)		0.243** (0.00584)
San Diego			0.483** (0.00439)		0.185** (0.00519)		0.153** (0.00508)		0.254** (0.00569)
Observations	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770
R-squared	0.825	0.851	0.868	0.678	0.686	0.406	0.418	0.614	0.622

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Standard errors in parenthesis. \*\* p<0.01, \* p<0.05. Reference group, where applicable: white, parent(s) college educated, parent(s) employed full time, earnings less than \$10,000 and income above 150% federal poverty line. Earnings variables are normalized for a family of four.

## Multilevel Models

To better understand the variation in poverty and related characteristics across the 265 local areas (PUMAs) in California, we execute simple linear multilevel models. As we have seen, there is wide variation in poverty and associated factors across local areas in California. Even in a single region, nearby PUMAs may have drastically different poverty rates, for example. At the same time, certain broad trends operate at a broader geographic level, such as housing costs which affect all local areas within a given region similarly. The analysis in this section aims to quantify to what extent poverty and its associated characteristics are explained by regional differences versus local differences.

We use simple multilevel models to explain the variation in the given variable of interest across local areas within the nine distinct regions we define. Aiming to understand how much of the variation is due to region differences (a single hierarchy), we use simple unadjusted linear multi-level models. Each row of Table B9 provides the estimates from a single multilevel model of the given variable across all local areas with valid data. The first column provides the sample mean across the PUMAs included in the given model (the number of which is recorded in the “N” column). The components of variation columns quantify how much of the variation is explained by regional-level differences vs the residual variation across PUMAs.

The extent to which regions explain differences across the state varies substantially. For example, regional differences explain only a small fraction of the variation in overall poverty rates across the 265 PUMAs in California (first row, 0.023 compared to 0.107). However, regional differences in the impact of the safety net on poverty accounts for much more of the differences across local areas (5<sup>th</sup> and 6<sup>th</sup> rows).

**TABLE B9**

Linear multilevel models of variables of interest, for young children

Variable	Fixed part of model (sample mean)	Components of variation		N	p(chi)
		Region-level standard deviation	PUMA-level standard deviation		
CPM poverty rate (%)	0.236	0.0230	0.107	265	0.00271
CPM deep poverty rate (%)	0.0547	0.00535	0.0275	265	0.00865
Number CPM poor	2837.1	524.6	1682.2	265	0.0000464
Number CPM deep poor	656.6	120.4	411.7	265	0.000129
Increase in poverty in absence of safety net (percentage point)	0.141	0.0476	0.0604	265	1.73e-24
Increase in number poor in absence of safety net	1697.8	718.2	958.3	265	5.96e-24
<b>Poverty rate (%) among:</b>					
White	0.148	0.0150	0.0845	231	0.0564
Hispanic	0.312	0.0311	0.116	256	0.00486
Asian	0.155	0.00690	0.130	132	0.438
Black	0.488	0.154	0.232	66	0.0634
Immigrant parent(s)	0.372	0.0350	0.142	255	0.0143
Parent(s) not English proficient	0.393	0.0498	0.135	252	0.000216
Single parent	0.358	0.0275	0.104	258	0.0257
Young parent	0.404	0.0424	0.148	205	0.00299

<b>Share of poor (%) with:</b>					
Parent(s) at most less than high school	0.331	0.0576	0.125	237	0.000288
Parent(s) at most high school	0.254	3.90e-11	0.0859	238	1
Parents(s) greater than high school	0.447	0.0620	0.172	260	0.000117
Parent(s) at most unemployed	0.0827	0.0311	0.0563	226	1.33e-08
Parent(s) at most part-time	0.222	0.0377	0.0831	243	0.00000582
Parent(s) employed full-time	0.497	0.0833	0.103	257	3.63e-16
CalFresh	0.680	0.0911	0.112	258	3.16e-22
CalWORKs	0.343	0.0997	0.109	237	1.16e-21
EITC	0.543	0.0344	0.112	264	0.00905
Housing burdened (%)	0.354	0.0572	0.146	256	0.0000138
Overcrowded (%)	0.479	0.0922	0.143	253	1.63e-13
Moved in last year (%)	0.208	0.0326	0.0825	238	0.00000224
Extreme Commute (%)	0.0849	0.0275	0.0705	227	0.0000289
Median parent(s) commute time (minutes)	20.28	3.388	6.030	264	1.86e-11
<b>Resource estimates:</b>					
Average share of resources from work (%)	0.464	0.0947	0.0868	263	4.99e-34
Average share of resources from safety net (%)	0.441	0.0860	0.0738	265	2.43e-40
Median poverty gap (\$)	8080.6	662.3	2385.8	263	0.00203
Median resources (\$)	26455.1	3016.1	2791.3	265	2.42e-39
Median CPM threshold (\$)	30057.4	2985.6	1274.3	265	3.88e-94
Median earnings (\$)	11739.9	4722.0	4741.1	260	5.41e-32
Median resources from safety net (\$)	8482.8	1410.8	1706.2	265	9.39e-22
Median housing cost (\$)	11880.7	2376.9	3119.7	265	4.78e-21

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: Each row presents the results from a single multilevel model. Percentage variables shown in decimals. p-value from likelihood ratio test provided in right-most column. Only local areas with reliable data are used in these models; see Technical Appendix A for data suppression definitions.

## Correlations between Regional Poverty and Employment and Education Status

The regression models in Tables B10 and B11 assess the statewide and regional correlation of poverty status with education and employment status. Employment status is defined as the “best” status among parents or guardians, ranked as full-time, part-time, and unemployed. Not in the labor force is the final category (models not shown). Educational attainment is again the highest level parents or guardians have completed, ranked as some college or more, high school degree, and less than high school degree.

The first column in each set of four models shows the correlation of poverty status with each of the six outcomes considered. The second column adds demographic covariates. The third column adds region and region x poverty status interactions. The interactions represent the differential correlation, by region, for those in poverty above and beyond the regional correlation. The fourth column adds demographic covariates to the regional model.

The coefficients on poverty status, and on the interactions of poverty status with region are always statistically significant. The introduction of covariates generally results in smaller poverty status coefficients, but they continue to be statistically significantly different from the overall region coefficient with a few exceptions. These exceptions occur in the education models, where poverty status is not correlated with having a high school degree in four of nine regions after taking regional differences and differences in demographic characteristics into account.

**TABLE B10**

Correlates of employment status

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Full-time employment				Part-time employment				Unemployed			
In poverty	-0.34**	-0.24**			0.12**	0.095**			0.059**	0.052**		
	(0.0041)	(0.0043)			(0.0033)	(0.0037)			(0.0021)	(0.0023)		
In pov x Northern region			-0.44**	-0.32**			0.18**	0.15**			0.095**	0.080**
			(0.029)	(0.027)			(0.029)	(0.028)			(0.019)	(0.019)
In pov x Sacramento area			-0.47**	-0.33**			0.17**	0.13**			0.11**	0.097**
			(0.018)	(0.017)			(0.016)	(0.016)			(0.012)	(0.012)
In pov x Bay Area			-0.35**	-0.24**			0.19**	0.16**			0.052**	0.044**
			(0.011)	(0.010)			(0.0094)	(0.0095)			(0.0051)	(0.0050)
In pov x Central Valley / Sierra			-0.39**	-0.28**			0.078**	0.049**			0.088**	0.078**
			(0.011)	(0.010)			(0.0087)	(0.0088)			(0.0066)	(0.0065)
In pov x Central Coast			-0.26**	-0.15**			0.098**	0.066**			0.029**	0.022**
			(0.016)	(0.015)			(0.012)	(0.012)			(0.0058)	(0.0060)
In pov x Inland Empire			-0.37**	-0.28**			0.11**	0.086**			0.084**	0.075**
			(0.012)	(0.012)			(0.0099)	(0.010)			(0.0070)	(0.0069)
In pov x Los Angeles			-0.31**	-0.24**			0.11**	0.088**			0.042**	0.039**
			(0.0072)	(0.0068)			(0.0056)	(0.0058)			(0.0033)	(0.0034)
In pov x Orange			-0.29**	-0.20**			0.12**	0.097**			0.035**	0.030**
			(0.014)	(0.013)			(0.011)	(0.011)			(0.0067)	(0.0068)
In pov x San Diego			-0.32**	-0.22**			0.11**	0.078**			0.050**	0.042**
			(0.015)	(0.013)			(0.010)	(0.010)			(0.0067)	(0.0068)
Northern region			0.78**	0.064**			0.12**	-0.0064			0.014**	-0.033**
			(0.012)	(0.012)			(0.0096)	(0.0096)			(0.0033)	(0.0039)
Sacramento area			0.84**	0.095**			0.095**	-0.026**			0.014**	-0.031**
			(0.0059)	(0.0083)			(0.0047)	(0.0058)			(0.0018)	(0.0028)
Bay Area			0.89**	0.12**			0.068**	-0.045**			0.0078**	-0.033**
			(0.0031)	(0.0072)			(0.0025)	(0.0044)			(0.00088)	(0.0023)
Central Valley / Sierra			0.80**	0.094**			0.097**	-0.038**			0.024**	-0.024**
			(0.0048)	(0.0077)			(0.0035)	(0.0049)			(0.0017)	(0.0027)
Central Coast			0.88**	0.13**			0.068**	-0.054**			0.0071**	-0.034**
			(0.0060)	(0.0085)			(0.0046)	(0.0057)			(0.0013)	(0.0025)
Inland Empire			0.80**	0.087**			0.10**	-0.031**			0.024**	-0.024**
			(0.0048)	(0.0077)			(0.0036)	(0.0050)			(0.0017)	(0.0027)
Los Angeles			0.82**	0.10**			0.091**	-0.040**			0.020**	-0.028**
			(0.0032)	(0.0072)			(0.0024)	(0.0044)			(0.0011)	(0.0024)
Orange			0.90**	0.13**			0.058**	-0.055**			0.0072**	-0.032**
			(0.0047)	(0.0078)			(0.0036)	(0.0051)			(0.0012)	(0.0024)



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Full-time employment				Part-time employment				Unemployed			
San Diego			0.88**	0.12**			0.059**	-0.058**			0.016**	-0.026**
			(0.0053)	(0.0079)			(0.0035)	(0.0049)			(0.0019)	(0.0028)
Latino		0.035**		0.033**		-0.0092**		-0.0069*		-0.0027		-0.0026
		(0.0035)		(0.0035)		(0.0030)		(0.0030)		(0.0016)		(0.0016)
Black		-0.079**		-0.078**		0.0082		0.0071		0.042**		0.042**
		(0.0081)		(0.0082)		(0.0070)		(0.0070)		(0.0051)		(0.0051)
Asian		-0.0065		-0.010*		-0.015**		-0.014**		0.0073**		0.0080**
		(0.0042)		(0.0042)		(0.0035)		(0.0036)		(0.0017)		(0.0017)
Other race		-0.018**		-0.018**		0.011*		0.0097*		0.0081**		0.0081**
		(0.0054)		(0.0054)		(0.0049)		(0.0049)		(0.0030)		(0.0030)
Immigrant parent		0.028**		0.023**		0.00086		0.0021		-0.013**		-0.011**
		(0.0037)		(0.0037)		(0.0031)		(0.0031)		(0.0017)		(0.0017)
Parent no high school degree		0.78**		0.78**		0.058**		0.060**		0.043**		0.043**
		(0.0078)		(0.0080)		(0.0053)		(0.0054)		(0.0032)		(0.0033)
Parent high school degree		0.82**		0.82**		0.084**		0.084**		0.043**		0.043**
		(0.0072)		(0.0074)		(0.0045)		(0.0047)		(0.0026)		(0.0027)
Parent some college		0.85**		0.85**		0.085**		0.085**		0.030**		0.031**
		(0.0062)		(0.0065)		(0.0032)		(0.0035)		(0.0019)		(0.0020)
Parent under 25		-0.13**		-0.13**		0.077**		0.077**		0.017**		0.016**
		(0.0051)		(0.0051)		(0.0046)		(0.0046)		(0.0026)		(0.0026)
Parent not English proficient		0.013**		0.011**		0.013**		0.012**		-0.014**		-0.012**
		(0.0041)		(0.0040)		(0.0034)		(0.0034)		(0.0018)		(0.0018)
Single parent		-0.33**		-0.33**		0.11**		0.11**		0.040**		0.039**
		(0.0038)		(0.0038)		(0.0031)		(0.0031)		(0.0017)		(0.0017)
Constant	0.84**	0.10**			0.083**	-0.039**			0.016**	-0.027**		
	(0.0016)	(0.0064)			(0.0012)	(0.0035)			(0.00052)	(0.0020)		
Observations	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770
R-squared	0.118	0.314	0.787	0.833	0.028	0.068	0.143	0.177	0.022	0.050	0.059	0.084

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: \*\* p<0.01, \* p<0.05. Standard errors in parentheses.

**TABLE B11**

Correlates of educational attainment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Parent(s) no high school degree				Parent(s) high school degree				Parent(s) some college or more			
In poverty	0.26** (0.0039)	0.096** (0.0040)			0.081** (0.0037)	0.0050 (0.0043)			-0.35** (0.0042)	-0.10** (0.0043)		
In pov x Northern region			0.11** (0.025)	0.028 (0.024)			0.071** (0.026)	0.021 (0.026)			-0.19** (0.031)	-0.050 (0.029)
In pov x Sacramento area			0.17** (0.016)	0.047** (0.015)			0.11** (0.017)	0.045** (0.017)			-0.29** (0.019)	-0.092** (0.017)
In pov x Bay Area			0.25** (0.010)	0.074** (0.0096)			0.13** (0.0096)	0.035** (0.0099)			-0.39** (0.011)	-0.11** (0.0099)
In pov x Central Valley / Sierra			0.25** (0.011)	0.12** (0.010)			0.030** (0.010)	-0.028* (0.011)			-0.29** (0.011)	-0.091** (0.011)
In pov x Central Coast			0.34** (0.017)	0.16** (0.015)			0.045** (0.015)	-0.042** (0.015)			-0.39** (0.017)	-0.11** (0.014)
In pov x Inland Empire			0.24** (0.011)	0.11** (0.011)			0.054** (0.011)	-0.0034 (0.011)			-0.29** (0.013)	-0.11** (0.012)
In pov x Los Angeles			0.26** (0.0068)	0.100** (0.0064)			0.072** (0.0065)	0.0068 (0.0069)			-0.34** (0.0073)	-0.11** (0.0067)
In pov x Orange			0.28** (0.014)	0.081** (0.012)			0.13** (0.013)	0.038** (0.013)			-0.41** (0.015)	-0.12** (0.012)
In pov x San Diego			0.24** (0.013)	0.084** (0.012)			0.098** (0.013)	0.021 (0.013)			-0.35** (0.015)	-0.11** (0.013)
Northern region			0.077** (0.0077)	-0.071** (0.0083)			0.18** (0.011)	-0.034** (0.011)			0.73** (0.013)	0.10** (0.012)
Sacramento area			0.077** (0.0044)	-0.082** (0.0059)			0.15** (0.0059)	-0.071** (0.0067)			0.77** (0.0069)	0.15** (0.0085)
Bay Area			0.063** (0.0026)	-0.097** (0.0050)			0.11** (0.0033)	-0.099** (0.0050)			0.82** (0.0040)	0.20** (0.0070)
Central Valley / Sierra			0.16** (0.0042)	-0.071** (0.0056)			0.24** (0.0051)	-0.036** (0.0061)			0.60** (0.0058)	0.11** (0.0079)
Central Coast			0.13** (0.0063)	-0.084** (0.0068)			0.17** (0.0074)	-0.085** (0.0079)			0.70** (0.0088)	0.17** (0.0092)
Inland Empire			0.11** (0.0037)	-0.098** (0.0055)			0.22** (0.0051)	-0.044** (0.0062)			0.66** (0.0058)	0.14** (0.0079)
Los Angeles			0.14** (0.0028)	-0.090** (0.0050)			0.18** (0.0033)	-0.080** (0.0049)			0.67** (0.0039)	0.17** (0.0070)
Orange			0.087** (0.0046)	-0.088** (0.0059)			0.12** (0.0051)	-0.11** (0.0062)			0.79** (0.0065)	0.20** (0.0081)
San Diego			0.068** (0.0039)	-0.10** (0.0057)			0.13** (0.0055)	-0.093** (0.0064)			0.79** (0.0064)	0.19** (0.0081)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Parent(s) no high school degree				Parent(s) high school degree				Parent(s) some college or more			
Latino		0.079** (0.0026)		0.077** (0.0026)		0.10** (0.0037)		0.098** (0.0037)		-0.18** (0.0040)		-0.18** (0.0041)
Black		-0.014* (0.0054)		-0.012* (0.0054)		0.069** (0.0080)		0.069** (0.0080)		-0.055** (0.0086)		-0.058** (0.0086)
Asian		-0.092** (0.0030)		-0.089** (0.0031)		-0.035** (0.0039)		-0.028** (0.0039)		0.13** (0.0044)		0.12** (0.0044)
Other race		-0.012** (0.0034)		-0.0097** (0.0035)		-0.014** (0.0049)		-0.011* (0.0049)		0.026** (0.0055)		0.021** (0.0055)
Immigrant parent		0.11** (0.0034)		0.11** (0.0035)		0.021** (0.0040)		0.025** (0.0040)		-0.13** (0.0042)		-0.14** (0.0042)
Full-time work		0.046** (0.0041)		0.047** (0.0043)		0.14** (0.0037)		0.15** (0.0037)		0.81** (0.0060)		0.81** (0.0061)
Part-time work		0.044** (0.0060)		0.047** (0.0061)		0.16** (0.0061)		0.16** (0.0061)		0.80** (0.0079)		0.80** (0.0079)
Unemployed		0.10** (0.0100)		0.10** (0.010)		0.19** (0.010)		0.18** (0.010)		0.71** (0.012)		0.71** (0.012)
Not in labor force		0.16** (0.0073)		0.16** (0.0074)		0.13** (0.0071)		0.13** (0.0071)		0.71** (0.0087)		0.71** (0.0087)
Parent(s) under 25		0.0022 (0.0045)		0.00068 (0.0046)		0.11** (0.0056)		0.11** (0.0056)		-0.11** (0.0056)		-0.11** (0.0056)
Parent(s) not proficient in English		0.21** (0.0039)		0.21** (0.0039)		0.039** (0.0043)		0.038** (0.0043)		-0.25** (0.0045)		-0.25** (0.0045)
Single parent		0.13** (0.0033)		0.13** (0.0033)		0.088** (0.0040)		0.087** (0.0040)		-0.22** (0.0040)		-0.22** (0.0040)
Constant	0.11** (0.0013)	-0.089** (0.0043)			0.17** (0.0016)	-0.070** (0.0040)			0.72** (0.0019)	0.16** (0.0062)		
Observations	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770	147,770
R-squared	0.088	0.279	0.255	0.405	0.008	0.068	0.205	0.249	0.097	0.357	0.675	0.763

SOURCE: Author calculations from the 2011–2014 California Poverty Measure.

NOTES: \*\* p<0.01, \* p<0.05. Standard errors in parentheses.

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