



THE COSTS OF BEING POOR: INFLATION INEQUALITY LEADS TO THREE MILLION MORE PEOPLE IN POVERTY

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SUMMARY

It is widely recognized that income inequality has skyrocketed in recent decades. Incomes at the top of the distribution have grown rapidly, far outpacing income growth at the bottom. Recent research also shows that prices have risen more quickly for people at the bottom of the income distribution than for those at the top—a phenomenon dubbed “inflation inequality.” An implication of this new finding is that we may be underestimating income inequality and poverty rates in the United States—two national statistics that rely heavily on the annual inflation rate as part of their calculation. In this brief, we utilize an adjusted inflation index that accounts for inflation inequality across the income distribution and re-estimate recent trends in poverty and income inequality from 2004 to 2018. Our adjusted inflation index indicates that 3.2 million more people are classified as living in poverty in 2018, and that real household income for the bottom 20 percent of the income distribution actually declined by nearly 7 percent since 2004. These results show that inflation inequality significantly accentuates both the incidence of poverty and income inequality.

INTRODUCTION

How many people in the U.S. are poor? How much more income do the richest have than the poorest among us? Is income inequality rising or falling? To most, these would seem fairly basic economic facts, easily estimated from government-collected data. But as with most economic indicators, the devil lies in the details. One of these key details involves how to measure inflation, or the changes in prices faced by consumers over time. If a household, for example, had \$25,000 in income in 2018 and \$27,000 in 2019, their income obviously increased. But because the goods and services these individuals purchase with their income could cost more (or less) in 2019 than in 2018, the difference in so-called “real” income, or nominal income adjusted for inflation, may not actually be \$2,000. Accounting for inflation is thus key to determining trends in the economic well-being of the workforce and the population.

Government statistics, from poverty rates to household income to wages, rely on measures of inflation to compare the economic well-being of people today to that of people in the recent and more distant past. The most commonly used measure of inflation is some version of the Consumer Price Index (CPI), calculated by the Bureau of Labor Statistics. Some economists prefer alternative measures, such as the Personal Consumption Expenditure (PCE) index, which accounts for price changes differently than the CPI. But what all of these measures have

in common is the assumption of a single rate of change in the average price of goods and services faced by the population as a whole.

But what if that assumption does not hold? Recent evidence suggests that it may not. Just as aggregate measures of GDP may mask variation in economic growth at different points in the economic distribution, aggregate measures of inflation may mask the fact that the prices and price changes faced by the poor may be fundamentally different from the prices and price changes faced by the middle class, which in turn may be fundamentally different from the prices and price changes faced by the rich. In a 2019 paper in the *Quarterly Journal of Economics*, the London School of Economics professor Xavier Jaravel (and coauthor of this brief) finds just that. To examine differences in annual inflation rates faced by lower- and higher-income Americans, Jaravel uses several price and expenditures datasets, including scanner data collected in retail stores from 2004 to 2015. He finds that annual inflation rates for those at the bottom of the income distribution are substantially higher than for those at the top of the income distribution, effectively increasing income inequality.

Jaravel points to increasing income inequality as the root cause of this new “inflation inequality.” Soaring income inequality in recent decades has been driven almost entirely by increasing incomes at the top of the income distribution. He shows that

because companies are increasingly interested in competing for the dollars of these wealthy individuals, prices for goods that wealthy people buy are actually decreasing relative to the prices of goods that lower-income families purchase. In other words, as income inequality has increased, companies have increasingly catered to families with high incomes, driving down prices for the goods they buy, and further increasing real income inequality. In the meantime, poor families face prices and price changes that are “business as usual.”

This brief poses a relatively straightforward question: How would recent trends in poverty and inequality differ if we accounted for the differential inflation trends between the rich and the poor that Jaravel found? To answer this question, we utilize an adjusted inflation index produced using data from Jaravel’s paper and apply this index to official poverty thresholds and household income measures from 2004 to 2018. The results are striking. When you properly account for variation in prices by income, poverty is noticeably higher and income inequality widens.

METHODOLOGY

We calculate revised measures of poverty and inequality using inflation estimates derived from the data and methodology developed in Jaravel (2019), starting from 2004. With the baseline approach applied between 2004 and 2015, Jaravel’s paper finds that the annual inflation rate is 0.44 percentage points higher for the bottom income quintile compared with the top income quintile, on average. We apply this 0.44 percentage point correction to the aggregate measure of inflation conventionally used to calculate official poverty line, the threshold below which individuals are considered to be in poverty and become eligible for certain government support programs. Furthermore, we

assess trends in “real” household income using this 0.44 percentage point correction.¹ The Appendix provides a complete description and discussion of the methodology.

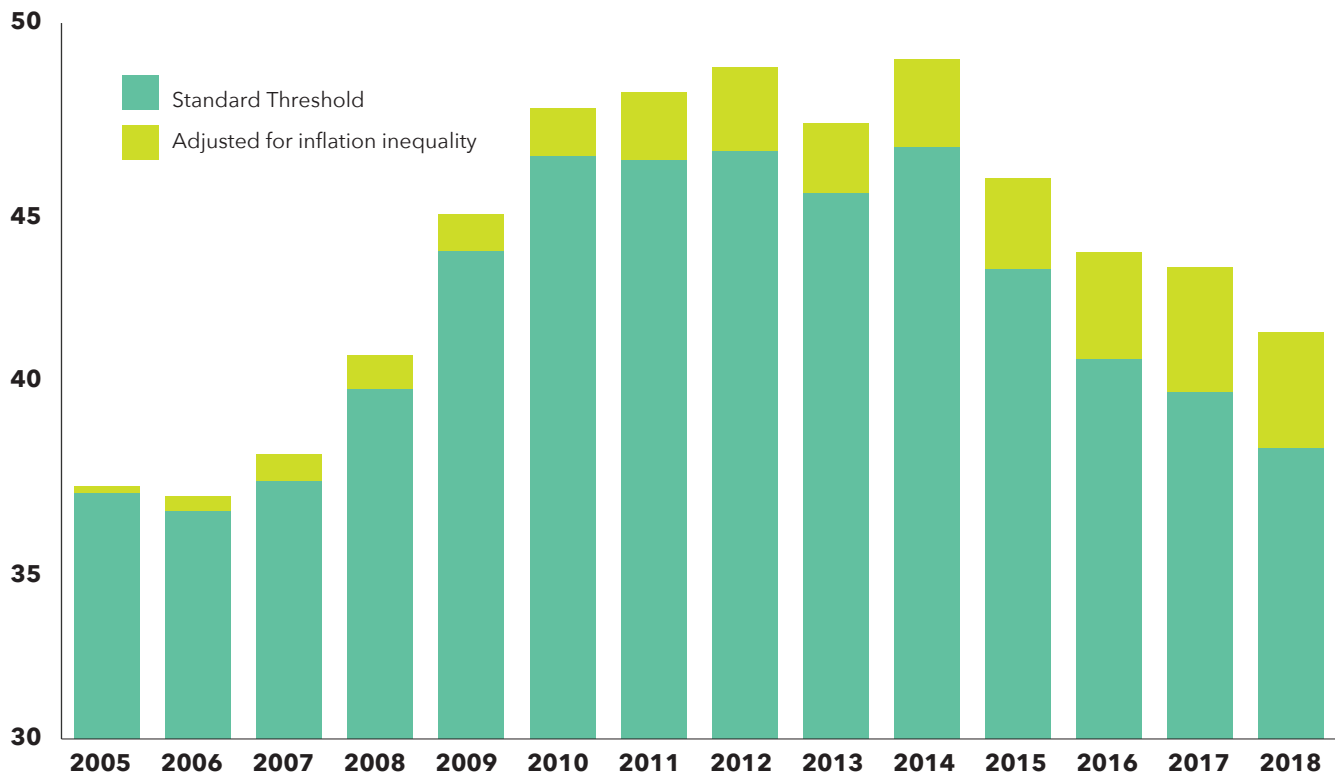
RESULTS

POVERTY RATE

We begin by examining how recent trends in poverty would differ if more accurate measures of inflation were used. The poverty line, or threshold, was developed in the 1960s and was based, at the time, on the cost of food as a proportion of family budgets. Since then, the poverty line has been updated each year for inflation using the CPI. In 2018, the poverty line for a family of four is just over \$25,000. A single individual is not considered poor if they make just a bit over \$12,000. By most domestic standards, these are very low levels of need. So, when eligibility for important government benefits is tied to these poverty lines (for example, the Supplemental Nutrition Assistant Program and Medicaid), small changes to how those lines are calculated can make a big difference. To measure the implications of utilizing an inflation measure based on the price increases faced by the lowest income individuals, we use Jaravel’s data and apply to the poverty threshold an inflation index that adjusts for inequality across the income distribution.

Figure 1 shows the number of individuals in poverty under the official measure and according to our adjusted measure. With the adjusted CPI, the number of people in poverty in 2018 is about 8 percent larger than under the official measure, which corresponds to an increase in the poverty rate of approximately 1.0 percentage point. This is a large difference. Using the adjusted CPI translates into over 3.2 million more people classified as living in poverty, or about the population of the entire

FIGURE 1: INDIVIDUALS IN POVERTY UNDER THE OFFICIAL THRESHOLD AND INEQUALITY INFLATION ADJUSTED THRESHOLD, IN MILLIONS, 2005-2018



1. The bottom fifth of the income distribution is a reasonable proxy for the poor population since 11.8 percent of Americans were found to be poor in 2018.

state of Iowa.² This means that millions of people who might reasonably qualify for benefits like food and housing assistance from antipoverty programs that could help them and their families, do not qualify. It also means that we have a too-optimistic portrait of the number of families who are struggling to make ends meet. Keep in mind as well that this divergence in poverty rates is apparent just when using a relatively narrow thirteen-year window. Over a longer time period, this divergence is likely to compound further.

We can also break out poverty changes by various demographic subgroups. Tables 5-8 in the Appendix provide the number of individuals in each subgroup newly classified as poor if we considered Jaravel's income specific inflation rates as the relevant measure. Child poverty rates would be 1.5 percentage points higher in 2018, corresponding to 1.1 million additional children in poverty in that year. We see similar trends for women-headed households with children, by race and ethnicity, and by gender respectively. 1.2 million more individuals in women-headed households would be newly counted as poor. This is especially significant given that mothers are now the breadwinners in 40 percent of all households.³

Furthermore, 1.2 million more white non-Hispanic individuals would be newly counted as poor when using the updated inflation measures, increasing the white poverty rate by 0.6 percentage points to 8.7 percent in 2018. In addition, 650,000 more Black non-Hispanic individuals would fall under the poverty line increasing the Black poverty by rate by 1.6 percentage points to 22.7 percent in 2018. The Latinx/Hispanic poverty

rate would increase by 1.8 percentage points to 19.4 percent in 2018, meaning 1.1 million more Latinx/Hispanic individuals in poverty. Additionally, 1.7 million women, and 1.5 million men would be newly counted as poor.

We repeat the analysis using the deep poverty rate, with deep poverty defined as living below half the poverty line. Since the poverty line for a family of four is only about \$25,000, this is a marker of fairly severe deprivation. Again, we see greater deep poverty over time when using a more accurate measure of the prices that low-income families pay. By 2018, this means over 800,000 more people would be classified as living in deep poverty relative to the standard, official measure of poverty. (see table 3 in Appendix for more details.)

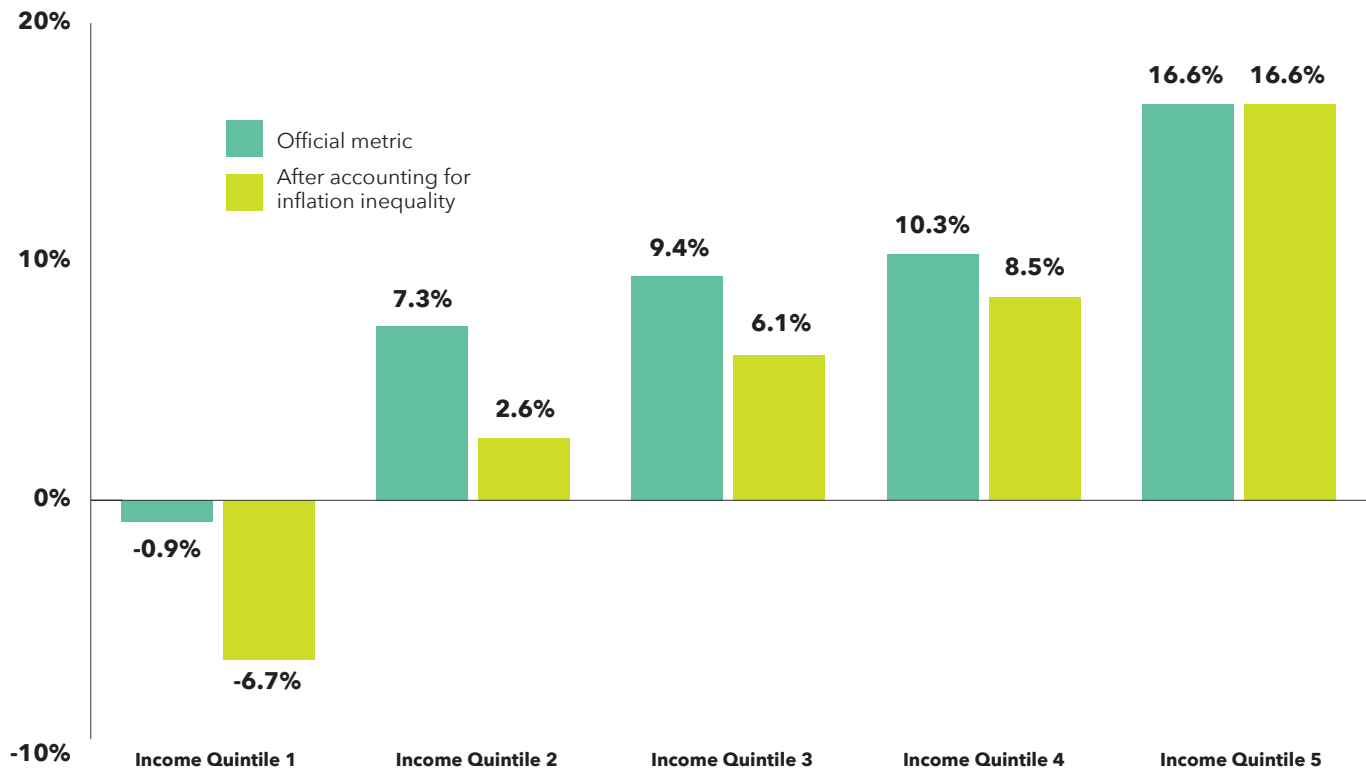
It is clear that relying on a population-wide measure of inflation when calculating the poverty rate understates the deprivation faced by the most vulnerable adults, children, and families. To develop policies that improve the economic well-being of low-income individuals, we must first accurately measure their well-being. That should start with an accurate understanding of the prices they pay for the goods and services they consume.

HOUSEHOLD INCOME

We can also use updated inflation measures to reassess recent trends in the divergence of household incomes. Every year, the Census Bureau publishes statistics on household income changes, again adjusted using a version of the CPI. It is now widely recognized that income inequality has skyrocketed in recent decades due to extreme growth in in-

FIGURE 2: HOUSEHOLD INCOME GROWTH WAS SLOWER THAN OFFICIAL METRICS SUGGEST

Percent change in real household income growth from 2004 to 2018, by quintile, under official metrics and after adjusting for inflation inequality



2. If we instead use a less conservative adjustment of 0.66 percentage points per year (see the methodology appendix), 4.6 million more Americans would be classified as poor, as opposed to the 3.2 million found here with the more conservative approach.

3. Glynn, Sarah Jane, "Breadwinning Mothers Continue To Be the U.S. Norm" (Center for American Progress, 2019), available at <https://www.americanprogress.org/issues/women/reports/2019/05/10/469739/breadwinning-mothers-continue-u-s-norm/>.

come at the top of the distribution. Incomes at the bottom have stagnated, unless you count the resources families receive from government income-support programs that try to compensate for low market incomes. There is a large and growing gap between the incomes of the top quintile of households and the bottom quintile between 2004 and 2018, the period of our study. When we apply inflation corrections to household incomes during this period, we see that this gap is growing even more over time than one finds using the CPI alone.

Figure 2 reports changes in income across quintiles of the income distribution, using the conventional CPI and our adjusted inflation rates. All figures are adjusted for household size before dividing households into quintiles. Using conventional estimates based on the CPI, we see that income in the top fifth of the distribution grew by 16.6 percent between 2004 and 2018. Concurrently, income at the bottom fell by about one percentage point. Thus, income inequality between the top and bottom quintiles widened by more than 17 percentage points over the period (2004-2018) using conventional measures of inflation. If, instead, we use our adjusted inflation measure, we find that incomes in the bottom quintile actually declined by 6.7 percent.⁴ Put another way, according to our adjusted measure purchasing power fell significantly at the bottom of the distribution, which the conventional CPI largely misses. Using the adjusted inflation measure, income inequality between the top and bottom quintiles widened by about 23 percentage points, or about 33 percent more than with the conventional measure of inflation (17.6 vs. 23.4 percentage points).

CONCLUSION

In sum, our results show that if we take seriously the idea that inflation varies across different points in the income distribution, a different picture of the economic health of those with low incomes emerges. Jaravel's research shows that, at least in recent years, inflation is steeper at the bottom of the income distribution. If we apply this steeper inflation to the poverty threshold, we see that millions more people would be classified as living in poverty. The divergence in household incomes that has been underway for decades is also notably larger than we thought.

Despite this evidence, which shows that our current practice of using aggregate inflation measures significantly understates income inequality and poverty, recent proposals by the Trump administration seek to use *smaller* inflation rates to adjust the poverty threshold. Doing so would result in a *lower* poverty line and lower official poverty rates over time. This would, in turn, mean that fewer and fewer low-income Americans would find themselves eligible for federal benefits, which have been shown to reduce the poverty level substantially.

Taking seriously the actual inflation rates faced by those at the bottom of the income distribution indicates that we currently have a too-rosy view of the actual levels of deprivation faced by those at the bottom of the income distribution. We should be doing *more*, not less, to help them make ends meet.

4. As previously, we assign the CPI-U to the top income quintile, and we correct inflation rates for the bottom income quintile using Jaravel's data.

APPENDIX

METHODOLOGY

For our baseline estimates, we follow the conservative approach described in Jaravel's paper, which is based on data from the CPI combined with the Consumer Expenditure Survey. This approach has two advantages. First, it covers the full consumption basket of American households, and second, it closely follows the official methodology of the CPI to compute inflation. This approach may understate the required adjustment, however, because the correction for inflation inequality is found to be larger when using more granular data available for products with barcodes.

With the baseline approach applied between 2004 and 2015, Jaravel's paper finds that the annual inflation rate is 0.44 percentage points higher for the bottom income quintile compared with the top income quintile. With barcode-level data (which may not apply to all goods purchased by Americans), the annual inflation rate difference increases to 0.66 percentage points. As discussed in Jaravel's paper, with barcode-level data the correction is larger because inflation inequality turns out to exist even within detailed consumption categories (e.g., between organic spinach and regular spinach), while the baseline approach can only capture the part of inflation inequality that arises between product categories (e.g., between spinach and beef). In order to be conservative, we focus on the baseline inflation inequality estimates derived from the CPI-CEX data. We also briefly report the (larger) correction derived from the alternative approach using more granular data for products with barcodes.

With both approaches, we take the CPI-U as our reference point. The expenditure weights used in CPI-U are the aggregate expenditure shares for the whole economy, which effectively track changes in the cost of living for a fairly affluent household close to the top quintile of the income distribution (see Deaton 1998, Hamilton 2001, and Almas, Beatty and Crossley 2019). Therefore, we assign the CPI-U to the top income quintile, and we correct inflation rates for other income quintiles using Jaravel's data.

With both the baseline approach and the barcode-level data, the correction for inflation inequality is very similar in magnitude for all years of the sample, therefore we use a constant correction factor for the whole period. Results remain unchanged when using year-specific inflation-inequality estimates.

See Sections 2 and 3 of Jaravel (2019) for a description of the data sources and of the methodology to compute the adjustment for inflation inequality (in particular, Figures 2 and 3, and Tables 2 and 3).

TABLES

TABLE 1. INFLATION RATES

YEAR	CPI-U	ANNUAL INFLATION RATE (CPI-U)	CUMULATIVE INFLATION RATE (CPI-U) 2005 TO 2017	CUMULATIVE INFLATION RATE CPI + INFLATION INEQUALITY QUINTILE 1	CUMULATIVE INFLATION RATE CPI + INFLATION INEQUALITY QUINTILE 2	CUMULATIVE INFLATION RATE CPI + INFLATION INEQUALITY QUINTILE 3	CUMULATIVE INFLATION RATE CPI + INFLATION INEQUALITY QUINTILE 4
2004	188.9						
2005	195.3	1.034	1.034	1.038	1.037	1.036	1.035
2006	201.6	1.032	1.067	1.076	1.074	1.072	1.070
2007	207.3	1.028	1.097	1.112	1.108	1.104	1.101
2008	215.3	1.039	1.140	1.159	1.154	1.149	1.145
2009	214.5	0.996	1.136	1.160	1.154	1.148	1.142
2010	218.1	1.017	1.155	1.185	1.177	1.170	1.163
2011	224.9	1.031	1.191	1.227	1.218	1.209	1.200
2012	229.6	1.021	1.215	1.258	1.247	1.236	1.227
2013	233.0	1.015	1.233	1.282	1.270	1.258	1.247
2014	236.7	1.016	1.253	1.308	1.294	1.280	1.268
2015	237.0	1.001	1.255	1.315	1.300	1.285	1.271
2016	240.0	1.013	1.271	1.338	1.321	1.304	1.289
2017	245.1	1.021	1.298	1.372	1.353	1.334	1.317
2018	251.1	1.024	1.329	1.412	1.391	1.370	1.351

TABLE 2. POVERTY RATES AND COUNTS

YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
2005	12.6%	12.6%	36,869,422	37,047,238	177,816
2006	12.3%	12.4%	36,382,229	36,792,699	410,470
2007	12.5%	12.7%	37,220,587	37,952,707	732,120
2008	13.2%	13.5%	39,780,936	40,725,686	944,750
2009	14.4%	14.7%	43,635,262	44,667,868	1,032,606
2010	15.1%	15.6%	46,300,405	47,619,239	1,318,834
2011	15.0%	15.6%	46,181,923	48,057,361	1,875,438
2012	15.0%	15.7%	46,428,776	48,767,721	2,338,945
2013	14.5%	15.1%	45,257,487	47,212,129	1,954,642
2014	14.7%	15.5%	46,537,587	48,969,283	2,431,696
2015	13.5%	14.3%	43,123,339	45,651,412	2,528,073
2016	12.7%	13.6%	40,616,156	43,594,599	2,978,443
2017	12.3%	13.4%	39,697,972	43,188,044	3,490,072
2018	11.8%	12.8%	38,145,625	41,368,511	3,222,886

TABLE 3. DEEP POVERTY RATES AND COUNTS

YEAR	OFFICIAL DEEP RATE	DEEP POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN DEEP POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN DEEP POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN DEEP POVERTY
2005	5.4%	5.4%	15,889,961	15,931,852	41,891
2006	5.2%	5.2%	15,395,617	15,502,229	106,612
2007	5.2%	5.3%	15,556,323	15,808,435	252,112
2008	5.7%	5.8%	17,061,559	17,361,520	299,961
2009	6.3%	6.4%	19,032,816	19,366,442	333,626
2010	6.7%	6.8%	20,500,501	20,826,885	326,384
2011	6.6%	6.8%	20,307,384	21,020,245	712,861
2012	6.6%	6.8%	20,357,740	21,130,618	772,878
2013	6.3%	6.5%	19,823,913	20,433,379	609,466
2014	6.6%	6.8%	20,706,772	21,497,304	790,532
2015	6.1%	6.3%	19,444,400	20,081,061	636,661
2016	5.8%	6.0%	18,515,188	19,345,893	830,705
2017	5.7%	6.0%	18,544,028	19,419,253	875,225
2018	5.3%	5.6%	17,274,272	18,110,116	835,844

TABLE 4. POVERTY THRESHOLDS

YEAR	OFFICIAL TWO ADULT, TWO CHILD POVERTY THRESHOLD	OFFICIAL TWO ADULT, TWO CHILD POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE
2005	\$19,806	\$19,890
2006	\$20,444	\$20,619
2007	\$21,027	\$21,297
2008	\$21,834	\$22,208
2009	\$21,756	\$22,227
2010	\$22,113	\$22,689
2011	\$22,811	\$23,505
2012	\$23,283	\$24,095
2013	\$23,624	\$24,554
2014	\$24,008	\$25,061
2015	\$24,036	\$25,201
2016	\$24,339	\$25,629
2017	\$24,858	\$26,288
2018	\$25,465	\$27,046

TABLE 5. CHILD POVERTY RATES AND COUNTS OF CHILDREN IN POVERTY

YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
2005	17.6%	17.7%	12,875,350	12,936,624	61,274
2006	17.4%	17.6%	12,817,714	12,963,980	146,266
2007	18.0%	18.4%	13,308,312	13,583,238	274,926
2008	19.0%	19.4%	14,048,760	14,391,005	342,245
2009	20.7%	21.3%	15,340,829	15,740,296	399,467
2010	22.0%	22.7%	16,269,101	16,735,564	466,463
2011	21.9%	22.5%	16,119,207	16,569,117	449,910
2012	21.8%	22.6%	16,040,905	16,627,669	586,764
2013	19.9%	20.7%	14,654,611	15,246,877	592,266
2014	21.1%	22.3%	15,523,905	16,384,556	860,651
2015	19.7%	20.8%	14,508,532	15,354,393	845,861
2016	18.0%	19.3%	13,253,350	14,210,649	957,299
2017	17.5%	19.0%	12,807,856	13,956,754	1,148,898
2018	16.2%	17.7%	11,869,185	12,974,307	1,105,122

TABLE 6. POVERTY RATES AND COUNTS OF INDIVIDUALS IN FEMALE HEADED HOUSEHOLDS

YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
2005	17.1%	17.2%	23,535,386	23,402,804	-
2006	16.7%	16.9%	23,442,378	23,462,361	19,983
2007	16.7%	17.0%	23,763,607	23,793,703	30,096
2008	17.0%	17.3%	24,673,369	24,724,115	50,746
2009	18.1%	18.6%	26,587,106	26,894,909	307,803
2010	19.4%	19.9%	28,974,868	29,177,786	202,918
2011	19.3%	20.0%	29,014,559	29,420,932	406,373
2012	19.3%	20.2%	28,891,485	29,791,056	899,571
2013	18.3%	19.1%	27,981,380	28,279,376	297,996
2014	19.0%	19.8%	29,428,316	30,248,468	820,152
2015	17.2%	18.2%	26,880,517	27,754,761	874,244
2016	16.4%	17.5%	25,691,722	26,614,987	923,265
2017	15.7%	17.0%	25,024,025	26,320,282	1,296,257
2018	15.2%	16.3%	24,141,165	25,125,247	984,082

TABLE 7. POVERTY RATES AND COUNTS BY RACE/ETHNICITY

YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
WHITE, NON-HISPANIC					
2005	8.3%	8.3%	16,189,148	16,273,308	84,160
2006	8.1%	8.3%	15,953,195	16,184,235	231,040
2007	8.1%	8.3%	16,010,555	16,309,874	299,319
2008	8.6%	8.8%	16,986,579	17,394,476	407,897
2009	9.3%	9.6%	18,169,083	18,584,340	415,257
2010	9.9%	10.2%	19,238,771	19,795,145	556,374
2011	9.8%	10.3%	19,150,551	20,090,407	939,856
2012	9.7%	10.2%	18,932,789	19,958,498	1,025,709
2013	9.6%	10.0%	18,768,687	19,579,985	811,298
2014	10.0%	10.6%	19,605,154	20,674,944	1,069,790
2015	9.1%	9.7%	17,785,832	18,871,513	1,085,681
2016	8.8%	9.6%	17,262,735	18,646,971	1,384,236
2017	8.7%	9.4%	16,992,827	18,345,799	1,352,972
2018	8.8%	8.7%	15,724,923	16,917,953	1,193,030
BLACK, NON-HISPANIC					
2005	24.9%	24.9%	8,820,006	8,853,270	33,264
2006	24.1%	24.2%	8,646,957	8,700,842	53,885
2007	24.3%	24.6%	8,798,917	8,905,814	106,897
2008	24.6%	25.0%	8,975,146	9,140,595	165,449
2009	25.4%	26.1%	9,282,774	9,530,870	248,096
2010	27.2%	27.8%	9,975,973	10,210,662	234,689
2011	27.3%	28.2%	10,089,497	10,424,742	335,245
2012	27.0%	28.2%	10,115,796	10,566,868	451,072
2013	27.2%	28.0%	10,250,254	10,560,864	310,610
2014	26.1%	27.2%	10,032,389	10,477,615	445,226
2015	24.2%	25.4%	9,493,245	9,946,960	453,715
2016	22.1%	23.3%	8,655,263	9,116,916	461,653
2017	21.0%	22.5%	8,340,094	8,918,665	578,571
2018	21.1%	22.7%	8,360,628	9,015,146	654,518
LATINX/HISPANIC					
2005	21.8%	21.9%	9,355,269	9,399,066	43,797
2006	20.6%	20.9%	9,230,730	9,339,597	108,867
2007	21.5%	22.2%	9,889,747	10,194,023	304,276
2008	23.2%	23.8%	10,984,829	11,277,943	293,114
2009	25.2%	25.8%	12,530,476	12,826,947	296,471
2010	26.5%	27.3%	13,493,961	13,922,973	429,012
2011	25.3%	26.2%	13,221,660	13,705,877	484,217
2012	25.6%	27.0%	13,596,766	14,317,038	720,272
2013	23.5%	24.8%	12,735,935	13,404,429	668,494
2014	23.6%	24.8%	13,083,647	13,784,149	700,502
2015	21.4%	22.8%	12,133,005	12,951,097	818,092
2016	19.4%	21.0%	11,137,254	12,099,558	962,304
2017	18.3%	20.3%	10,789,682	12,014,435	1,224,753
2018	17.6%	19.4%	10,526,140	11,608,078	1,081,938
AMERICAN-INDIAN, NON-HISPANIC					
2005	24.9%	25.1%	411,087	414,198	3,111
2006	30.7%	30.8%	558,166	559,557	1,391
2007	22.9%	23.0%	425,349	425,948	599
2008	23.7%	24.1%	446,948	454,350	7,402
2009	27.5%	28.4%	612,259	631,657	19,398
2010	26.2%	27.0%	546,252	563,205	16,953
2011	27.6%	28.8%	560,928	585,215	24,287
2012	35.4%	35.9%	796,472	808,651	12,179

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YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
2013	28.7%	29.8%	697,488	724,426	26,938
2014	27.1%	28.6%	667,897	702,829	34,932
2015	25.4%	26.8%	626,190	660,383	34,193
2016	25.3%	26.6%	602,751	634,102	31,351
2017	22.6%	25.2%	566,318	631,898	65,580
2018	23.2%	26.2%	596,201	672,391	76,190
ASIAN, NON-HISPANIC					
2005	11.2%	11.3%	1,390,905	1,402,955	12,050
2006	10.0%	10.1%	1,300,825	1,310,532	9,707
2007	10.2%	10.3%	1,322,097	1,340,820	18,723
2008	11.8%	12.0%	1,525,050	1,556,372	31,322
2009	12.4%	12.7%	1,831,593	1,869,084	37,491
2010	12.0%	12.2%	1,814,972	1,849,554	34,582
2011	12.2%	12.5%	1,867,605	1,923,357	55,752
2012	11.4%	11.9%	1,803,683	1,884,993	81,310
2013	10.3%	10.9%	1,721,800	1,811,866	90,066
2014	11.6%	12.1%	1,998,807	2,098,502	99,695
2015	11.5%	11.9%	2,031,988	2,109,847	77,859
2016	10.0%	10.6%	1,833,963	1,941,049	107,086
2017	10.1%	10.9%	1,901,745	2,063,130	161,385
2018	10.1%	10.7%	1,944,955	2,054,689	109,734
HAWAIIAN/PACIFIC ISLANDER, NON-HISPANIC					
2005	8.9%	8.9%	47,253	47,253	-
2006	11.5%	11.6%	71,933	72,755	822
2007	11.9%	12.1%	73,261	74,603	1,342
2008	18.4%	18.7%	138,137	140,865	2,728
2009	17.0%	17.1%	127,249	128,550	1,301
2010	22.1%	22.6%	195,733	199,904	4,171
2011	13.4%	13.7%	114,904	117,899	2,995
2012	16.2%	16.3%	149,688	151,330	1,642
2013	12.7%	13.8%	106,285	115,930	9,645
2014	21.9%	22.9%	215,074	224,600	9,526
2015	11.6%	13.9%	102,644	123,147	20,503
2016	17.6%	17.6%	183,333	184,107	774
2017	14.1%	15.7%	141,623	157,768	16,145
2018	8.8%	9.5%	84,476	91,394	6,918
MULTI-RACIAL, NON-HISPANIC					
2005	14.7%	14.7%	655,754	657,188	1,434
2006	14.5%	14.6%	620,423	625,181	4,758
2007	15.9%	15.9%	700,661	701,625	964
2008	15.8%	16.6%	724,247	761,085	36,838
2009	20.3%	20.5%	1,081,828	1,096,420	14,592
2010	18.6%	19.4%	1,034,743	1,077,796	43,053
2011	20.0%	20.5%	1,176,778	1,209,864	33,086
2012	17.8%	18.6%	1,033,582	1,080,343	46,761
2013	16.3%	16.9%	977,038	1,014,629	37,591
2014	16.1%	17.4%	934,619	1,006,644	72,025
2015	16.0%	16.6%	950,435	988,465	38,030
2016	15.2%	15.8%	940,857	971,896	31,039
2017	15.4%	16.9%	965,683	1,056,349	90,666
2018	13.8%	15.3%	908,302	1,008,860	100,558

TABLE 8. POVERTY RATES AND COUNTS BY GENDER

YEAR	OFFICIAL POVERTY RATE	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
FEMALE					
2005	14.0%	14.1%	20,963,914	21,073,819	109,905
2006	13.5%	13.7%	20,426,572	20,646,740	220,168
2007	13.8%	14.0%	20,942,453	21,304,269	361,816
2008	14.4%	14.8%	22,097,892	22,619,984	522,092
2009	15.6%	16.0%	24,236,526	24,812,768	576,242
2010	16.3%	16.7%	25,430,053	26,165,701	735,648
2011	16.3%	17.0%	25,716,669	26,716,858	1,000,189
2012	16.3%	17.1%	25,790,487	27,022,347	1,231,860
2013	15.8%	16.5%	25,159,453	26,251,750	1,092,297
2014	16.1%	16.9%	25,889,045	27,188,317	1,299,272
2015	14.8%	15.7%	24,086,431	25,438,067	1,351,636
2016	14.0%	15.0%	22,930,629	24,543,219	1,612,590
2017	13.6%	14.7%	22,333,097	24,228,707	1,895,610
2018	12.9%	14.0%	21,363,152	23,107,083	1,743,931
MALE					
2005	11.1%	11.1%	15,905,508	15,973,419	67,911
2006	11.0%	11.1%	15,955,657	16,145,959	190,302
2007	11.1%	11.4%	16,278,134	16,648,438	370,304
2008	12.0%	12.3%	17,683,044	18,105,702	422,658
2009	13.1%	13.4%	19,398,736	19,855,100	456,364
2010	13.9%	14.3%	20,870,352	21,453,538	583,186
2011	13.6%	14.1%	20,465,254	21,340,503	875,249
2012	13.6%	14.3%	20,638,289	21,745,374	1,107,085
2013	13.1%	13.7%	20,098,034	20,960,379	862,345
2014	13.4%	14.1%	20,648,542	21,780,966	1,132,424
2015	12.2%	13.0%	19,036,908	20,213,345	1,176,437
2016	11.3%	12.2%	17,685,527	19,051,380	1,365,853
2017	11.0%	12.0%	17,364,875	18,959,337	1,594,462
2018	10.6%	11.5%	16,782,473	18,261,428	1,478,955

TABLE 9. AVERAGE INCOME IN 2004 ADJUSTED USING THE CPI-U AND THE INCOME GROUP SPECIFIC INFLATION RATES FOR HIGHER AND LOWER INCOME HOUSEHOLDS

YEAR	Q1: AVERAGE INCOM IN \$2004 - CPI-U	Q1: AVERAGE INCOME IN \$2004 INCOME-SPECIFIC INFLATION	Q5: AVERAGE INCOME IN \$2004 - CPI-U
2004	\$6,644	\$6,644	\$92,595
2005	\$6,646	\$6,617	\$94,592
2006	\$6,887	\$6,829	\$96,261
2007	\$6,886	\$6,799	\$94,411
2008	\$6,549	\$6,439	\$92,076
2009	\$6,105	\$5,975	\$91,934
2010	\$5,798	\$5,651	\$90,380
2011	\$5,816	\$5,645	\$92,024
2012	\$5,855	\$5,657	\$91,934
2013	\$5,959	\$5,733	\$91,949
2014	\$5,804	\$5,560	\$94,936
2015	\$6,180	\$5,895	\$99,503
2016	\$6,412	\$6,089	\$103,515
2017	\$6,425	\$6,076	\$105,545
2018	\$6,584	\$6,199	\$108,012

**TABLE 10. PERCENT REDUCTION IN AVERAGE INCOME BETWEEN 2004 AND 2018
CPI AND INCOME SPECIFIC INFLATION**

INCOME QUINTILE	2004 INCOME IN \$2004	2018 INCOME IN \$2004 INCOME GROUP SPECIFIC INFLATION RATE	2018 INCOME IN \$2004 - CPI	PERCENT CHANGE IN REAL INCOME INCOME GROUP SPECIFIC INFLATION RATE	PERCENT CHANGE IN REAL INCOME - CPI
Income Quintile 1	\$6,644	\$6,199	\$6,584	-6.7%	-0.9%
Income Quintile 2	\$17,138	\$17,582	\$18,395	2.6%	7.3%
Income Quintile 3	\$28,039	\$29,751	\$30,662	6.1%	9.4%
Income Quintile 4	\$43,044	\$46,699	\$47,473	8.5%	10.3%
Income Quintile 5	\$92,595	\$108,012	\$108,012	16.6%	16.6%

TABLE 11. POVERTY RATES AND COUNTS - TWO VERSION OF INFLATION INEQUALITY

YEAR	OFFICIAL POVERTY RATE	INDIVIDUALS IN POVERTY UNDER THE OFFICIAL POVERTY LINE	INFLATION INEQUALITY MEASURE 1			INFLATION INEQUALITY MEASURE 2		
			POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE (VERSION 1)	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY	POVERTY RATE THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE (VERSION 2)	INDIVIDUALS IN POVERTY THRESHOLD ADJUSTED FOR HIGHER INFLATION RATE	COUNT OF ADDITIONAL INDIVIDUALS IN POVERTY
2005	12.6%	36,869,422	12.6%	37,047,238	177,816	12.7%	37,113,083	243,661
2006	12.3%	36,382,229	12.4%	36,792,699	410,470	12.5%	36,887,488	505,259
2007	12.5%	37,220,587	12.7%	37,952,707	732,120	12.8%	38,225,226	1,004,639
2008	13.2%	39,780,936	13.5%	40,725,686	944,750	13.7%	41,077,165	1,296,229
2009	14.4%	43,635,262	14.7%	44,667,868	1,032,606	14.8%	45,090,472	1,455,210
2010	15.1%	46,300,405	15.6%	47,619,239	1,318,834	15.8%	48,481,132	2,180,727
2011	15.0%	46,181,923	15.6%	48,057,361	1,875,438	15.8%	48,740,086	2,558,163
2012	15.0%	46,428,776	15.7%	48,767,721	2,338,945	16.0%	49,766,066	3,337,290
2013	14.5%	45,257,487	15.1%	47,212,129	1,954,642	15.5%	48,376,643	3,119,156
2014	14.7%	46,537,587	15.5%	48,969,283	2,431,696	16.0%	50,606,183	4,068,596
2015	13.5%	43,123,339	14.3%	45,651,412	2,528,073	14.8%	47,101,759	3,978,420
2016	12.7%	40,616,156	13.6%	43,594,599	2,978,443	13.9%	44,608,154	3,991,998
2017	12.3%	39,697,972	13.4%	43,188,044	3,490,072	13.8%	44,433,874	4,735,902
2018	11.8%	38,145,625	12.8%	41,368,511	3,222,886	13.2%	42,781,472	4,635,847

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