

# **Incomes, Costs, and the Middle Class: Examining Income Inequality in California between 2010 and 2019**

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## Executive Summary

Despite healthy economic growth and an expansive social safety net, California continues to suffer from an alarmingly high level of income inequality. Especially in light of the COVID-19 pandemic, which has disproportionately hurt low-income Californians, the socioeconomic implications of income inequality have never seemed more pertinent.

Leveraging census and real estate data between 2010 and 2019, we seek to paint a more holistic picture of inequality in California than is currently offered by the literature. Defining the middle class as all households with incomes between two-thirds and two-times the inflation-adjusted median income in the state or in any given county, we study income inequality by analyzing how the share of households accounted for by the middle class changed year-to-year. Using median home sales prices as a proxy for costs, we then compare income growth against home price growth on both a state and county level.

Our results show that the size of the middle class has stayed relatively constant on both a statewide level and in the Bay Area, with few exceptions. Although the share of households in the middle class has not varied substantially, our findings demonstrate that home price growth outpaced income growth in nearly every county, as well as in California at large. This is especially true in the Bay Area, as four of the ten counties with the highest discrepancy between price growth and income growth are found in the region.

With these findings in mind, we propose five targeted policy solutions to help combat income inequality and alleviate the burden on low-income families. First, we discuss wealth taxes, which would hold ultra-rich individuals to a similar tax burden as those in the middle class. We then suggest the implementation of wage transparency laws to address the growing concern that low-wage workers are not aware they are underpaid. Wage transparency, enacted at the company level and as a statewide regulation, may provide workers with the information necessary to petition for higher pay. Third, we consider living wage laws, which we advise should be set on a county level. Since metrics used to calculate minimum wages vary substantially by county or city, a more localized approach to wage floors that allows families to meet basic needs could yield substantial benefits for the middle class. Next, we endorse greater levels of investment in public transportation, focusing primarily on public bus systems to best serve the needs of low-income households. Finally, we turn to a capital gains tax on real estate. Given that rising housing costs may be a byproduct of “house flipping” for a profit, a capital gains tax may help discourage this practice.

However, our policy recommendations merely provide a starting point. With the livelihoods of millions of Californians at stake, practitioners must work to enact far-reaching changes across the policy landscape, from the education system to corporate regulations.

## Introduction

The state of income inequality is striking. Today, the richest 10% of the global population takes home 52% of total global income, while the poorest 50% earns only 8.5%.<sup>1</sup> Over the last 30 years, progress on income inequality globally has stagnated as two divergent trends emerged. Inequality between countries shrank over the last two decades as low- and middle-income countries, largely in Asia, underwent economic transitions. However, over the same period, income inequality within countries has almost doubled. Income inequality varies regionally, with the most extreme inequality in the Middle East/North Africa and the greatest equality in Europe.<sup>2</sup> The US is notable among wealthy countries because of its high level of income inequality—the top 10% of earners hold 45% of the national income, while in Europe, the top 10% hold only 35%.<sup>3</sup>

Income inequality signals a systemic lack of economic mobility and opportunity for the poor. As a society that claims to value fairness, growing income inequality remains an obvious barrier to achieving equality. Moreover, it concentrates disproportionate power in the hands of a few and leads to political and economic instability. Income inequality is linked to loss of trust in institutions and the erosion of social cohesion. Inequality also affects the pace of poverty reduction. Rather than accelerating a “trickle-down” effect, economic growth in countries with high income inequality makes poverty reduction less efficient because a larger proportion of growth serves the rich.

Income inequality exacerbates disadvantage along other dimensions as well. Women and racial and ethnic minorities are more likely to live in poverty and face the consequences of income inequality. Globally, women earned only 34.7% of income in 2020, with the share of income earned by women growing only by 4.1% since 1990.<sup>4</sup> In North America, women still earn less than 40% of the national income.<sup>5</sup> In 2016, the threshold for the top 10% of earners was \$60,502 for Black Americans and \$76,847 for Latino Americans, compared to \$117,986 for White Americans.<sup>6</sup> The 2019 poverty rate for Black and Indigenous women in the United States was triple that of White men.<sup>7</sup>

Given the severe ethical, social, and economic ramifications of income inequality in the modern day, it is troubling that California remains one of the most notoriously unequal states in America. California has enjoyed robust economic growth in recent years and currently boasts the

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<sup>1</sup> <https://wid.world/news-article/2020-regional-updates/>

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> <https://wid.world/news-article/world-inequality-report-2022/>

<sup>5</sup> Ibid.

<sup>6</sup> <https://wid.world/news-article/2020-regional-updates/>

<sup>7</sup> <https://www.americanprogress.org/article/basic-facts-women-poverty/>

largest economy of any US state.<sup>8</sup> However, with a Gini index of 0.487 in 2019, California has the fifth highest level of inequality of all US states.<sup>9</sup> Before factoring in the effects of taxes and safety net programs, Californian families in the 90th percentile of the income distribution have an unfathomable 12.3 times the income of families in the 10th percentile.<sup>10</sup> Research suggests that the immense gap between the rich and poor in California is driven primarily by disproportionate gains for California's most affluent families: Incomes for families in the 90th percentile have increased by 60% since 1980, while incomes at the 50th percentile and 10th percentile have grown by 24% and 20% over the same time frame, respectively.<sup>11</sup> The state's residents continue to voice their concerns about the status quo, with 63% of Californians believing that the state is divided into the "haves" and the "have nots" and 52% saying that the government ought to do more to ensure that all Californians have an equal opportunity to get ahead in the 2019 PPIC Statewide Survey.<sup>12</sup>

A plethora of policy issues ranging from the criminal justice system to education contribute to income inequality on the state level, but housing warrants special attention in this discussion. California's lack of affordable housing has been well-documented, with the median home price in the state now exceeding \$500,000.<sup>13</sup> Prices are being driven to exorbitant levels in large part due to a dearth of housing supply: A minimum of 3.5 million new housing units would be required to simply satisfy projected demand.<sup>14</sup> With less-affluent households spending increasingly large portions of their incomes on housing and many being priced out of the market altogether, housing plays a key role in fueling the gap between the rich and poor.

The COVID-19 pandemic has brought income inequality back to the forefront of the national discourse, forcing policymakers to quickly adapt to a new normal. In California, three of the last four recessions exacerbated income inequality, with the only exception being the bursting of the dot-com bubble—researchers are currently sifting through employment and survey data to determine if the pandemic had a similar impact.<sup>15</sup> The early results paint a dreary image: Low-income families, many of whom only recently recovered from the effects of the Great Recession, have faced larger increases in unemployment than their high- and middle-income counterparts.<sup>16</sup> The pandemic has also engendered a number of other noteworthy state-wide trends. For instance, throughout the past two years, California has seen fewer entrances from and increased exits to other parts of the US.<sup>17</sup> In addition, a work-from-home economy brought about what some consider to be a 'donut effect,' with individuals moving from the urban center of

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<sup>8</sup> <https://www.cato.org/study/overview-poverty-inequality-california>

<sup>9</sup> [https://www.thecentersquare.com/california/how-income-inequality-in-california-compares-to-other-states/article\\_9824c5c2-f033-5511-9509-d695efb409f9.html](https://www.thecentersquare.com/california/how-income-inequality-in-california-compares-to-other-states/article_9824c5c2-f033-5511-9509-d695efb409f9.html).

<sup>10</sup> <https://www.ppic.org/publication/income-inequality-in-california/>

<sup>11</sup> Ibid.

<sup>12</sup> <https://www.ppic.org/wp-content/uploads/ppic-statewide-survey-californians-and-their-government-may-2021.pdf>

<sup>13</sup> <https://www.cato.org/study/overview-poverty-inequality-california>

<sup>14</sup> Ibid.

<sup>15</sup> <https://calmatters.org/california-divide/ca-divide-economic-inequality/2022/02/california-income-inequality/>

<sup>16</sup> <https://www.ppic.org/publication/income-inequality-and-economic-opportunity-in-california/>

<sup>17</sup> <https://www.capolicylab.org/pandemic-patterns-california-is-seeing-fewer-entrances-and-more-exits-april-2022-update/#:~:text=All%20regions%20of%20California%20saw,lower%20than%20in%20Q1%202020.>

cities into surrounding suburbs.<sup>18</sup> Depending on who exhibits these migration patterns, these phenomena may have significant implications for the middle class in the Bay Area.

While income inequality on the state level already raises countless red flags for academics and policymakers alike, the situation may be even more dire in the Bay Area, where income inequality is often regarded as the highest among all regions in California. Incomes in the Bay Area are significantly higher than in the rest of the state, driving much of California's inequality.<sup>19</sup> Like the rest of the state, there are clear patterns of racial or sub-regional disparities, but as previous research from the Bay Area Council suggests, much of the inequality in the Bay Area can be traced to its high concentration of skilled workers, especially in the tech and entrepreneurial sectors.<sup>20</sup>

This is perhaps most apparent in the unequal recovery from the COVID-19 pandemic: In Silicon Valley, for example, unemployment had recovered to pre-pandemic levels by mid-2021. While tech employment has increased by 4% compared to pre-pandemic levels, employment is still far below pre-pandemic levels in industries such as retail and restaurants.<sup>21</sup> Inequality in the Bay Area is also amplified by its exceptionally high cost of housing: Its three main cities are among the five most expensive in the country to rent a home. The inability to afford housing has not only fueled inequality, but has also further driven the displacement of disadvantaged households who can no longer afford to live in their original locations, making segregation and intra-region inequality ever apparent.<sup>22</sup>

One of the primary tools policymakers in the Bay Area have employed to address inequality is minimum wage laws. With the state's minimum wage for businesses with 26 or more employees increasing to \$15 this year, multiple Bay Area localities increased their respective minimum wages to more than the state minimum to match the region's higher cost of living.<sup>23</sup> Policymakers have also attempted to attack land use restrictions so that affordable multi-family housing units can be built close to where workers are employed. The Housing Element and Regional Housing Needs Allocation, for example, attempts to balance affordable housing units with low-wage jobs while simultaneously balancing disproportionate household income distributions.<sup>24</sup> Meanwhile, a regional transportation plan aims to create an efficient transportation network in the Bay Area while optimizing land use to enable appropriate housing to be built near transit centers.<sup>25</sup>

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<sup>18</sup> <https://www.nber.org/papers/w28876>

<sup>19</sup> <https://www.ppic.org/publication/income-inequality-in-california/>

<sup>20</sup> [http://www.bayareaeconomy.org/wp-content/uploads/2021/03/Income-Inequality\\_3.10.21.pdf](http://www.bayareaeconomy.org/wp-content/uploads/2021/03/Income-Inequality_3.10.21.pdf).

<sup>21</sup> <https://jointventure.org/images/stories/pdf/index2022.pdf>

<sup>22</sup> <https://doi.org/10.1177/1095796016682018>

<sup>23</sup> <https://www.mercurynews.com/2021/12/31/a-slew-of-bay-area-cities-will-increase-minimum-wages-in-2022>.

<sup>24</sup> <https://abag.ca.gov/our-work/housing/rhna-regional-housing-needs-allocation>.

<sup>25</sup> <https://mtc.ca.gov/planning/long-range-planning/plan-bay-area-2040>.

The Bay Area and other regions of California often receive scrutiny for having high median household incomes and, thus, high levels of income for the middle class.<sup>26</sup> Politically-charged headlines are frequent enough, but there is a lack of data-driven information on how the middle class has fared over time, which is crucial to investigate in order to gain a better understanding of inequality on both the county and state levels. Are median incomes keeping up with costs? Is the middle class growing at a rate on par with the upper and lower classes? How have contemporary political and economic events contributed to any changes?

With these questions in mind, we present the findings of our analysis of 2010-2019 data on home prices and household incomes in California and the Bay Area. Section I of this report offers an overview of our empirical approach and our main takeaways on the state level. Next, Section II surveys existing techniques used by policymakers to combat income inequality, and Section III offers policy recommendations that could aid Californian practitioners moving forward. Section IV concludes our report by pondering the future of income inequality in California and offering directions for future research. Given that Section II is limited solely to state-wide trends and analysis for the sake of brevity, our Appendix analyzes data from each of the 34 largest counties in California.

## **Section I: Data Analysis**

### *Methodology*

We performed our data analysis with two key objectives in mind. First, we hoped to determine how the sizes of the lower, middle, and upper classes have changed over the past decade in California. The middle class was the focus of much of our analysis, as a large and burgeoning middle class is typically an indicator of low levels of inequality. Second, we aimed to gauge how quickly incomes and costs were growing in California, both on the county level and the state level. Understanding whether income growth outpaced cost growth would give us a better sense of the role that costs played in driving inequality while simultaneously illuminating which parts of the state have been most affordable for the median income household in the recent past.

Before diving into the data, we needed to answer one fundamental question: What is the middle class? Dr. Janet Gornick, the Director of the Stone Center on Socioeconomic Inequality, explains that this question is more complex than it seems at first glance, as there is no standard definition of the middle class used in either academia or policymaking.<sup>27</sup> Gornick mentions that family structure, education, or occupation are sometimes used to define the middle class, but in her recent study on income inequality, her definition revolves around income. At a high level, her

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<sup>26</sup> <https://thebolditalic.com/a-300-000-salary-makes-you-a-struggling-middle-class-san-francisco-6e73248d1064>

<sup>27</sup> <https://stonecenter.gc.cuny.edu/the-u-s-middle-class-isnt-shrinking-but-it-is-getting-squeezed-as-inequality-rises/>

approach implies that households with incomes in the middle of the income distribution belong to the middle class, a relatively common definition. The Pew Research Center’s method of defining the middle class is similar to Gornick’s: Their 2021 analysis classifies individuals with an annual household income of two-thirds to double the 2020 national median income as middle-income.<sup>28</sup> While other definitions rely on fixed percentiles of the income distribution,<sup>29</sup> Pew and Gornick’s definitions allow the share of households in the middle class to fluctuate, which is crucial for our analysis of income inequality. Given the merits of Pew’s approach, we chose to adopt their middle-class definition as well: For any particular county or for the entire state, we defined the middle class as the range of households with incomes between 67% and 200% of the inflation-adjusted median income in a given year.

The reasoning behind studying the size of the middle class also briefly warrants further explanation. Gornick notes that the relatively small middle class size in the US in comparison to other industrialized countries is intimately related to high levels of inequality.<sup>30</sup> Since incomes in the middle of the income distribution define the middle class, a smaller middle class would consequently translate to a larger share of poor households, a larger share of wealthy households, or both—the size of the middle class is therefore a measure of inequality in of itself.

After establishing how we would define the middle class, we proceeded to our data analysis. Our process relied on three primary data sources. First, we leveraged the Integrated Public Use Microdata Series (IPUMS) to obtain 10 continuous years of 1-year American Community Survey (ACS) data. The data was then weighted—the dataset composed of all 10 years of data includes the year, county, household income, and the number of households after weighting. Note that we only analyzed data for the 34 largest counties in California: Counties with fewer than 65,000 residents were excluded from our analysis due to ACS data limitations, but none of these excluded counties were in the Bay Area. Moreover, we wanted to perform some analysis on the state level as well, so we utilized another ACS dataset mirroring the county-level data but representing California as a whole without county-level detail. Second, we collected data from the California Association of Realtors on median sales price for existing single-family detached homes by month from 2010 to 2019. We again limited our analysis to only the largest 34 counties along with the state total, but data for Imperial County was unavailable and therefore excluded. Third, we turned to the Bureau of Labor Statistics’ Consumer Price Index (CPI) data for all urban consumers to acquire all US inflation adjustment factors over the last decade. We adjusted all dollar values in the aforementioned datasets to 2020 dollars by applying the relevant adjustment factor for each year.

We began analyzing income data from IPUMS by calculating median household incomes at both the county and state levels. To do so, we dropped missing or negative incomes and

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<sup>28</sup> <https://www.pewresearch.org/fact-tank/2022/04/20/how-the-american-middle-class-has-changed-in-the-past-five-decades/>

<sup>29</sup> <https://www.brookings.edu/interactives/a-dozen-ways-to-be-middle-class/>

<sup>30</sup> <https://stonecenter.gc.cuny.edu/the-u-s-middle-class-isnt-shrinking-but-it-is-getting-squeezed-as-inequality-rises/>

prevented double-counting within households before generating the medians using the included weights. Next, we adjusted all median income values for inflation and calculated the 67% to 200% range used to define the middle class. From here, we could simply use the data on the total number of households to quantify changes in the size of the middle class over time.

As for our analysis of costs, we used median home sales prices as a proxy for costs, allowing us to compare income growth and cost growth at the county and state levels. To avoid the effects of seasonal home price fluctuations and maintain consistency over time, we selected May as the “typical” month per year to represent the annual median home price—we could then analyze changes in prices over time relative to a May 2010 baseline. Finally, to determine whether income growth outpaced home price growth, we performed a simple percentage change calculation from 2010 to 2019 involving both median home prices and median household incomes.

The following section offers an overview of our primary findings. Note that most of our county-level analysis is located in the Appendix—this section will primarily focus on state-level trends to spotlight the most important takeaways.

### *Findings*

**Figure 1**

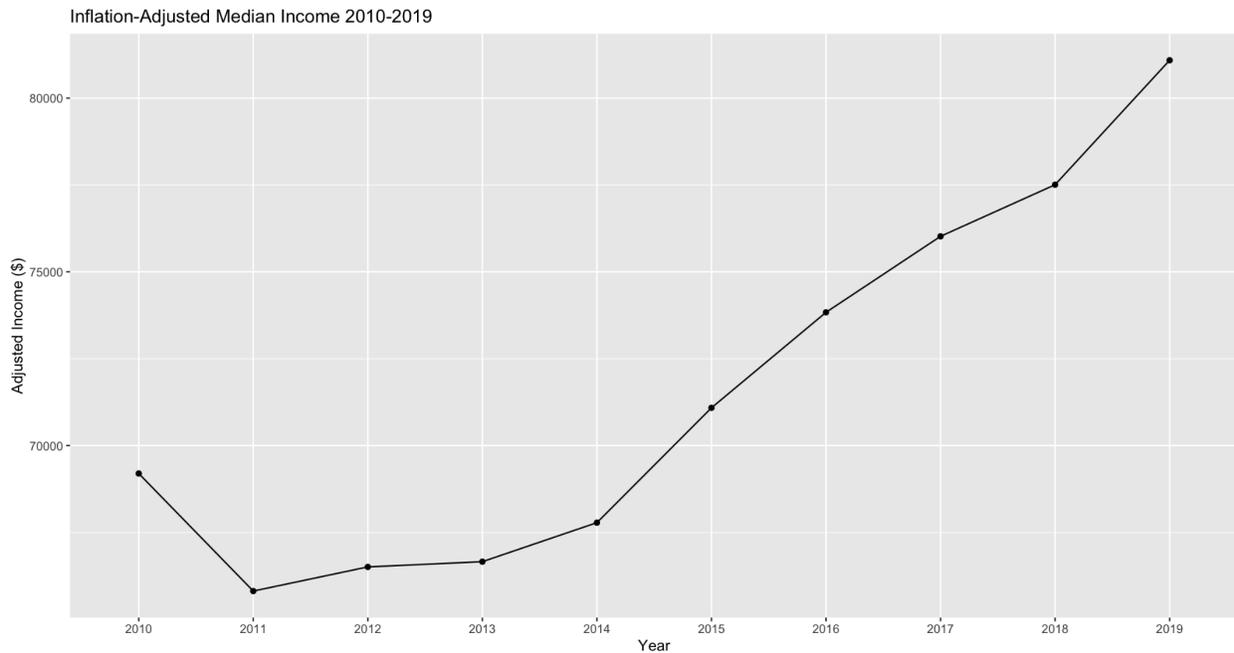
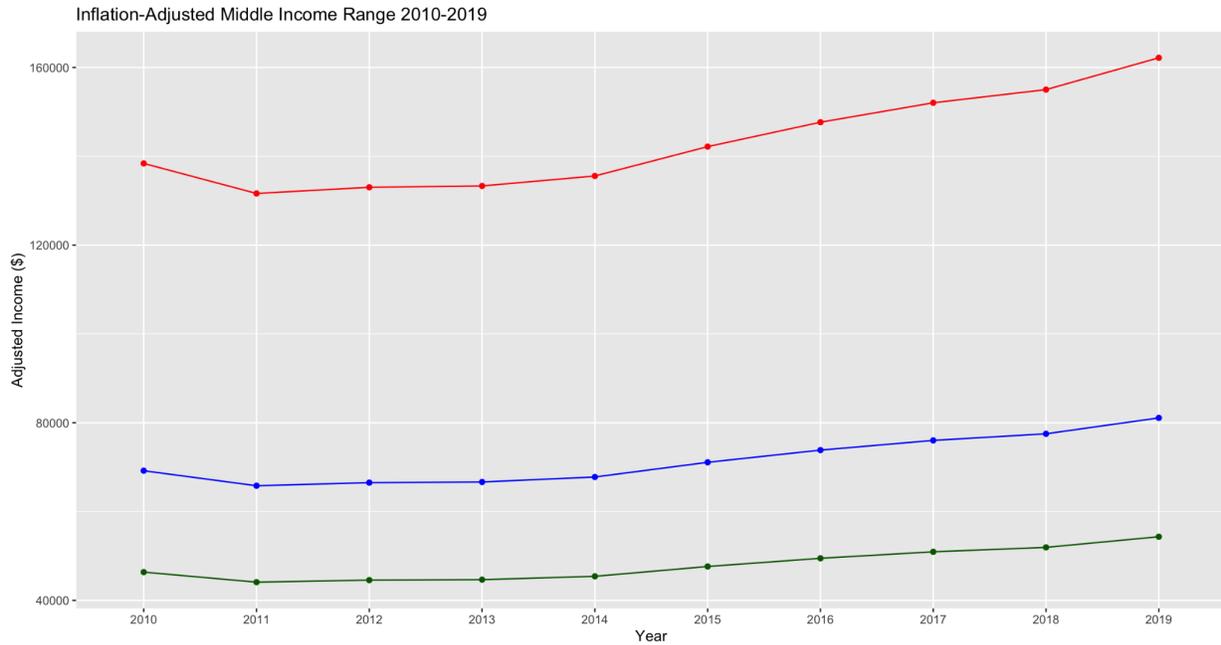


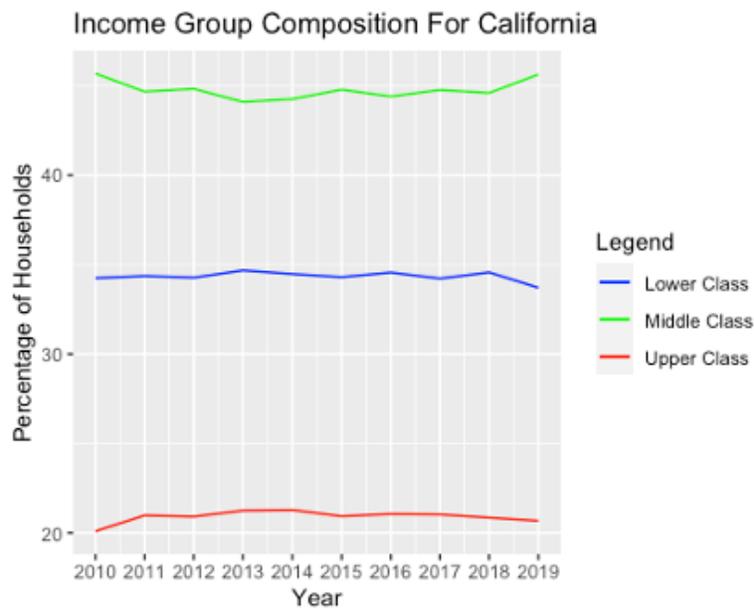
Figure 1 above depicts the state-wide trend in median household incomes from 2010 to 2019, adjusted to 2020 dollars. Viewed holistically, the median Californian household has

enjoyed an increase in income over the last decade, a trend that was likely fueled by robust economic growth on both the state and national levels. All years with the exception of 2011, when California was still reeling from the effects of the Great Recession, saw positive growth in median income. The increase in incomes was most notable from 2014 to 2019, with the largest one-year uptick taking place between 2018 and 2019, when median household incomes increased from \$77,500 to just over \$81,000.

**Figure 2**



**Figure 3**



Using our middle-class definition and the trend in median household income outlined above, we constructed Figure 2, which shows changes in the middle-income *range*, and Figure 3, which depicts changes in the *size* of the middle class.

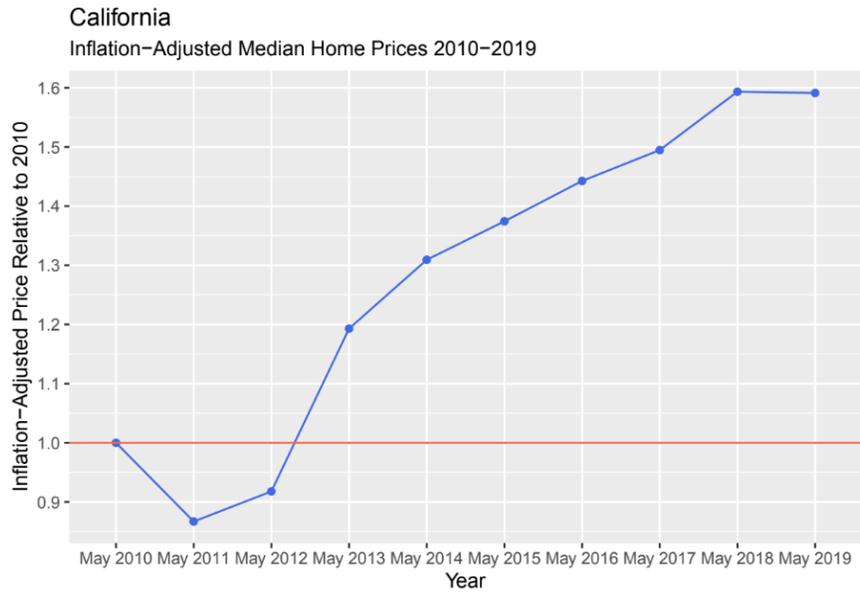
In Figure 2, the blue line captures the state-wide trend in median household incomes while the green and red lines represent the boundaries of the middle class in each year (67% and 200% of the median values, respectively). With the exception of the span between 2010 and 2011, the middle income range expanded annually, with the rate of expansion accelerating beginning in 2014. The largest increases in the middle income range occurred between 2014 and 2015 and between 2018 and 2019. By virtue of having the highest median income, 2019 featured the largest middle-income range (\$107,847.32); in a similar vein, 2011 exhibited the smallest middle-income range (\$87,531.76) as a byproduct of having the lowest median income.

Figure 3 indicates that the percentage of households in the lower, middle, and upper classes have remained relatively stable from 2010 to 2019. The share of households in the middle class consistently remained between 44% and 46% throughout the ten-year period, peaking in 2010 at 45.68% and reaching a trough in 2013 at 44.09%. With the share of households in the lower and upper classes fluctuating by only a few percentage points over the ten-year span as well, the trends suggest that inequality may not have changed significantly during this period. Finding that the size of the middle class in California has stayed roughly the same for the past decade should not come as much of a surprise. Pew Research's recent analysis of government data, which uses the same definition of the middle class as this report, found that the share of American adults living in middle-class households has remained virtually unchanged over the last decade.<sup>31</sup> Our analysis signals that California's middle class mirrors that of America as a whole.

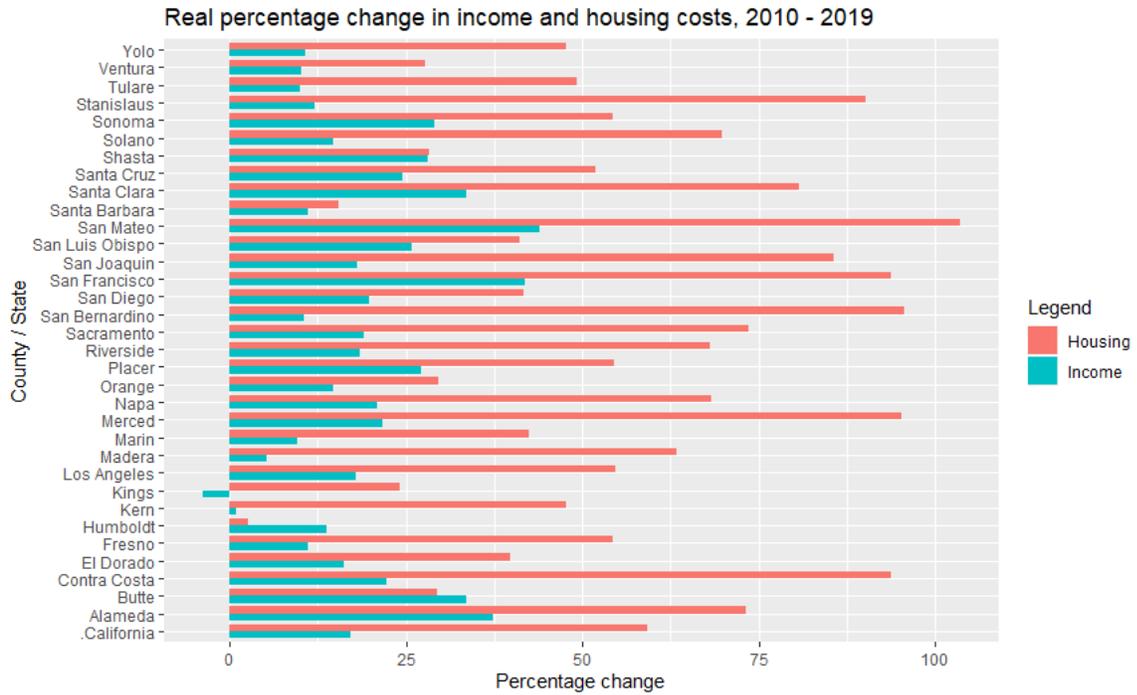
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<sup>31</sup> <https://www.pewresearch.org/fact-tank/2022/04/20/how-the-american-middle-class-has-changed-in-the-past-five-decades/>

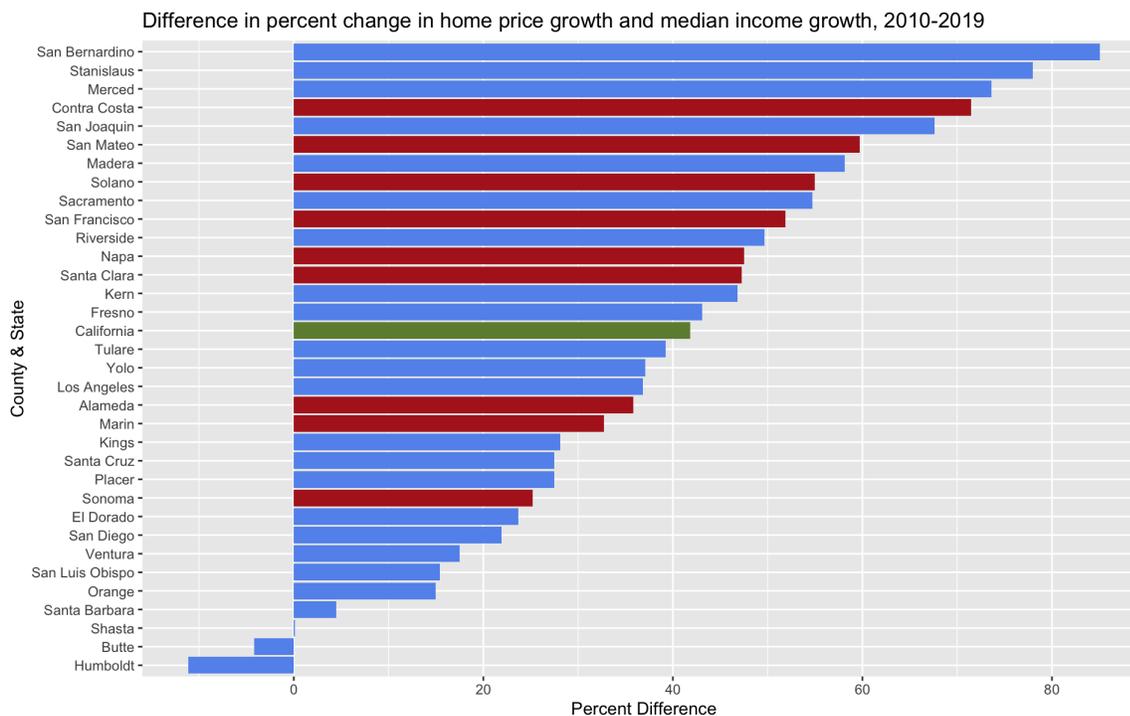
**Figure 4**



**Figure 5**



**Figure 6**



While the implications of Figure 3 are certainly interesting, our analysis has not yet factored in the impact of costs on inequality. Incorporating the data on median home sales prices into our analysis yielded Figures 4, 5, and 6 above. Even with the size of the middle class staying relatively stable, these figures demonstrate that there is much more to consider when assessing the state of income inequality in California.

Figure 4 depicts how median home prices in 2020 dollars have changed over the last decade relative to a May 2010 baseline (which is represented in red in the graph). A value of 1.2 in a given year would therefore imply that the median home sold for 1.2 times as much in that year as the median home would have in 2010. Home prices rose for much of this period, with the median home in 2018 and 2019 selling for nearly 1.6 times what it would have fetched on the open market in 2010. Prices likely soared due to competition for limited housing: For years, developers in the state have not constructed enough housing to meet surging demand, effectively driving housing costs through the roof.<sup>32</sup> However, with the impact of the 2008 housing market crash still reverberating through the Californian economy, prices did fall from 2010 to 2011 and remained below 2010 levels in 2012.

With both median income and median home sales prices calculated for every year throughout the decade, we could then compare income growth against home price growth. Using

<sup>32</sup><https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.aspx#:~:text=First%20and%20foremost%2C%20far%20less,driving%20up%20prices%20there%20too>

simple percentage change calculations with only 2010 and 2019 values, we produced Figure 5, which compares income growth against home price growth for each county along with the entire state, and Figure 6, which plots the difference between price growth and income growth in percentage terms. The results are concerning: For the state and for all counties but two (Butte County and Humboldt County), home price growth far outpaced income growth. At the state level, the median home sales price grew by a whopping 59.13% while median household incomes grew by only 17.19% over the same period. Perhaps even more concerning, the Bay Area housed many of the counties where income growth trailed price growth most significantly. Figure 6 marks the Bay Area counties in red: As it illustrates, of the counties we analyzed, four of the ten counties where price growth exceeded income growth by the largest margin were in the Bay Area. Most strikingly, home price growth was a staggering 71.45% higher than income growth in Contra Costa and 59.74% higher in San Mateo.

To see more precise estimates of the size of the middle class, the middle class range, and the comparisons between income growth and home price growth over the course of the last decade, please refer to the “Additional State-Wide Tables” section of the Appendix.

## **Section II: Current Efforts to Combat Income Inequality**

As the data illustrates, income inequality remains a pressing issue in California. Although the size of the middle class has largely remained stable over the course of the last ten years, cost growth seems to be outpacing income growth, a dangerous trend for low- and middle-income households that spend disproportionately large portions of their income on housing. In this section, we detail the current policy landscape in California and identify what the state can do better to handle income inequality.

### *Current Policy Landscape*

California’s efforts to combat income inequality take on a number of forms. Many safety net programs in the state aim to put cash in the hands of those who need it the most. For instance, the California Work Opportunity and Responsibility to Kids program, or CalWORKs, provides direct cash aid to low-income families raising children. In 2016-17, California used \$2.8 billion from state and local funding sources, along with \$2.4 billion of federal funding, to provide almost 460,000 families with CalWORKs assistance each month.<sup>33</sup> The program has proven to be quite effective over the years: CalWORKs has slashed child poverty rates in the state by 2.3%, and research suggests that without CalWORKs, 439,200 more Californians would be in poverty.<sup>34</sup> Beyond CalWORKs, Californians in need can also turn to General Assistance and General Relief (GA/GR), which offer cash aid to adults who have no sources of support, little

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<sup>33</sup> <https://lao.ca.gov/publications/report/3702>

<sup>34</sup> <https://www.ppic.org/publication/the-calworks-program/>

money, and no relief from other assistance programs.<sup>35</sup> Moreover, the federal Supplemental Security Income (SSI) program provides monthly payments to blind, elderly, and disabled Americans who have limited income and support.<sup>36</sup> California strengthens the federal government's efforts through the State Supplementary Payment (SSP) Program, which gives SSI recipients an additional state payment beyond their federal SSI benefits.<sup>37</sup>

Non-cash assistance plays a key role in California's social safety net as well. For one, the Supplemental Nutrition Assistance Program (SNAP) is the federal government's primary food assistance program for low-income Americans. Every state implements its own version of SNAP using funds from the US Department of Agriculture (USDA)—California's version is called CalFresh.<sup>38</sup> With grocery stores and food outlets across the state accepting CalFresh benefits, the impact of the program cannot be understated. Roughly 4.1 million Californians were receiving an average of \$123 in CalFresh benefits monthly in early 2020, prior to the onset of COVID-19 lockdowns.<sup>39</sup> In the absence of CalFresh, 700,000 more Californians would be in poverty.<sup>40</sup> While CalFresh is California's largest federally-funded food assistance program, it works in tandem with the subsidized school meal programs and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the second and third largest programs, respectively.<sup>41</sup> The main school meals programs in the state are the National School Lunch Program (NSLP) and the School Breakfast Program (SBP), which are both federally-funded and are overseen by the USDA on the national level, but are administered by the California Department of Education (CDE) in California.<sup>42,43</sup> Both programs must be open to all students enrolled in participating schools, with free or reduced price meals being offered to children who meet specific income and family size standards. All schools participating in the programs are reimbursed by both the federal and state governments based on the number of meals they serve. In FY 2019, Californian schools and institutions served school lunches to over 3.1 million students each day and school breakfasts to nearly 1.7 million students each day.<sup>44</sup> More recently, California has taken an ambitious step to build on its existing school meals programs by enacting a Universal Meals Program that will provide nutritious breakfasts and lunches to all students regardless of financial need starting in School Year 2022-23.<sup>45</sup> As for WIC, California's \$1.1 billion program is administered on the state level by the California Department of Public Health's Women, Infants, and Children Division.<sup>46</sup> Aiming to deliver food assistance and

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<sup>35</sup> <https://roadmap.rootandrebond.org/public-benefits/basic-needs-cash-benefits/general-assistance-general-relief-ga-gr/>

<sup>36</sup> <https://www.ssa.gov/pubs/EN-05-11125.pdf>

<sup>37</sup> <https://www.cdss.ca.gov/inforesources/ssi-ssp>

<sup>38</sup> <https://cuesa.org/article/10-things-know-about-cal-fresh>

<sup>39</sup> <https://www.ppic.org/publication/the-cal-fresh-food-assistance-program/>

<sup>40</sup> Ibid.

<sup>41</sup> [https://www.cdph.ca.gov/Programs/CFH/DWICSN/CDPH%20Document%20Library/AboutWIC/CDPHWICDivision/StatePublicationsandDocuments/FY2021-22\\_WICNovEstimate.pdf](https://www.cdph.ca.gov/Programs/CFH/DWICSN/CDPH%20Document%20Library/AboutWIC/CDPHWICDivision/StatePublicationsandDocuments/FY2021-22_WICNovEstimate.pdf)

<sup>42</sup> <https://www.cde.ca.gov/ls/nu/sn/nslp.asp>

<sup>43</sup> <https://www.cde.ca.gov/ls/nu/sn/sbp.asp>

<sup>44</sup> <https://www.fns.usda.gov/pd/child-nutrition-tables>

<sup>45</sup> [https://www.cde.ca.gov/ls/nu/sn/cauniversalmeals.asp#:~:text=Beginning%20in%20School%20Year%20\(SY,Program%20\(NSLP\)%20and%20School%20Breakfast](https://www.cde.ca.gov/ls/nu/sn/cauniversalmeals.asp#:~:text=Beginning%20in%20School%20Year%20(SY,Program%20(NSLP)%20and%20School%20Breakfast)

<sup>46</sup> [https://www.cdph.ca.gov/Programs/CFH/DWICSN/CDPH%20Document%20Library/AboutWIC/CDPHWICDivision/StatePublicationsandDocuments/FY2021-22\\_WICNovEstimate.pdf](https://www.cdph.ca.gov/Programs/CFH/DWICSN/CDPH%20Document%20Library/AboutWIC/CDPHWICDivision/StatePublicationsandDocuments/FY2021-22_WICNovEstimate.pdf)

nutrition services to pregnant women, infants, and young children who are at nutritional risk, WIC continues to leave its mark on the community, serving roughly 870,000 low-income Californians each month in 2019-20.<sup>47</sup>

Still other safety net programs are tax-based. The federal and state Earned Income Tax Credit (EITC and CalEITC), for instance, benefit low-income families by decreasing the taxes they owe and by extending tax refunds to those who do not owe taxes.<sup>48</sup> 3 million tax filers received an average of \$2400 in federal EITC in 2015, and of these filers, almost 400,000 received an additional \$520 on average from the CalEITC.<sup>49</sup> With total benefits standing at \$340 million, CalEITC ranks among the largest safety net programs in terms of total expenditure.<sup>50</sup> The success of all the aforementioned programs in alleviating poverty is well-documented, but their impact on income inequality has been just as profound. Research conducted by the PPIC finds that families in the 90th percentile of the income distribution have incomes that are 13.5 times as large as the incomes of families in the 10th percentile after accounting for income and payroll taxes but before factoring in social safety net resources.<sup>51</sup> However, once safety net resources are taken into account (food assistance programs, CalWORKs, GA, SSI, tax credits, and rental housing assistance), the top incomes are only 8.1 times as large as the bottom incomes, implying a 40.1 percent reduction in inequality.

While safety net policies constitute the bulk of California's efforts to reduce inequality by total expenditure, there are other, more directed initiatives that are worth analyzing. Namely, the "California Policy Model," a package of 51 policies implemented between 2011 and 2016 under Governor Jerry Brown, significantly increased the government's role in mitigating income inequality.<sup>52</sup> This set of policies included state minimum wage hikes, expanded healthcare eligibility, and increased corporate and high-earner taxes. Workers' rights policies constituted the majority of legislation in the California Policy Model passed each year; the second most common policies fell under the umbrella of environmental legislation.<sup>53</sup> The Berkeley Labor Center compared economic growth in California against that of Republican-controlled states from 2011 to 2016 and found that California's GDP grew by 17.2 percent versus Republican states' average growth rate of 9.8 percent.<sup>54</sup> Prior to the pandemic, the percentage of income held by lowest decile earners was increasing;<sup>55</sup> however, the pandemic likely interrupted this progress significantly.

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<sup>47</sup> Ibid.

<sup>48</sup> <https://www.ppic.org/publication/earned-income-tax-credits-in-california/#:~:text=Earned%20Income%20Tax%20Credits%20are,a%20total%20of%20%24200%20million>

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> <https://www.ppic.org/publication/income-inequality-and-the-safety-net-in-california/>

<sup>52</sup> <https://laborcenter.berkeley.edu/california-is-working/#:~:text=Labeled%20%E2%80%9Cthe%20California%20Policy%20Model,on%20high%20earners%20and%20corporations>

<sup>53</sup> Ibid.

<sup>54</sup> Ibid.

<sup>55</sup> <https://www.cato.org/study/overview-poverty-inequality-california>

Yet, despite California’s sincere efforts to mitigate inequality, a lot of progress remains unrealized. Income inequality remains high—the top 20 percent of income earners hold 52 percent of all income earned in California.<sup>56</sup> California’s consistently high inequality relative to other states warrants further discussion and motivates the examination of alternative policy options.

### *Lessons Learned from Other States and Countries*

Analyzing other states and countries’ responses to income inequality can reveal important insights about where California has room for improvement. Texas, for instance, takes a much more limited-government approach than does California: Measured using per-resident spending and revenue figures, California’s state and local governments are more than 60 percent larger than those in Texas.<sup>57</sup> California spends around twice as much as Texas does on Medicaid and other healthcare expenditures, public safety, environment, housing, and employee retirement programs.<sup>58</sup> The results of this spending are mixed. On one hand, the proportion of Californians without medical insurance is under half the proportion of Texans, and California’s life expectancy is over two years greater than its southern counterpart.<sup>59</sup> On the other hand, spending per K-12 student is significantly higher in California than in Texas (\$13,129 versus \$10,025), but high school graduation rates stand at 90 percent in Texas in comparison to just 85 percent in California.<sup>60</sup> On crime and public safety, however, we see little variation between the two states—violent crime rates are slightly higher in California, while property crime and homicide are slightly more common in Texas.<sup>61</sup> The insight here is certainly not that Texas’s model is better than California’s per se, but that the overwhelmingly higher rates of government spending across the board in California are, somewhat surprisingly, only reflected in better outcomes in some areas when compared to Texas and not in others. Carefully re-evaluating policies where we do not see these outcomes could potentially help improve California’s efforts to mitigate income inequality.

While a comparison to Texas serves as an example with limited government intervention, looking abroad to Nordic countries, which have some of the lowest Gini coefficient values in the world, can highlight the effectiveness of a big-government approach. In Norway, Finland, Sweden, and Denmark, public spending makes up over 50% of GDP, compared to around 40% in the United States.<sup>62</sup> Such public spending funds their vast social safety nets and fuels economic growth via investments in health and education: Pre-primary, primary, secondary, and tertiary

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<sup>56</sup>[https://www.thecentersquare.com/california/how-income-inequality-in-california-compares-to-other-states/article\\_9824c5c2-f033-5511-9509-d695efb409f9.html](https://www.thecentersquare.com/california/how-income-inequality-in-california-compares-to-other-states/article_9824c5c2-f033-5511-9509-d695efb409f9.html)

<sup>57</sup> <https://siepr.stanford.edu/publications/policy-brief>

<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> [https://www2.deloitte.com/content/dam/insights/us/articles/43149-the-nordic-social-welfare-model/DI\\_The-Nordic-social-welfare-model.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/43149-the-nordic-social-welfare-model/DI_The-Nordic-social-welfare-model.pdf)

education are all free, and health and education average upwards of 12 percent of GDP across the Nordic states.<sup>63</sup> Beyond the size of the public sector, the Nordic model is generally characterized by stricter work requirements to help keep employment rates high—for instance, the Nordic countries stipulate that citizens be actively seeking a job for eligibility in many social transfers.<sup>64</sup> Another feature of many Nordic economies is the prevalence of collective bargaining. For example, over 70% of workers in Sweden are part of a union<sup>65</sup>—in stark contrast, California has a unionization rate of just over 15%.<sup>66</sup> In no small part due to the sheer number of unionized workers, collective bargaining has come to wield significant influence in Nordic societies. In fact, in some Nordic states, there is no government-mandated minimum wage whatsoever—instead, unions negotiate wage floors for each sector individually.<sup>67</sup> Some Nordic states have also empowered unions through a “Ghent system,” wherein workers can voluntarily opt into unemployment insurance provided by unions and subsidized by the government that usually provides around 55 to 70 percent of their wage.<sup>68</sup> Research finds that the implementation of a Ghent system has historically pushed an additional 20% of a nation’s workforce to join a union.<sup>69</sup> Taken together, Nordic countries enjoy a considerably lower level of income inequality than in the United States, and they likely owe much of their success to their unique big-government recipe consisting of their extensive social safety net, generous investments into health and education, and the prominence of labor unions.

### **Section III: Policy Recommendations**

Given that current efforts to combat income inequality in California still leave much to be desired, we present five policy recommendations in this section to help steer the state in a more promising direction.

#### *Wealth Taxes*

The shortcomings of our current taxation system in redistributing wealth from the affluent to those in greater financial need significantly contribute to inequality. As of 2019, the average effective tax rate for the top 400 Americans was 23% - approximately the same as that of the working class.<sup>70</sup> A key reason for this is the common practice among billionaires and extremely wealthy CEOs to be paid a lower taxable income and instead spend against the growth in their wealth from stocks, bonds, and other assets.<sup>71</sup> Hence, the current income taxation system

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<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> <https://www.mutualinterest.coop/2020/04/three-things-we-can-learn-from-the-nordic-trade-unions>

<sup>66</sup> [https://www.bls.gov/regions/west/news-release/unionmembership\\_california.htm#:~:text=In%202021%2C%20union%20members%20accounted,of%20Labor%20Statistics%20reported%20today](https://www.bls.gov/regions/west/news-release/unionmembership_california.htm#:~:text=In%202021%2C%20union%20members%20accounted,of%20Labor%20Statistics%20reported%20today)

<sup>67</sup> <https://www.mutualinterest.coop/2020/04/three-things-we-can-learn-from-the-nordic-trade-unions>

<sup>68</sup> Ibid.

<sup>69</sup> Ibid.

<sup>70</sup> <https://www.washingtonpost.com/business/2019/10/08/first-time-history-us-billionaires-paid-lower-tax-rate-than-working-class-last-year/>

<sup>71</sup> <https://www.businessinsider.com/how-billionaires-avoid-paying-federal-income-tax-2021-6>

fails to sufficiently redistribute wealth from the ultra-rich—alternative taxation schemes that patch this gap can be employed to help reduce inequality.

We suggest an ambitious, but effective, tax on wealth. A wealth tax is a tax levied on assets rather than income. It was popularized by proposals from Senators Bernie Sanders and Elizabeth Warren during their presidential campaigns, among others. By taxing net worth, a wealth tax will fill in for the inability of current income and capital gains taxes to tax the richest individuals whose incomes severely understate their wealth. This would be particularly effective in California, given that, according to Forbes, 89 of the country's 400 richest individuals reside in the state.<sup>72</sup>

Of course, a wealth tax would tax wealth rather than income and therefore may not be directly reflected in measures of income inequality. However, the revenue generated from such a tax can be progressively redistributed towards funding social programs that help lower the cost of living for the lower and middle classes (e.g., tax credits or social safety net programs), effectively raising their real incomes and thereby shrinking inequality. This can be done without accruing much of the economic harms that are often associated with other forms of taxation that hit the lower and middle classes in addition to the upper class. However, even if the effects of redistribution are ignored, some argue that a wealth tax could still directly reduce income inequality. Perhaps the most compelling evidence supporting this line of reasoning comes from an empirical study relying on intergenerational data from Norway, which implemented a wealth tax in the late 1990s and early 2000s.<sup>73</sup> The researchers find that Norwegian children who grew up in wealthier families tend to have higher labor incomes: All else held equal, a net wealth of \$1 million raised future yearly wages of children by \$14,000. The researchers then estimate what the income distribution would have looked like in 2017 if the wealth tax had not been implemented. Ultimately, they conclude that the Norwegian wealth tax lowered the Gini coefficient by roughly 1 point, demonstrating that the tax has reduced income inequality. Thus, the impact of wealth taxes may still be felt in measures of income inequality, as reducing wealth inequality can increase future labor income mobility for children in less-wealthy families. More importantly, as explained earlier, wealth often functions equivalently to income for the ultra-wealthy who sometimes spend against the growth in their assets. Hence, even if a wealth tax does not reduce income inequality on paper, it will still reduce inequalities in spending power, which is what income tries to measure more generally.

Research conducted by UC Berkeley economists Emmanuel Saez and Gabriel Zucman provides strong support for a wealth tax. They estimate that the wealth tax base would be around 9 to 13 trillion dollars annually if applied to the top 0.1% of families nationwide. Had a moderate wealth tax (3% marginal tax rate above \$1 billion) been in place federally since 1982, they

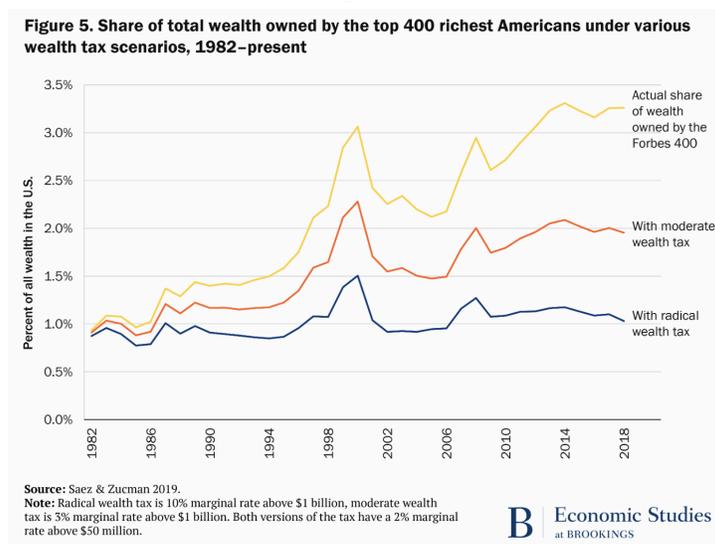
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<sup>72</sup> <https://www.forbes.com/forbes-400/>

<sup>73</sup> <https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Does-a-Wealth-Tax-Improve-Equality-of-Opportunity-Evidence-from-Norway-50258#:~:text=Results%20suggest%20that%20a%20net,wealth%20tax%20is%20more%20unequal>

estimate that the 400 richest Americans would own just under 2% of the country's total wealth, compared to over 3% that they own today.<sup>74</sup> This is represented in Figure 7 below, created by the Brookings Institution.<sup>75</sup>

**Figure 7**



These results are largely corroborated by NYU researcher Edward Wolff, who finds that only 0.07% of Americans would pay a Warren-style wealth tax at 2% for wealth exceeding \$50 million and 3% for wealth exceeding \$1 billion.<sup>76</sup> Wolff concludes that such a tax would raise around \$303.4 billion annually if implemented federally—around 15% of the \$1.9 trillion that the federal income tax generated in 2020.<sup>77</sup> However, he also finds that such a tax would only reduce the United States' Gini coefficient by around 0.0005 given that the metric is not particularly sensitive to changes in wealth among the very rich or poor, and that the calculations are made before considering any redistribution policies enabled by the wealth tax revenue.<sup>78</sup> Moreover, it is important to remember that while a wealth tax may only provide small short-term improvements in reducing income inequality as Wolff's research suggests, its long-term effects in shrinking these inequalities over multiple generations are immense and understated: Recall that without a wealth tax, intergenerational labor mobility in Norway would be lower.<sup>79</sup>

There are a number of concerns to consider when evaluating the efficacy of a wealth tax. A wealth tax has never been implemented in the United States, but results have been mixed when tried in other countries. For instance, in the early 1990s, twelve European countries enacted their

<sup>74</sup> <https://gabriel-zucman.eu/files/SaezZucman2019BPEA.pdf>

<sup>75</sup> <https://www.brookings.edu/bpea-articles/progressive-wealth-taxation/>

<sup>76</sup> <http://www.pse-journal.hr/upload/files/pse/2020/2/1.pdf>

<sup>77</sup> <https://www.thebalance.com/current-u-s-federal-government-tax-revenue-3305762>

<sup>78</sup> <http://www.pse-journal.hr/upload/files/pse/2020/2/1.pdf>

<sup>79</sup> <https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Does-a-Wealth-Tax-Improve-Equality-of-Opportunity-Evidence-from-Norway-50258#:~:text=Results%20suggest%20that%20a%20net,wealth%20tax%20is%20more%20unequal>

own nationwide wealth taxes.<sup>80</sup> Of them, only 3 still retain their tax schemes, making the European experiment a failure in the eyes of many economists. Saez and Zucman, however, argue that this was largely because of poor policy design that can be rectified if implemented in the United States.

The first and perhaps most pressing concern is capital flight—when taxpayers leave the country to avoid paying the tax. In France, for instance, the tax was thought to have caused over 42,000 millionaires to leave the country.<sup>81</sup> Not only was the wealth tax revenue never collected from these individuals, but neither was the income tax that these individuals would have been subjected to. Saez and Zucman argue that this is less likely to be a problem in an American context. The passage of the Foreign Account Tax Compliance Act (FATCA), for example, or the implementation of an ‘exit’ tax could make it more difficult for millionaires to evade the tax by moving. The interconnectedness of the European Union made it much easier for the wealthy to leave their country than it would be in the United States today.<sup>82</sup>

Capital flight does become a much greater concern if implemented on the state level. Indeed, we have already witnessed many millionaires leave the state of California in favor of states with more relaxed taxation schemes such as Texas, even without a wealth tax. However, studies also show that in spite of some of these high-profile departures, California’s share of millionaires has been steadily increasing and the threat of them leaving if a wealth tax is passed may be overstated.<sup>83</sup>

The second reason for the wealth tax’s failure when implemented in Europe revolves around its adverse economic impact: The tax hit many upper-middle class families in addition to just the ultra-wealthy. A related concern is that a tax on wealth would shrink the nation’s capital stock and decrease innovation. However, the European wealth tax generally started on assets valued at as little as \$1 million, while most proposals in the United States start at \$50 million. The European model was intended to tax much more wealth than the taxation scheme proposed in this section, which focuses primarily on rectifying the gaps in our existing taxation system by exclusively targeting the ultra-wealthy. Even if it were the case that a tax on wealth exceeding \$50 million would harm innovation, Saez and Zucman argue that the additional savings reaped by the rest of the population coupled with greater amounts of spending by the middle-class fueled by the redistribution of the taxed wealth would benefit the economy far more than any reasonable amounts of potential reductions in investment. They also suggest that successful businesses spend much of their resources protecting their dominant market positions, which stifles innovation. Taxing the wealth of their owners may incentivize competition and therefore lead to them spending more of their existing wealth on innovation.<sup>84</sup>

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<sup>80</sup> <https://www.brookings.edu/bpea-articles/progressive-wealth-taxation/>

<sup>81</sup> Ibid.

<sup>82</sup> <https://gabriel-zucman.eu/files/SaezZucman2019BPEA.pdf>

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

There are, of course, many other factors to consider when evaluating the efficacy or even feasibility of a wealth tax. What is clear, though, is that if implemented, a wealth tax would serve as an effective way of generating revenue and redistributing wealth from the ultra-wealthy in a way that current policies fail to accomplish. Focusing on California, Assemblymember Alex Lee proposed a wealth tax in February 2022 with a 1.5% tax rate on wealth exceeding \$1 billion and 1% on wealth exceeding \$50 million.<sup>85</sup> These are considerably lower tax rates than those in most popular federal plans, but the proposal is still projected to raise \$22.3 billion in state tax revenue annually. The proposal will take the form of a constitutional amendment since California’s constitution currently prevents the tax rate from climbing above 0.4%—another implementation hurdle that policymakers will have to surmount.<sup>86</sup> To determine how much a resident would pay under the tax, the bill requires that taxpayers report the value of their stocks and bonds and submit a certified appraisal to California’s Franchise Tax Board for verification of assets without a clear market value.<sup>87</sup> We would support a similar implementation to this 2022 proposal, but would stress that getting *any* tax on wealth passed is the main challenge. Similar legislation has been proposed before and in most cases failed to even receive a committee hearing. A wealth tax in California is undoubtedly ambitious and unlikely to pass immediately, but a comprehensive plan for combating inequality requires some solution to close the existing gaps in our taxation system, and no policy does this better than a wealth tax.

### *Increasing Wage Transparency*

Another policy option in reducing income inequality is increasing wage transparency. Despite common misconceptions, wage transparency is not simply about making every employee’s salary public. Instead, it refers to the extent to which employers are open about why, what, and how their employees are paid and to what extent they permit their employees to share this information with others.<sup>88</sup> By forcing employers to inform applicants of the pay range for every open position at some stage in the hiring process, wage transparency laws put power back in the hands of employees.<sup>89</sup> Wage transparency gives people an opportunity to advocate for themselves because they are often not aware when they are underpaid due to the secrecy around salaries. Economists often cite low-income individuals lacking the ability to make good decisions, including accepting low offers during salary negotiations, as an important factor driving income inequality—wage transparency laws can help address this issue.

Companies themselves can make changes to encourage wage transparency. For instance, companies can share pay ranges for positions, explain how wages are determined, and disclose how pay raises and bonuses are awarded. Additionally, they can conduct payroll audits to resolve

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<sup>85</sup> <https://a25.asmdc.org/press-releases/20220216-ab-2289-tax-extreme-wealth-reintroduced-california>

<sup>86</sup> *Ibid.*

<sup>87</sup> [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220AB2289](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2289)

<sup>88</sup> <https://www.mercer.us/content/dam/mercero/attachments/north-america/us/us-2020-the-case-for-pay-transparency.pdf>

<sup>89</sup> <https://www.businessinsider.com/pay-transparency-salary-range-disclosure-laws-colorado-employers-terrified>

any issues with compensation and proactively have conversations with employees about their salaries.

Beyond empowering low-income individuals to petition for higher wages, research conducted by PayScale demonstrates that wage transparency at the company level can also reduce the gender pay gap.<sup>90</sup> Using 1.6 million survey responses gathered over a two-year span, PayScale found that when employees reported that their employers maintained a transparent pay process, women earned roughly between \$1 and \$1.01 for each dollar that men earned, essentially bridging the gender pay gap entirely. Empirical work performed by the HEC Paris Business School and the University of Utah lends further credence to this idea, demonstrating that complete wage transparency (i.e., publishing all salaries online) reduced the gender pay gap by up to 50%.<sup>91</sup> Company-level transparency can even improve employee outcomes: One study finds that employee productivity is higher when salaries are transparent.<sup>92</sup>

Forbes's case study on Verve, a UK-based tech firm, further underscores the power of wage transparency to reduce income inequality.<sup>93</sup> In 2018, Verve committed to complete wage transparency—anyone could access the wages of their bosses, the CEO, and their peers. This practice reduced bias in determining wages—higher wages weren't given to those who negotiated the most or threatened to quit, for example. Additionally, Verve used objective measurements such as “job scope” and “market value of the position” to determine wages—as a result, no employees left after the firm implemented transparency. Pay transparency also encouraged diversity: Verve's workforce is roughly 50% female.

On the state level, California has passed a number of laws relating to wage transparency. Most notably, California's Equal Pay Act, enacted in 2016, mandates equal pay across genders and races for employees who perform substantially similar work.<sup>94</sup> Importantly, the Equal Pay Act closed a commonly-exploited loophole in federal law: While the Federal Equal Pay Act simply calls for equal pay for *identical* work, the Equal Pay Act's reference to *substantially similar* work makes it more difficult for wage discrimination to occur.<sup>95</sup> Beyond the Equal Pay Act, Labor Code Sections 232(a) and 232(b) give employees the right to discuss their wages without restrictions from employers, and Labor Code Section 432.3, implemented in 2018, prohibits employers from asking job applicants about their salary history.<sup>96</sup> Moreover, the Fair Employment and Housing Act bans wage discrimination based on race, gender, religion, and other protected characteristics.<sup>97</sup> Complementing these state laws on the federal level, the National Labor Relations Act gives employees the right to discuss their wages and working

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<sup>90</sup> <https://www.shrm.org/resourcesandtools/hr-topics/compensation/pages/transparency-shrinks-gender-pay-gap.aspx>

<sup>91</sup> <https://www.wired.com/story/salary-transparency-gender-pay-gap/>

<sup>92</sup> <https://www.nytimes.com/2019/01/20/smarter-living/pay-wage-gap-salary-secrecy-transparency.html>

<sup>93</sup> <https://www.forbes.com/sites/kimelsesser/2018/09/05/pay-transparency-is-the-solution-to-the-pay-gap-heres-one-companys-success-story/>

<sup>94</sup> <https://www.californiaemploymentlawreport.com/2022/03/right-to-discuss-pay-salary-history-bans-and-pay-equity-under-california-law/>

<sup>95</sup> <https://www.forbes.com/sites/ruthgotian/2022/05/24/why-new-pay-transparency-law-may-not-solve-the-wage-discrimination-problem/?sh=24613e59489e>

<sup>96</sup> <https://www.californiaemploymentlawreport.com/2022/03/right-to-discuss-pay-salary-history-bans-and-pay-equity-under-california-law/>

<sup>97</sup> *Ibid.*

conditions, and the Dodd-Frank Wall Street Reform Act requires corporations to disclose employee pay ratios.

Moving forward, California can work to enhance its efforts to increase wage transparency in a number of ways. For example, Senate Bill 1162, introduced in 2022, would force Californian employers to include pay ranges in job postings, would make internal promotion opportunities available to all employees, and would increase the state's pay data reporting provisions.<sup>98</sup> Colorado's Equal Pay for Equal Work Act (EPEWA), enacted in 2021, offers another useful blueprint for designing stronger transparency laws. Under the EPEWA, employers must include pay and benefits disclosures in job postings, must provide written notice of any promotional opportunities to all employees, and must keep records of job descriptions and wage rates.<sup>99</sup> If an individual feels as if they have witnessed or suffered from a violation of the Act, they can file a complaint with the option of staying anonymous.

Unfortunately, the EPEWA has faced its fair share of controversy. 5280, Denver's city magazine, reports that hundreds of companies were avoiding hiring remote workers in Colorado due to the impact of the law.<sup>100</sup> Many companies attempted to evade the main pay transparency requirement; confusion surrounding the promotion transparency requirement and concern over wage disputes being taken directly to the court made companies even more reluctant to post jobs in the state. However, after realizing that companies were indicating that they would not consider Colorado applicants for remote jobs, the Colorado Department of Labor and Employment issued the Interpretive Notice and Formal Opinion in July 2021, which stated that omitting Colorado applicants does not free the company from the EPEWA's requirements unless the job is tied entirely to a non-Colorado worksite.<sup>101</sup> Fortunately, Colorado has been able to mobilize large national companies to comply with the transparency rules: Since July, about 90% of employers contacted by the Colorado Women's Chamber of Commerce have committed to complying with remote job provisions.<sup>102</sup>

Overall, by giving low-wage workers, who are often unaware of whether they are underpaid, the opportunity to ask for appropriate compensation, wage transparency laws can play a significant role in the fight against income inequality. However, when considering transparency laws like Senate Bill 1162, California must keep the challenges faced by Colorado in mind—policymakers must commit to closing all outlets for companies to escape regulations as early in the policy design process as possible.

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<sup>98</sup> [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220SB1162](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1162)

<sup>99</sup> <https://cdle.colorado.gov/equalpaytransparency>

<sup>100</sup> <https://www.5280.com/2022/01/one-year-review-is-colorados-equal-pay-for-equal-work-act-working/>

<sup>101</sup> <https://www.jdsupra.com/legalnews/coloradans-need-not-apply-it-may-not-9261681/>

<sup>102</sup> <https://www.5280.com/2022/01/one-year-review-is-colorados-equal-pay-for-equal-work-act-working/>

## *Enacting Living Wage Laws on the County Level*

Locally-mandated living wages can help mitigate wage inequality and establish a strong foundation for low-income households in California to both survive and thrive moving forward. In the status quo, minimum wage laws enacted on the local, state, and federal levels aim to provide a basic standard of living for all Americans. All covered nonexempt employees are entitled to \$7.25 per hour under the federal minimum wage per the Fair Labor Standards Act.<sup>103</sup> However, states and localities can also set their own minimum wage requirements—in cases where employees are subject to local, state, and federal minimum wage laws, the highest of the three serves as the governing standard. In stark contrast to states like Alabama and Louisiana that do not have a state minimum wage requirement at all, California has already enacted relatively generous minimum wage laws: Employers with 25 or fewer employees are required to pay a minimum of \$14 per hour while employers with 26 or more employees pay \$15 an hour.<sup>104</sup> Several counties and cities have created even higher wage floors: Bay Area counties like San Francisco (\$16.32/hour) and Santa Clara (\$16.40/hour) boast some of the highest minimum wage rates in the country.<sup>105</sup>

Despite seemingly-high minimum wage rates, many Californians still find themselves struggling to make ends meet. As it turns out, policymakers often turn to federal poverty thresholds to determine whether a particular individual or household is achieving a certain standard of living, but such guidelines fail to account for anything beyond a frugal food budget—essentials like childcare or health insurance are excluded entirely.<sup>106</sup> To make matters worse, poverty guidelines do not factor in how the cost of these essentials fluctuates based on geographic variations. Consequently, even if county and state-level minimum wage rates appear to surpass the “poverty wage” needed for households to meet the federal poverty guidelines, they may not be doing enough to give low-income families the ability to purchase basic necessities.

From this premise comes the idea of the “living wage,” a locally-mandated minimum wage requirement that allows families in every county in the US to meet basic needs. One of the most widely-cited approaches to defining and calculating the living wage is derived from Dr. Amy K. Glasmeier’s long-running research at the Massachusetts Institute of Technology. Under Dr. Glasmeier’s definition, the living wage is a minimum subsistence wage for people living in the US—it is meant to serve as the basic income standard that, if satisfied, creates the dividing line between financial independence for low-income households and enduring consistent housing and food insecurity without public assistance.<sup>107</sup> Notably, this living wage definition does not encompass certain items that may be considered ‘necessities’ such as unexpected expenses (e.g.,

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<sup>103</sup> <https://www.dol.gov/general/topic/wages/minimumwage>

<sup>104</sup> <https://www.dol.gov/agencies/whd/minimum-wage/state>

<sup>105</sup> <https://laborcenter.berkeley.edu/inventory-of-us-city-and-county-minimum-wage-ordinances/>

<sup>106</sup> <https://livingwage.mit.edu/resources/Living-Wage-Users-Guide-Technical-Documentation-2022-05-10.pdf>

<sup>107</sup> <https://livingwage.mit.edu/pages/about>

sudden illnesses or purchasing appliances like washing machines) or planning for the future (i.e., savings and investments)—it exclusively covers basic needs, making it only a minor step up from the poverty wage. Using this definition, Dr. Glasmeier has created a “Living Wage Calculator” that estimates the living wage for 383 metropolitan areas and all 50 states and the District of Columbia. The calculator factors in geographically-specific expenditure data on basic needs along with income and payroll tax effects: A “basic needs budget” that includes food, childcare, healthcare and insurance premiums, housing, transportation, civic engagement, broadband, and other necessities costs coupled with all relevant taxes comprise the calculator’s living wage estimate. For the past several years, the living wage in the US has risen steadily, growing from \$16.54 per hour in 2019<sup>108</sup> to \$24.16 in 2021<sup>109</sup> before taxes for a family of four (two working adults and two children). The fact that these figures stand head and shoulders above not only the federal minimum wage but also the more generous state minimum wage in California underscores the most compelling argument for locally-mandated living wages: The minimum wage fails to cover basic needs for families in the most dire financial situations.

While examples of cities adopting Dr. Glasmeier’s living wage are few and far between, different versions of the policy have been implemented across the country. Although much of corporate America continues to set pay far below what a living wage would entail, companies like Unilever and PayPal have changed their pay practices to give employees the ability to afford basic necessities. In fact, Unilever reportedly achieved living wages for all direct employees in 2020,<sup>110</sup> and PayPal raised average employee net disposable income to 16 percent by the end of 2020 from only 4-6 percent just a year prior.<sup>111</sup> Both firms attribute much of their recent success to their pay practices, citing improved brand image and enhanced customer loyalty along with lower turnover rates, higher employee productivity, and improved value chain stability as reasons that their peers should follow in their footsteps.

Outside of the corporate realm, cities and municipalities have enacted their own forms of the living wage as well. These living wage laws differ significantly across municipalities: Most ordinances tend to focus on employees working under municipal contracts, but others also encompass municipal employees or employees of companies operating in districts that have enjoyed considerable public investment.<sup>112</sup> The actual wage levels set by the ordinances vary as well, with some only standing a dollar above the federal minimum wage and others more than doubling the minimum. However, living wage laws in the status quo impact very few workers directly: Given the focus on companies that benefit from government contracts, research indicates that living wage laws encompass only a meager 2-3 percent of the bottom tenth of wage-earners.<sup>113</sup> In fact, recent empirical work suggests that living wage ordinances are not tied

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<sup>108</sup> <https://livingwage.mit.edu/articles/61-new-living-wage-data-for-now-available-on-the-tool>

<sup>109</sup> <https://livingwage.mit.edu/articles/99-a-calculation-of-the-living-wage>

<sup>110</sup> <https://www.weforum.org/agenda/2022/05/living-wage-business-benefits-unilever/>

<sup>111</sup> <https://www.inc.com/minda-zetlin/paypal-wages-ndi-profits-growth-dan-schulman.html>

<sup>112</sup> <https://www.epi.org/publication/bp170/>

<sup>113</sup> <https://www.brookings.edu/research/living-wage-laws-how-much-do-can-they-matter/>

to significant changes (positive or negative) in poverty, wages, or unemployment on the city level, likely due to how few urban workers are actually covered by existing living wage laws.<sup>114</sup> However, other studies present more compelling evidence in favor of living wage ordinances, suggesting that these laws have mostly benefited low-wage workers without significant negative impacts on employment, have generally increased productivity and reduced turnover, and have not raised overall government contract costs significantly.<sup>115</sup> For instance, research from the early 2000s suggests that Los Angeles' living wage ordinance increased pay for roughly 10,000 jobs, most of which belonged to low-income workers who had a high school education or less, while employment reductions totaled to only one percent of all impacted jobs (an estimated 112 jobs).<sup>116</sup> Moreover, companies impacted by the ordinance experienced a significant reduction in low-wage worker turnover, a decrease in absenteeism, and lower overtime hours in comparison to their peers.<sup>117</sup>

Of course, the limited size and scope of current living wage policies across America prevent far-reaching conclusions about the effectiveness of the laws from being made. Expanding living wage ordinances' coverage from just contractors or city employees to all workers would undeniably be a dramatic step to take. Concerns over employment cuts and business closures are certainly justified, even when factoring in the gains from consumer spending, increased productivity, and lower turnover rates. As an illustrative example, empirical research examining city-level minimum wage changes in the San Francisco Bay Area between 2008 and 2016 found that restaurants close to the margin of exit may disproportionately shutter their doors due to minimum wage hikes: While a \$1 increase in the minimum wage had no significant impact on 5-star restaurants, it led to a 14 percent increase in the likelihood of exit for 3.5-star restaurants.<sup>118</sup> Considering that the current living wage estimate for a family of four in San Francisco stands at \$40.37/hour, significantly above the city's current minimum wage of \$16.32/hour, immediately raising the minimum wage to the living wage level would likely not be pragmatic, especially in the context of the pandemic.<sup>119</sup>

Thus, counties across California must carefully consider local economic trends before settling on the optimal approach to implementing living wage laws. Nevertheless, the ultimate goal should not be forgotten: Income inequality remains a pervasive issue, and raising each county's minimum wage to the level where it covers low-income families' basic needs is an excellent first step to bridge the gap between the top and bottom of the socioeconomic ladder. Policymakers should take measured steps toward that objective, gradually raising the minimum wage via locally-mandated ordinances and assessing the market's reaction while soliciting input from academics and members of the community.

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<sup>114</sup> <https://doi.org/10.1086/686581>

<sup>115</sup> <https://www.epi.org/publication/bp170/>

<sup>116</sup> <https://doi.org/10.1111/j.0019-8676.2004.00374.x>

<sup>117</sup> Ibid.

<sup>118</sup> <https://papers.ssrn.com/abstract=2951110>

<sup>119</sup> <https://livingwage.mit.edu/counties/06075>

## *Investing in Public Transportation*

The crucial role that public transportation plays in lifting up low-income households is well-established. Public transportation is considerably cheaper than other means of transport (for instance, buying a car), so easily-accessible public transportation lowers the cost of living for less-affluent families. Moreover, public transportation can grant lower and middle-income households that do not typically live in more expensive, urban areas access to more economic opportunities and resources, increasing the potential for upward mobility.<sup>120</sup> In the absence of public transportation, these households tend to gain access to these resources by resorting to more expensive means of transportation or by depriving themselves of such opportunities in the interest of saving money. Public transportation can be thought of as a way to prevent them from having to make this compromise—investments in public transportation therefore serve as an effective policy solution to lower income inequality by benefiting families near the bottom of the income distribution.

In a study conducted by the NYU Rudin Center for Transportation, researchers ranked New York City neighborhoods based on the number of jobs that were accessible to their residents via public transit. Strikingly, the neighborhoods who fell in the middle-third of the rankings had the lowest household incomes and the highest unemployment rates. The researchers note that the high-access areas make transit or walking seem preferable and that residents of the low-access areas are more likely to travel using private vehicles. However, those in the middle-third are caught in a difficult position: They enjoy enough access to public transportation, but not enough access to employment opportunities. The disparities between these neighborhoods establish a clear association between limited access to public transportation and poor economic outcomes (i.e., lower incomes and higher unemployment), but also underscore how a failure to sufficiently invest in public transportation exacerbates income inequality.<sup>121</sup> A recent C40 report corroborates the positive economic impact of public transportation, demonstrating that every \$1 invested in public transportation can ultimately produce \$5 in economic returns and that every \$1 billion invested could generate 50,000 jobs.<sup>122</sup>

Given the power of public transit to support upward mobility and lower income inequality, the question becomes how to design policy that increases access to public transportation. Interestingly, research shows that in order to concentrate benefits toward lower and middle-income groups (which is necessary to reduce income inequality), investments into transportation ought to target bus systems rather than rail. Survey data from a 2017 report from the American Public Transportation Association shows that 69% of bus riders have incomes of under \$50,000, compared to only 42% of public rail riders.<sup>123</sup> Furthermore, just 19% of bus riders

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<sup>120</sup> <https://www.nytimes.com/2015/05/07/upshot/transportation-emerges-as-crucial-to-escaping-poverty.html>

<sup>121</sup> <https://wagner.nyu.edu/files/rudincenter/2015/11/JobAccessNov2015.pdf>

<sup>122</sup> <https://www.weforum.org/agenda/2021/04/here-s-why-cities-should-invest-in-public-transport/>

<sup>123</sup> <https://www.apta.com/wp-content/uploads/Resources/resources/reportsandpublications/Documents/APTA-Who-Rides-Public-Transportation-2017.pdf>

have incomes of over \$75,000, compared to 41% for rail. However, existing proposals and discourse around public transportation investment have largely left bus systems by the wayside. Light rail, for instance, generally receives substantially more funding than bus systems despite having lower ridership numbers and more affluent demographics. This trend exists for emerging transportation methods such as bike sharing as well: A study conducted in Washington DC found that over half of users using new bike share systems had incomes of over \$100,000.<sup>124</sup> By reallocating funds away from rail and other modes of transportation in favor of bus systems, investment in public transportation can truly benefit low-income and marginalized groups. Examining the demographics of public transport users in major cities can also shed light on where these investments ought to be targeted. According to the Washington Post, low-income riders make up a higher proportion of all commuters in cities with lower overall public transportation usage. On the other hand, cities with well-developed and highly-used public transportation systems tend to have more affluent ridership.<sup>125</sup> This pattern is illustrated in Figure 8 below, created by graphics reporters Shelly Tan, Alyssa Fowers, Dan Keating and Lauren Tierney.

**Figure 8**



This trend suggests that as public transportation systems are initially developed and used infrequently in their infancy, low-income groups are disproportionately supported. However, when existing public transit systems are further developed and more riders take advantage of the service, the benefits become more concentrated toward middle and upper-class households, lessening the intended effect on income inequality. Instead of bolstering existing transit infrastructure that is already highly-used by comparatively affluent households, future investments in public transportation should target cities with especially low public transportation

<sup>124</sup>[https://www.academia.edu/6076965/Are\\_Bikeshare\\_Users\\_Different\\_from\\_Regular\\_Cyclists\\_A\\_First\\_Look\\_at\\_Short\\_Term\\_Users\\_Annual\\_Members\\_and\\_Area\\_Cyclists\\_in\\_the\\_Washington\\_D\\_C\\_Region](https://www.academia.edu/6076965/Are_Bikeshare_Users_Different_from_Regular_Cyclists_A_First_Look_at_Short_Term_Users_Annual_Members_and_Area_Cyclists_in_the_Washington_D_C_Region)

<sup>125</sup> <https://www.washingtonpost.com/nation/2020/05/15/amid-pandemic-public-transit-is-highlighting-inequalities-cities/>

ridership, as these investments are more likely to help low-income households with no alternative means of transportation.

Turning to California, the Road Repair and Accountability Act of 2017, or SB1, is a notable example of how substantial investment into public transportation may counter inequality. Specifically, the bill allocates \$250 million annually to the State Transit Assistance Program to help public transit agencies expand their infrastructure, \$105 million annually to the State of Good Repair Program to help repair and renovate existing infrastructure, and \$300 million annually to the Transit and Intercity Rail Capital Program, of which 25% directly benefits disadvantaged communities.<sup>126</sup> This includes a roll-out of zero-emission bus services in urban areas and commuter routes. The bill is funded by a 12 cent per gallon increase in gas taxes.<sup>127</sup> We see SB1 as a good example of targeted investment into public transportation, but one that could be optimized to better support low-income households. Raising excise taxes on gas, for instance, is generally thought of as a regressive taxation plan, but a funding mechanism that progressively redistributes income, such as a capital gains tax with a high exemption threshold, would be preferable. SB1 allocates a considerable amount of funding for bus services, but the majority of the funding is still directed towards new rail connections, especially in preparation for the 2028 Olympics in Southern California.<sup>128</sup> Thus, although SB1 serves as a good baseline for Californian policymakers due to the sheer amount of targeted funding into public transportation, future proposals would ideally direct a higher proportion of their funding toward underdeveloped local public bus infrastructure and a lower proportion into rail.

### *Capital Gains Taxation on Real Estate*

Besides measures designed to counter income inequality by raising incomes, it is important that policymakers also consider lowering costs for low-income residents and, in particular, housing costs. While the most popular policies on that front have taken the form of mandates and public goods provision, taxation could be used as a tool to disincentivize behavior that leads to volatility in the housing market by internalizing the social costs of speculation in housing. This may be achieved through a capital gains tax that targets “house flipping,” or the practice of purchasing a house with the intention of selling it quickly for profit. Flipping houses typically involves renovating the properties, which would allow them to be subsequently sold for inflated profit. As such, home prices end up much higher than they would be in the case of a house changing hands between the original seller and a final buyer who intends to take residence in the property. Prices can be inflated even more dramatically where demand for homes outstrips supply (as is the case in California), as buyers are willing to pay a premium to secure housing, and investors armed with that knowledge make even more real estate purchases to increase their returns. Despite new legislation that mandated homebuyers declare that they would live in the

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<sup>126</sup> <http://rebuildingca.ca.gov/transit/>

<sup>127</sup> <https://mtc.ca.gov/funding/state-funding/sales-tax-gas-tax-funding>

<sup>128</sup> <http://rebuildingca.ca.gov/transit/>

housing units they purchased in some cases, a sizable portion of home purchases in California are still made by speculators.<sup>129</sup>

In California, capital gains are taxed at the same rate as normal income.<sup>130</sup> Instead, California can consider implementing a capital gains tax on real estate that is set at a higher rate than regular income, which would make housing flipping less desirable by cutting into investors' net profits. Suitable distinctions should be made such that the taxes are aimed at speculators rather than homeowners who plan to offload the homes they had lived in. Examples of how such distinctions can be made include evaluating past use of the property, considering the length of ownership, granting exemptions based on qualifying events, or some combination hereof. Assembly Bill 1771 (2021-2022), the California Housing Speculation Act, is an example of proposed legislation that attempts to use varying tax rates on real estate capital gains to disincentivize speculation in the housing market.<sup>131</sup> The bill proposes an additional 25% tax on the net capital gain made from the sale of housing within three years of initial purchase, with the tax decreasing by 5% thereafter until it is phased out for more than seven years after purchase. Active duty military personnel and deceased homeowners would be exempt from this proposed tax, as would some categories of housing, including affordable housing, subdivided properties, and the first primary residence of the taxpayer. The bill stipulates that the majority of revenue generated by this tax should go toward affordable housing, general infrastructure and community projects, and school districts.

Studies on the effects of existing real estate capital gains taxes in other jurisdictions have yielded mixed results, with differences in implementation likely playing a substantial role. For AB-1771 specifically, with the only condition of taxation being the time from initial ownership, many have expressed concern that, instead of discouraging house flipping altogether, speculators will now be incentivized to hold on to their real estate investments for a longer period of time, renting out their properties and selling them off a few years later after the value has appreciated and the tax burden has decreased. This may yield perverse outcomes in which housing stock is further reduced while renters are closed off to an additional avenue to build wealth through homeownership. Some research suggests that capital gains taxes could even lead to bigger price swings and redistribution from the poor to the rich, as real estate purchases during housing booms are typically made by wealthier owners who will earn less capital gains, while lower-income homeowners, who purchase property more often when prices are lower, are liable for a larger tax burden when the value of their property inevitably appreciates faster.<sup>132</sup> These assumptions, however, may not always apply to California, where housing demand is much higher. On a more positive note, an evaluation of property taxes in the U.S. by the International Monetary Fund found that higher taxes reduce volatility in house prices. However, the report

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<sup>129</sup><https://www.sandiegouniontribune.com/opinion/commentary/story/2021-12-03/chris-reed-california-housing-crisis-looks-permanent-speculators-make-problem-worse>

<sup>130</sup> <https://www.ftb.ca.gov/file/personal/income-types/capital-gains-and-losses.html>

<sup>131</sup> [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220AB1771](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1771)

<sup>132</sup> <https://doi.org/https://hdl.handle.net/10398/7640>

warns against employing taxes as countercyclical fiscal measures to avoid disincentivizing transactions that would more efficiently allocate housing.<sup>133</sup> Overall, the evidence points to taxing capital gains on real estate sales as a reliable way to fight against the volatility of California’s housing market as long as policymakers remain cognizant of how the structure of taxation influences incentives. It may be more appropriate to include other criteria beyond purely time-based ones in determining tax rates.

## Section IV: Conclusion

Income inequality has concrete consequences. Every day, millions of Americans and billions of people globally struggle to meet their basic needs while a wealthy few earn more money than they could ever spend in a lifetime. Political action at the national level is increasingly challenging; consequently, we need to look to solutions at every level of government. In this report, we aimed to identify trends in income inequality on both the county and state levels, paying close attention to the Bay Area and its unique challenges. With the conviction that income inequality is a solvable issue, we also offered recommendations to help inform policy in the state moving forward.

Examined in isolation, the middle class in California appears to be faring relatively well. From 2010 to 2019, statewide median income rose steadily. Inflation-adjusted household median income grew by 17.2 percent across the state over the last decade. Bay Area counties have generally seen stronger income growth than the state overall, with median income growth in Bay Area counties falling between 20 and 40 percent over the same period. Additionally, the size of the middle class has held steady. We observe only slight fluctuation in the proportion of households in our middle class range between 2010 and 2019 (between 44 and 46 percent of households) and no distinct trend in the size of the middle class over time. As we have noted, these state-level findings are similar to national trends.<sup>134</sup>

However, growth in median home prices has outpaced gains in median household incomes, which suggests a decrease in real purchasing power of the middle class over the last decade. This trend is especially apparent in the Bay Area: Of the counties we examined, four of the ten counties where price growth exceeded income growth by the largest amount were in the region. We, and many other researchers, hypothesize that these price increases are a result of supply-demand imbalances, insufficient construction of affordable housing, and zoning laws that prevent the construction of housing.<sup>135</sup>

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<sup>133</sup> <https://www.imf.org/external/pubs/ft/wp/2016/wp16216.pdf>

<sup>134</sup> <https://www.pewresearch.org/fact-tank/2022/04/20/how-the-american-middle-class-has-changed-in-the-past-five-decades/>

<sup>135</sup> <https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.aspx#:~:text=First%20and%20foremost%2C%20far%20less,driving%20up%20prices%20there%20too.>

To help bridge the divide between affluent and less-affluent households, we recommend five specific policies. In an effort to alleviate the burden on low-income households, we endorse greater levels of investment into bus systems and support gradually enacting county-level living wage ordinances as time progresses. To prevent wage discrimination, we recommend wage transparency requirements in both the corporate realm and the policy sphere. Finally, we suggest capital gains taxation on real estate in order to reduce housing costs for low-income Californians.

Our research had two primary limitations. First, we used a relatively crude measure of costs. We selected median home sales prices because housing represents the largest single cost for most families. While it is likely that rising home prices also reflect a trend in the growth of the cost of other essential goods, it is difficult to know whether they underwent the same explosive rise that housing did. Housing prices are influenced heavily by barriers to increasing supply while market dynamics for food, gas, childcare, and other day-to-day essentials may not unfold in the same fashion. Thus, we conclude that there is an obvious need for changes in housing policy, but we lack a complete picture of the change in middle-class purchasing power over the last decade. Second, our evidence is correlational, which prevents us from providing targeted policy solutions. We observe definite correlations in the widening gap between incomes and home prices across the state, but that data does not allow us to make specific conclusions about the causes or solutions to this gap. Instead, we provide policy recommendations that are well-tested in the literature and that address a gap in existing Californian legislation pertaining to inequality. Moreover, our recommendations simply offer a starting point: In order to substantially reduce income inequality in California, policymakers will almost certainly need to complement these strategies with a more holistic policy agenda targeting healthcare, education, criminal justice, and more.

Moving forward, researchers should apply more rigorous econometric methods to examine the feasibility and utility of implementing our policy recommendations either in the Bay Area or at the state level, accounting for the demographic and economic characteristics of both geographic areas. Additionally, it would be useful to conduct a more robust analysis of trends in the cost of non-housing essentials and integrate these findings with our analysis of housing costs. Finally, it is critical to continue intersectional analysis of inequality. Future research should repeat our analysis but stratify incomes by race and ethnicity to better characterize how income inequality may have shifted for population subgroups and where policy can address racial disparities in economic opportunity.

## Appendix

### *Additional State-Wide Tables*

**Table 1**

Year	Median Income	Lower Bound (0.67x)	Upper Bound (2x)
2010	\$69,196.36	\$46,361.56	\$138,392.72
2011	\$65,813.35	\$44,094.94	\$131,626.70
2012	\$66,508.05	\$44,560.39	\$133,016.10
2013	\$66,658.91	\$44,661.47	\$133,317.82
2014	\$67,781.33	\$45,413.49	\$135,562.66
2015	\$71,086.02	\$47,627.63	\$142,172.04
2016	\$73,834.47	\$49,469.09	\$147,668.94
2017	\$76,021.51	\$50,934.41	\$152,043.02
2018	\$77,507.15	\$51,929.79	\$155,014.30
2019	\$81,088.18	\$54,329.08	\$162,176.36

Table 1 depicts the changes in our state-wide middle class range between 2010 and 2019. The lower and upper bound columns represent the income thresholds below and above which a particular household would no longer be considered middle income (two-thirds of and two times the median household income, respectively).

**Table 2**

Year	Number of Households	Share of Households
2010	5,592,006	45.68%
2011	5,486,225	44.67%
2012	5,544,733	44.82%
2013	5,492,859	44.09%
2014	5,565,690	44.25%
2015	5,696,756	44.78%
2016	5,663,474	44.40%
2017	5,740,466	44.76%
2018	5,743,842	44.59%
2019	5,924,567	45.62%

Table 2 shows how the size of the middle class has changed over time in California. The “Number of Households” column captures the number of households that fall within the middle-income range for each year while the “Share of Households” column contains the proportion of all Californian households that belong to the middle class in each year.

**Table 3**

County Name	Bay Area	Percent Change in Home Prices	Percent Change in Incomes	Difference
San Bernardino	0	95.58	10.51	85.07
Stanislaus	0	90.10	12.12	77.98
Merced	0	95.34	21.70	73.64
Contra Costa	1	93.74	22.29	71.45
San Joaquin	0	85.60	17.99	67.61
San Mateo	1	103.61	43.87	59.74
Madera	0	63.43	5.30	58.13
Solano	1	69.73	14.76	54.97
Sacramento	0	73.64	18.95	54.69
San Francisco	1	93.81	41.93	51.88
Riverside	0	68.13	18.46	49.67
Napa	1	68.31	20.83	47.48
Santa Clara	1	80.74	33.46	47.28
Kern	0	47.70	0.91	46.79
Fresno	0	54.26	11.16	43.10
California	-	59.13	17.19	41.94
Tulare	0	49.15	9.93	39.22
Yolo	0	47.77	10.65	37.12
Los Angeles	0	54.71	17.90	36.81
Alameda	1	73.16	37.36	35.80
Marin	1	42.33	9.63	32.70
Kings	0	24.19	-3.92	28.11
Santa Cruz	0	51.90	24.41	27.49
Placer	0	54.59	27.11	27.48
Sonoma	1	54.23	29.06	25.17
El Dorado	0	39.84	16.15	23.69
San Diego	0	41.64	19.71	21.93
Ventura	0	27.73	10.23	17.50
San Luis Obispo	0	41.17	25.76	15.41
Orange	0	29.67	14.68	14.99
Santa Barbara	0	15.52	11.02	4.50
Shasta	0	28.25	28.14	0.11
Butte	0	29.33	33.48	-4.15
Humboldt	0	2.56	13.72	-11.16

Table 3 parallels Figures 5 and 6, capturing the percentage changes in median home sales prices and median household incomes between 2010 and 2019, as well as the differences between those values. Note that all Bay Area counties are assigned a value of ‘1’ in the “Bay Area” column while all other counties are assigned a value of ‘0.’

## *County-Level Tables and Graphs*

Each of the counties below contain 7 graphs and tables that highlight the key county-specific trends from our data analysis. Under the figures is a brief summary of the most important takeaways for each county.

In order from top to bottom in each county:

The first figure depicts the county-wide trend in household median incomes, adjusted to 2020 dollars.

The second figure shows the full middle-income range, with the green line representing the lower bound ( $\frac{2}{3}$  of the inflation-adjusted median income), the blue line representing the median income trend, and the red line representing the upper bound (2 times the inflation-adjusted median income).

The third figure quantifies the trends depicted in the second figure, revealing the exact values for the lower bound, median income, and upper bound for the middle-class range over time. It also makes note of the lowest and highest individual household observations within the middle-class range (`lowest_obs` and `highest_obs`, respectively).

The fourth figure depicts how the share of households in the upper, middle, and lower classes changed over the ten-year period, with the red, blue, and green lines representing the upper, middle, and lower classes, respectively.

The fifth figure shows the exact number of households (`MC_Size`) and the proportion of households (`MC_Percent`) that fall within the middle class range in any given year.

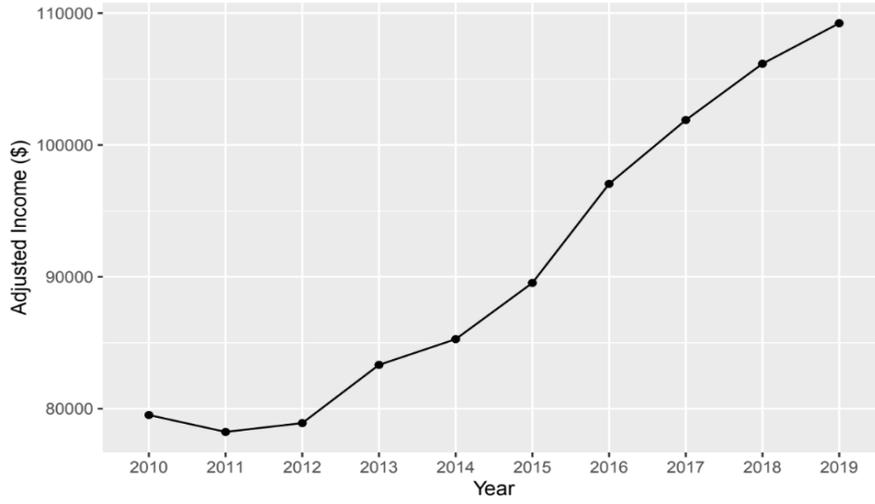
The sixth figure depicts the trend in inflation-adjusted median home sales prices relative to a May 2010 baseline (with the baseline shown in red as a horizontal line at 1.0).

The seventh and final figure compares the percent change in inflation-adjusted median home sales prices between 2010 and 2019 against the percent change in inflation-adjusted median household incomes during the same period.

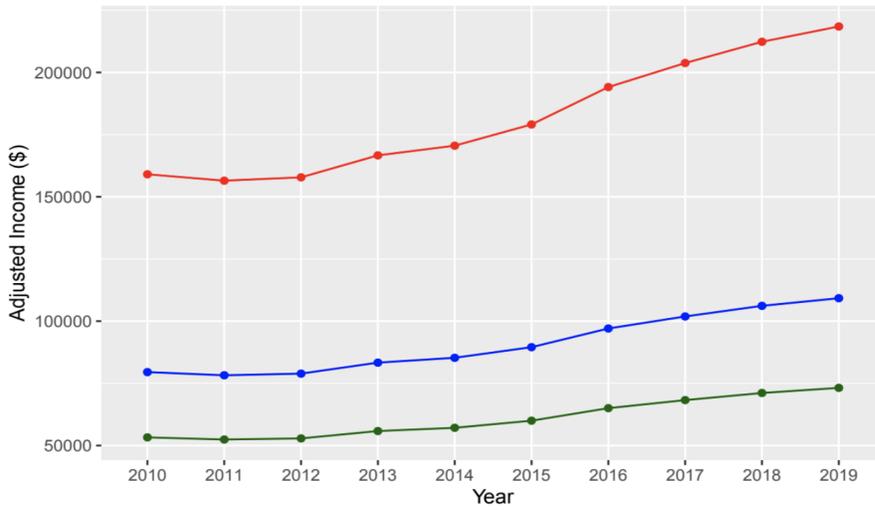
(Again, note that we did not create the sixth and seventh figures for Imperial County because data from the California Association of Realtors on median home sales prices is unavailable for this county).

# Alameda County

Inflation-Adjusted Median Income 2010-2019  
Alameda



Inflation-Adjusted Middle Income Range 2010-2019  
Alameda

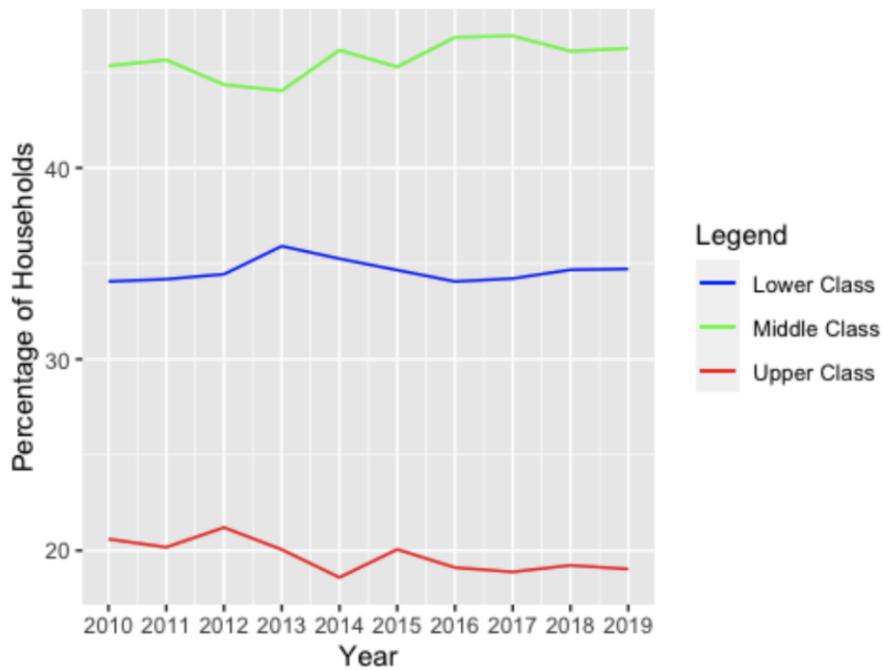


	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Alameda	2010	79522.40	53280.01	159044.8	53410.57
2	Alameda	2011	78239.65	52420.56	156479.3	52466.59
3	Alameda	2012	78907.85	52868.26	157815.7	52980.99
4	Alameda	2013	83323.64	55826.84	166647.3	55882.39
5	Alameda	2014	85273.29	57133.11	170546.6	57176.84
6	Alameda	2015	89540.00	59991.80	179080.0	60057.32
7	Alameda	2016	97051.29	65024.37	194102.6	65132.20
8	Alameda	2017	101889.94	68266.26	203779.9	68313.77
9	Alameda	2018	106160.06	71127.24	212320.1	71137.54
10	Alameda	2019	109231.15	73184.87	218462.3	73191.95

	highest_obs
1	158570.0
2	156467.8
3	157703.0
4	166202.9
5	170109.3
6	178970.8
7	193563.4
8	203568.7
9	212217.0
10	218259.8

Income Group Composition For Alameda County

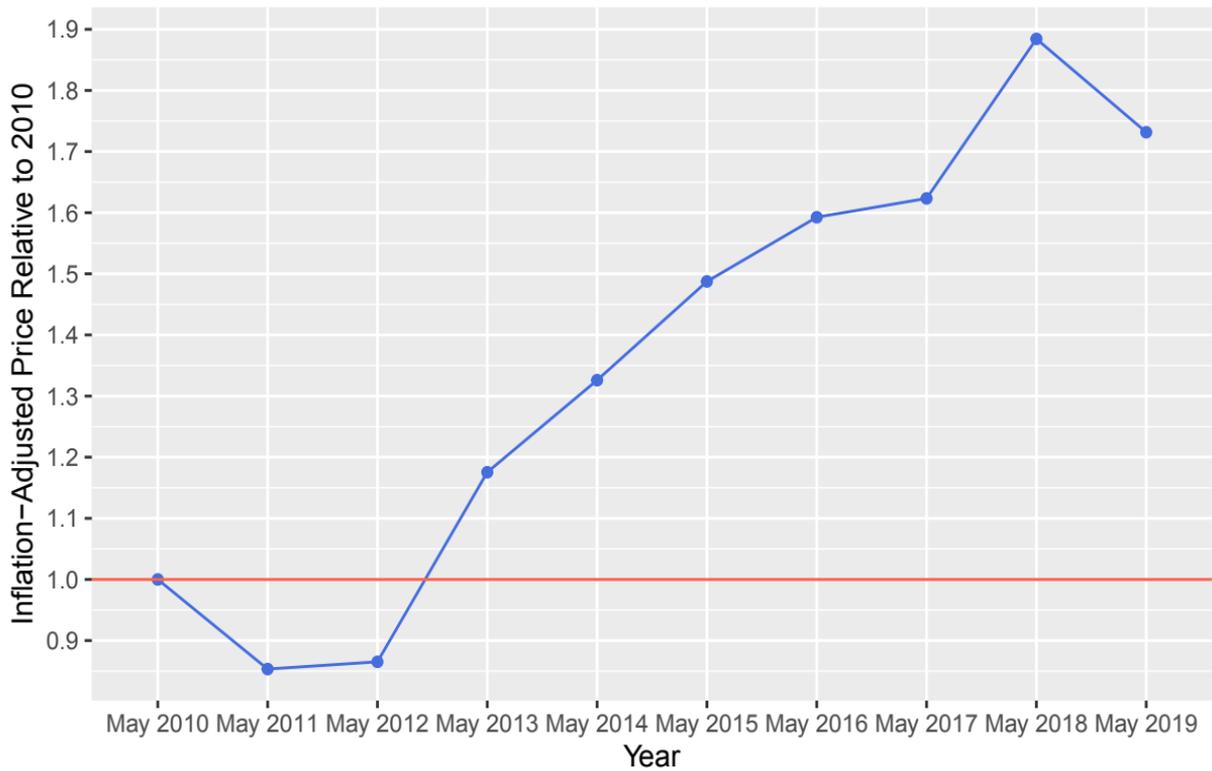


*Alameda County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	240738	0.4534244
2011	246172	0.4564692
2012	240125	0.4435588
2013	241386	0.4403801
2014	257112	0.4615799
2015	256816	0.4528344
2016	264461	0.4683353
2017	266646	0.4690252
2018	261857	0.4610223
2019	267610	0.4625449

**Alameda**

Inflation-Adjusted Median Home Prices 2010-2019

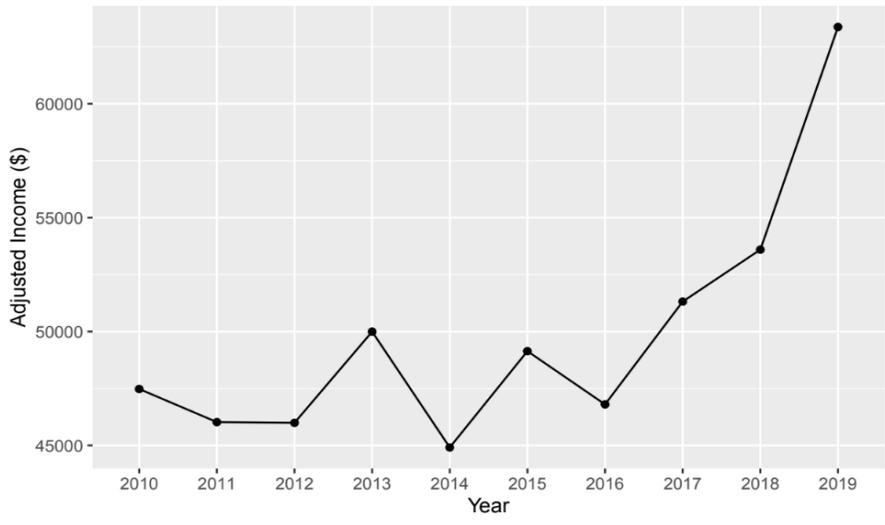


### Alameda

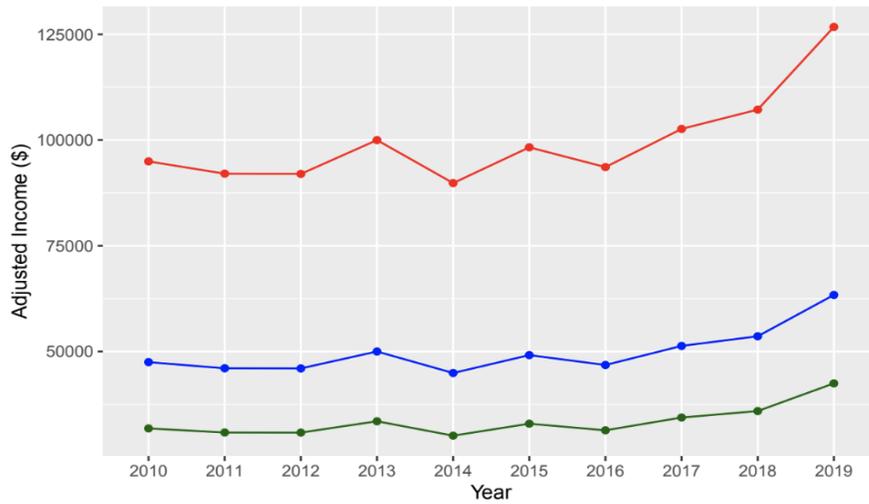


### Butte County

Inflation-Adjusted Median Income 2010-2019  
Butte

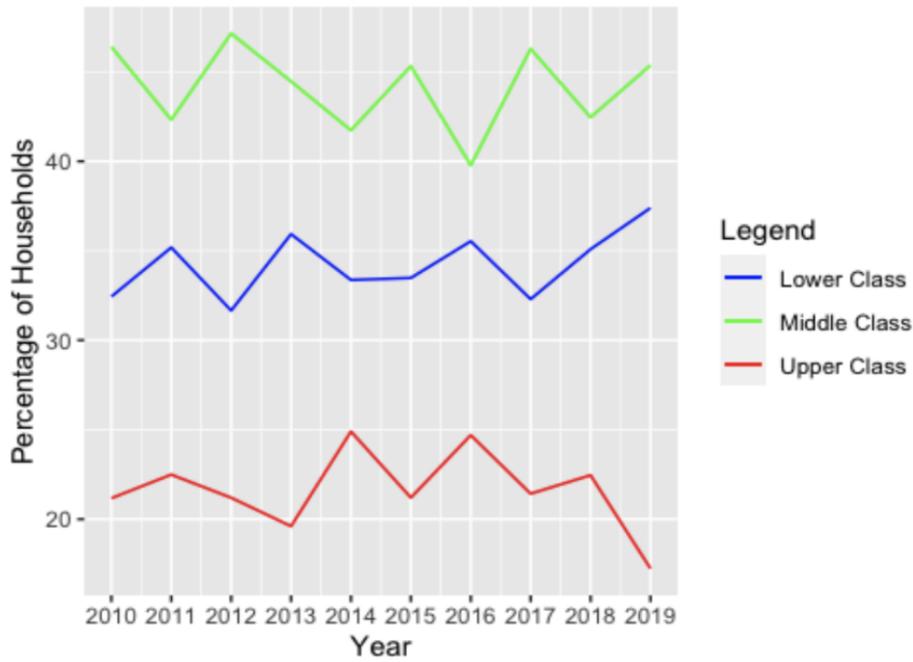


Inflation-Adjusted Middle Income Range 2010-2019  
Butte



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Butte	2010	47476.06	31808.96	94952.12	32046.34
2	Butte	2011	46023.32	30835.63	92046.64	31065.74
3	Butte	2012	45992.01	30814.64	91984.01	30886.79
4	Butte	2013	49994.18	33496.10	99988.37	33718.30
5	Butte	2014	44910.60	30090.10	89821.20	30173.63
6	Butte	2015	49137.80	32922.33	98275.61	32976.93
7	Butte	2016	46800.29	31356.19	93600.58	31379.92
8	Butte	2017	51314.52	34380.73	102629.04	34526.43
9	Butte	2018	53595.37	35908.90	107190.74	36073.81
10	Butte	2019	63372.29	42459.43	126744.57	42518.15
						highest_obs
1						94833.43
2						91471.35
3						91871.29
4						99543.97
5						89646.28
6						97183.66
7						92673.20
8						102417.86
9						106160.06
10						126542.11

Income Group Composition For Butte County

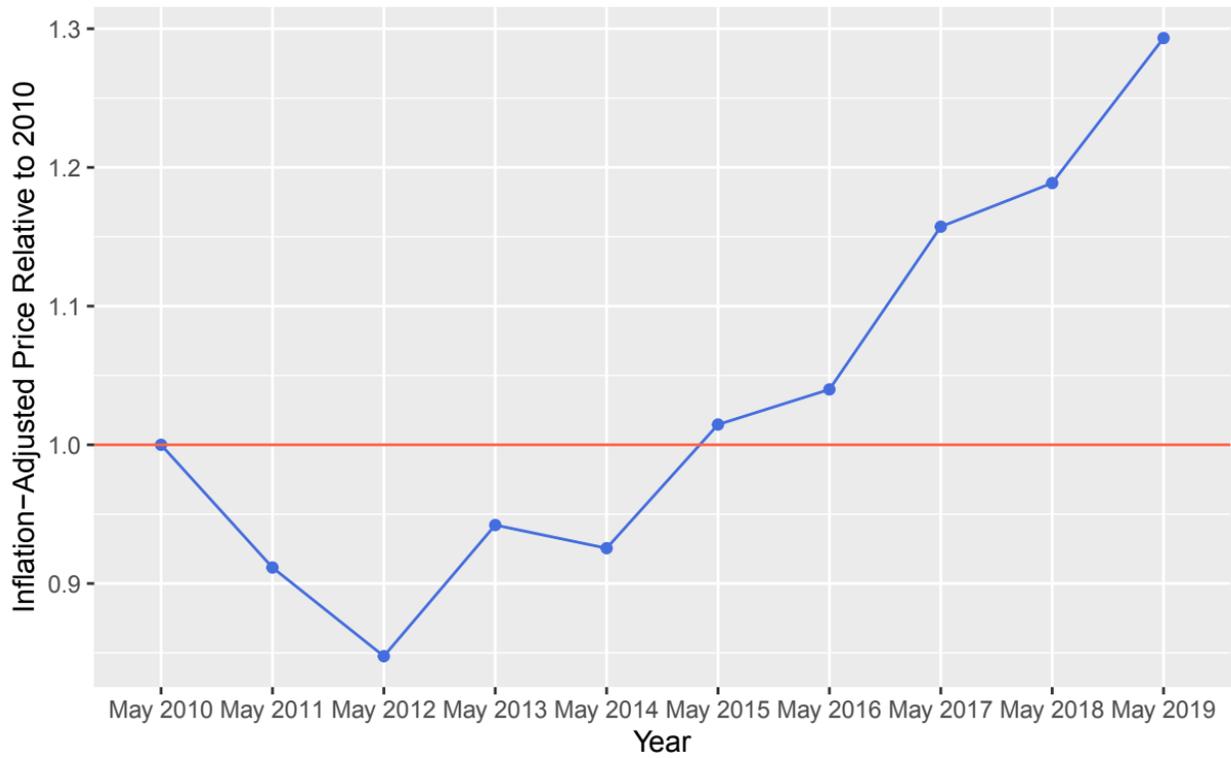


*Butte County Middle Class Trends*

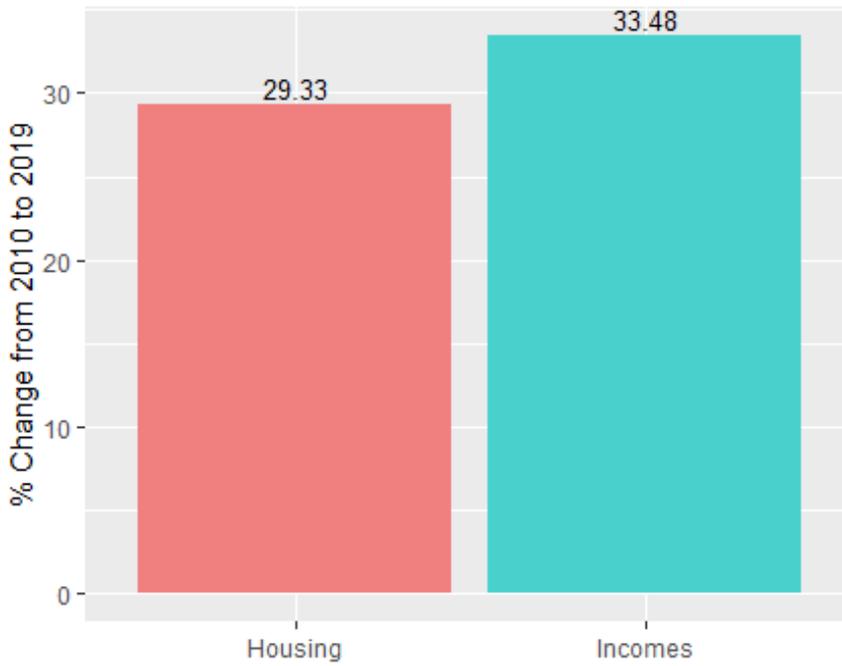
Year	MC_Size	MC_Percent
2010	38819	0.4639647
2011	34919	0.4232863
2012	39816	0.4714575
2013	37210	0.4446542
2014	35072	0.4173499
2015	38256	0.4531789
2016	33619	0.3977450
2017	40415	0.4628431
2018	36778	0.4246098
2019	34703	0.4536874

## Butte

Inflation-Adjusted Median Home Prices 2010-2019

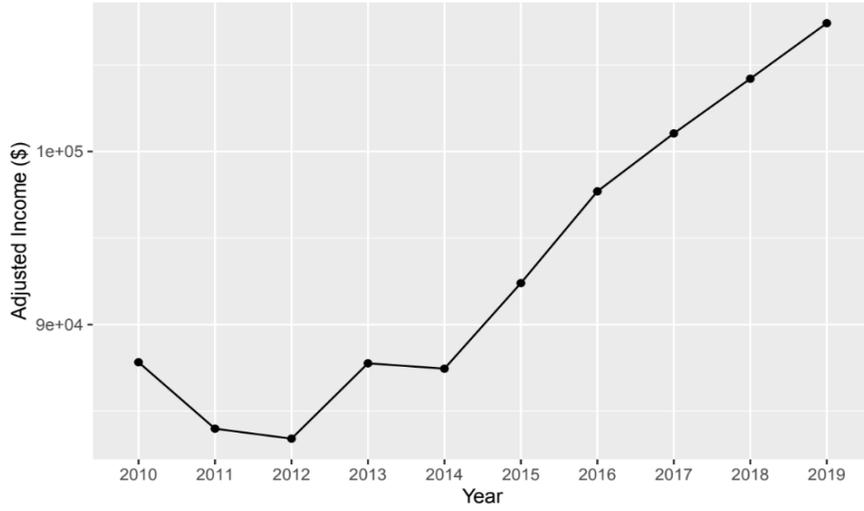


## Butte

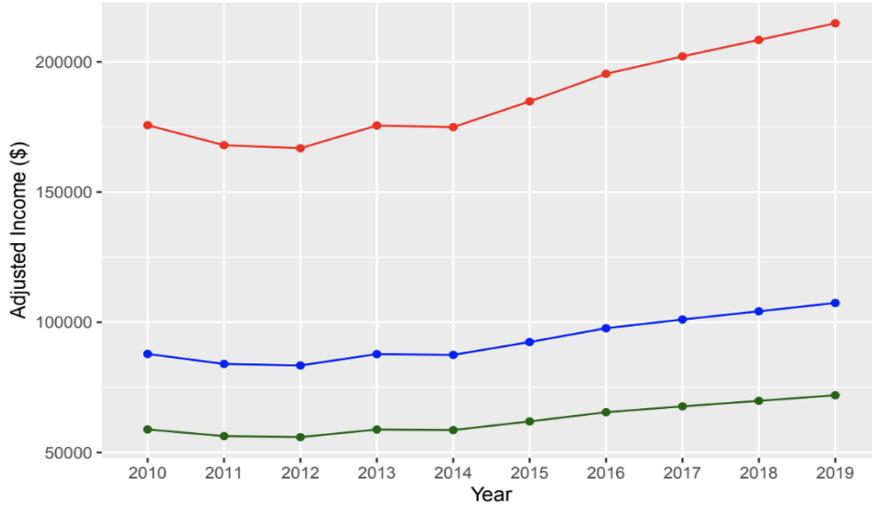


# Contra Costa County

Inflation-Adjusted Median Income 2010-2019  
Contra Costa



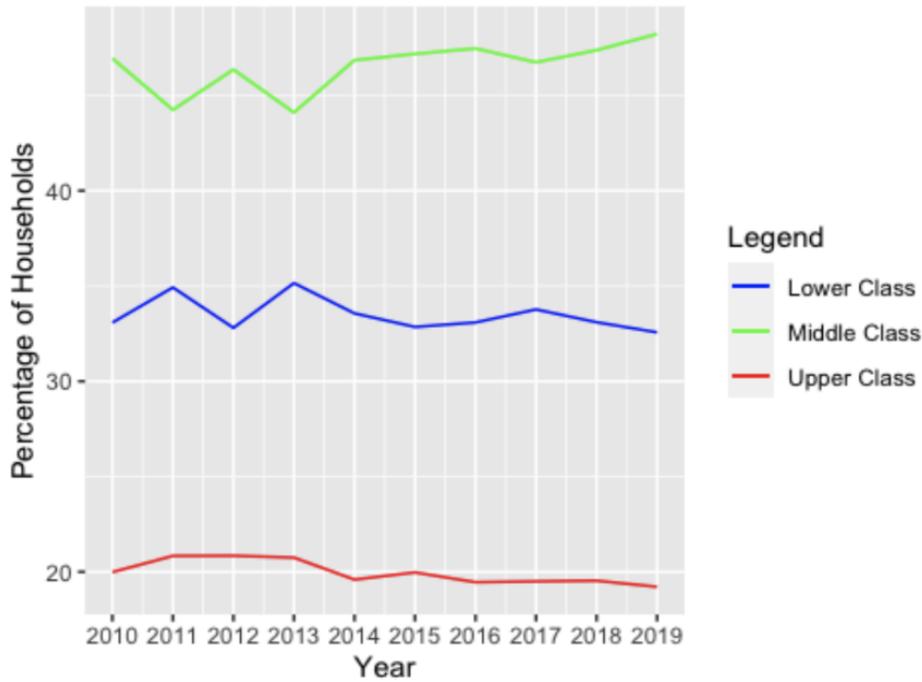
Inflation-Adjusted Middle Income Range 2010-2019  
Contra Costa



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Contra Costa	2010	87830.71	58846.58	175661.4	58870.32
2	Contra Costa	2011	83992.56	56275.02	167985.1	56378.57
3	Contra Costa	2012	83416.88	55889.31	166833.8	55900.58
4	Contra Costa	2013	87767.57	58804.27	175535.1	58882.04
5	Contra Costa	2014	87459.79	58598.06	174919.6	59035.36
6	Contra Costa	2015	92400.91	61908.61	184801.8	61913.63
7	Contra Costa	2016	97698.30	65457.86	195396.6	65563.54
8	Contra Costa	2017	101045.25	67700.32	202090.5	67891.43
9	Contra Costa	2018	104201.76	69815.18	208403.5	69983.18
10	Contra Costa	2019	107408.94	71963.99	214817.9	72280.85

	highest_obs
1	175068.0
2	167524.9
3	166495.6
4	175312.9
5	174886.8
6	184539.8
7	195288.8
8	201984.9
9	208197.4
10	214787.5

Income Group Composition For Contra Costa County

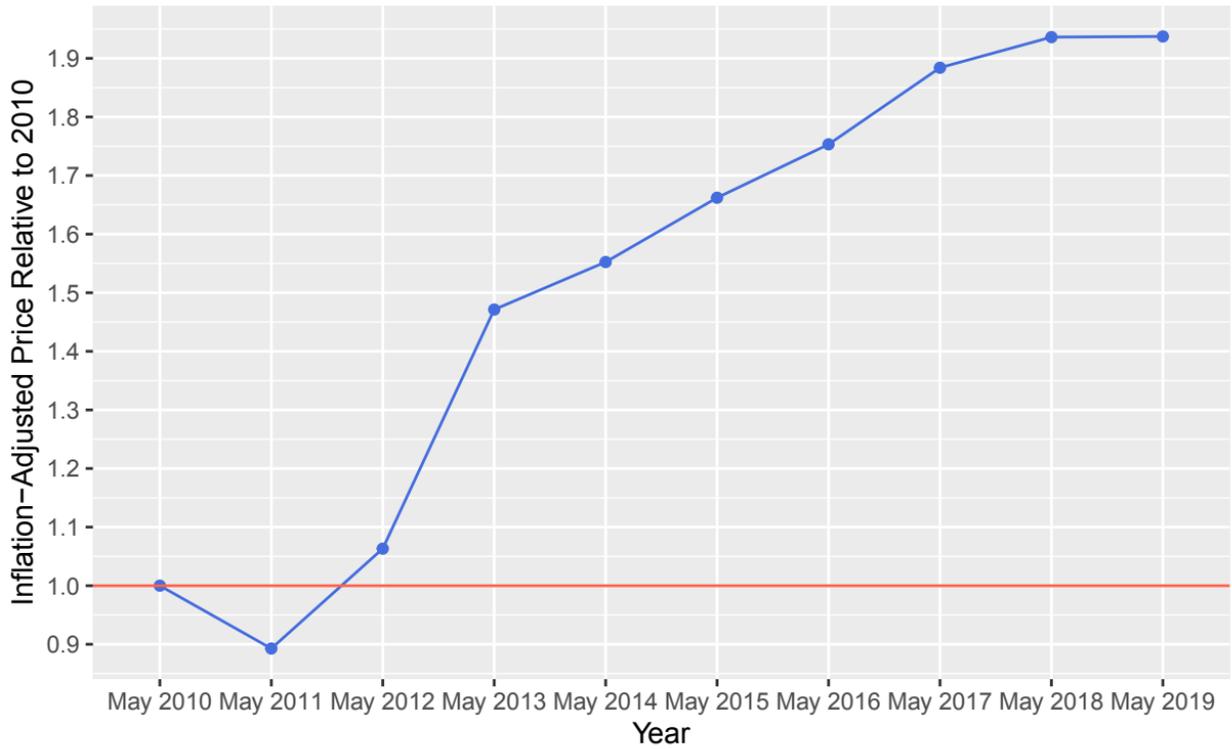


*Contra Costa County Middle Class Trends*

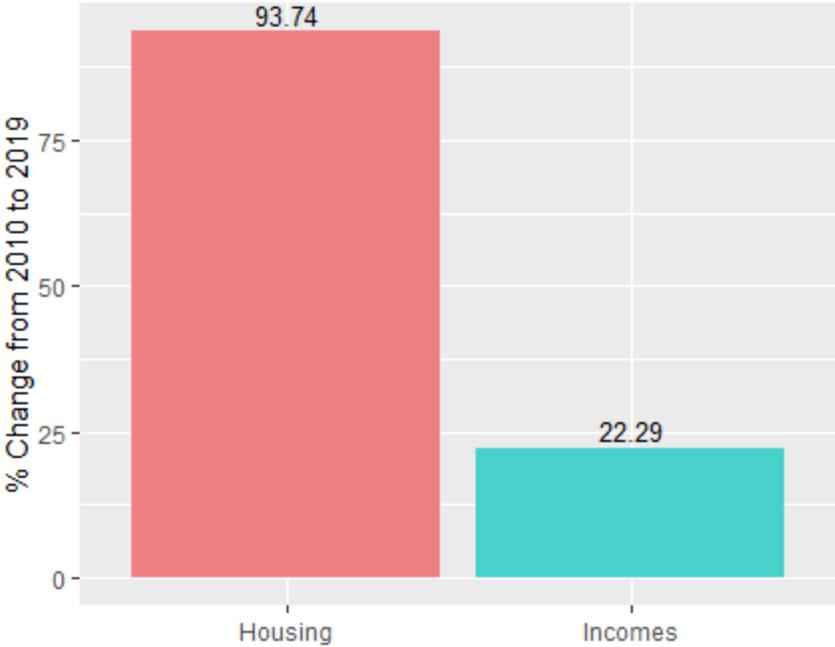
Year	MC_Size	MC_Percent
2010	171311	0.4694044
2011	165496	0.4424281
2012	175317	0.4635514
2013	167419	0.4410150
2014	180331	0.4684579
2015	183200	0.4718074
2016	184419	0.4746156
2017	180926	0.4673581
2018	186254	0.4737202
2019	190515	0.4821944

**Contra-Costa**

Inflation-Adjusted Median Home Prices 2010-2019

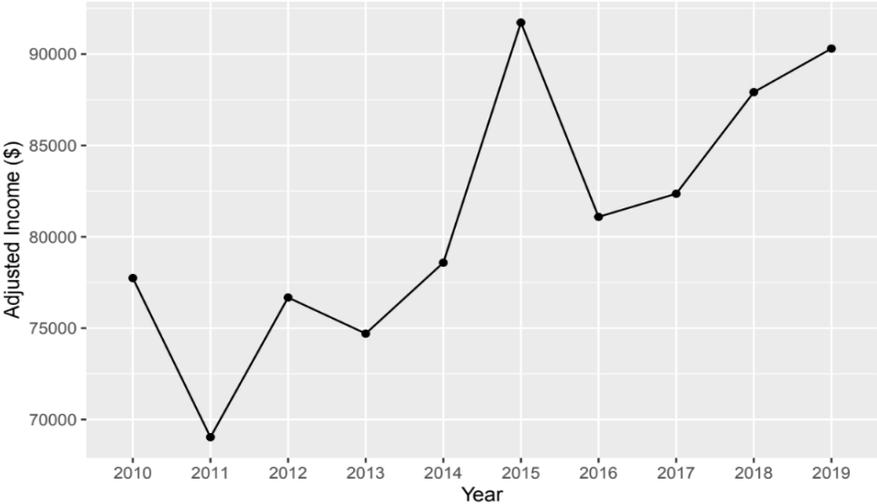


### Contra Costa

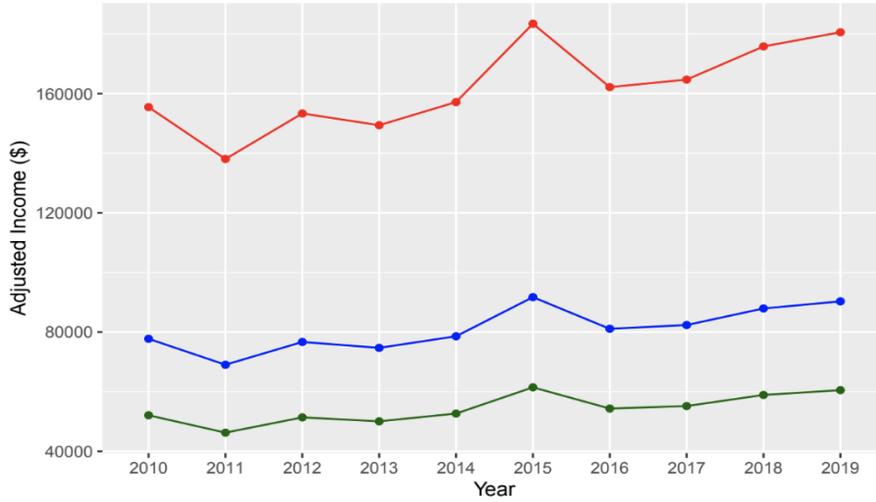


### El Dorado County

Inflation-Adjusted Median Income 2010-2019  
El Dorado

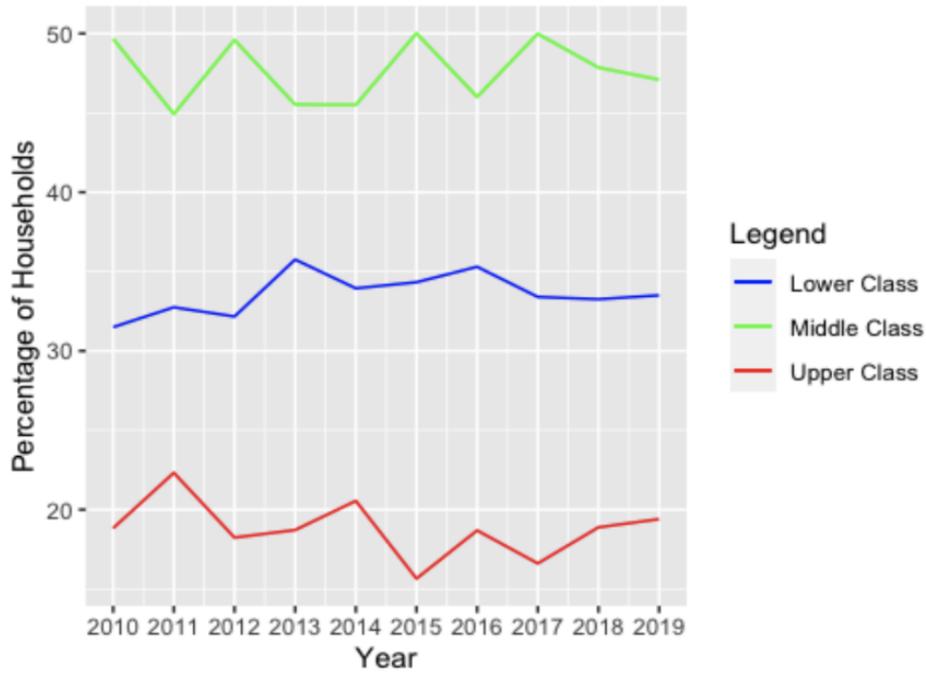


Inflation-Adjusted Middle Income Range 2010-2019  
El Dorado



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs	highest_obs
1	El Dorado	2010	77742.05	52087.17	155484.1	52104.98	155365.4
2	El Dorado	2011	69034.98	46253.44	138070.0	46713.67	137724.8
3	El Dorado	2012	76675.89	51372.85	153351.8	51515.56	152179.4
4	El Dorado	2013	74702.42	50050.62	149404.8	50220.82	147793.9
5	El Dorado	2014	78582.62	52650.35	157165.2	53022.50	156990.3
6	El Dorado	2015	91723.90	61455.01	183447.8	62022.83	181591.5
7	El Dorado	2016	81091.75	54331.47	162183.5	54348.72	161806.1
8	El Dorado	2017	82356.63	55178.94	164713.3	55221.18	163657.4
9	El Dorado	2018	87917.02	58904.40	175834.0	58954.90	175215.6
10	El Dorado	2019	90300.45	60501.30	180600.9	60537.74	180499.7

### Income Group Composition For El Dorado County

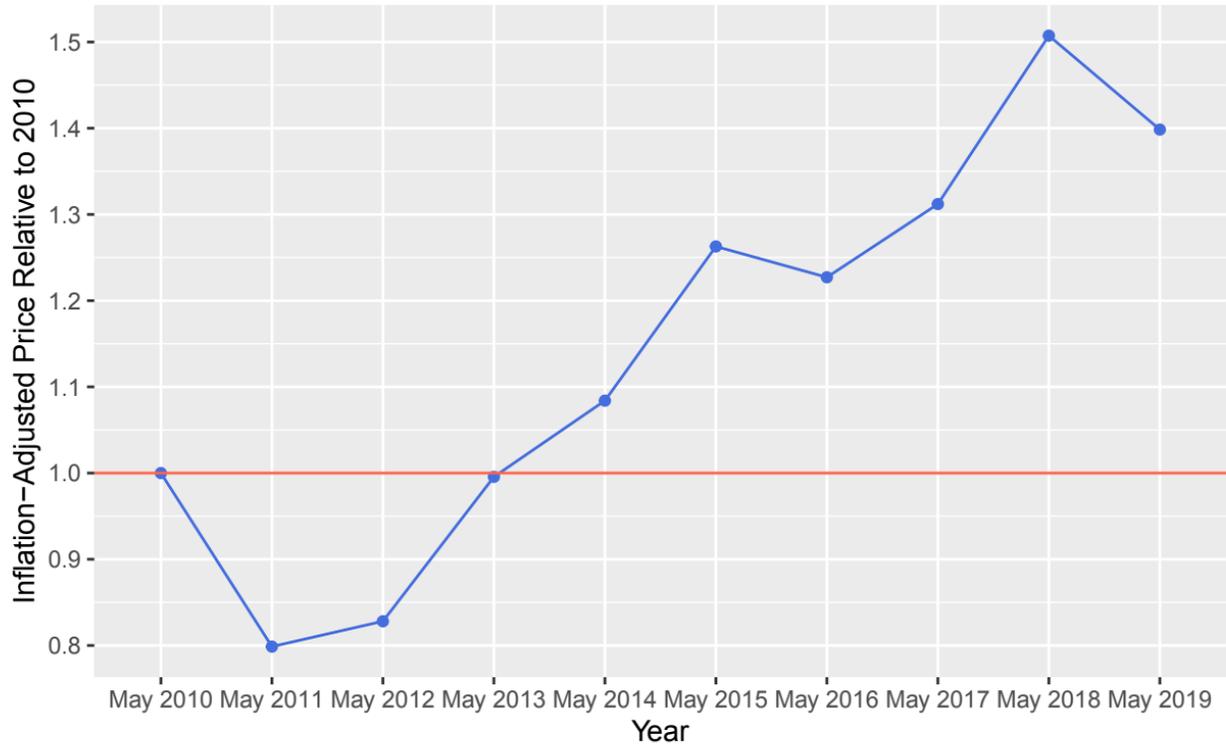


#### *El Dorado County Middle Class Trends*

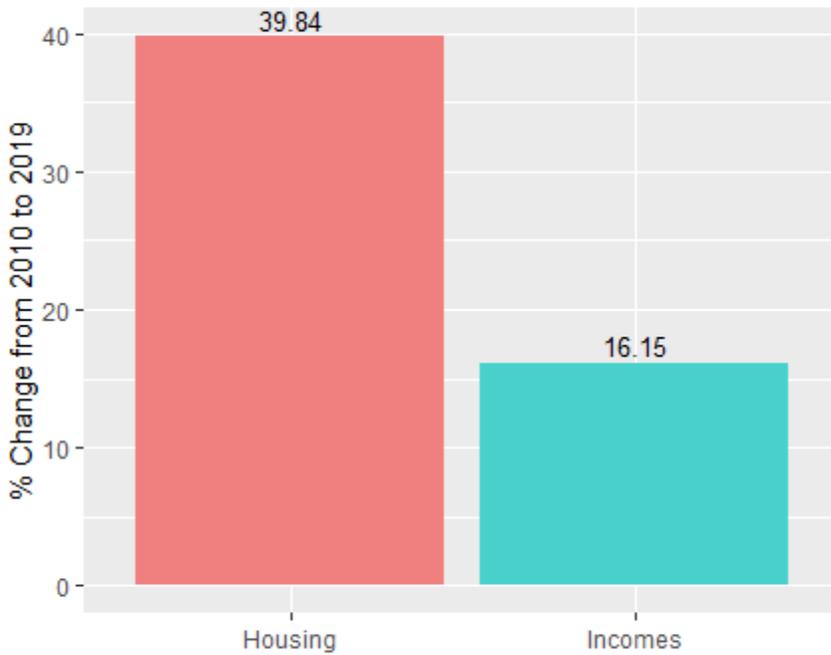
Year	MC_Size	MC_Percent
2010	33481	0.4966992
2011	30348	0.4492938
2012	32327	0.4959270
2013	29709	0.4552824
2014	29744	0.4550308
2015	33265	0.5001880
2016	31610	0.4601031
2017	34617	0.4998917
2018	34496	0.4785661
2019	34484	0.4709578

## El Dorado

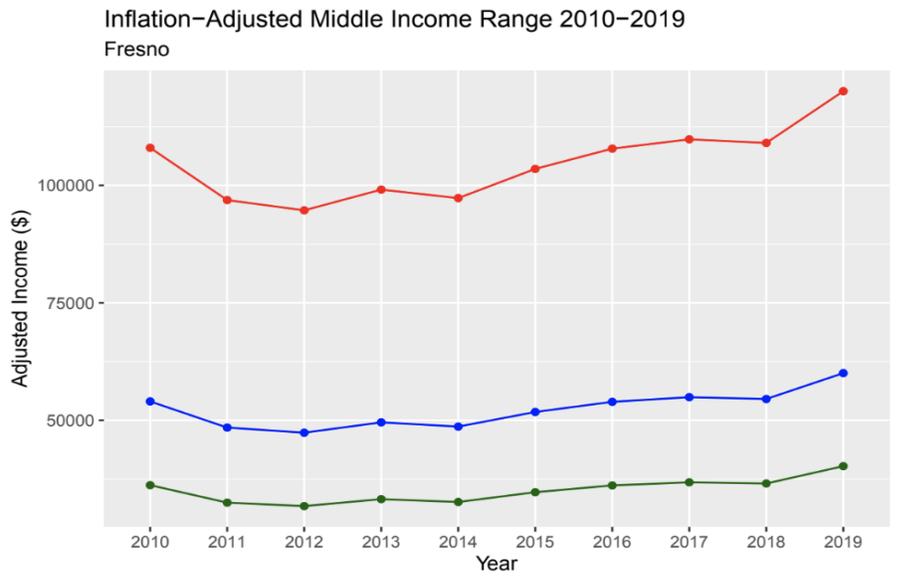
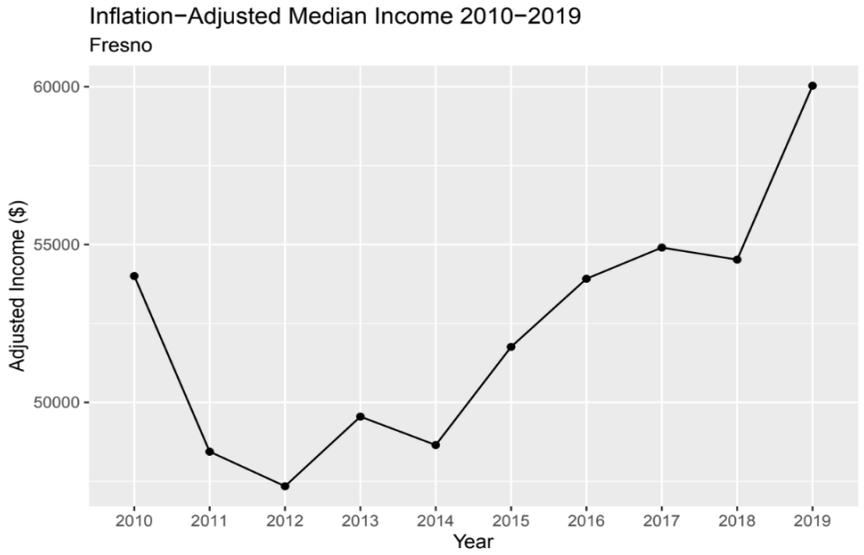
### Inflation-Adjusted Median Home Prices 2010-2019



## El Dorado



# Fresno County

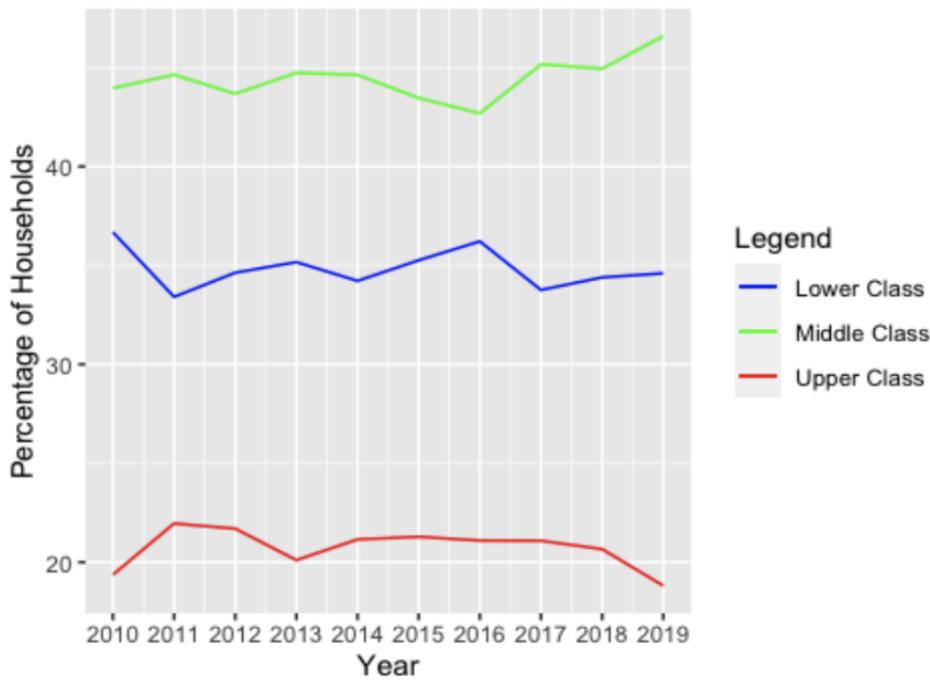


	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Fresno	2010	54004.02	36182.69	108008.04	36319.19
2	Fresno	2011	48439.55	32454.50	96879.09	32561.50
3	Fresno	2012	47344.71	31720.96	94689.43	31788.59
4	Fresno	2013	49549.79	33198.36	99099.58	33218.36
5	Fresno	2014	48649.51	32595.17	97299.01	32688.10
6	Fresno	2015	51758.49	34678.19	103516.97	34724.05
7	Fresno	2016	53917.39	36124.65	107834.77	36232.48
8	Fresno	2017	54904.42	36785.96	109808.84	36849.31
9	Fresno	2018	54522.98	36530.40	109045.96	36589.15
10	Fresno	2019	60031.57	40221.16	120063.15	40291.01

	highest_obs
1	107770.66
2	96648.98
3	94463.97
4	98988.48
5	97080.36
6	103407.78
7	107619.10
8	109502.65
9	108839.82
10	119840.44

Income Group Composition For Fresno County

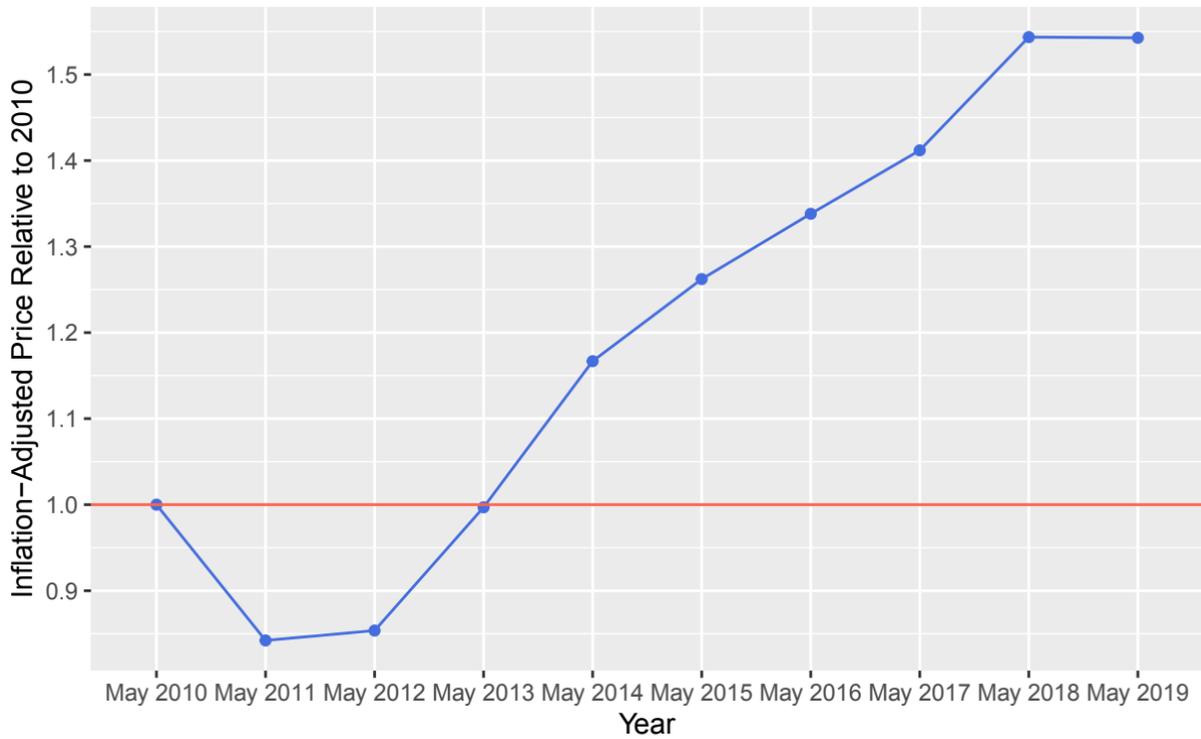


*Fresno County Middle Class Trends*

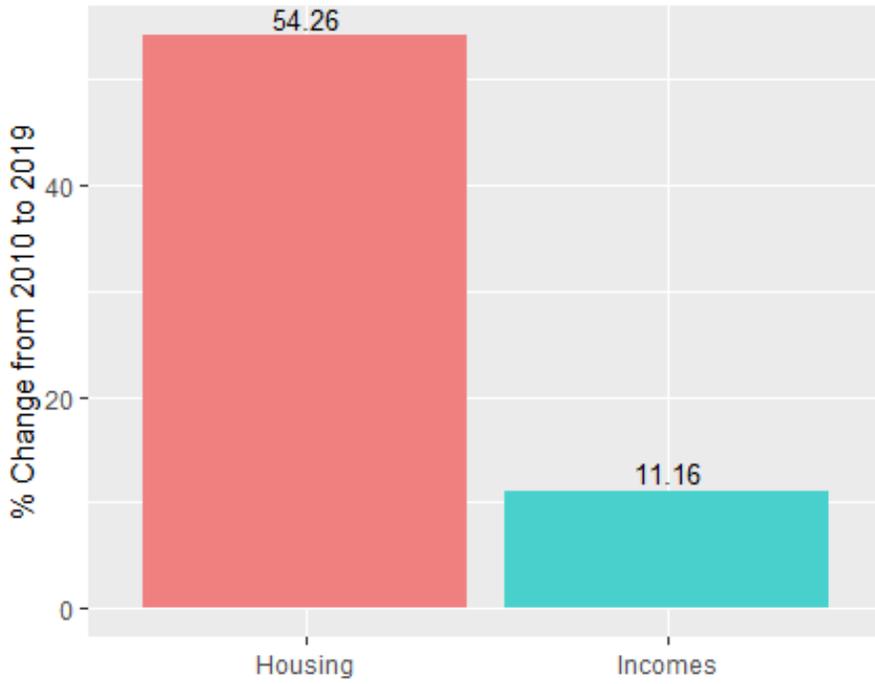
Year	MC_Size	MC_Percent
2010	123502	0.4395496
2011	126657	0.4463400
2012	125808	0.4367029
2013	129342	0.4472840
2014	131303	0.4462825
2015	130698	0.4345635
2016	127765	0.4268623
2017	136073	0.4515582
2018	136919	0.4494157
2019	144237	0.4658637

**Fresno**

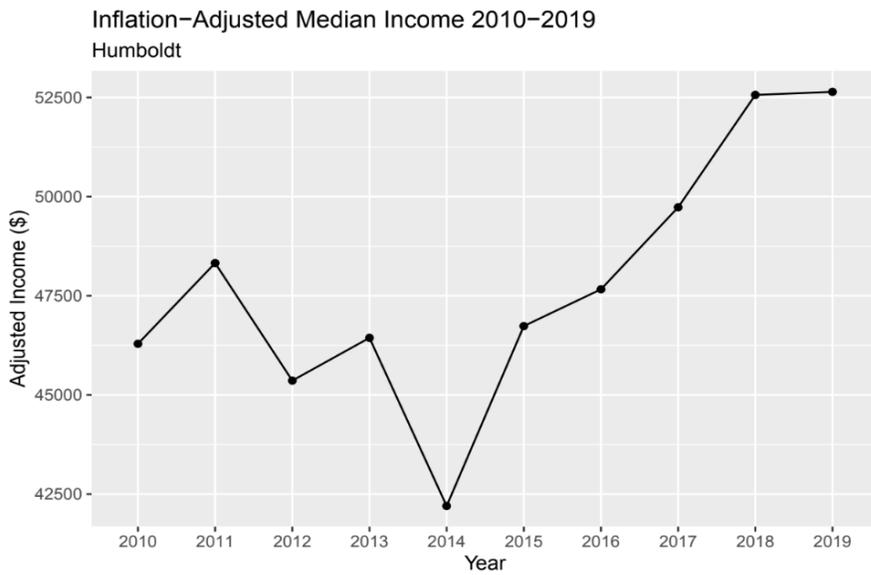
Inflation-Adjusted Median Home Prices 2010-2019



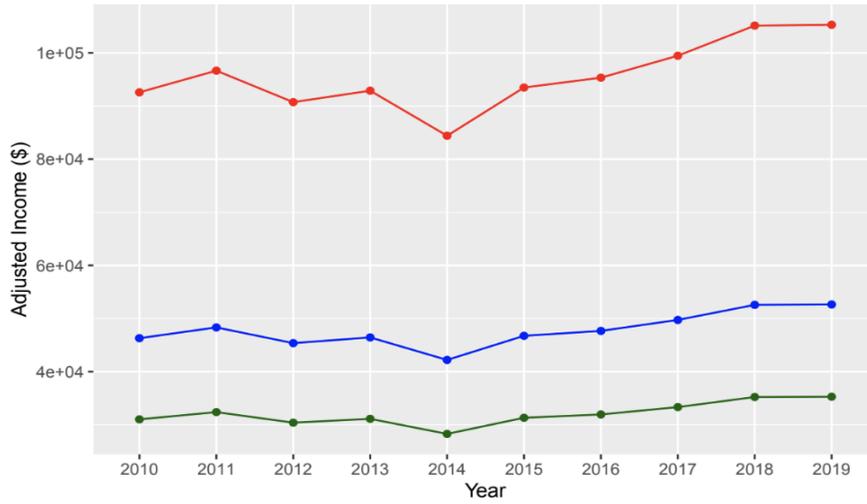
## Fresno



## Humboldt County

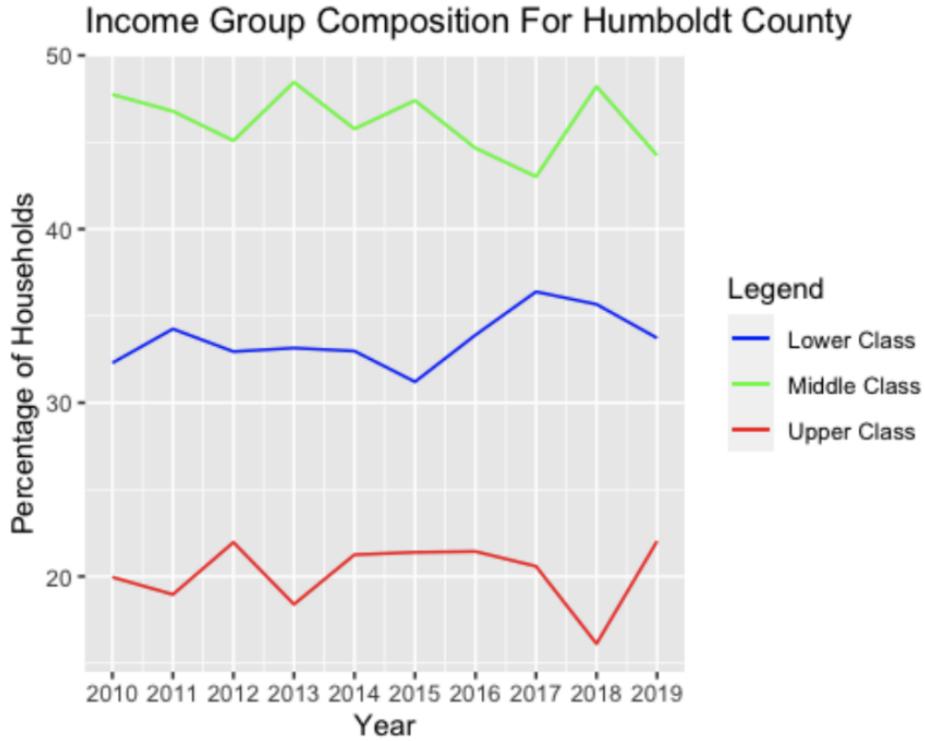


Inflation-Adjusted Middle Income Range 2010-2019  
Humboldt



	countname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Humboldt	2010	46289.16	31013.74	92578.32	31334.20
2	Humboldt	2011	48324.49	32377.41	96648.98	32446.44
3	Humboldt	2012	45360.74	30391.70	90721.49	30435.89
4	Humboldt	2013	46439.04	31114.16	92878.08	31240.81
5	Humboldt	2014	42199.35	28273.56	84398.69	28424.43
6	Humboldt	2015	46735.51	31312.79	93471.02	31994.17
7	Humboldt	2016	47662.97	31934.19	95325.94	32188.68
8	Humboldt	2017	49730.74	33319.59	99461.47	33365.00
9	Humboldt	2018	52564.69	35218.34	105129.38	35352.33
10	Humboldt	2019	52641.52	35269.82	105283.03	35431.79

	highest_obs
1	92103.56
2	95636.46
3	90631.31
4	92433.69
5	84180.04
6	92488.27
7	95110.27
8	98511.20
9	104717.10
10	104878.10

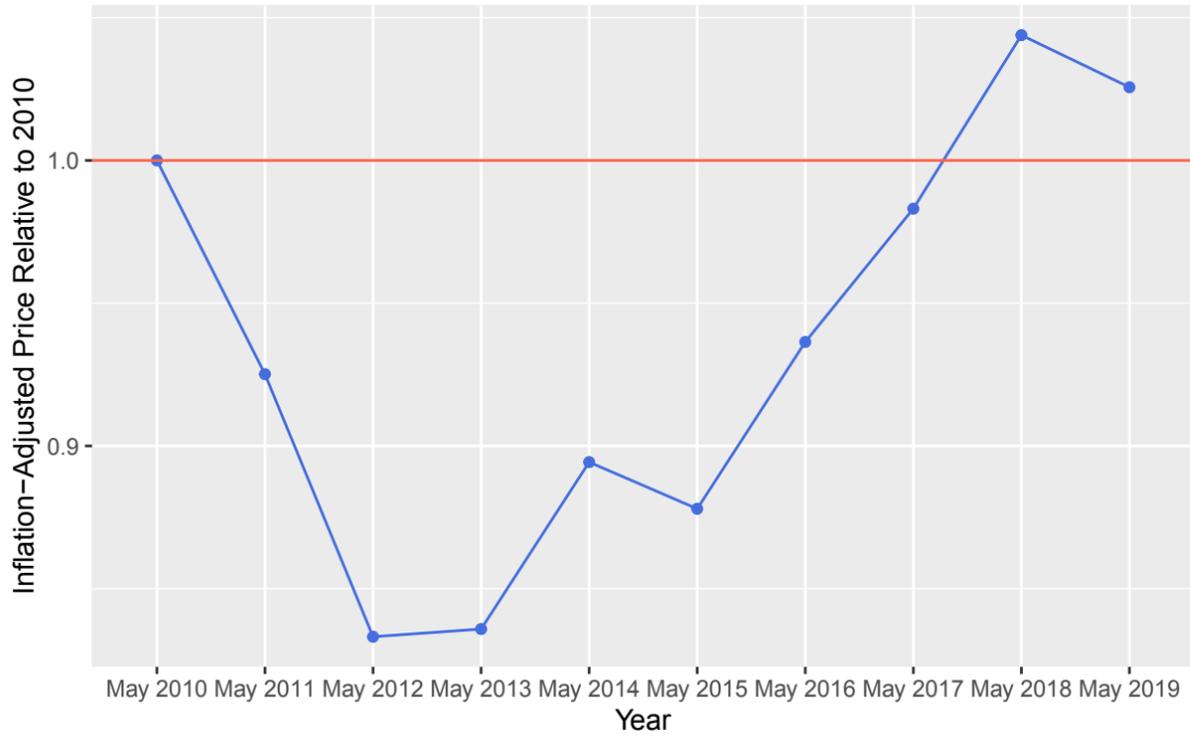


*Humboldt County Middle Class Trends*

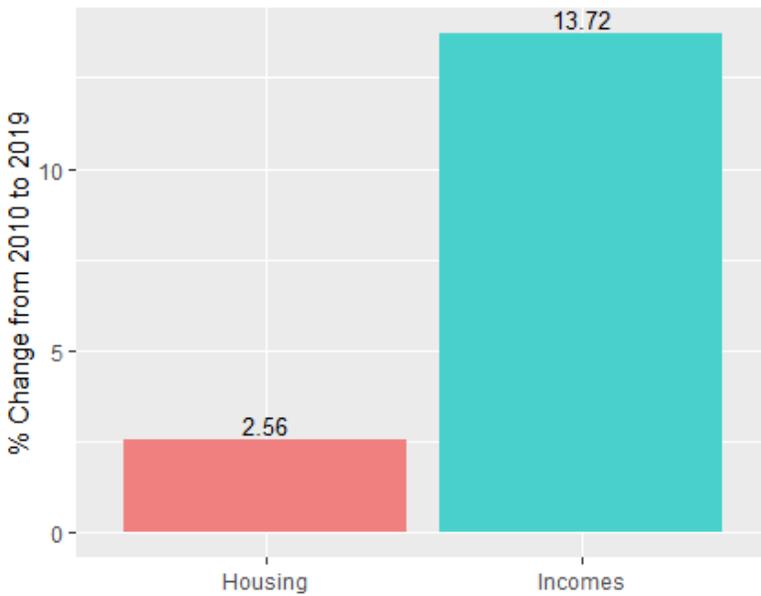
Year	MC_Size	MC_Percent
2010	26071	0.4774734
2011	23665	0.4678727
2012	23141	0.4508983
2013	25509	0.4845658
2014	24071	0.4577193
2015	24718	0.4740062
2016	23738	0.4465808
2017	22347	0.4302299
2018	26621	0.4820898
2019	24270	0.4424472

## Humboldt

Inflation-Adjusted Median Home Prices 2010-2019

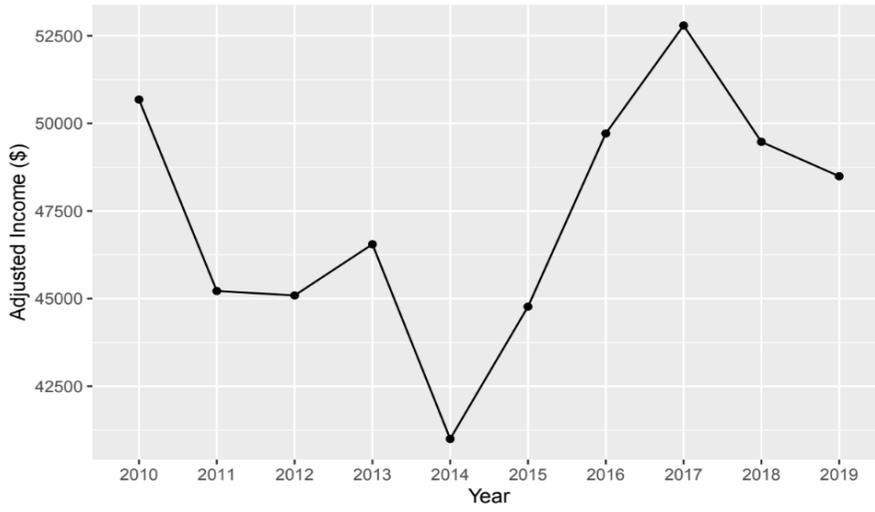


## Humboldt

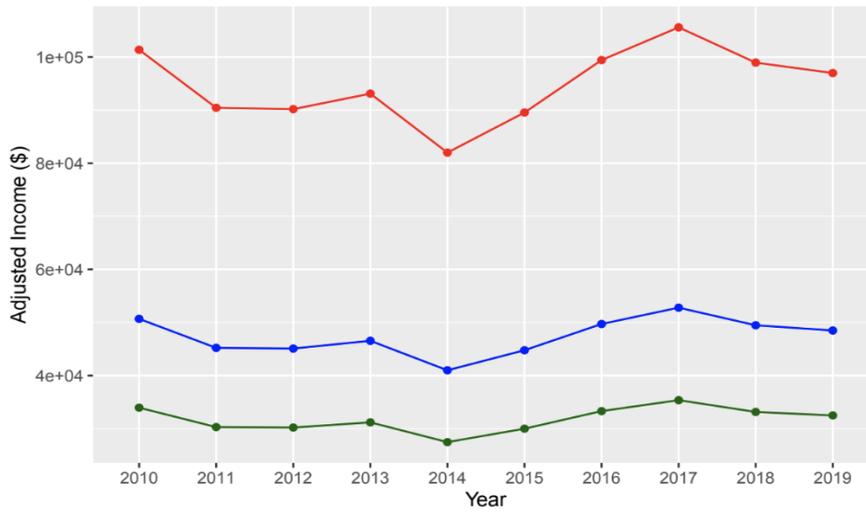


# Imperial County

Inflation-Adjusted Median Income 2010-2019  
Imperial



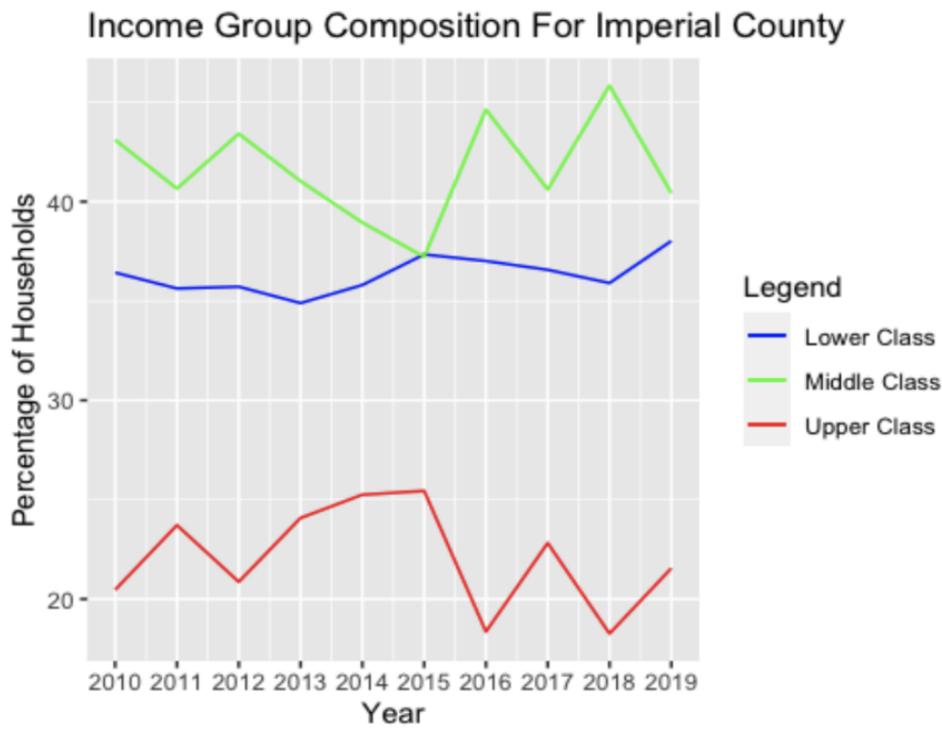
Inflation-Adjusted Middle Income Range 2010-2019  
Imperial



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Imperial	2010	50680.70	33956.07	101361.39	34420.14
2	Imperial	2011	45217.91	30296.00	90435.83	30605.51
3	Imperial	2012	45090.20	30210.44	90180.41	30435.89
4	Imperial	2013	46550.14	31188.59	93100.28	31440.79
5	Imperial	2014	40996.77	27467.84	81993.55	27987.13
6	Imperial	2015	44770.00	29995.90	89540.00	30028.66
7	Imperial	2016	49711.83	33306.93	99423.66	33320.94
8	Imperial	2017	52792.71	35371.12	105585.43	35899.05
9	Imperial	2018	49472.65	33146.67	98945.29	33909.38
10	Imperial	2019	48490.93	32488.93	96981.87	33103.41

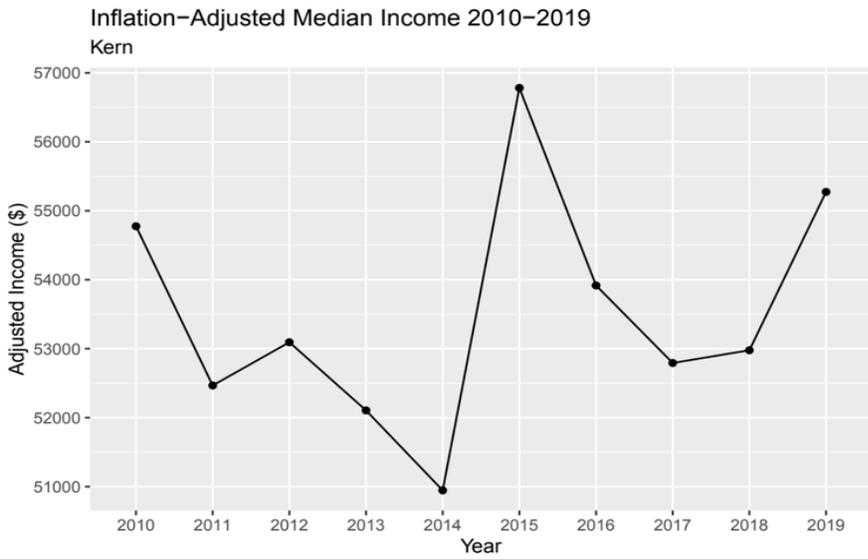
	highest_obs
1	100886.63
2	89745.48
3	89842.23
4	92211.49
5	81009.63
6	88448.05
7	98776.65
8	104529.57
9	97914.61
10	96880.64



*Imperial County Middle Class Trends*

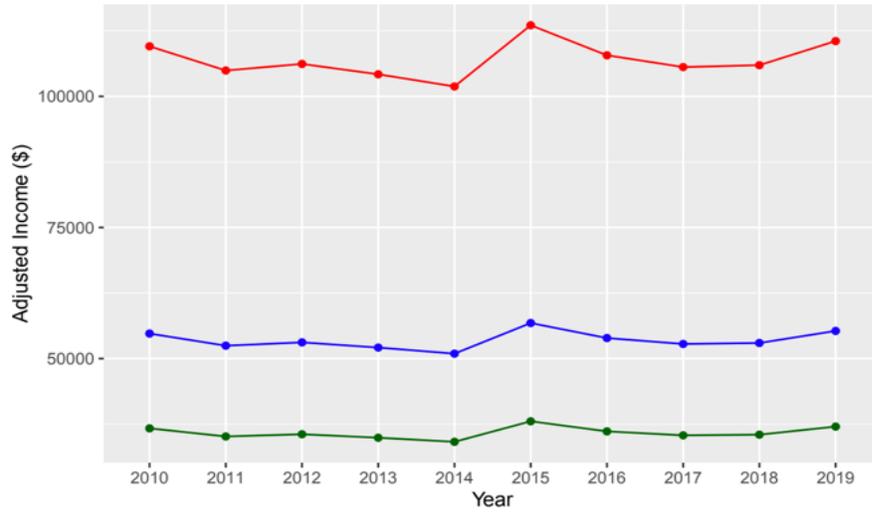
Year	MC_Size	MC_Percent
2010	20639	0.4310478
2011	19493	0.4065531
2012	20030	0.4341230
2013	19429	0.4102927
2014	16938	0.3894599
2015	16592	0.3721681
2016	19706	0.4462510
2017	17598	0.4061389
2018	18625	0.4583487
2019	19275	0.4043084

**Kern County**



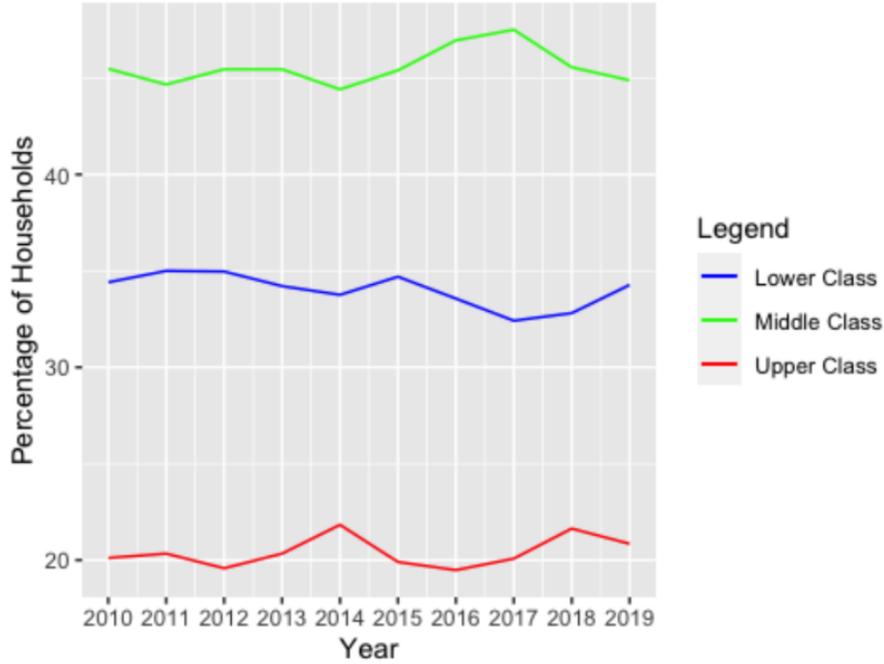
Inflation-Adjusted Middle Income Range 2010-2019

Kern



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Kern	2010	54775.51	36699.59	109551.0	36793.95
2	Kern	2011	52466.59	35152.61	104933.2	35207.84
3	Kern	2012	53093.71	35572.79	106187.4	35756.53
4	Kern	2013	52105.05	34910.38	104210.1	34995.93
5	Kern	2014	50945.33	34133.37	101890.7	34218.64
6	Kern	2015	56781.46	38043.58	113562.9	38109.10
7	Kern	2016	53917.39	36124.65	107834.8	36232.48
8	Kern	2017	52792.71	35371.12	105585.4	35434.47
9	Kern	2018	52976.96	35494.56	105953.9	35558.47
10	Kern	2019	55273.59	37033.31	110547.2	37051.53

### Income Group Composition For Kern County

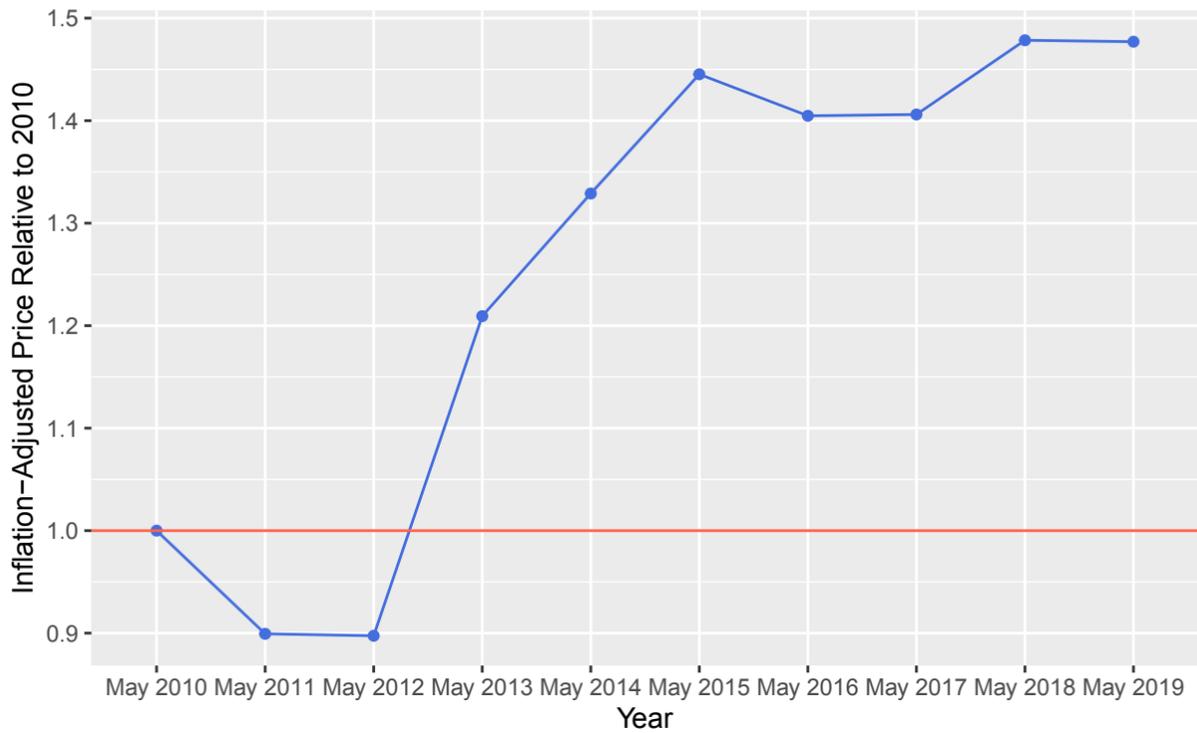


#### *Kern County Middle Class Trends*

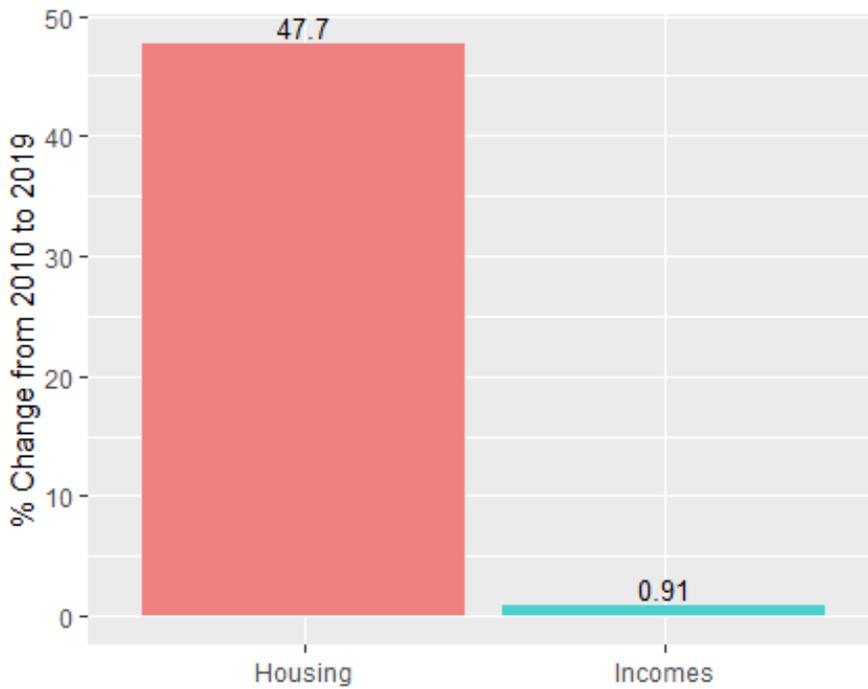
Year	MC_Size	MC_Percent
2010	113291	0.4548342
2011	111874	0.4466581
2012	115050	0.4545886
2013	115607	0.4545551
2014	114935	0.4441435
2015	117217	0.4540145
2016	125305	0.4695586
2017	125325	0.4750866
2018	121704	0.4555899
2019	121026	0.4488312

### Kern

Inflation-Adjusted Median Home Prices 2010-2019



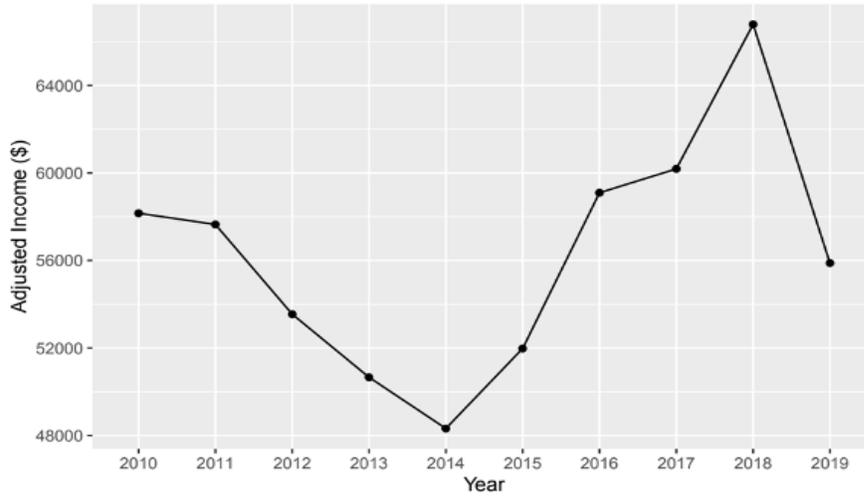
### Kern



# Kings County

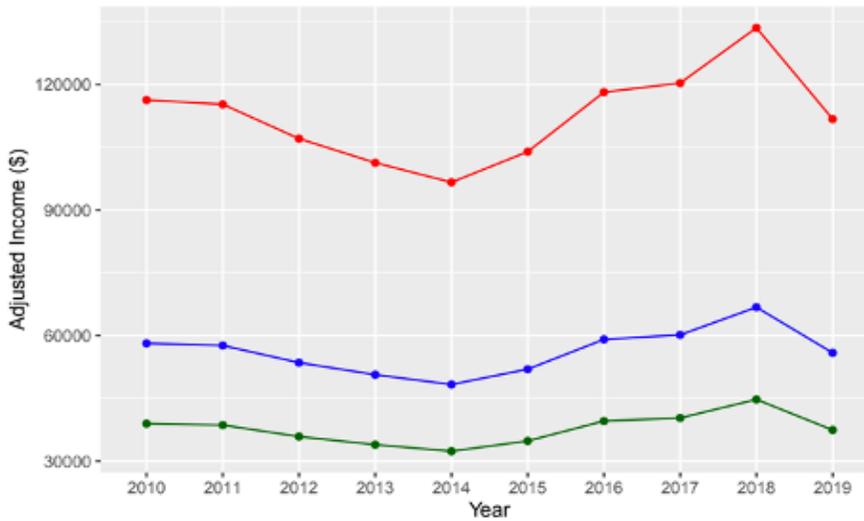
Inflation-Adjusted Median Income 2010-2019

Kings



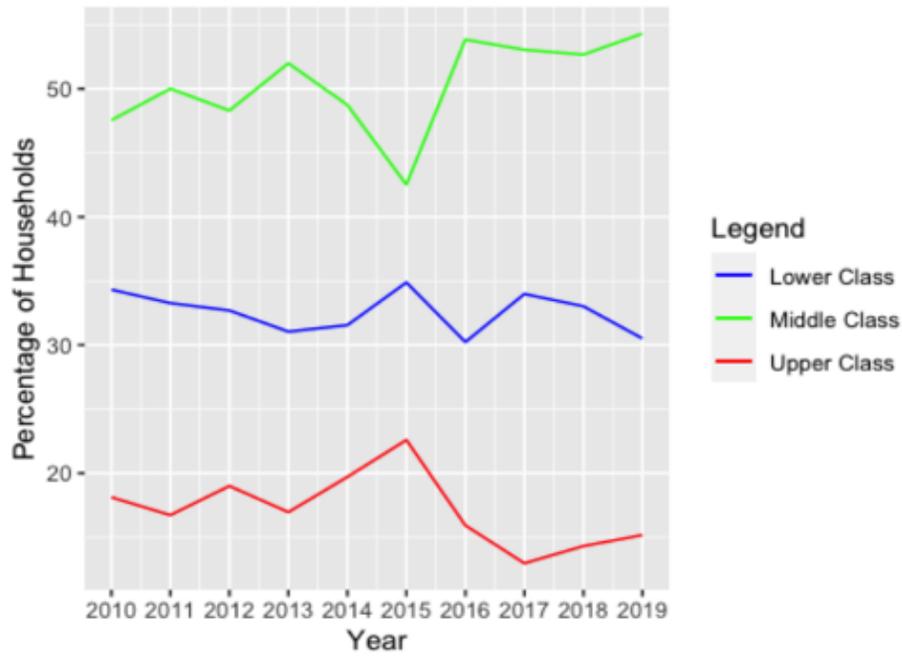
Inflation-Adjusted Middle Income Range 2010-2019

Kings



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Kings	2010	58158.17	38965.98	116316.35	39167.75
2	Kings	2011	57644.21	38621.62	115288.42	38889.71
3	Kings	2012	53544.62	35874.89	107089.23	36072.16
4	Kings	2013	50660.77	33942.72	101321.55	34218.24
5	Kings	2014	48321.53	32375.43	96643.06	32688.10
6	Kings	2015	51976.88	34824.51	103953.76	34942.44
7	Kings	2016	59093.45	39592.61	118186.91	39683.20
8	Kings	2017	60183.69	40323.07	120367.39	40650.39
9	Kings	2018	66788.07	44748.01	133576.15	44937.65
10	Kings	2019	55880.99	37440.27	111761.99	38397.94

Income Group Composition For Kings County

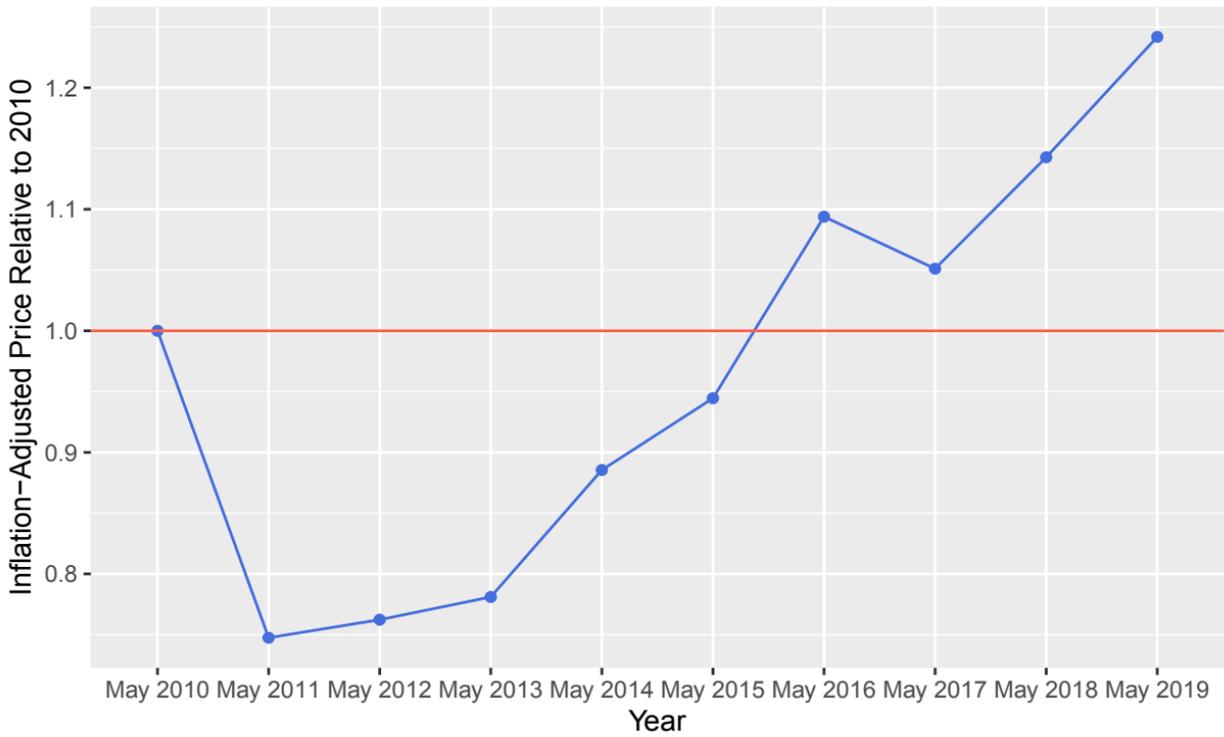


*Kings County Middle Class Trends*

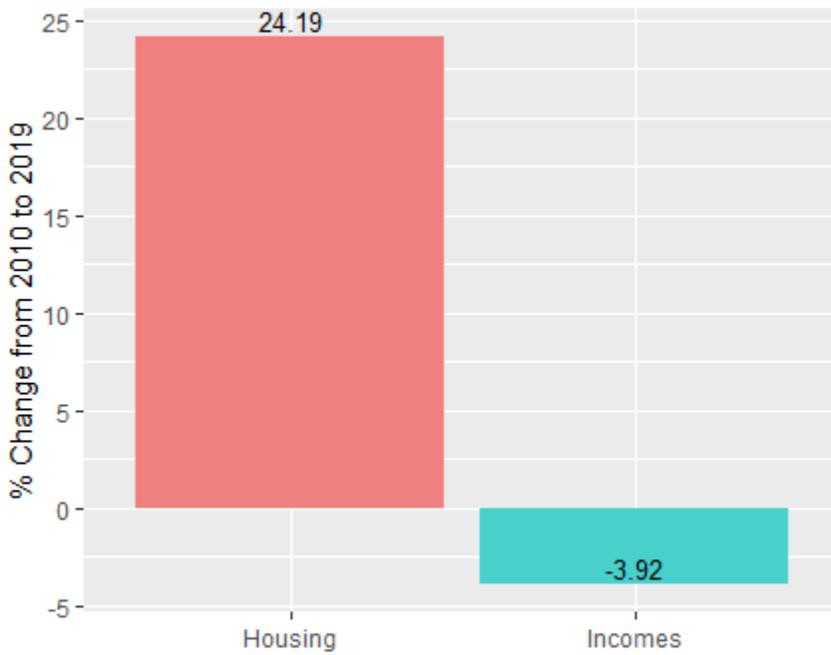
Year	MC_Size	MC_Percent
2010	18829	0.4754798
2011	20151	0.5000248
2012	19385	0.4829949
2013	21207	0.5199323
2014	19801	0.4874092
2015	18102	0.4252091
2016	22934	0.5384453
2017	22364	0.5304680
2018	22784	0.5266637
2019	24195	0.5431586

## Kings

Inflation-Adjusted Median Home Prices 2010-2019



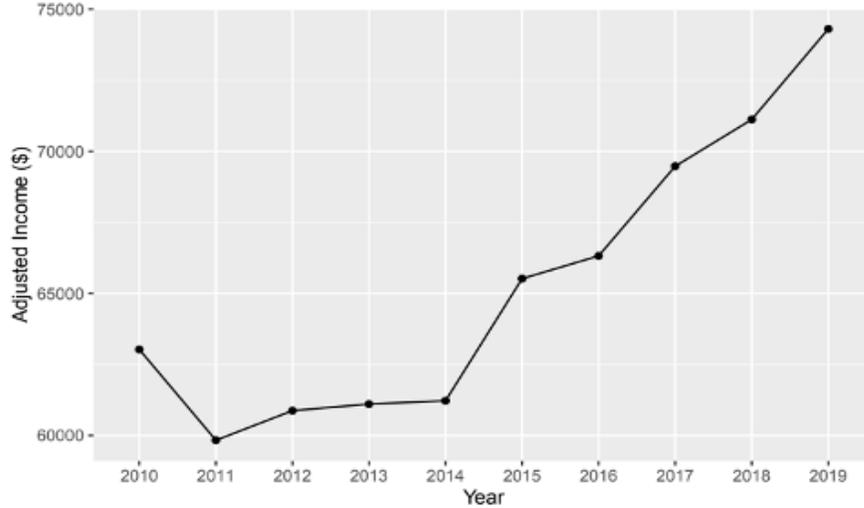
## Kings



# Los Angeles County

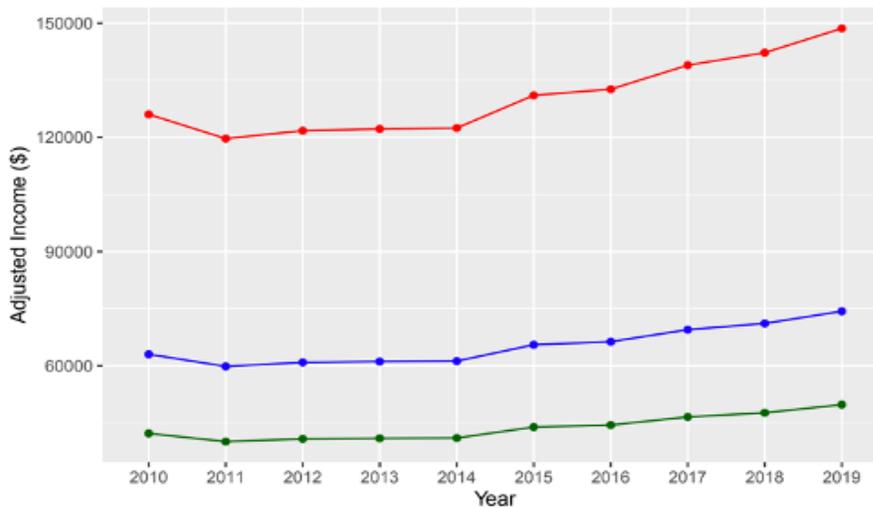
Inflation-Adjusted Median Income 2010-2019

Los Angeles



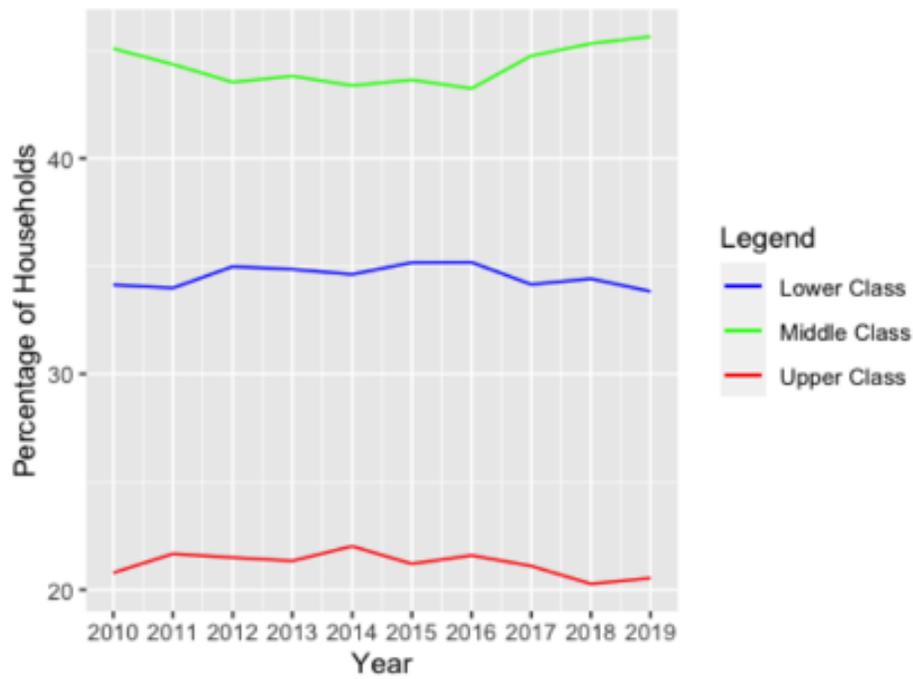
Inflation-Adjusted Middle Income Range 2010-2019

Los Angeles



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Los Angeles	2010	63024.47	42226.40	126048.9	42253.69
2	Los Angeles	2011	59830.32	40086.31	119660.6	40097.82
3	Los Angeles	2012	60871.77	40784.09	121743.5	40806.63
4	Los Angeles	2013	61104.00	40939.68	122208.0	40995.23
5	Los Angeles	2014	61221.85	41018.64	122443.7	41106.10
6	Los Angeles	2015	65517.07	43896.44	131034.1	43951.04
7	Los Angeles	2016	66318.38	44433.32	132636.8	44449.49
8	Los Angeles	2017	69475.21	46548.39	138950.4	46563.17
9	Los Angeles	2018	71116.93	47648.34	142233.9	47720.49
10	Los Angeles	2019	74305.52	49784.70	148611.0	49786.73

### Income Group Composition For Los Angeles County

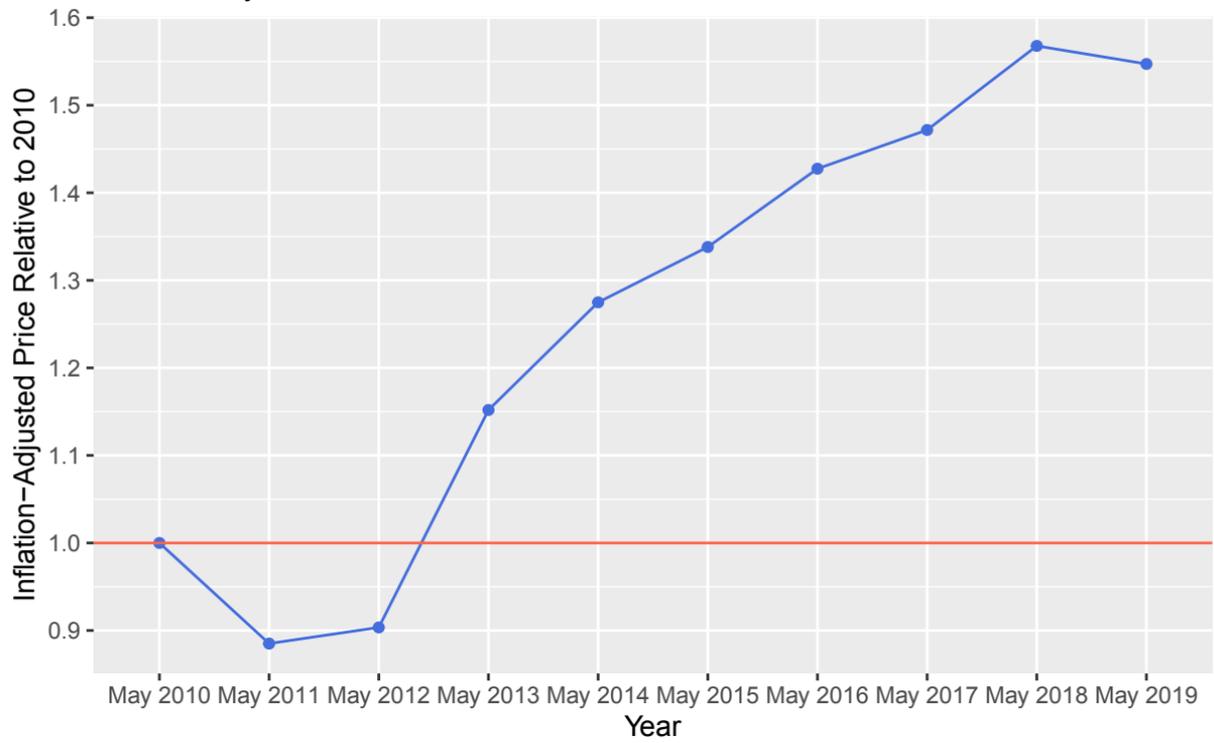


### *Los Angeles County Middle Class Trends*

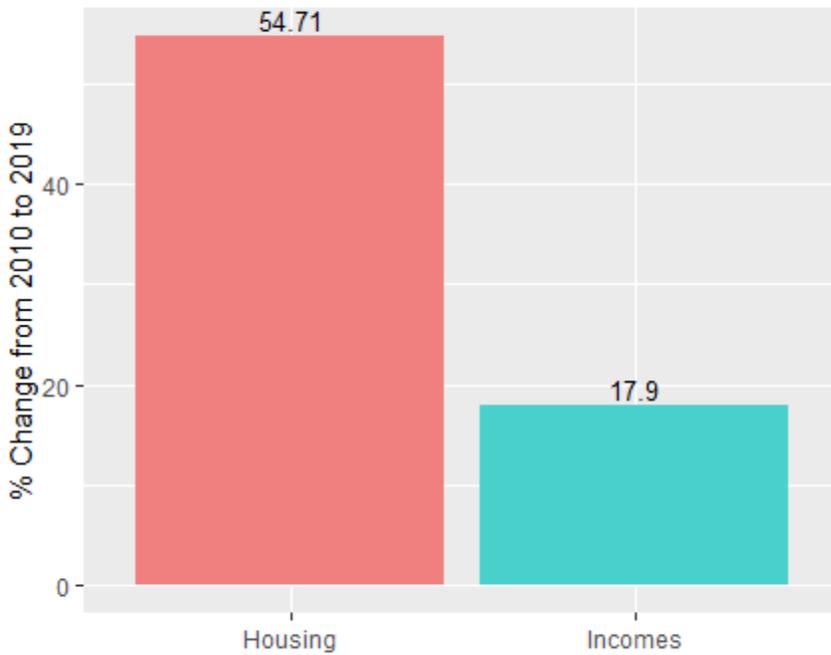
Year	MC_Size	MC_Percent
2010	1421678	0.4509036
2011	1396915	0.4435451
2012	1382821	0.4353147
2013	1398997	0.4381543
2014	1395041	0.4337182
2015	1414393	0.4363833
2016	1403443	0.4323513
2017	1453896	0.4475249
2018	1474274	0.4531789
2019	1496053	0.4564328

## Los Angeles

Inflation-Adjusted Median Home Prices 2010-2019

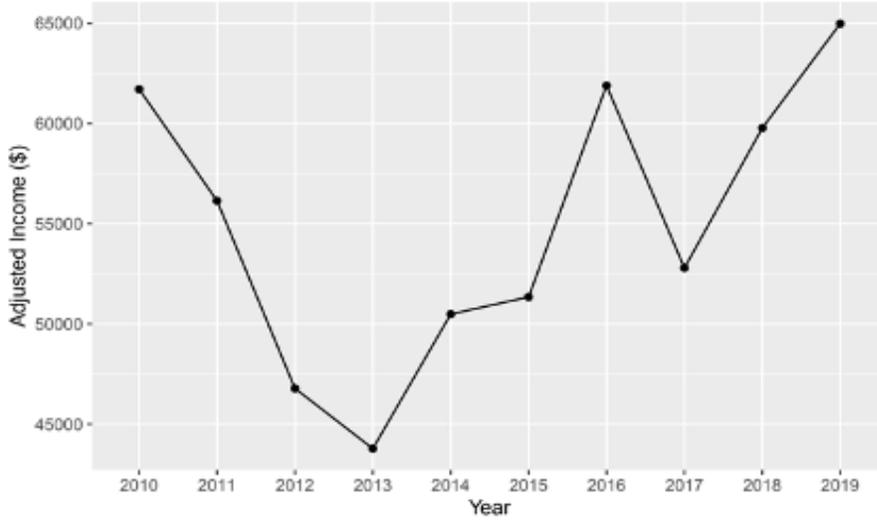


## Los Angeles

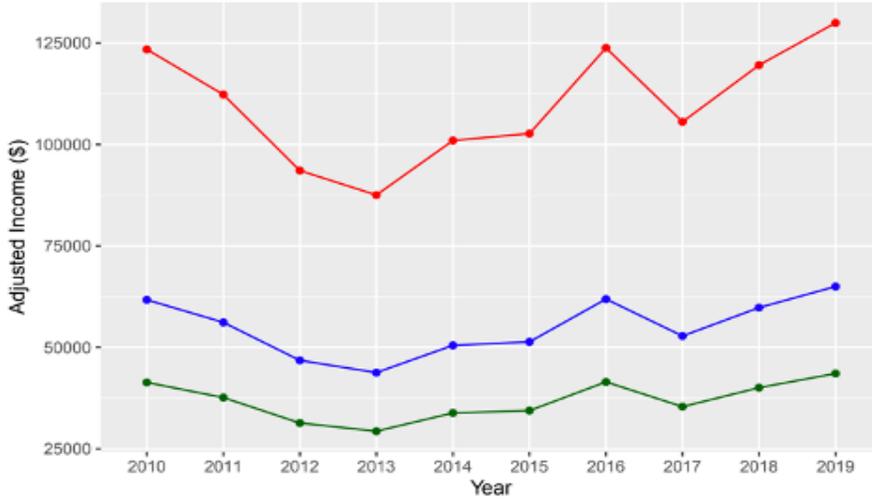


# Madera County

Inflation-Adjusted Median Income 2010-2019  
Madera

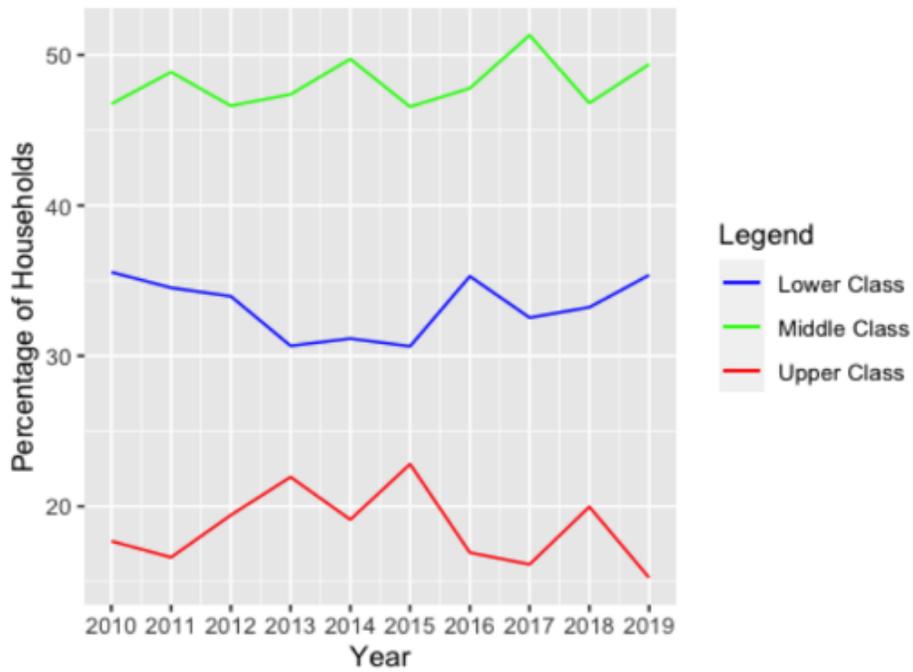


Inflation-Adjusted Middle Income Range 2010-2019  
Madera



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Madera	2010	61718.88	41351.65	123437.76	41541.55
2	Madera	2011	56148.45	37619.46	112296.91	37681.59
3	Madera	2012	46781.09	31343.33	93562.17	31450.42
4	Madera	2013	43772.69	29327.70	87545.37	29329.92
5	Madera	2014	50486.16	33825.73	100972.32	34437.29
6	Madera	2015	51343.55	34400.18	102687.09	34942.44
7	Madera	2016	61897.16	41471.10	123794.32	41624.22
8	Madera	2017	52792.71	35371.12	105585.43	35476.70
9	Madera	2018	59779.45	40052.23	119558.90	40196.53
10	Madera	2019	64992.03	43544.66	129984.05	44137.89

### Income Group Composition For Madera County

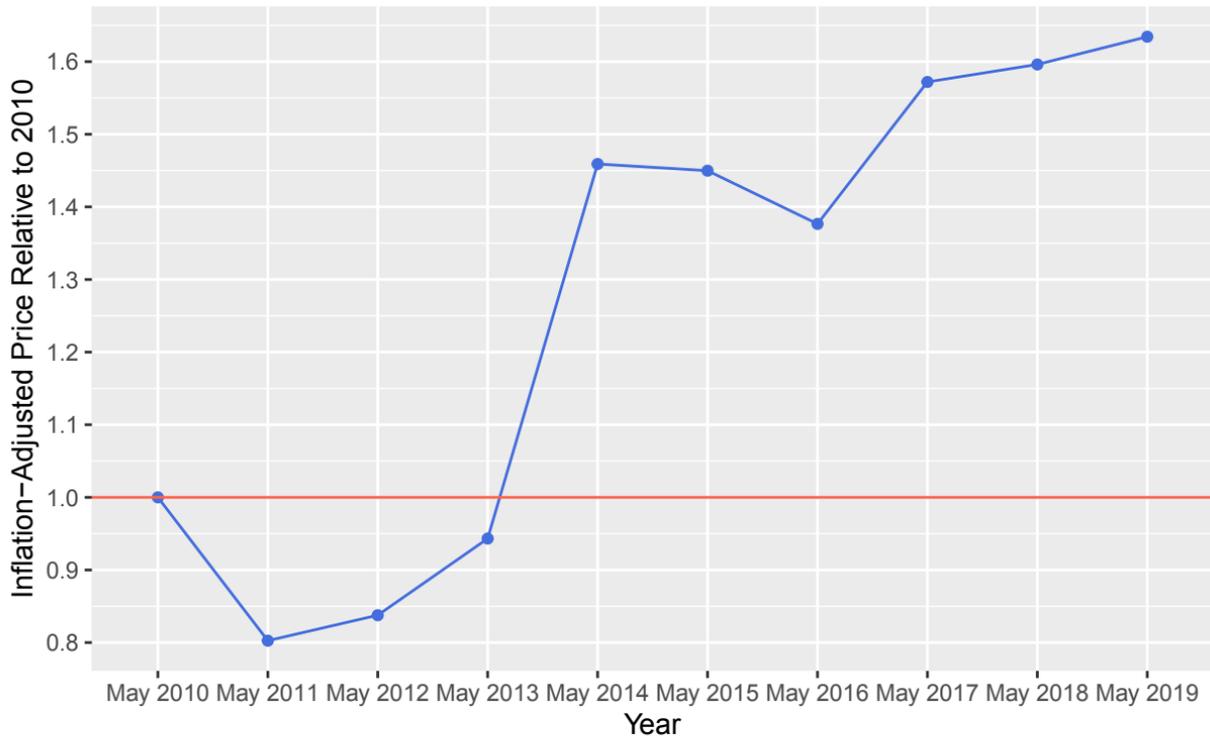


#### *Madera County Middle Class Trends*

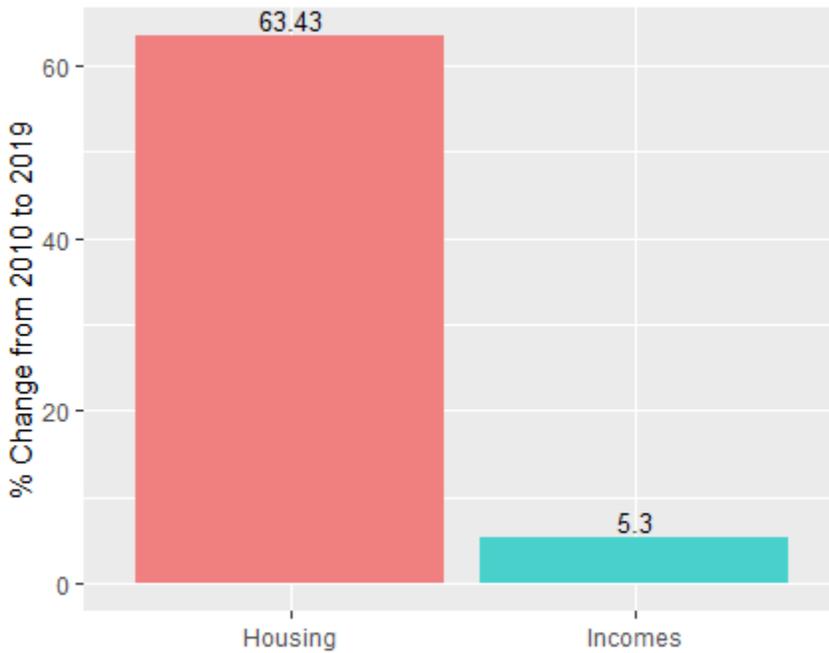
Year	MC_Size	MC_Percent
2010	19598	0.4674984
2011	19587	0.4886854
2012	18127	0.4662534
2013	20546	0.4738687
2014	20896	0.4973580
2015	20754	0.4655973
2016	20386	0.4779500
2017	23605	0.5132191
2018	20680	0.4680639
2019	21672	0.4938137

## Madera

### Inflation-Adjusted Median Home Prices 2010-2019

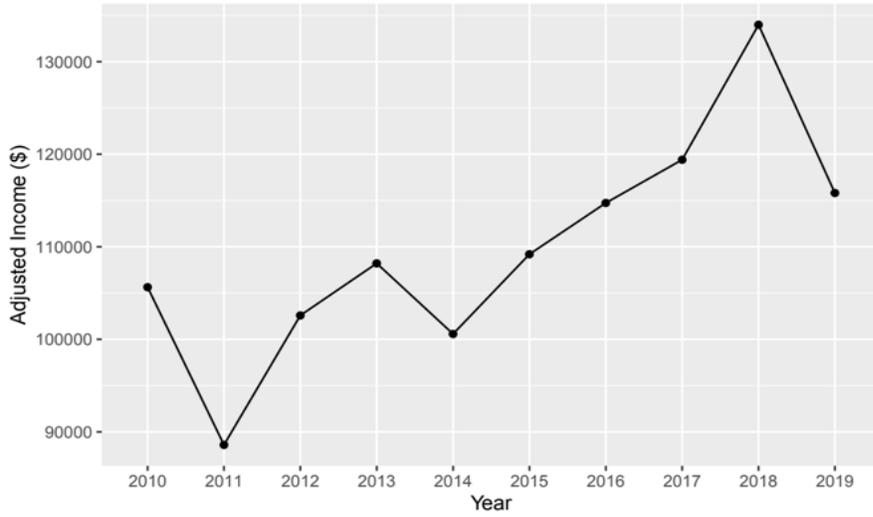


## Madera

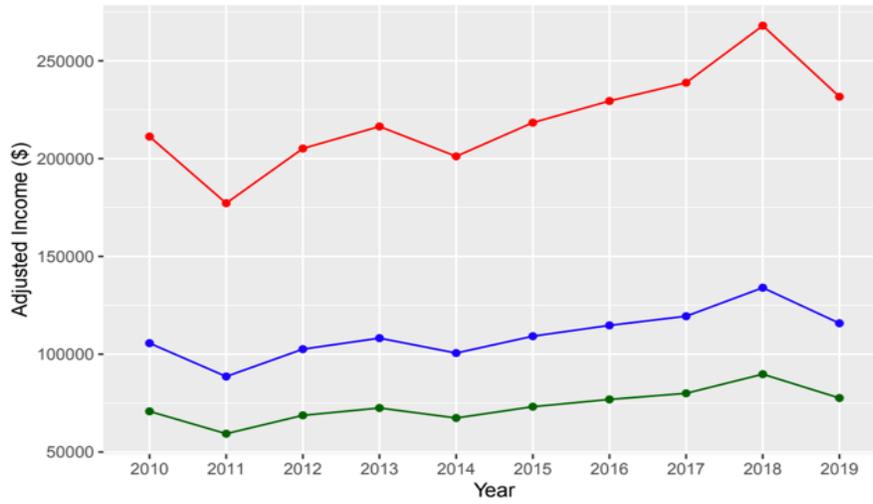


# Marin County

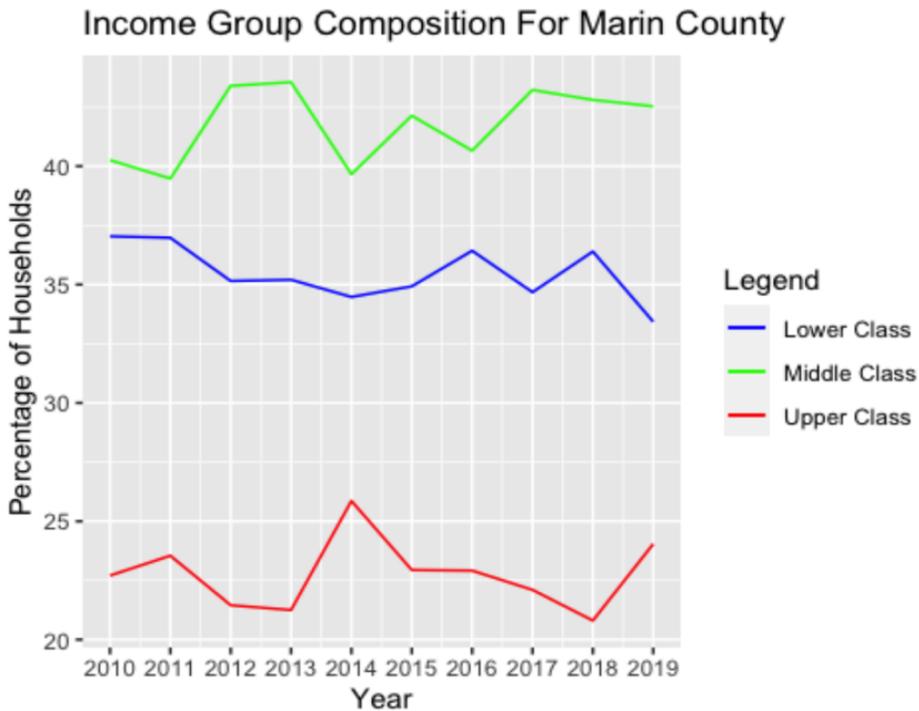
Inflation-Adjusted Median Income 2010-2019  
Marin



Inflation-Adjusted Middle Income Range 2010-2019  
Marin



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Marin	2010	105634.24	70774.94	211268.5	71095.40
2	Marin	2011	88594.89	59358.58	177189.8	59830.32
3	Marin	2012	102580.21	68728.74	205160.4	68988.01
4	Marin	2013	108209.63	72500.45	216419.3	73324.80
5	Marin	2014	100578.75	67387.77	201157.5	67672.01
6	Marin	2015	109195.12	73160.73	218390.2	73597.51
7	Marin	2016	114736.20	76873.25	229472.4	76994.03
8	Marin	2017	119406.56	80002.40	238813.1	80244.92
9	Marin	2018	133988.42	89772.24	267976.8	89875.31
10	Marin	2019	115811.33	77593.59	231622.7	77696.85

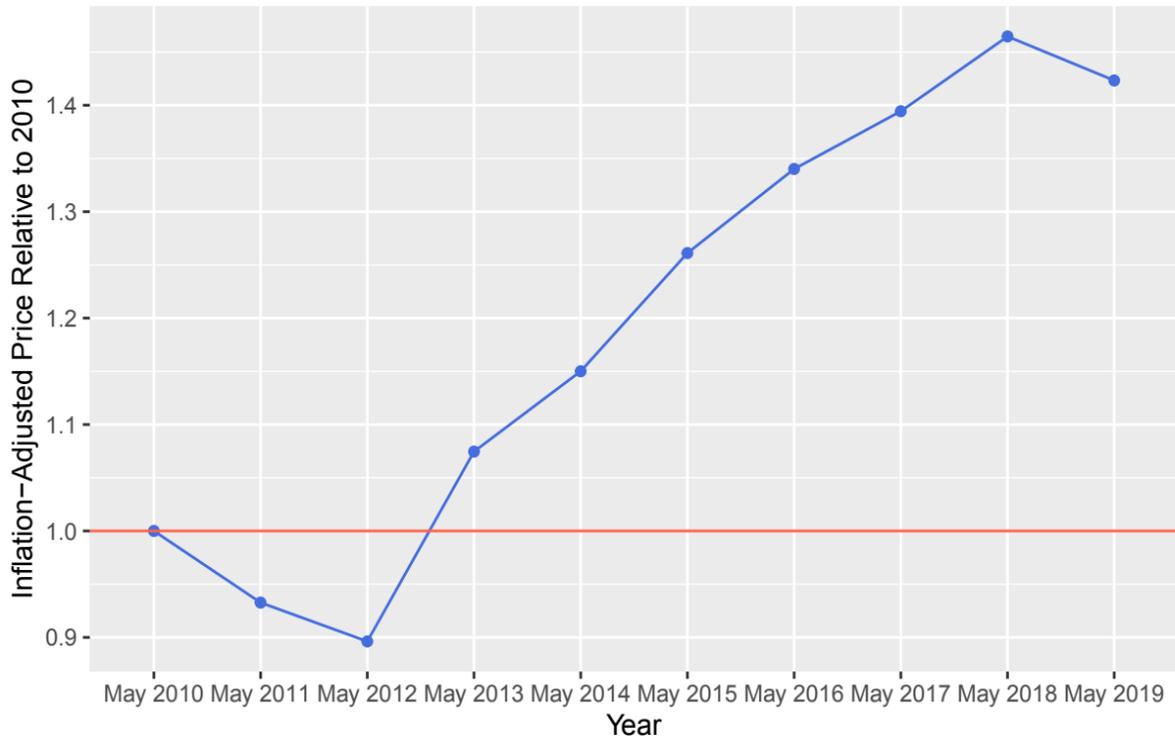


*Marin County Middle Class Trends*

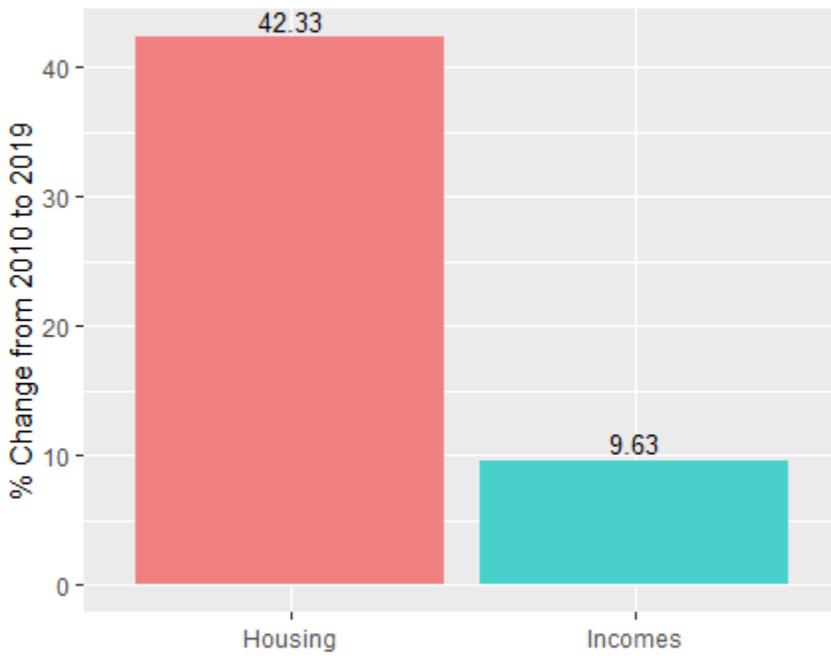
Year	MC_Size	MC_Percent
2010	40724	0.4025463
2011	39723	0.3947823
2012	43978	0.4339563
2013	44663	0.4354732
2014	40444	0.3966459
2015	44250	0.4213363
2016	42708	0.4065609
2017	44858	0.4322080
2018	44137	0.4280035
2019	44412	0.4252842

## Marin

Inflation-Adjusted Median Home Prices 2010-2019

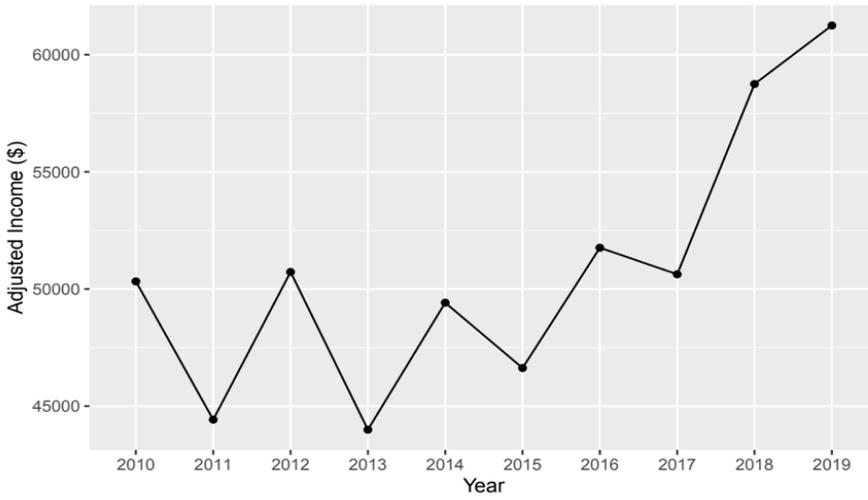


## Marin

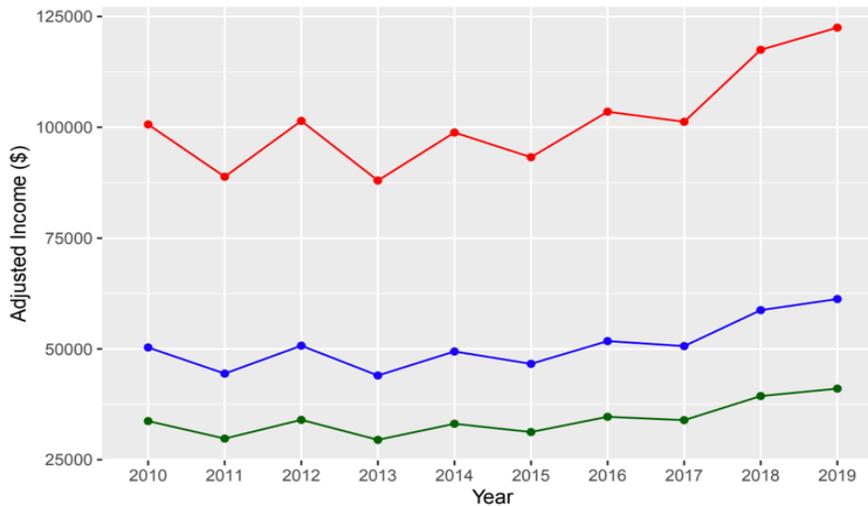


# Merced County

Inflation-Adjusted Median Income 2010-2019  
Merced



Inflation-Adjusted Middle Income Range 2010-2019  
Merced

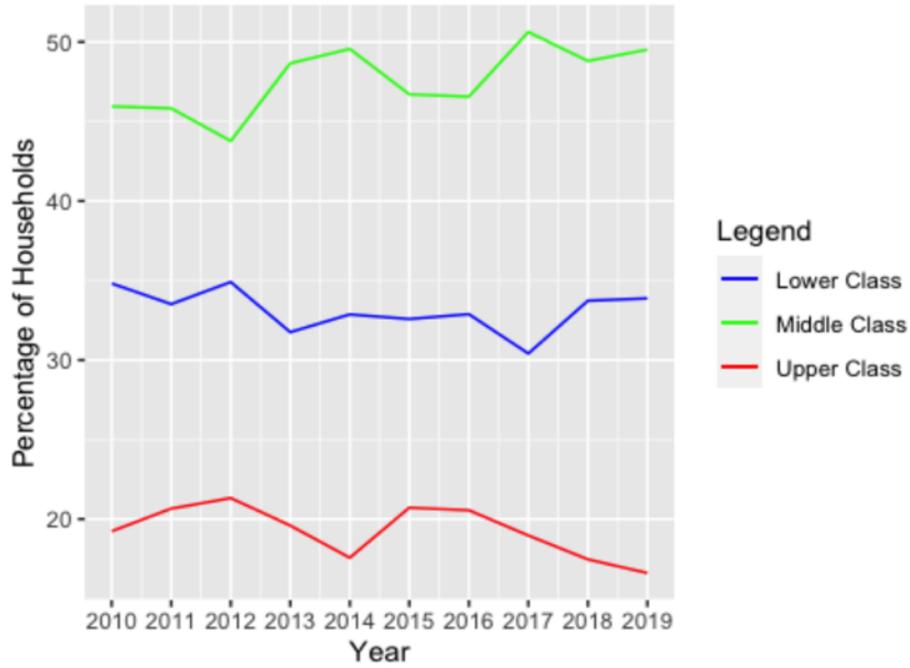


```

--
countyname year med_hhincome_2020 low_bounds high_bounds lowest_obs
1 Merced 2010 50324.62 33717.50 100649.25 3376.35
2 Merced 2011 44424.01 29764.09 88848.02 2991.16
3 Merced 2012 50726.48 33986.74 101452.96 3426.55
4 Merced 2013 43994.88 29476.57 87989.76 2952.90
5 Merced 2014 49414.78 33107.90 98829.56 3312.53
6 Merced 2015 46626.32 31239.63 93252.63 3133.90
7 Merced 2016 51760.69 34679.66 103521.38 3496.03
8 Merced 2017 50628.21 33920.90 101256.43 3399.51
9 Merced 2018 58748.77 39361.67 117497.54 3957.81
10 Merced 2019 61246.38 41035.07 122492.76 4130.34

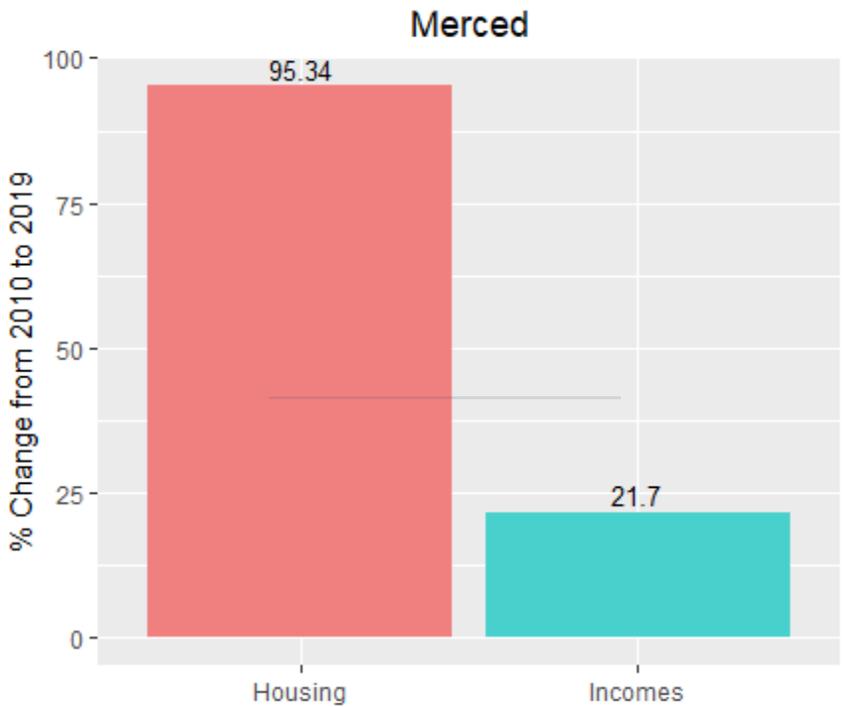
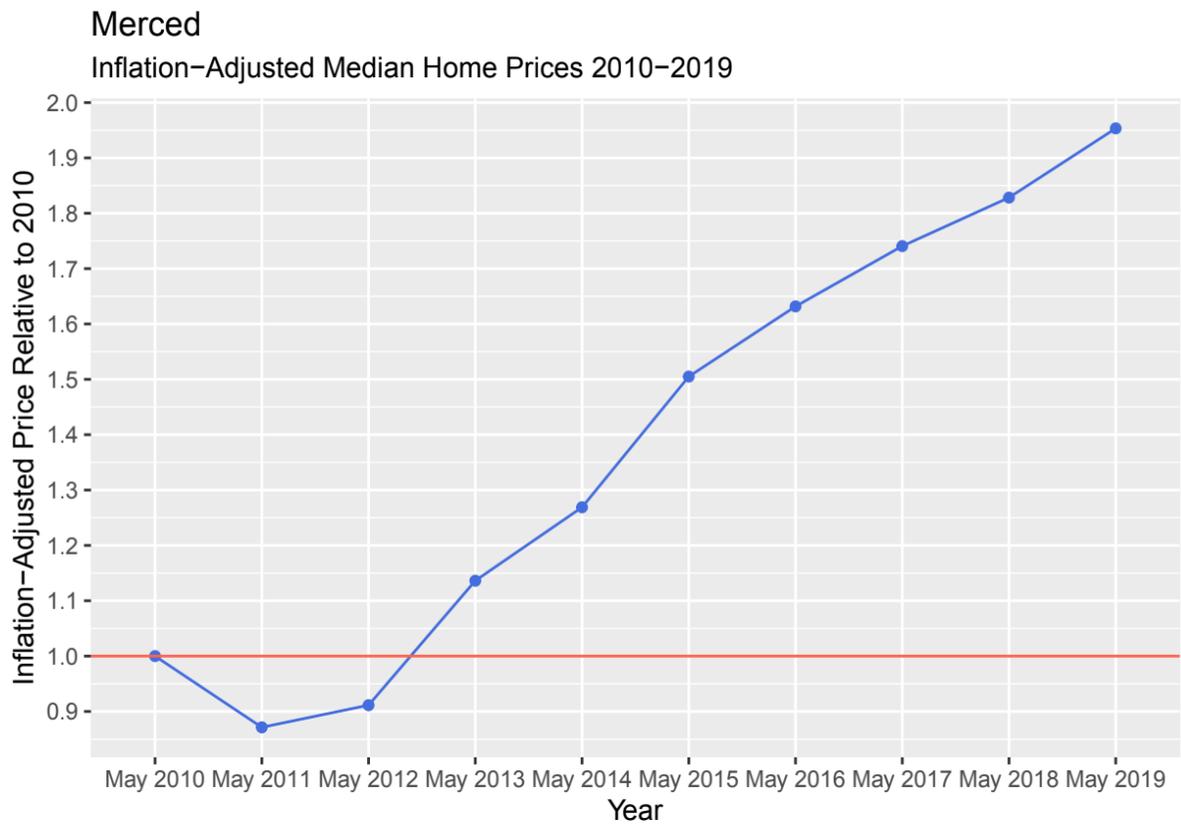
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### Income Group Composition For Merced County



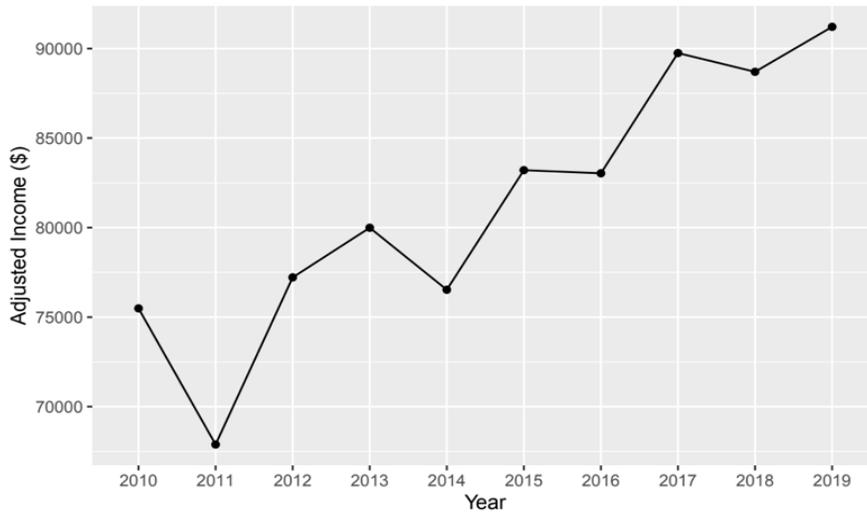
#### *Merced County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	33401	0.4594992
2011	33479	0.4582523
2012	32805	0.4377385
2013	37557	0.4865211
2014	39049	0.4956149
2015	36172	0.4670368
2016	35824	0.4655733
2017	39908	0.5062347
2018	38142	0.4880115
2019	39602	0.4951426

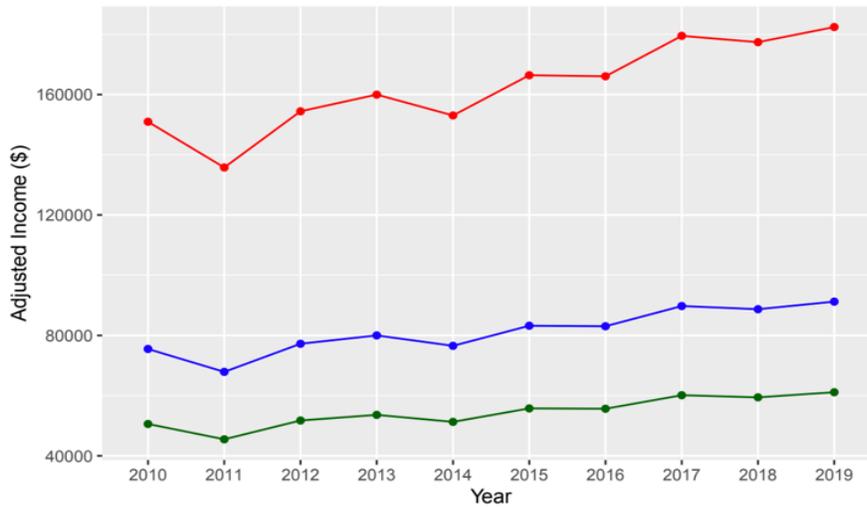


# Napa County

Inflation-Adjusted Median Income 2010-2019  
Napa



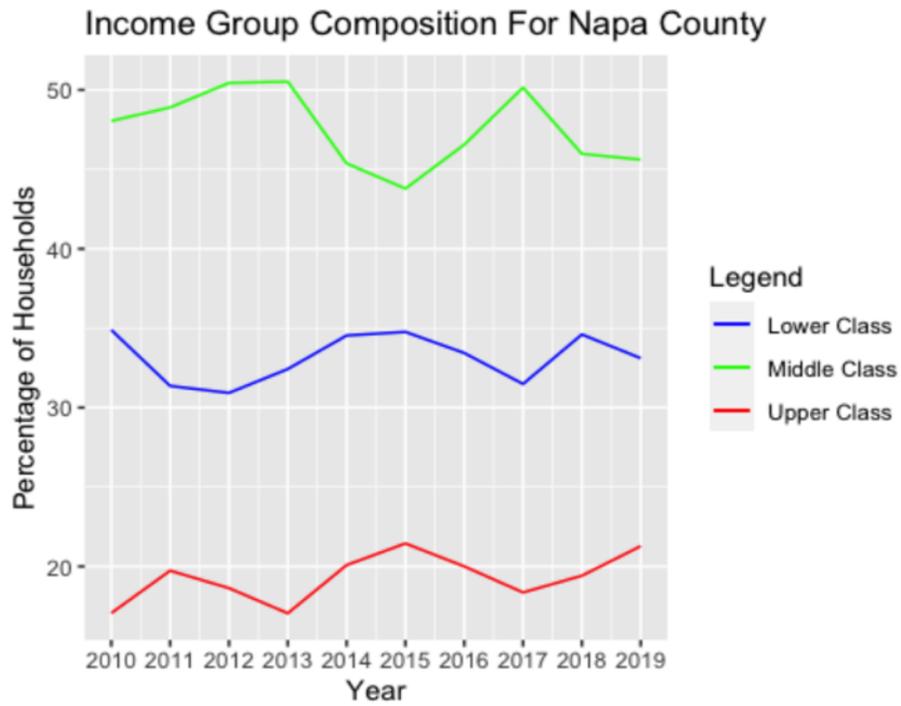
Inflation-Adjusted Middle Income Range 2010-2019  
Napa



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Napa	2010	75486.94	50576.25	150973.9	50918.08
2	Napa	2011	67884.40	45482.55	135768.8	45678.15
3	Napa	2012	77216.97	51735.37	154433.9	51853.73
4	Napa	2013	79990.69	53593.76	159981.4	53860.40
5	Napa	2014	76527.31	51273.30	153054.6	51382.62
6	Napa	2015	83206.68	55748.48	166413.4	56180.89
7	Napa	2016	83032.77	55631.96	166065.5	55750.58
8	Napa	2017	89747.61	60130.90	179495.2	60183.69
9	Napa	2018	88700.33	59429.22	177400.7	59779.45
10	Napa	2019	91211.55	61111.74	182423.1	61550.08

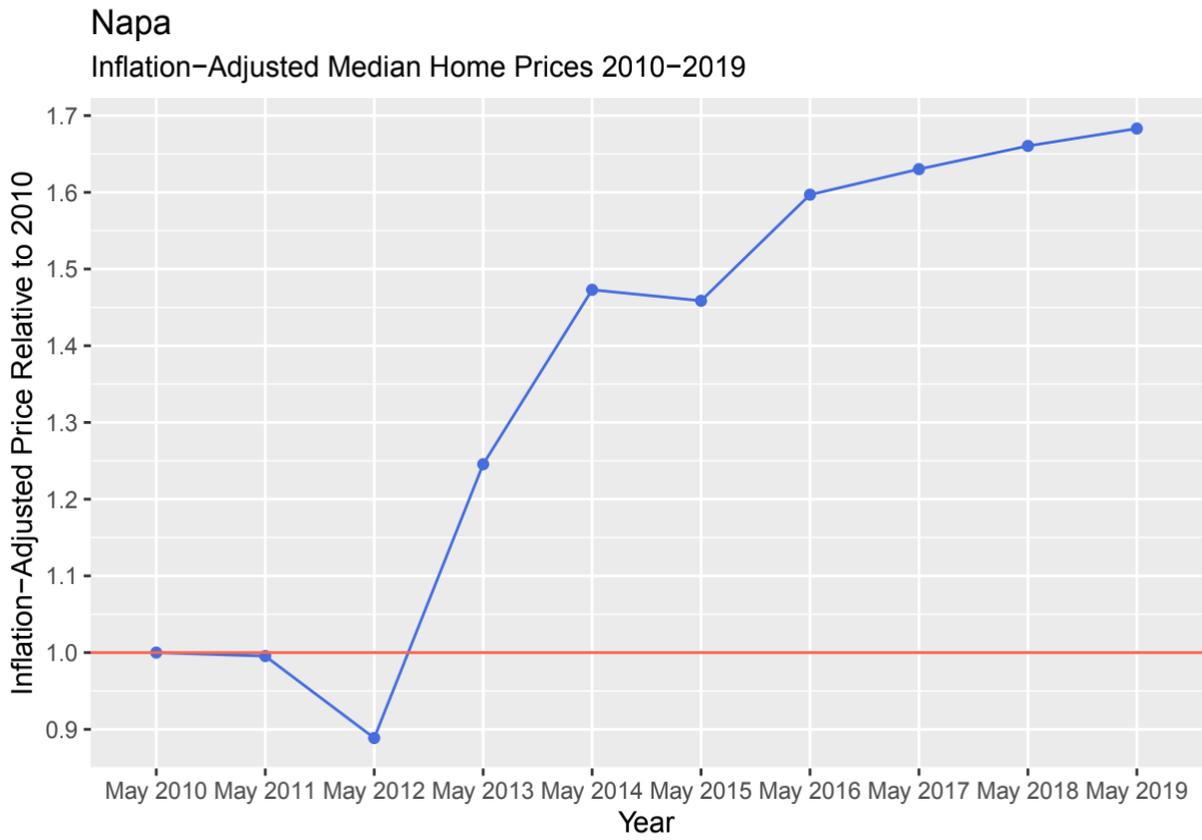
  

	highest_obs
1	150261.7
2	133582.7
3	153306.7
4	159759.2
5	152508.0
6	165430.6
7	164987.2
8	179284.1
9	177277.0
10	182220.6



*Napa County Middle Class Trends*

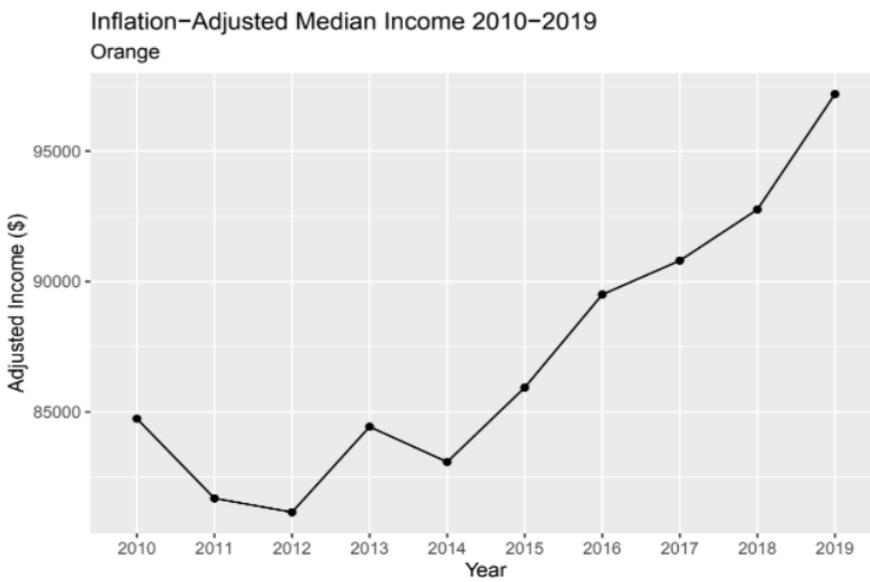
Year	MC_Size	MC_Percent
2010	23815	0.4804996
2011	24225	0.4890087
2012	24064	0.5044018
2013	23803	0.5052321
2014	22678	0.4537506
2015	21609	0.4378990
2016	23042	0.4655796
2017	23860	0.5015028
2018	21630	0.4597823
2019	21907	0.4561203



## Napa

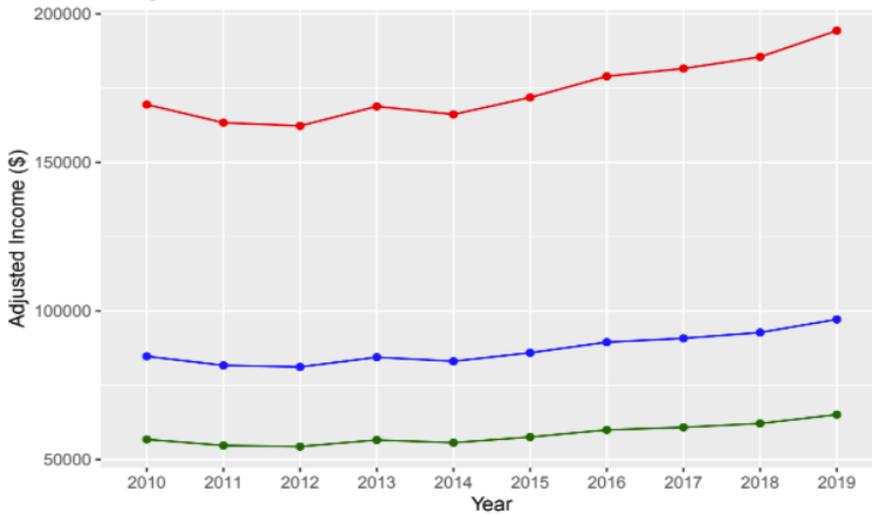


## Orange County



### Inflation-Adjusted Middle Income Range 2010-2019

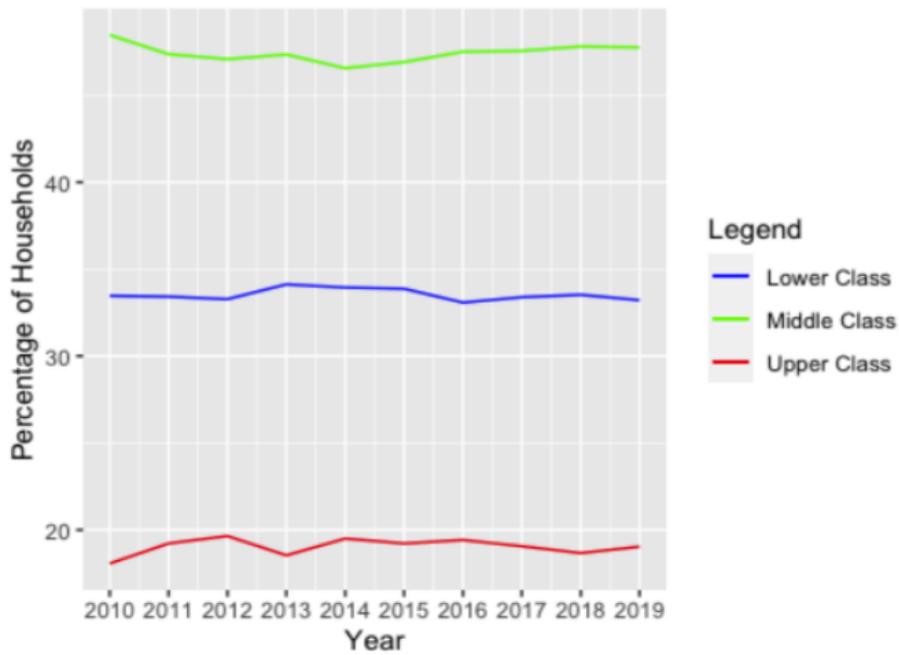
Orange



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Orange	2010	84744.77	56779.00	169489.5	56852.58
2	Orange	2011	81691.40	54733.24	163382.8	54767.75
3	Orange	2012	81162.36	54378.78	162324.7	54446.42
4	Orange	2013	84434.62	56571.20	168869.2	56660.07
5	Orange	2014	83086.80	55668.15	166173.6	55755.61
6	Orange	2015	85936.56	57577.50	171873.1	57655.02
7	Orange	2016	89502.86	59966.92	179005.7	59977.70
8	Orange	2017	90803.47	60838.32	181606.9	60870.00
9	Orange	2018	92761.21	62150.01	185522.4	62253.08
10	Orange	2019	97184.34	65113.51	194368.7	65184.37

	highest_obs
1	169264.0
2	163325.3
3	162212.0
4	168535.9
5	166151.7
6	171763.9
7	178897.9
8	181501.3
9	185419.4
10	194287.7

### Income Group Composition For Orange County

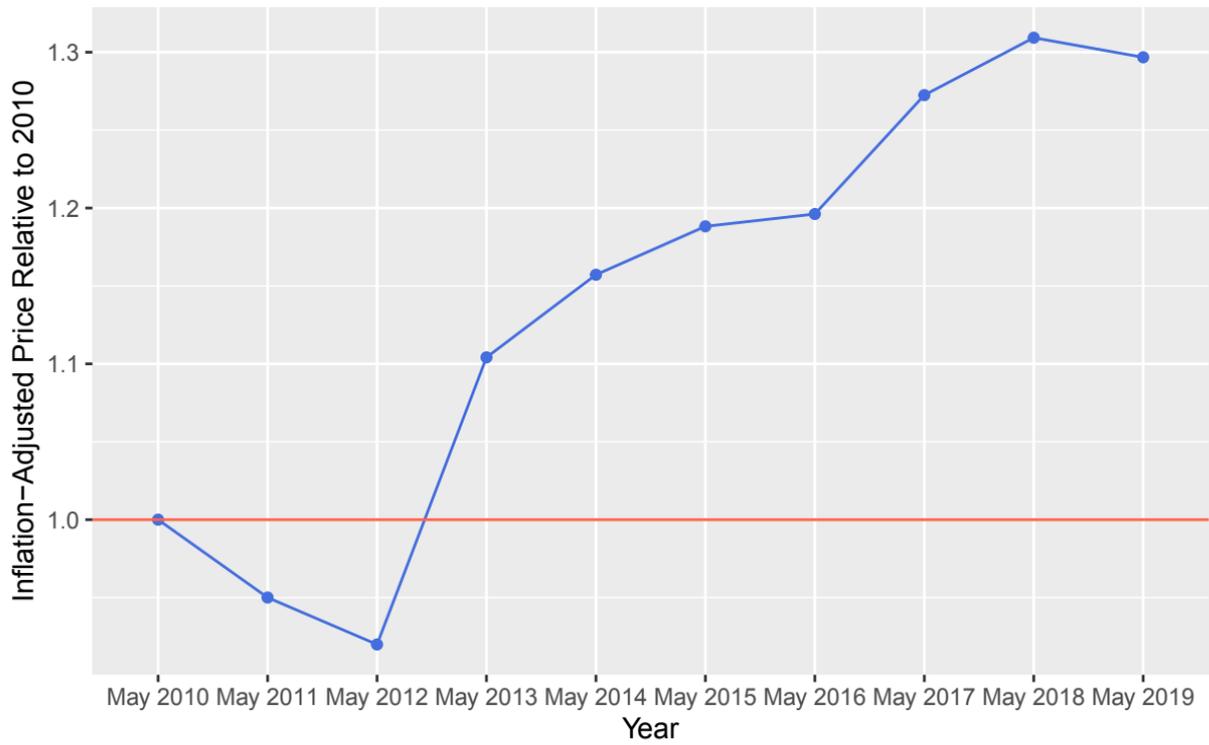


#### *Orange County Middle Class Trends*

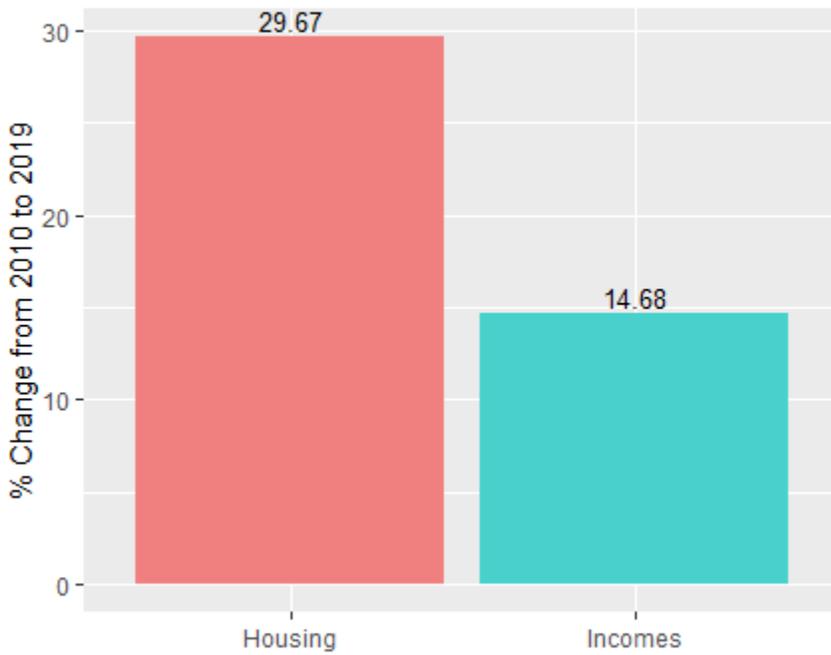
Year	MC_Size	MC_Percent
2010	472248	0.4846487
2011	464488	0.4736034
2012	463737	0.4707751
2013	468539	0.4734152
2014	468337	0.4655530
2015	471956	0.4690852
2016	484326	0.4750446
2017	486117	0.4755293
2018	489702	0.4780565
2019	490423	0.4775139

## Orange

Inflation-Adjusted Median Home Prices 2010-2019



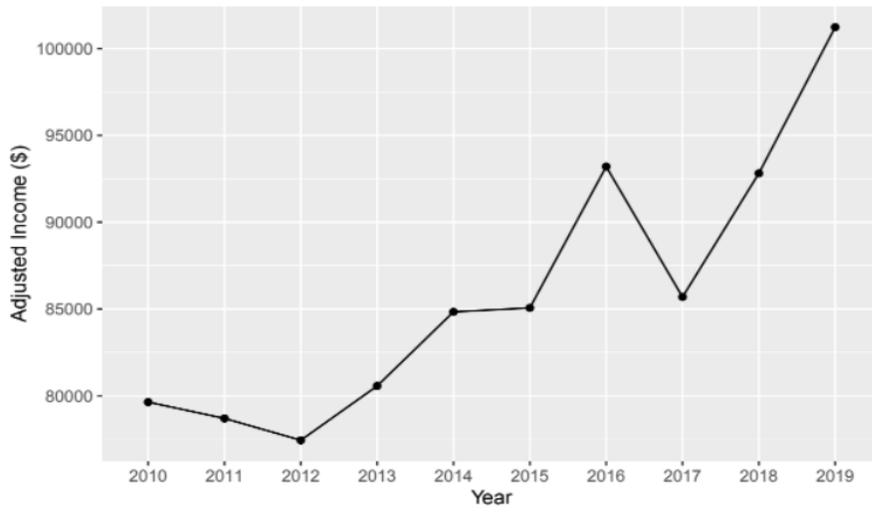
## Orange



# Placer County

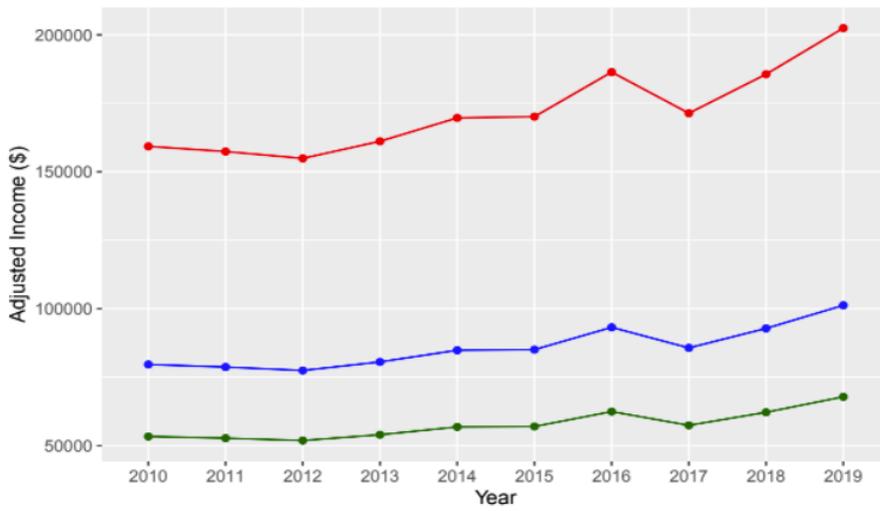
Inflation-Adjusted Median Income 2010-2019

Placer



Inflation-Adjusted Middle Income Range 2010-2019

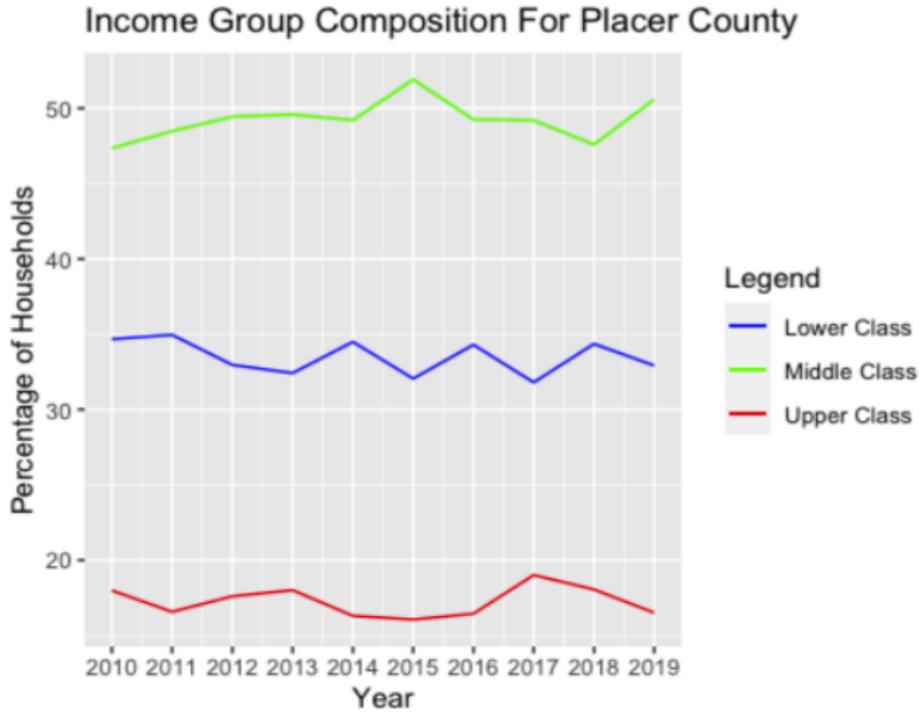
Placer



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Placer	2010	79641.09	53359.53	159282.2	53410.57
2	Placer	2011	78699.88	52728.92	157399.8	52926.82
3	Placer	2012	77442.42	51886.42	154884.8	52304.64
4	Placer	2013	80568.40	53980.83	161136.8	53993.72
5	Placer	2014	84835.99	56840.12	169672.0	56848.86
6	Placer	2015	85063.00	56992.21	170126.0	56999.85
7	Placer	2016	93201.59	62445.07	186403.2	62544.17
8	Placer	2017	85693.13	57414.40	171386.3	58071.99
9	Placer	2018	92812.75	62184.54	185625.5	62562.29
10	Placer	2019	101233.68	67826.57	202467.4	67927.80

	highest_obs
1	159044.8
2	157169.6
3	154433.9
4	161092.4
5	169454.4
6	169798.4
7	186338.5
8	171048.4
9	185522.4
10	201455.0

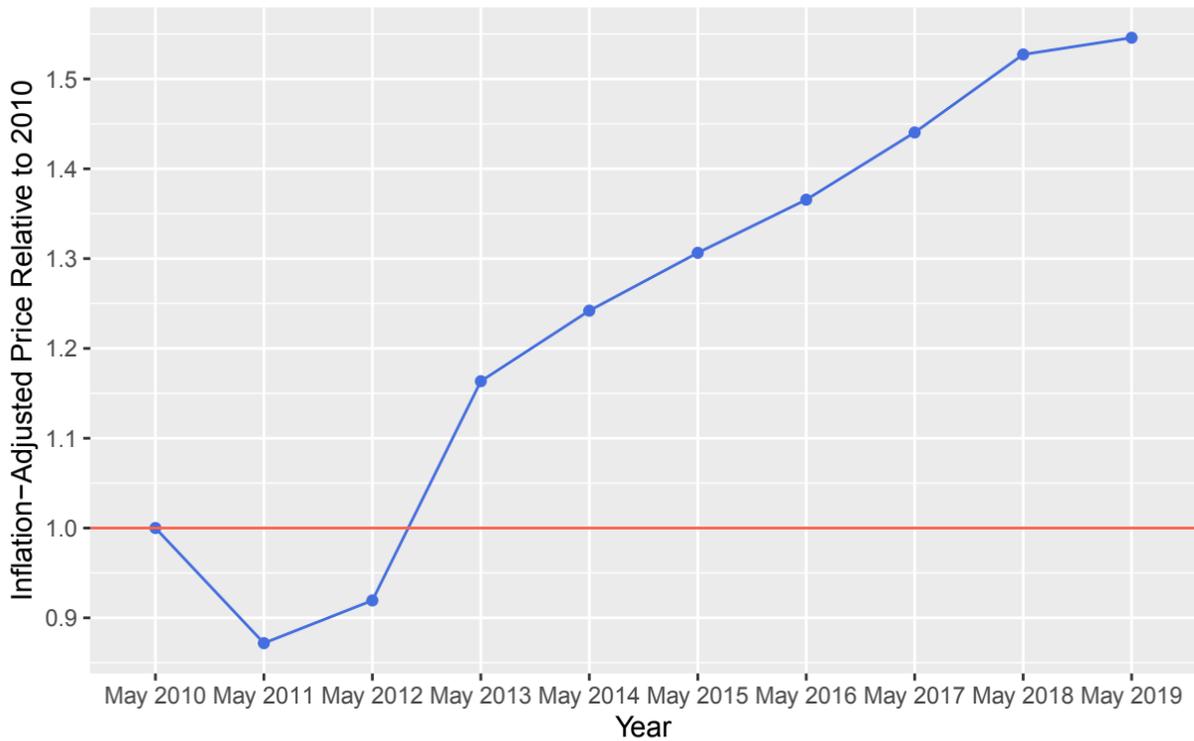


*Placer County Middle Class Trends*

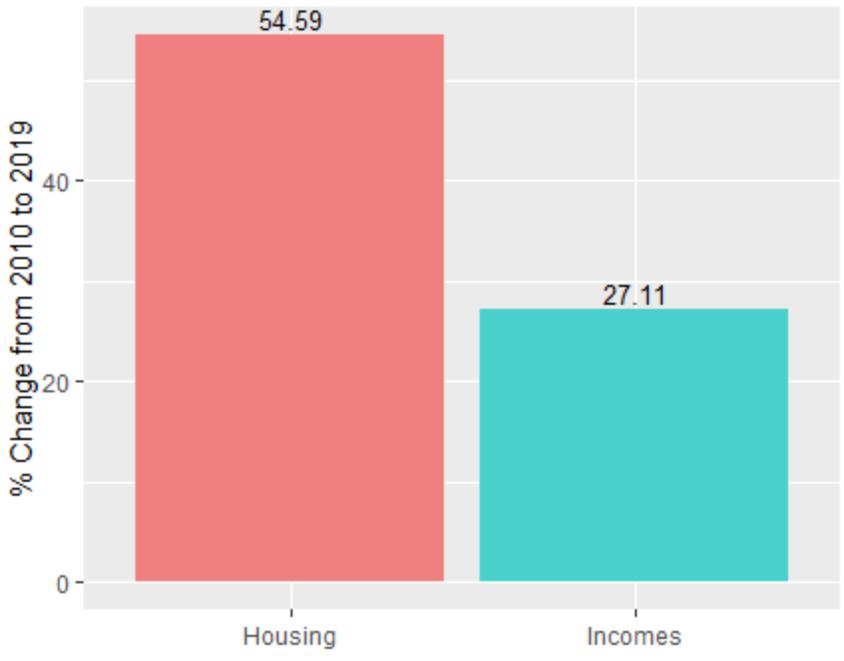
Year	MC_Size	MC_Percent
2010	61350	0.4735075
2011	63940	0.4848126
2012	65495	0.4944586
2013	65879	0.4958490
2014	66479	0.4921235
2015	70194	0.5190213
2016	67202	0.4926038
2017	69572	0.4920018
2018	67633	0.4759368
2019	74083	0.5058690

**Placer**

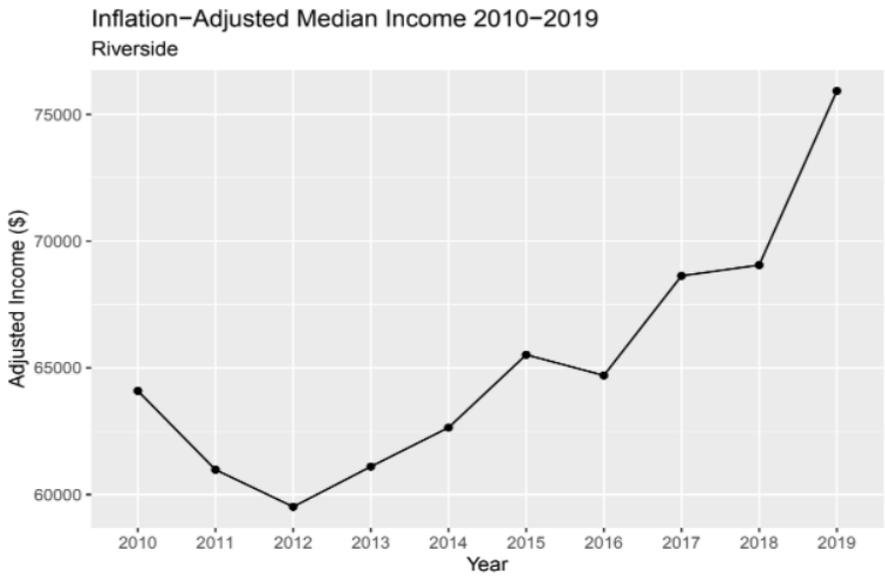
Inflation-Adjusted Median Home Prices 2010-2019



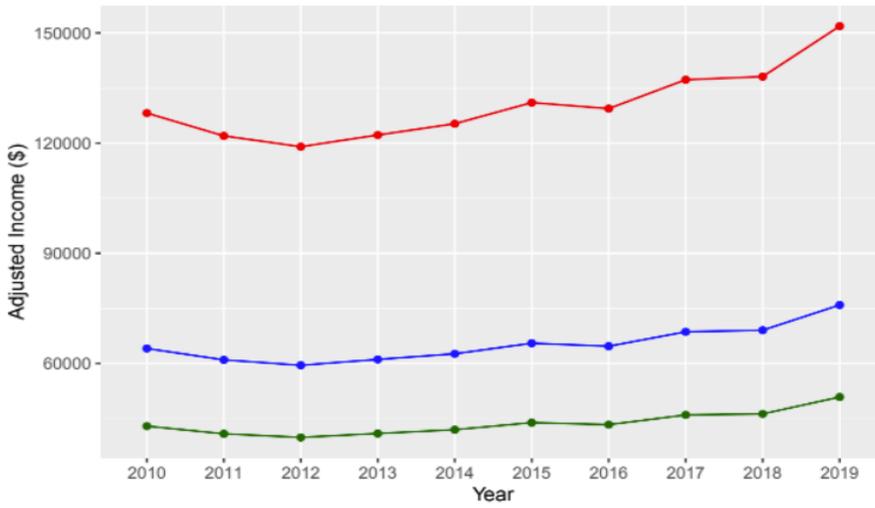
### Placer



### Riverside County

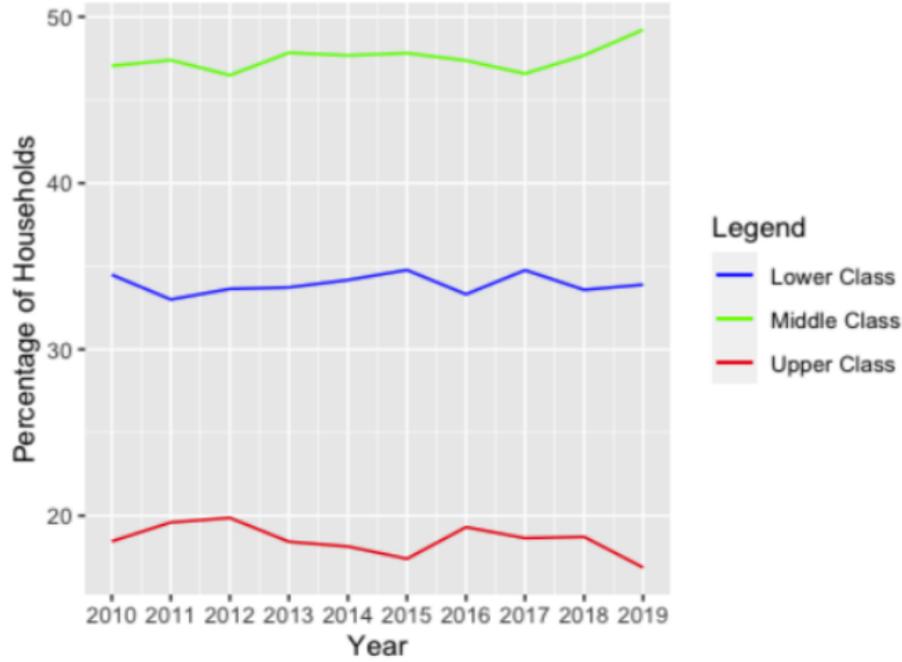


Inflation-Adjusted Middle Income Range 2010-2019  
Riverside



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Riverside	2010	64092.68	42942.10	128185.4	42965.84
2	Riverside	2011	60980.90	40857.20	121961.8	40880.22
3	Riverside	2012	59519.07	39877.78	119038.1	39904.83
4	Riverside	2013	61104.00	40939.68	122208.0	40995.23
5	Riverside	2014	62643.07	41970.86	125286.1	41980.70
6	Riverside	2015	65517.07	43896.44	131034.1	44005.63
7	Riverside	2016	64700.86	43349.58	129401.7	43457.41
8	Riverside	2017	68630.53	45982.45	137261.1	46035.25
9	Riverside	2018	69055.57	46267.23	138111.1	46277.54
10	Riverside	2019	75925.26	50869.93	151850.5	50920.54
			highest_obs			
1			128066.7			
2			121754.7			
3			118936.7			
4			122119.1			
5			125176.8			
6			131001.4			
7			129293.9			
8			136944.3			
9			137801.9			
10			151749.3			

### Income Group Composition For Riverside County

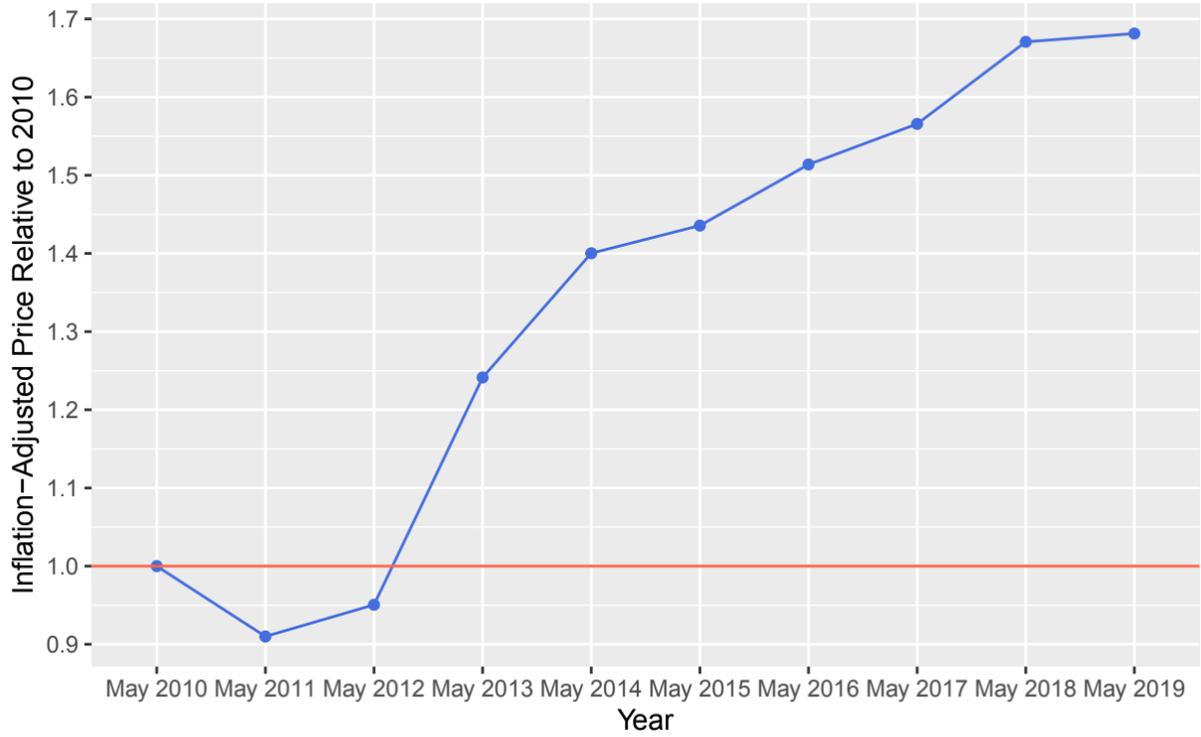


#### *Riverside County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	312915	0.4705588
2011	320495	0.4739977
2012	314666	0.4649389
2013	327695	0.4783911
2014	329237	0.4768033
2015	337186	0.4781715
2016	332502	0.4737481
2017	328463	0.4658799
2018	340979	0.4768850
2019	356688	0.4922992

## Riverside

Inflation-Adjusted Median Home Prices 2010-2019



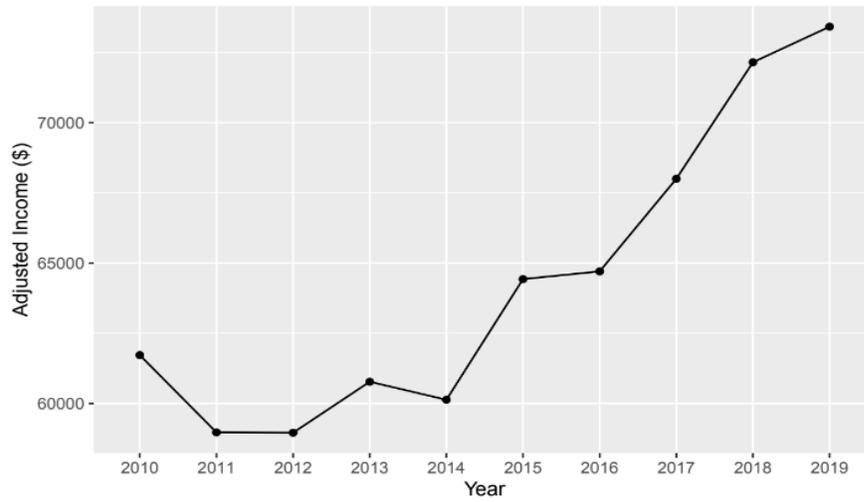
## Riverside



# Sacramento County

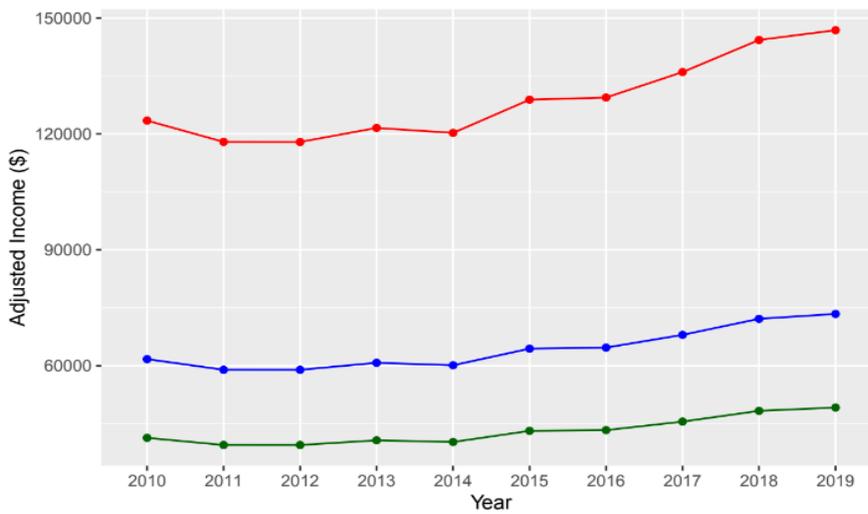
### Inflation-Adjusted Median Income 2010-2019

Sacramento



### Inflation-Adjusted Middle Income Range 2010-2019

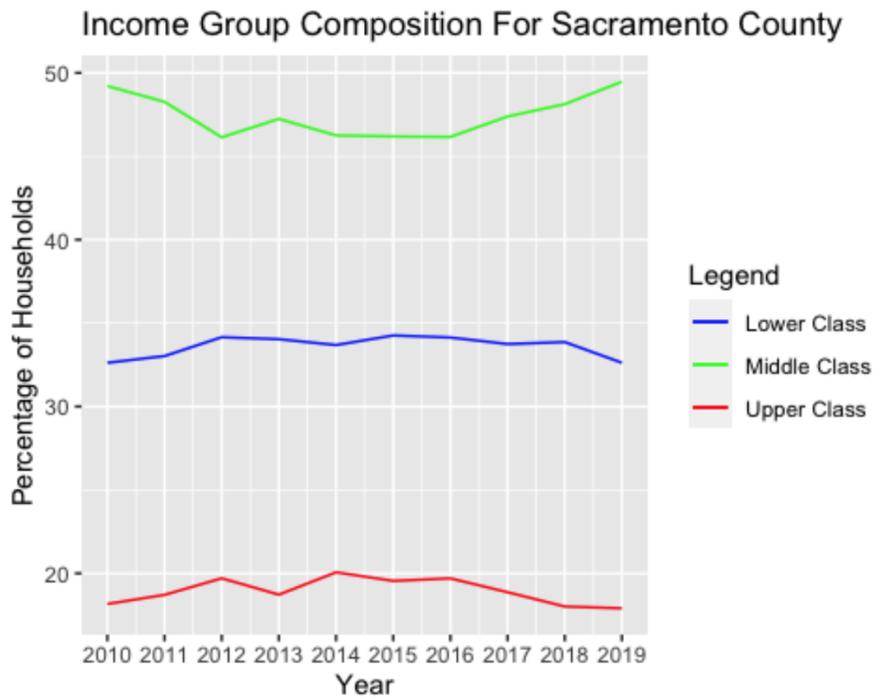
Sacramento



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Sacramento	2010	61718.88	41351.65	123437.8	41422.86
2	Sacramento	2011	58967.38	39508.15	117934.8	39580.06
3	Sacramento	2012	58955.44	39500.14	117910.9	39566.65
4	Sacramento	2013	60770.71	40716.37	121541.4	40773.03
5	Sacramento	2014	60128.60	40286.16	120257.2	40340.83
6	Sacramento	2015	64425.12	43164.83	128850.2	43241.27
7	Sacramento	2016	64700.86	43349.58	129401.7	43457.41
8	Sacramento	2017	67997.02	45558.00	135994.0	45612.90
9	Sacramento	2018	72147.61	48338.90	144295.2	48390.43
10	Sacramento	2019	73414.67	49187.83	146829.3	49199.57

	highest_obs
1	123319.1
2	117819.7
3	117809.4
4	121474.8
5	120147.9
6	128631.9
7	129186.1
8	135888.4
9	144089.1
10	146799.0

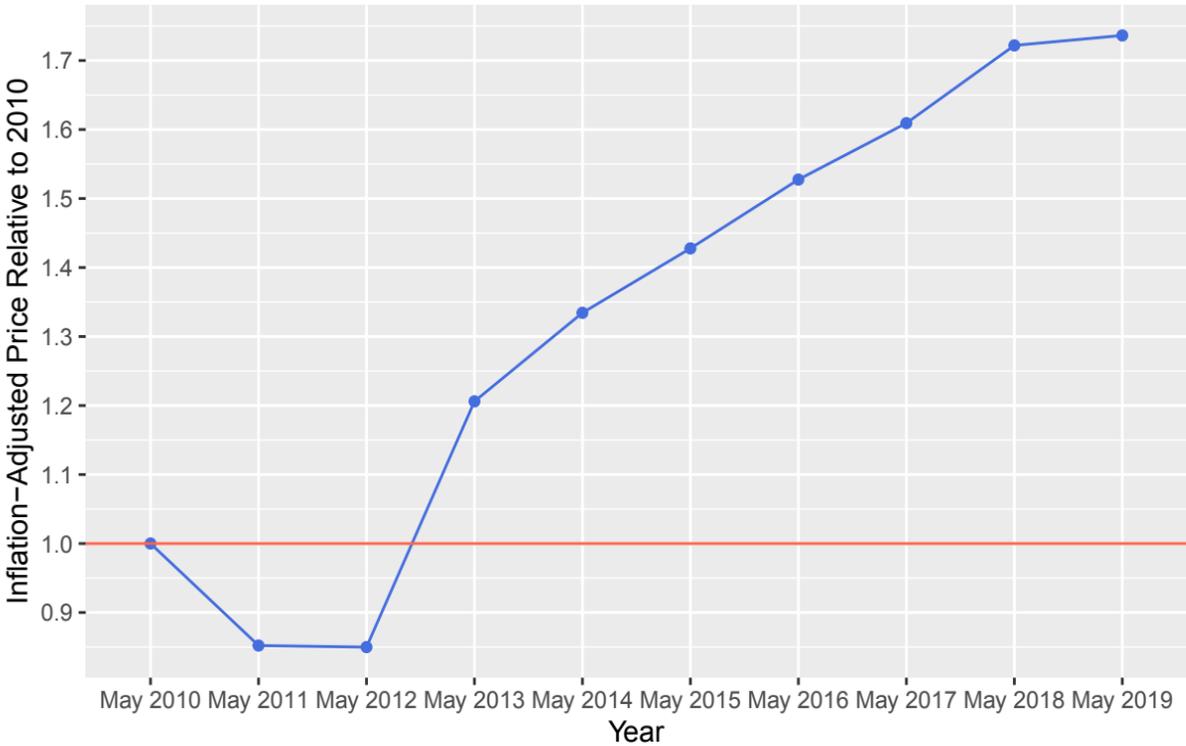


*Sacramento County Middle Class Trends*

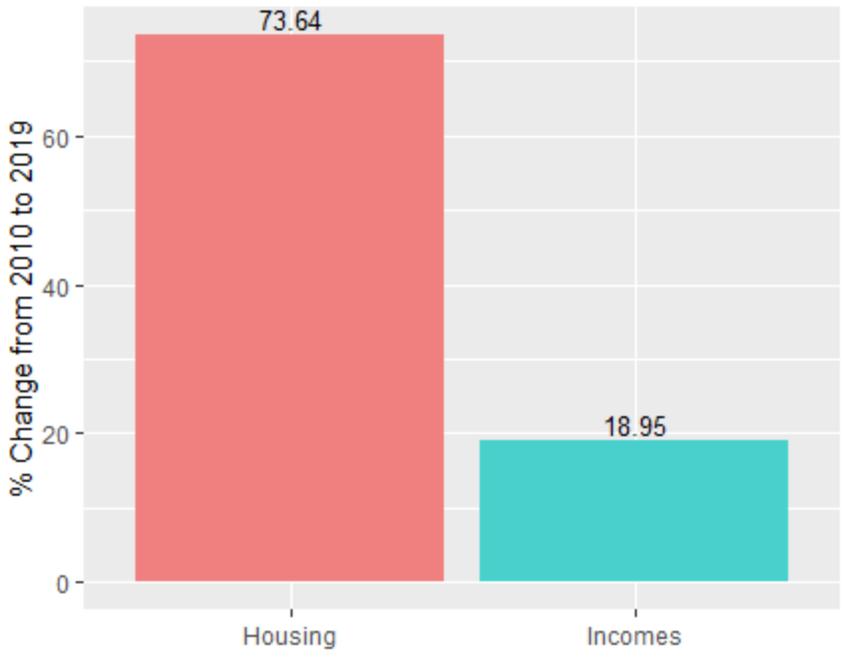
Year	MC_Size	MC_Percent
2010	250496	0.4921510
2011	243221	0.4826580
2012	234573	0.4614064
2013	242668	0.4724191
2014	238958	0.4625331
2015	241324	0.4619198
2016	243507	0.4616395
2017	254380	0.4738699
2018	257420	0.4812533
2019	272822	0.4947133

**Sacramento**

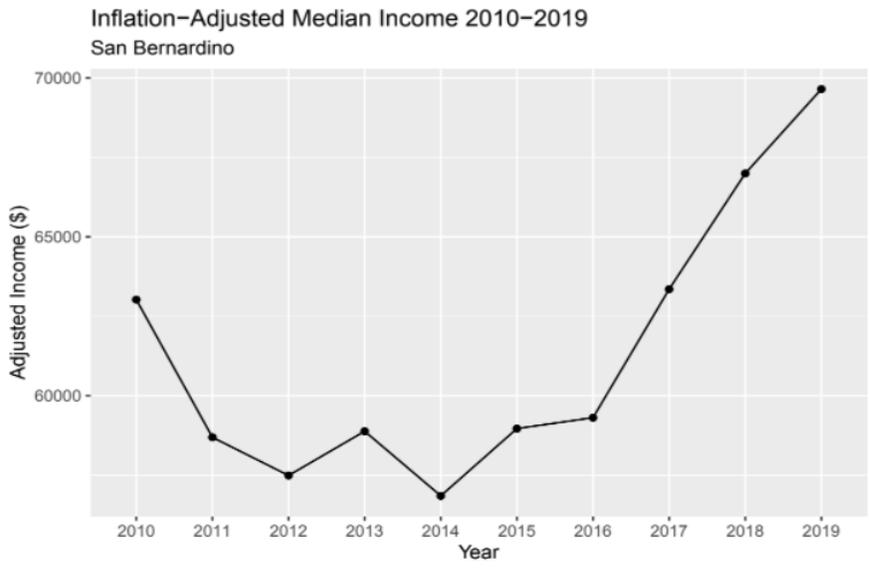
Inflation-Adjusted Median Home Prices 2010-2019



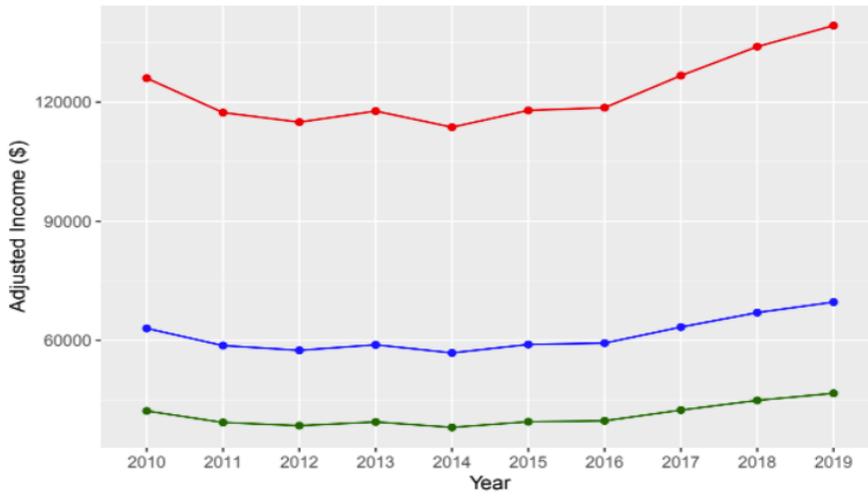
### Sacramento



### San Bernardino County

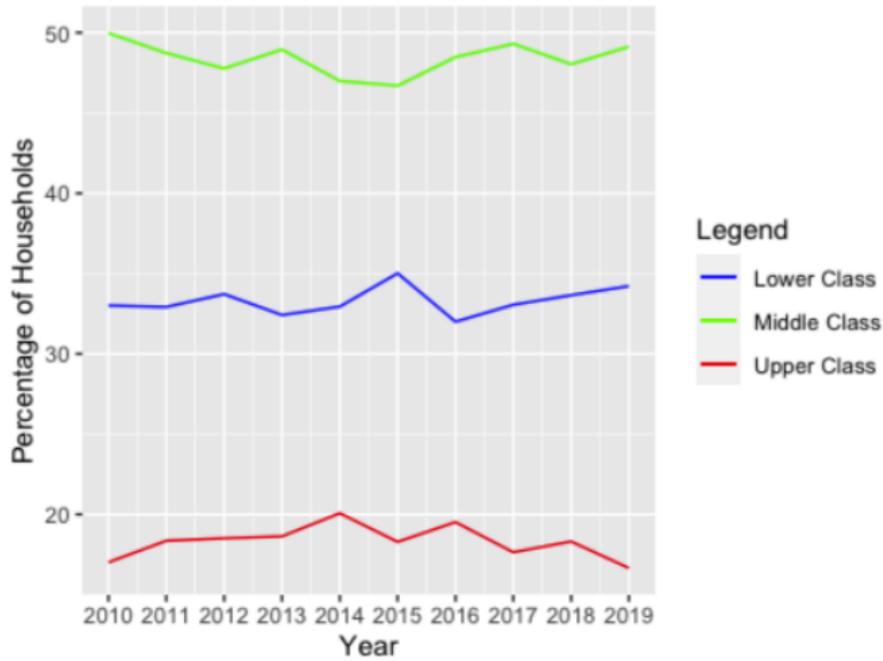


Inflation-Adjusted Middle Income Range 2010-2019  
San Bernardino



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	San Bernardino	2010	63024.47	42226.40	126048.9	42241.83
2	San Bernardino	2011	58691.24	39323.13	117382.5	39384.46
3	San Bernardino	2012	57490.01	38518.31	114980.0	38552.12
4	San Bernardino	2013	58882.04	39450.97	117764.1	39550.95
5	San Bernardino	2014	56848.86	38088.74	113697.7	38121.53
6	San Bernardino	2015	58965.37	39506.79	117930.7	39528.63
7	San Bernardino	2016	59309.12	39737.11	118618.2	39791.03
8	San Bernardino	2017	63351.26	42445.34	126702.5	42550.93
9	San Bernardino	2018	66994.21	44886.12	133988.4	45040.72
10	San Bernardino	2019	69648.77	46664.68	139297.5	46668.73
						highest_obs
1						125835.3
2						117359.5
3						114585.5
4						117653.0
5						113479.1
6						117821.5
7						118402.6
8						126596.9
9						133473.1
10						139095.1

## Income Group Composition For San Bernardino County

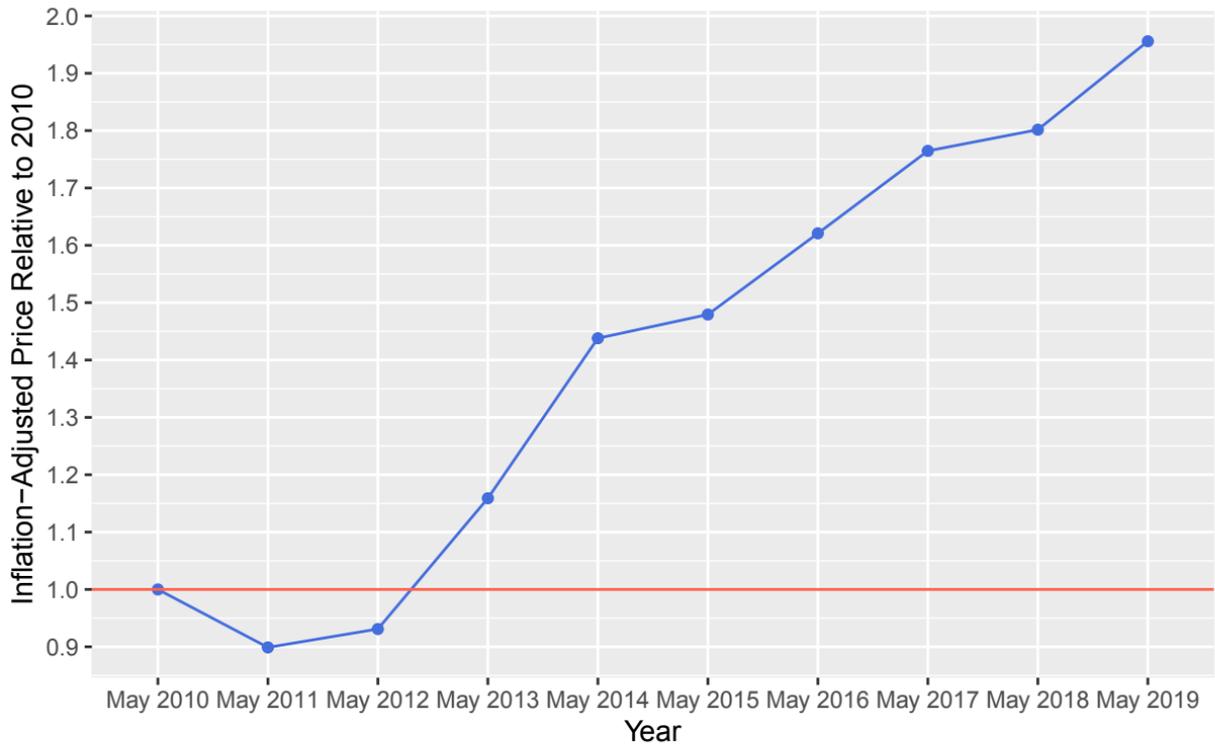


### *San Bernardino County Middle Class Trends*

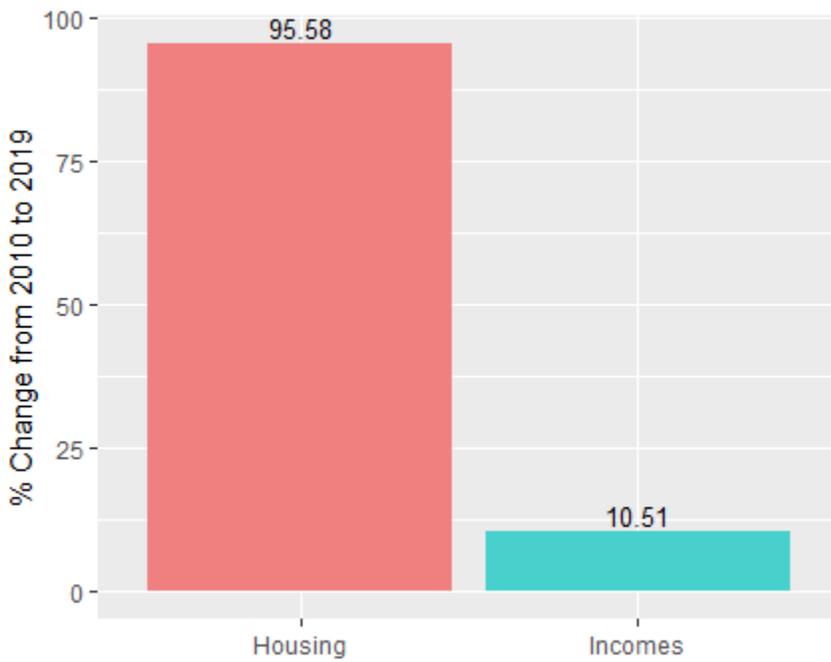
Year	MC_Size	MC_Percent
2010	293148	0.4997503
2011	291723	0.4872371
2012	281584	0.4776853
2013	290300	0.4894894
2014	285632	0.4698691
2015	290192	0.4669445
2016	302068	0.4847561
2017	305978	0.4930246
2018	303084	0.4803537
2019	313237	0.4912682

## San Bernardino

Inflation-Adjusted Median Home Prices 2010-2019

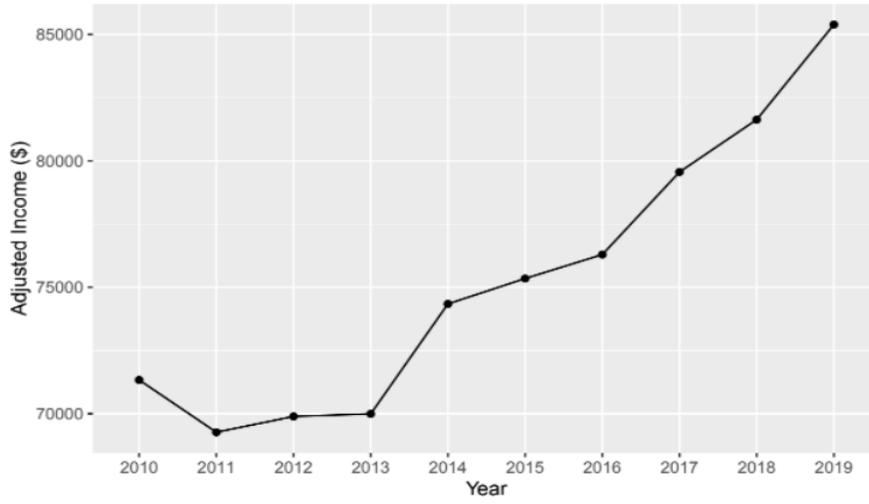


## San Bernardino

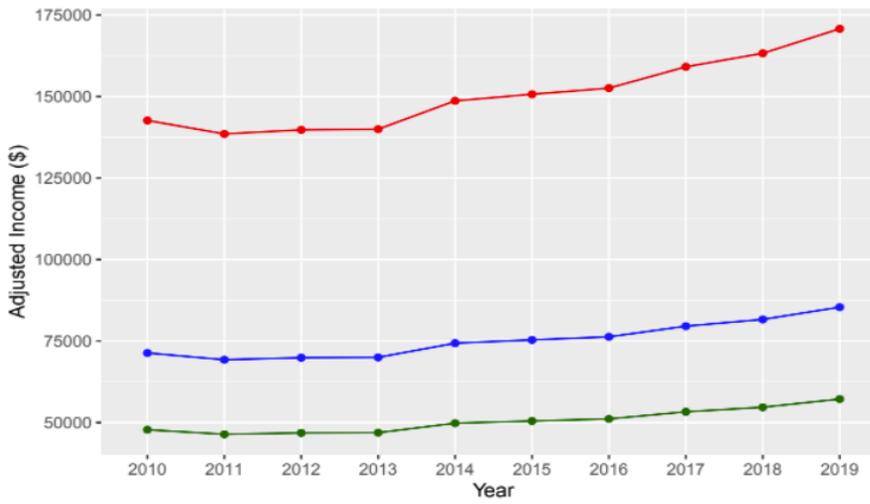


# San Diego County

Inflation-Adjusted Median Income 2010-2019  
San Diego

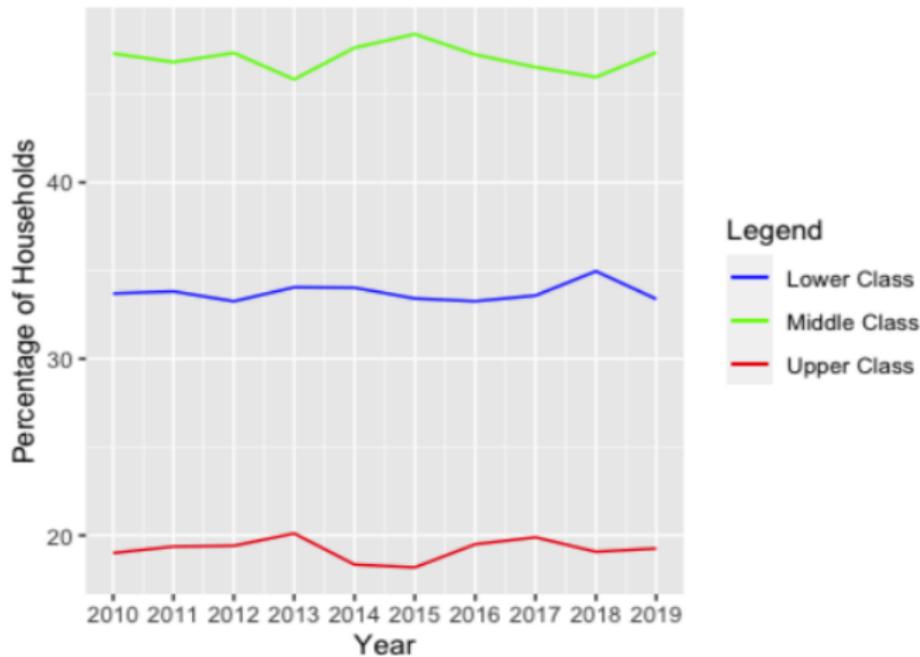


Inflation-Adjusted Middle Income Range 2010-2019  
San Diego



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	San Diego	2010	71332.78	47792.96	142665.6	47832.13
2	San Diego	2011	69265.10	46407.62	138530.2	46483.56
3	San Diego	2012	69889.81	46826.18	139779.6	46893.81
4	San Diego	2013	69991.86	46894.54	139983.7	46994.53
5	San Diego	2014	74340.82	49808.35	148681.6	49852.08
6	San Diego	2015	75344.63	50480.90	150689.3	50557.34
7	San Diego	2016	76293.10	51116.38	152586.2	51221.52
8	San Diego	2017	79558.62	53304.28	159117.2	53320.64
9	San Diego	2018	81629.87	54692.01	163259.7	54729.12
10	San Diego	2019	85390.61	57211.71	170781.2	57298.27
	highest_obs					
1	142546.9					
2	138472.7					
3	139513.6					
4	139950.4					
5	148572.3					
6	150580.1					
7	152499.9					
8	159011.7					
9	163053.6					
10	170578.8					

Income Group Composition For San Diego County

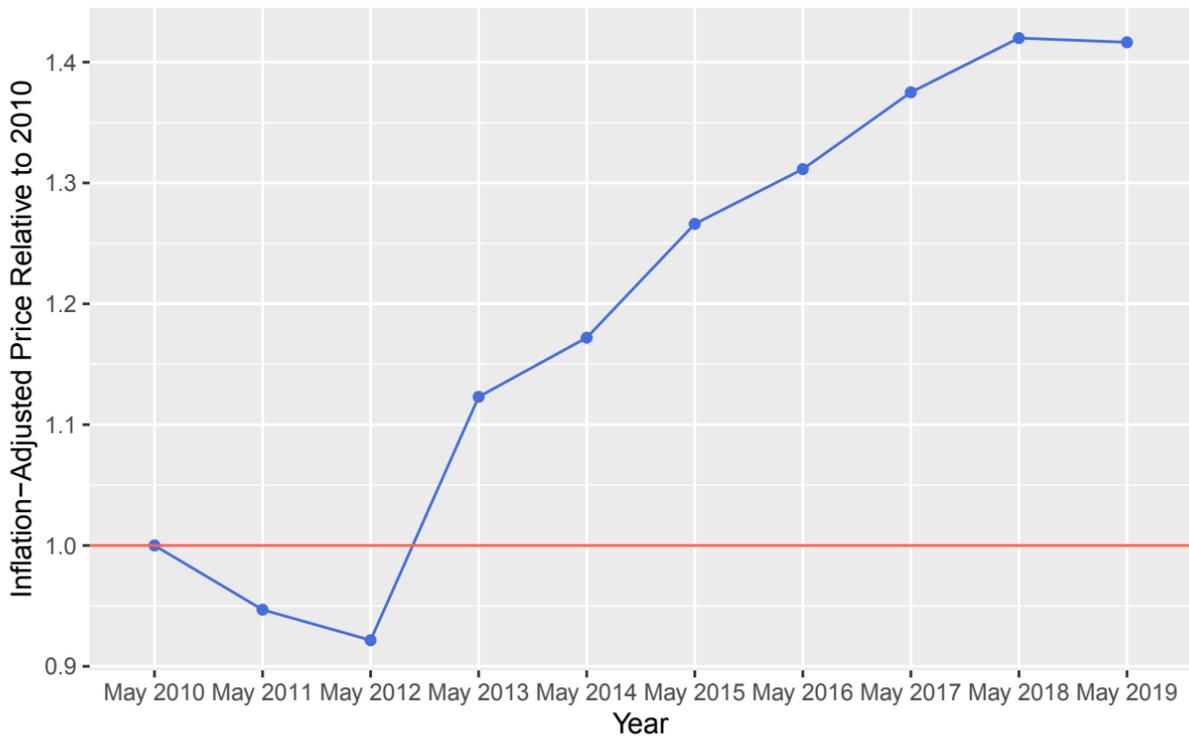


*San Diego County Middle Class Trends*

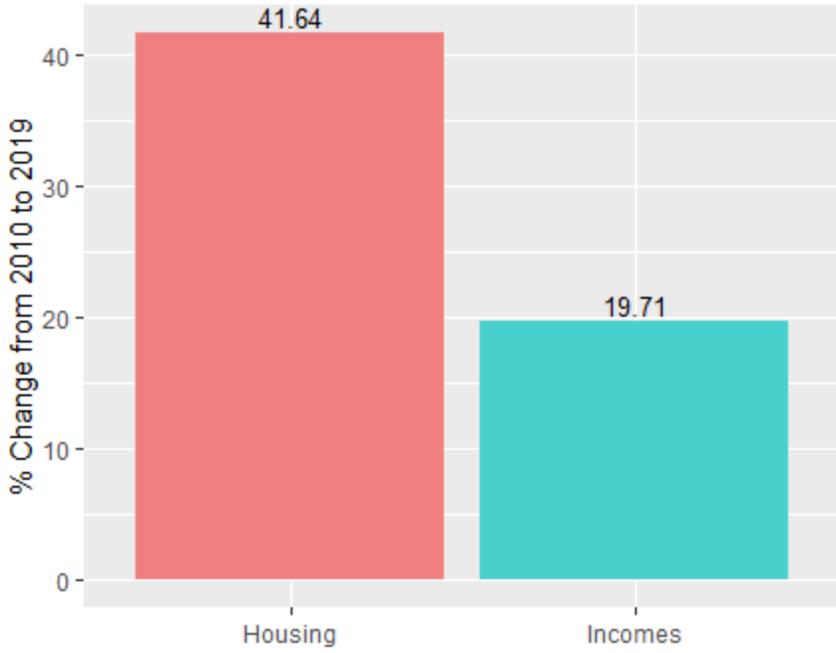
Year	MC_Size	MC_Percent
2010	491730	0.4729956
2011	481001	0.4681316
2012	497445	0.4732875
2013	486523	0.4583531
2014	512927	0.4762346
2015	532643	0.4839561
2016	518881	0.4723829
2017	518341	0.4652316
2018	513104	0.4596380
2019	528314	0.4735435

San Diego

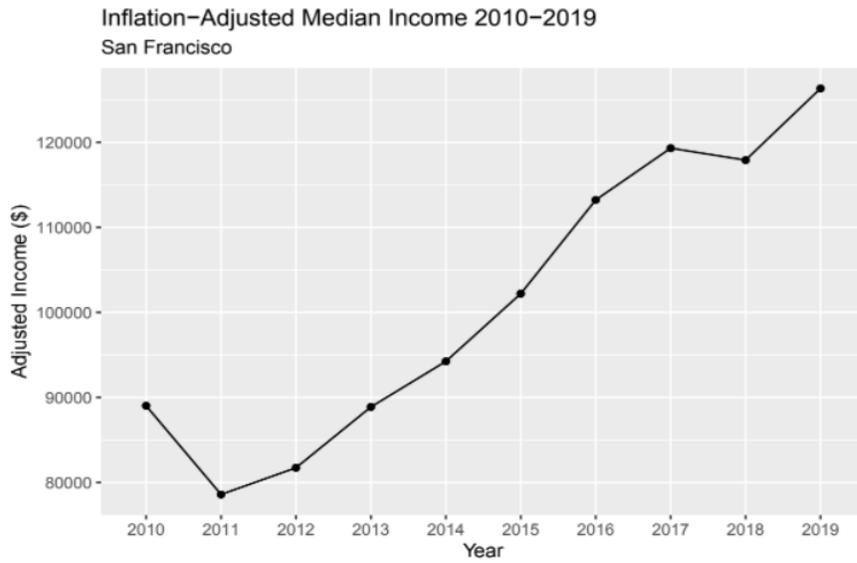
Inflation-Adjusted Median Home Prices 2010-2019



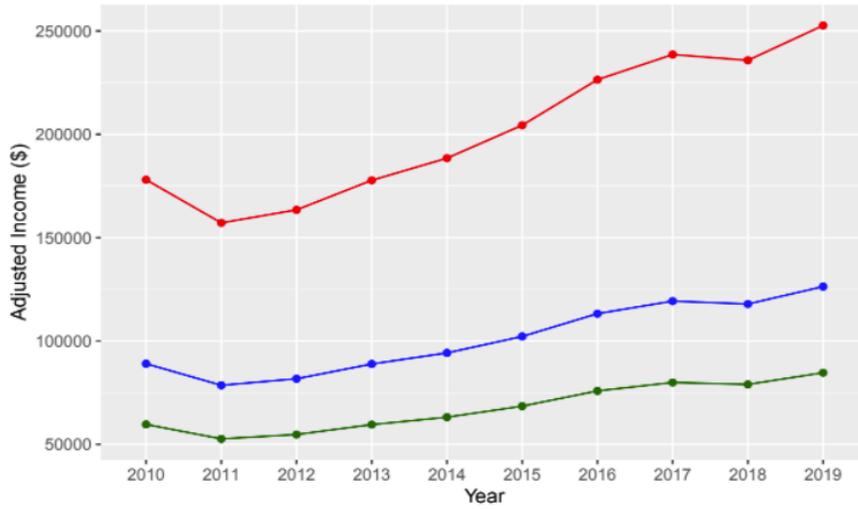
## San Diego



## San Francisco County

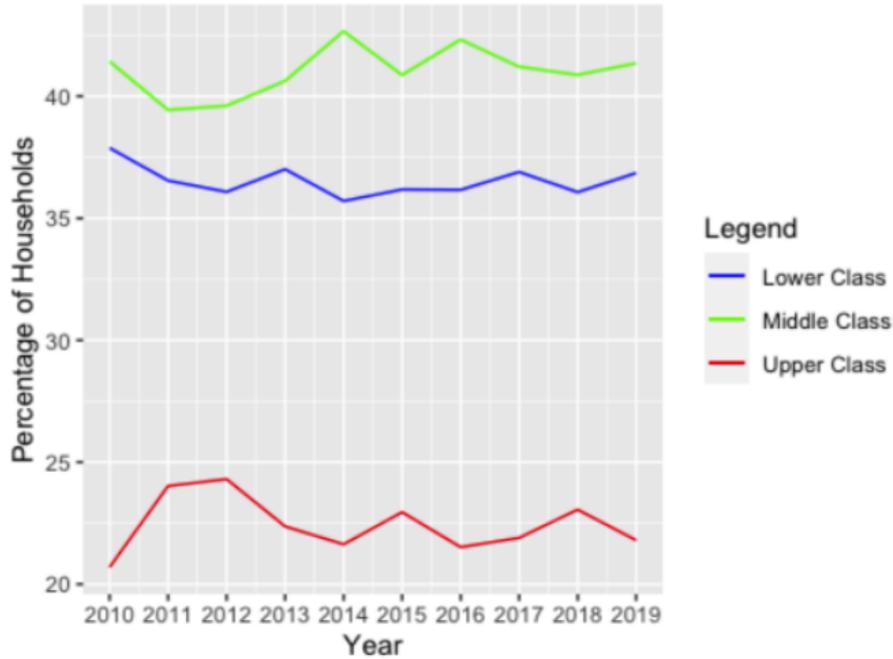


Inflation-Adjusted Middle Income Range 2010-2019  
San Francisco



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	San Francisco	2010	89017.61	59641.80	178035.2	59701.15
2	San Francisco	2011	78584.82	52651.83	157169.6	52696.70
3	San Francisco	2012	81725.99	54756.41	163452.0	54784.60
4	San Francisco	2013	88878.55	59548.63	177757.1	59659.73
5	San Francisco	2014	94237.92	63139.41	188475.8	63408.35
6	San Francisco	2015	102206.63	68478.44	204413.3	68792.93
7	San Francisco	2016	113226.51	75861.76	226453.0	76023.51
8	San Francisco	2017	119311.53	79938.73	238623.1	80244.92
9	San Francisco	2018	117909.81	78999.57	235819.6	79053.17
10	San Francisco	2019	126339.64	84647.56	252679.3	84732.59
			highest_obs			
1			177857.2			
2			157054.6			
3			162324.7			
4			176646.1			
5			188038.5			
6			204194.9			
7			225698.2			
8			238095.1			
9			235304.3			
10			252173.1			

### Income Group Composition For San Francisco County

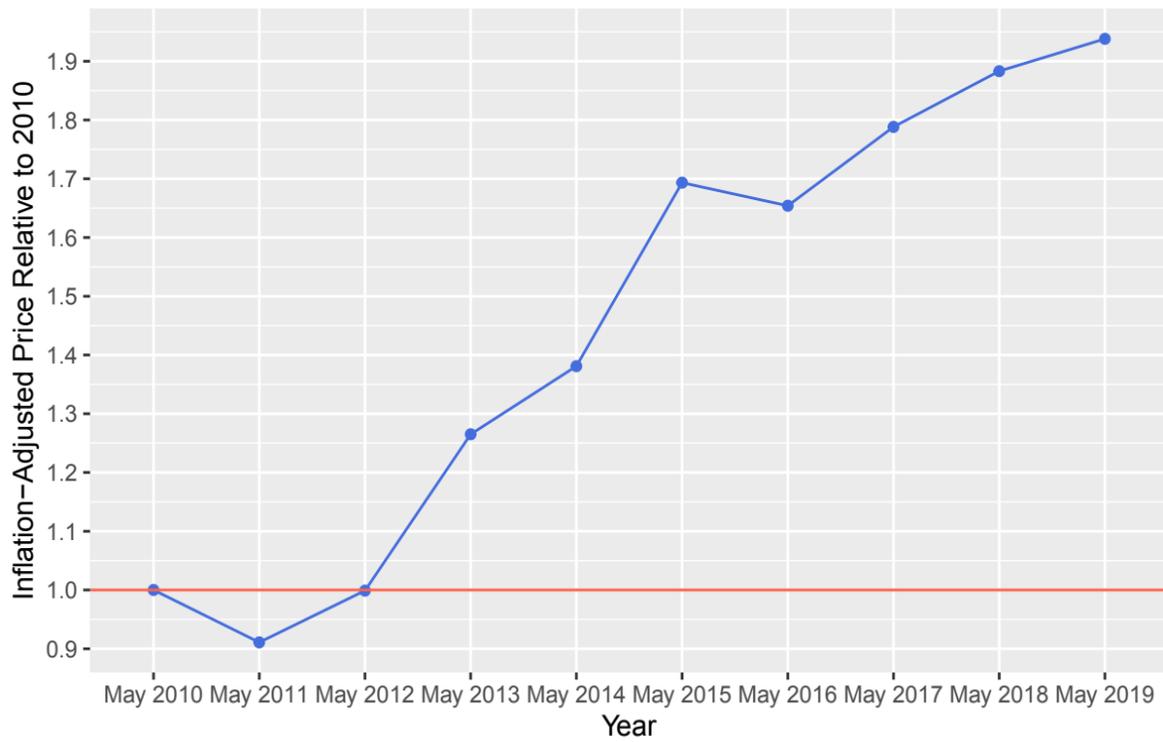


#### San Francisco County Middle Class Trends

Year	MC_Size	MC_Percent
2010	136509	0.4142587
2011	132967	0.3943560
2012	135346	0.3961180
2013	141711	0.4062664
2014	148336	0.4266305
2015	143445	0.4087125
2016	149265	0.4232091
2017	146943	0.4120806
2018	145966	0.4087619
2019	149474	0.4134976

## San Francisco

Inflation-Adjusted Median Home Prices 2010-2019

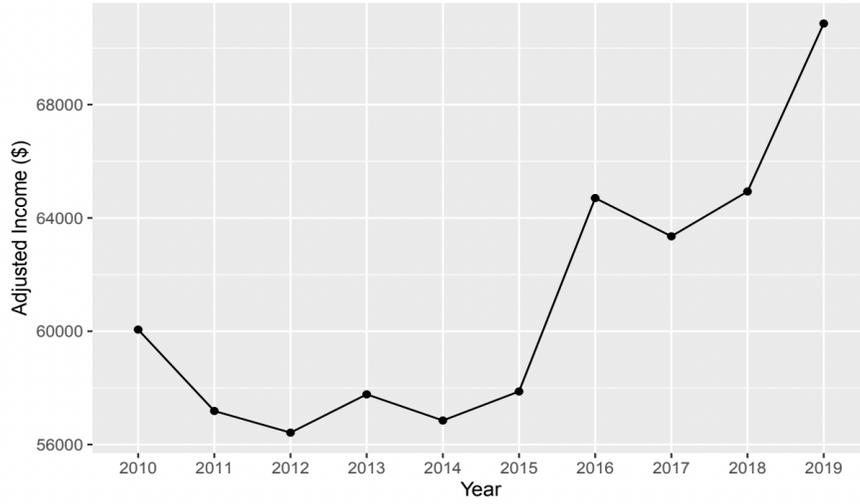


## San Francisco

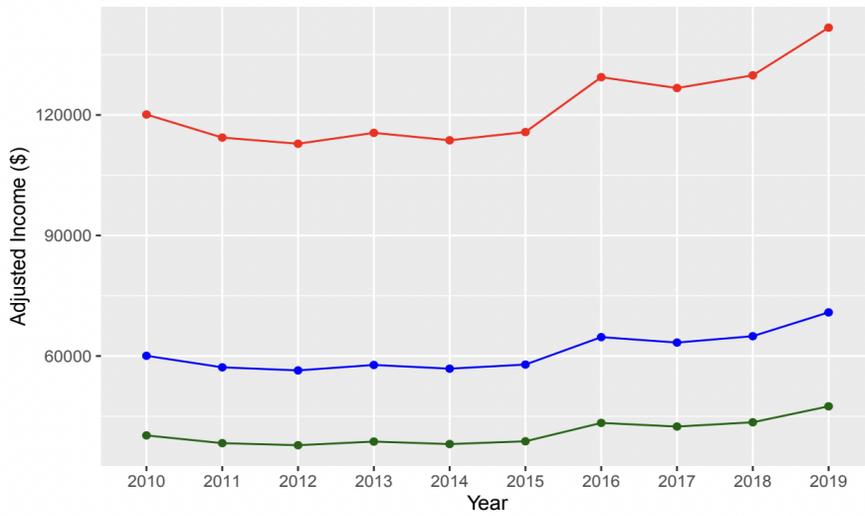


# San Joaquin County

Inflation-Adjusted Median Income 2010-2019  
San Joaquin



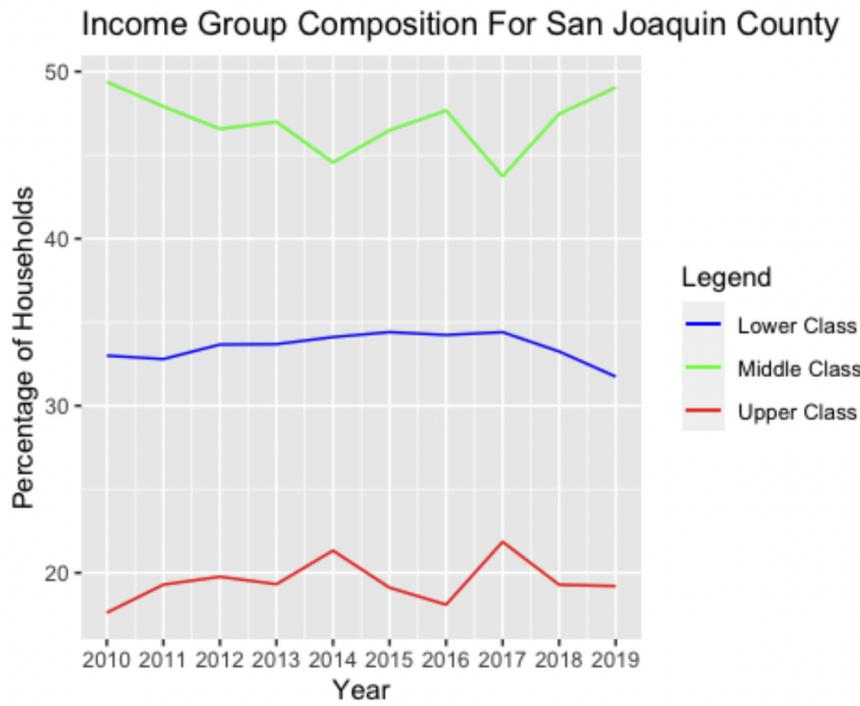
Inflation-Adjusted Middle Income Range 2010-2019  
San Joaquin



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	San Joaquin	2010	60057.22	40238.34	120114.4	40354.65
2	San Joaquin	2011	57183.98	38313.26	114368.0	38314.42
3	San Joaquin	2012	56419.12	37800.81	112838.2	37988.50
4	San Joaquin	2013	57771.06	38706.61	115542.1	38773.27
5	San Joaquin	2014	56848.86	38088.74	113697.7	38263.66
6	San Joaquin	2015	57873.41	38775.19	115746.8	38873.46
7	San Joaquin	2016	64700.86	43349.58	129401.7	43457.41
8	San Joaquin	2017	63351.26	42445.34	126702.5	42593.16
9	San Joaquin	2018	64932.85	43505.01	129865.7	43597.77
10	San Joaquin	2019	70863.58	47478.60	141727.2	47579.83

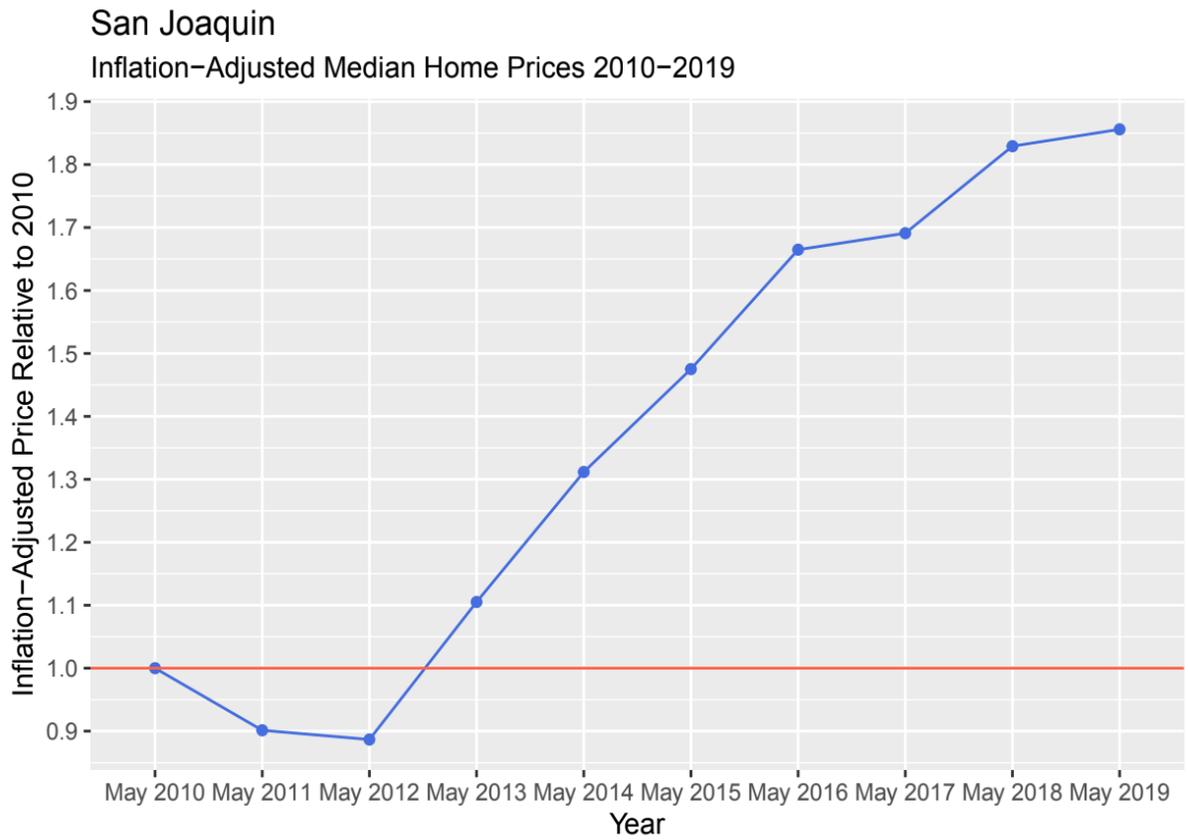
  

	highest_obs
1	119995.7
2	114137.8
3	112725.5
4	115319.9
5	113588.4
6	115637.6
7	128754.7
8	126607.5
9	129659.6
10	141524.7



*San Joaquin County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	105551	0.4938474
2011	101269	0.4791281
2012	99256	0.4657151
2013	100718	0.4699399
2014	97513	0.4456046
2015	102909	0.4648208
2016	106818	0.4766703
2017	97739	0.4373912
2018	109035	0.4746389
2019	111863	0.4904766

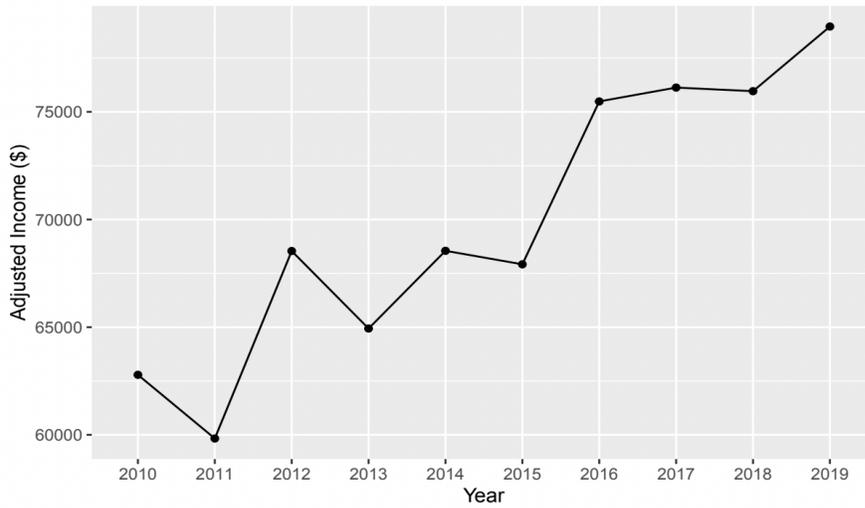


## San Joaquin

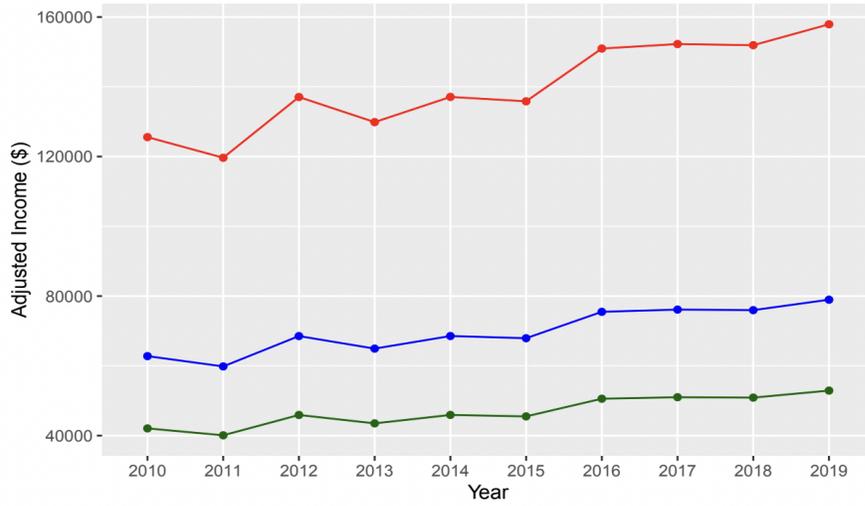


## San Luis Obispo County

Inflation-Adjusted Median Income 2010-2019  
San Luis Obispo

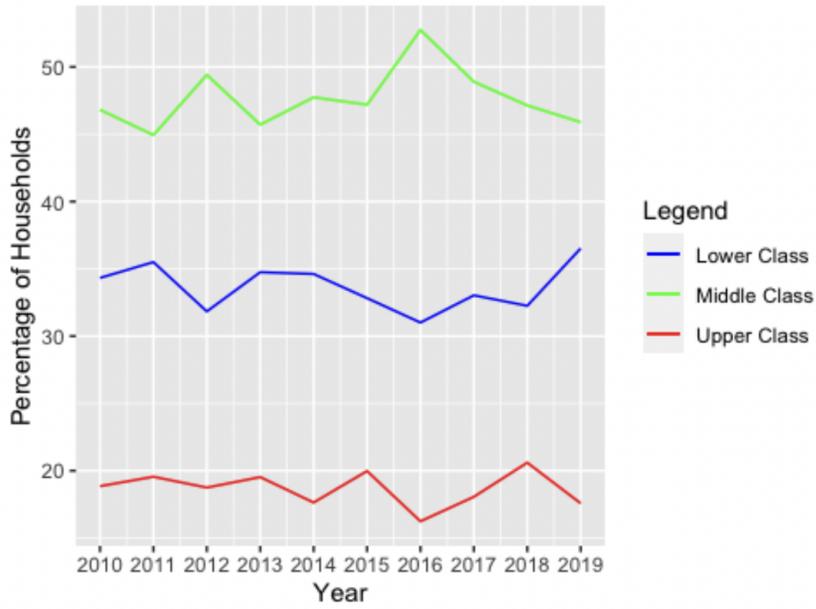


Inflation-Adjusted Middle Income Range 2010-2019  
San Luis Obispo



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs	highest_obs
1	San Luis Obispo	2010	62787.09	42067.35	125574.2	42135.00	125099.4
2	San Luis Obispo	2011	59830.32	40086.31	119660.6	40270.41	119085.3
3	San Luis Obispo	2012	68537.11	45919.86	137074.2	45992.01	136736.0
4	San Luis Obispo	2013	64936.89	43507.72	129873.8	43772.69	129762.7
5	San Luis Obispo	2014	68546.61	45926.23	137093.2	45938.25	136655.9
6	San Luis Obispo	2015	67919.37	45505.97	135838.7	45534.37	135402.0
7	San Luis Obispo	2016	75484.34	50574.51	150968.7	50682.34	149890.3
8	San Luis Obispo	2017	76127.09	51005.15	152254.2	51525.69	151620.7
9	San Luis Obispo	2018	75961.13	50893.96	151922.3	50915.60	151510.0
10	San Luis Obispo	2019	78962.27	52904.72	157924.5	53350.15	157114.7

Income Group Composition For San Luis Obispo County

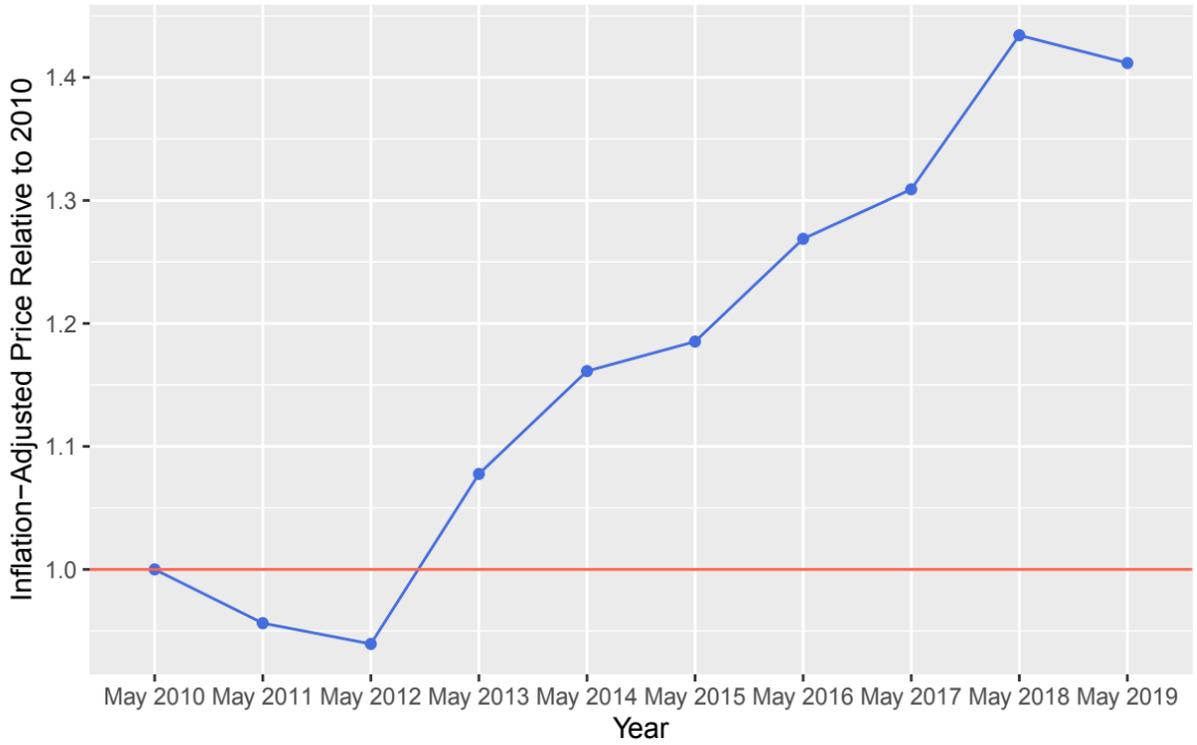


*San Luis Obispo County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	46419	0.4682214
2011	44635	0.4494376
2012	49874	0.4941494
2013	47210	0.4571733
2014	48094	0.4774167
2015	49078	0.4719855
2016	55340	0.5274897
2017	50001	0.4890217
2018	49147	0.4714341
2019	48319	0.4590050

### San Luis Obispo

Inflation-Adjusted Median Home Prices 2010-2019

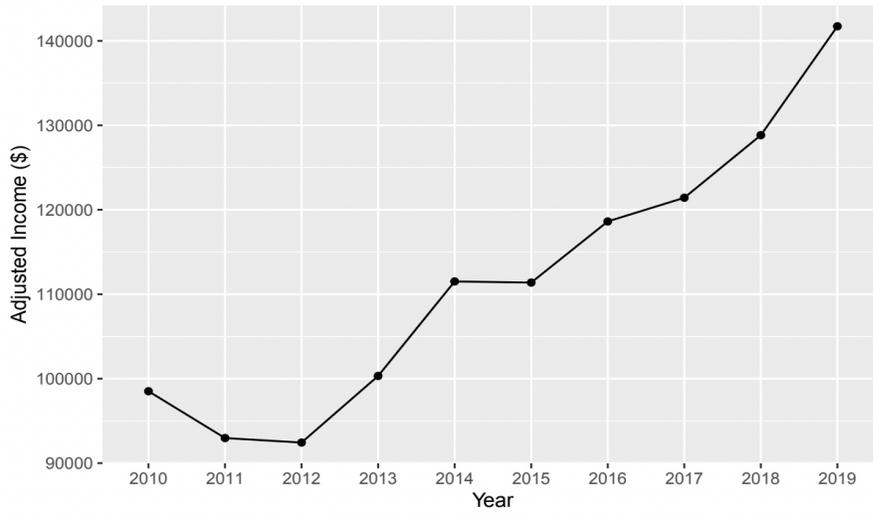


### San Luis Obispo

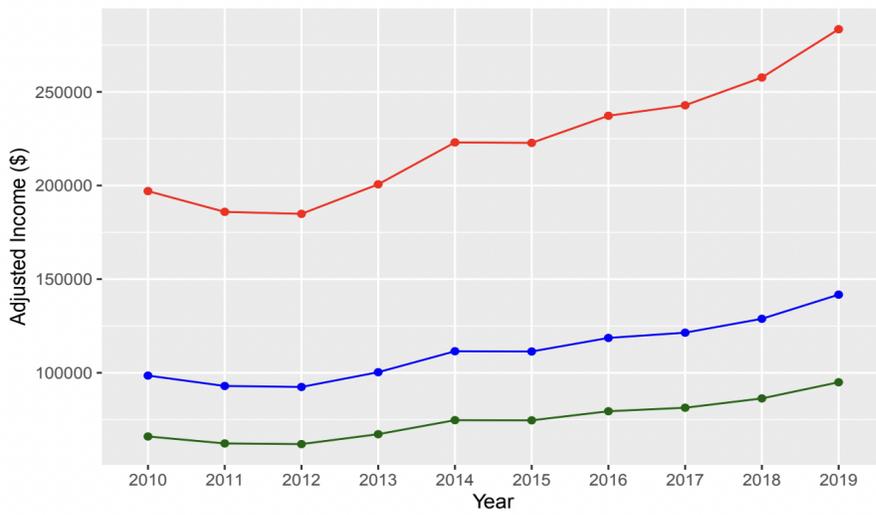


# San Mateo County

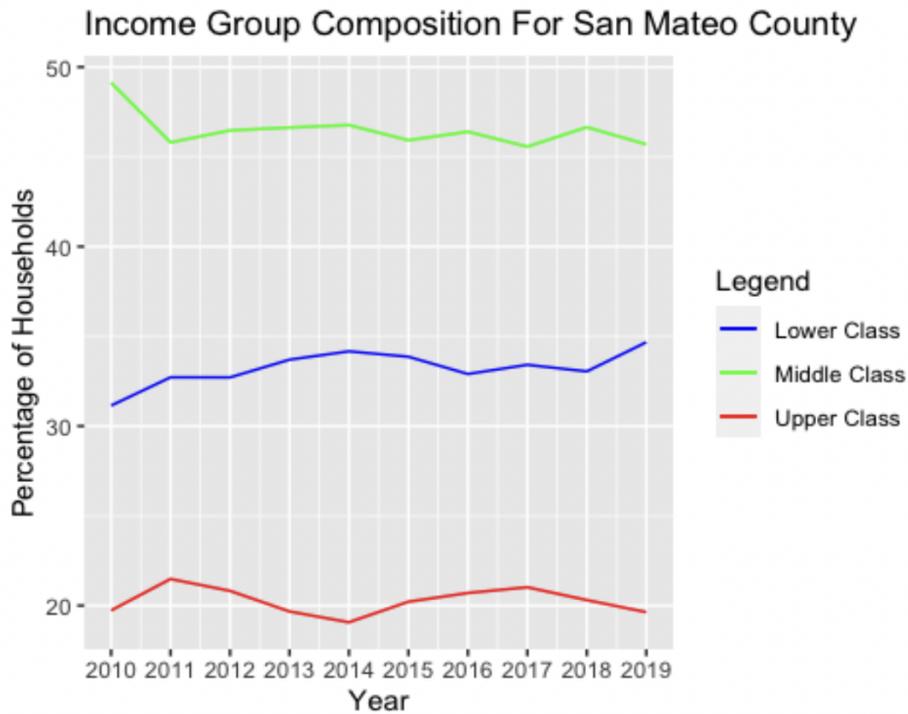
Inflation-Adjusted Median Income 2010-2019  
San Mateo



Inflation-Adjusted Middle Income Range 2010-2019  
San Mateo



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs	highest_obs
1	San Mateo	2010	98512.83	66003.59	197025.7	66466.49	196432.2
2	San Mateo	2011	92967.11	62287.96	185934.2	62361.60	185589.0
3	San Mateo	2012	92434.92	61931.39	184869.8	61999.03	184757.1
4	San Mateo	2013	100321.66	67215.51	200643.3	67547.70	199976.7
5	San Mateo	2014	111511.23	74712.52	223022.5	74887.44	222903.3
6	San Mateo	2015	111379.02	74623.95	222758.0	74853.26	221666.1
7	San Mateo	2016	118618.25	79474.23	237236.5	79797.73	236805.2
8	San Mateo	2017	121423.24	81353.57	242846.5	81723.12	242107.4
9	San Mateo	2018	128835.02	86319.46	257670.0	86371.00	257463.9
10	San Mateo	2019	141727.16	94957.20	283454.3	95159.66	283353.1

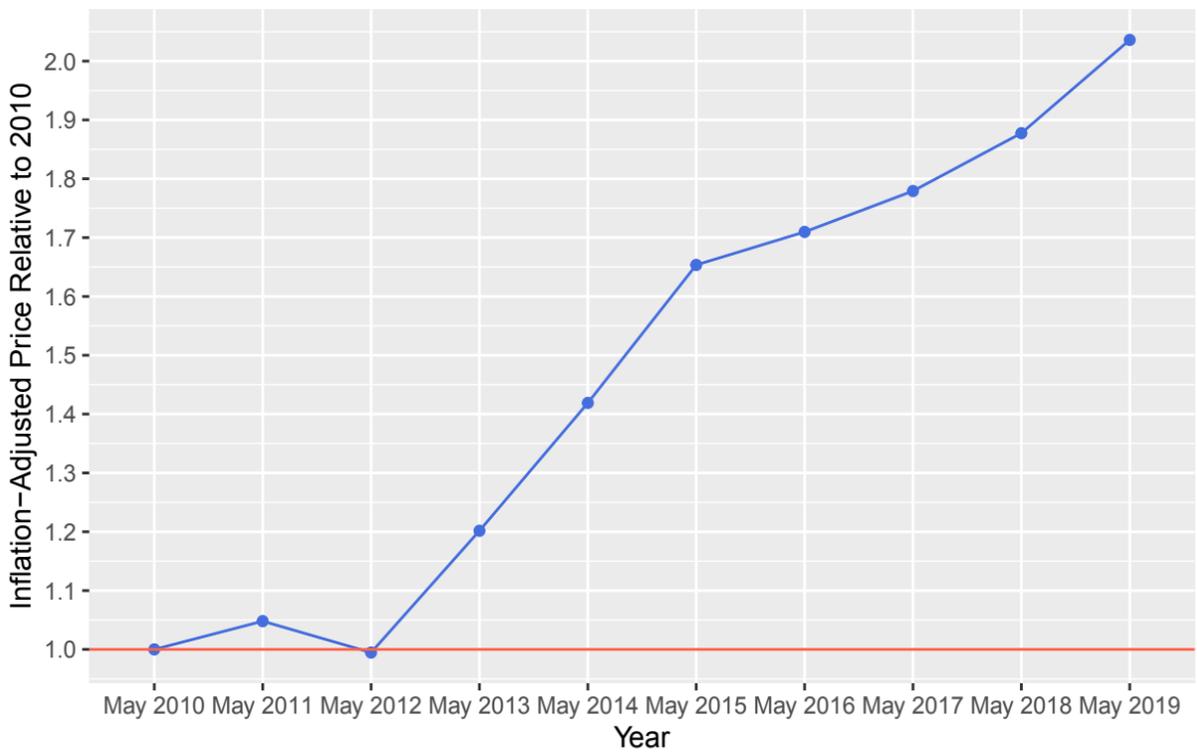


*San Mateo County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	125067	0.4913104
2011	116446	0.4580359
2012	119452	0.4646961
2013	119891	0.4662915
2014	119244	0.4676712
2015	119808	0.4592298
2016	121015	0.4639808
2017	119673	0.4556611
2018	119895	0.4664921
2019	119804	0.4569585

**San Mateo**

Inflation-Adjusted Median Home Prices 2010-2019

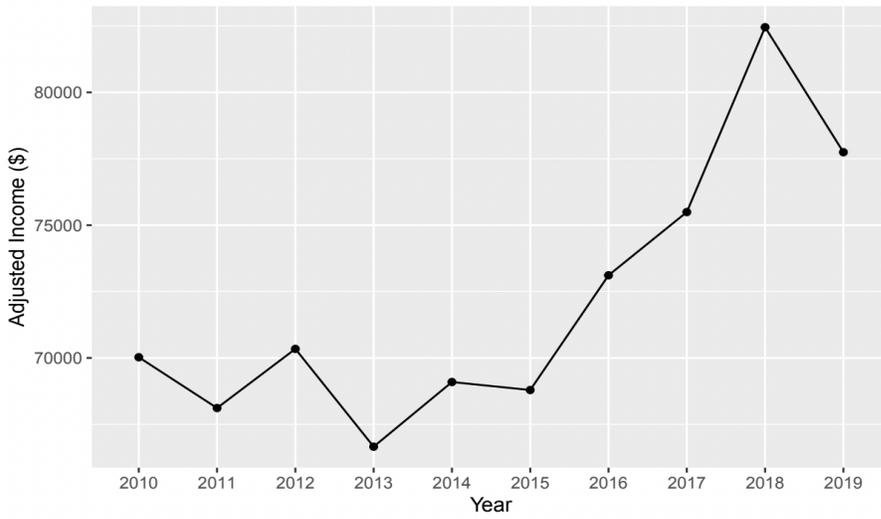


## San Mateo

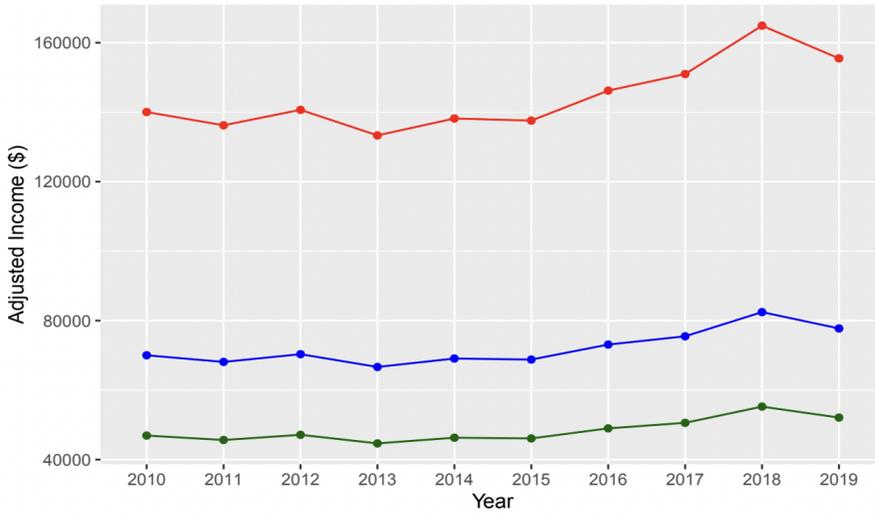


## Santa Barbara County

Inflation-Adjusted Median Income 2010-2019  
Santa Barbara

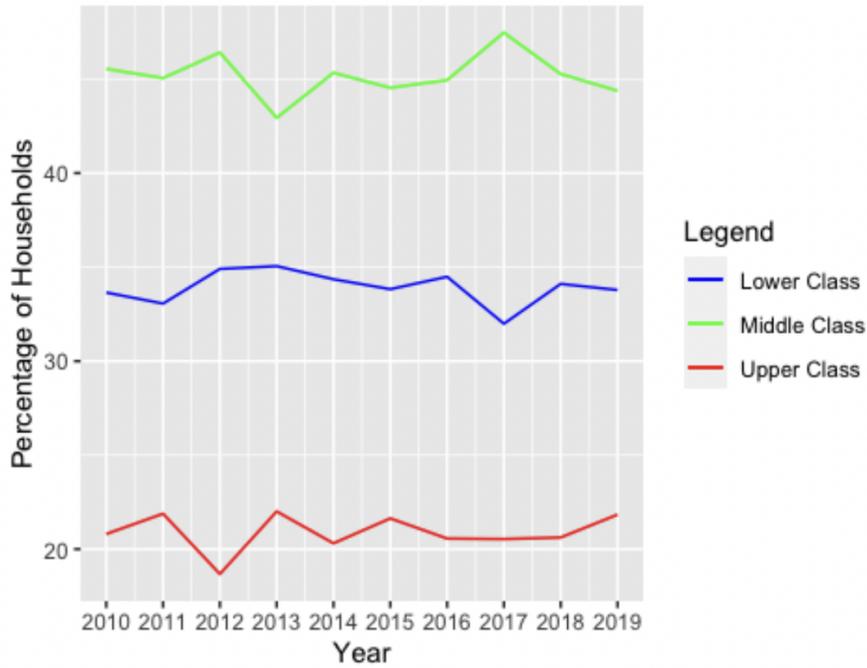


Inflation-Adjusted Middle Income Range 2010-2019  
Santa Barbara



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Santa Barbara	2010	70027.19	46918.22	140054.4	46941.96
2	Santa Barbara	2011	68114.52	45636.73	136229.0	45678.15
3	Santa Barbara	2012	70340.72	47128.28	140681.4	47231.99
4	Santa Barbara	2013	66658.91	44661.47	133317.8	44772.57
5	Santa Barbara	2014	69093.23	46292.46	138186.5	46353.69
6	Santa Barbara	2015	68792.93	46091.26	137585.9	46407.93
7	Santa Barbara	2016	73111.98	48985.02	146224.0	49064.82
8	Santa Barbara	2017	75493.58	50580.70	150987.2	50681.01
9	Santa Barbara	2018	82454.41	55244.46	164908.8	55347.52
10	Santa Barbara	2019	77747.47	52090.80	155494.9	52337.81
						highest_obs
1						138986.2
2						136114.0
3						140658.9
4						133095.6
5						137967.8
6						137258.3
7						145576.9
8						150459.2
9						164496.6
10						155292.5

### Income Group Composition For Santa Barbara County

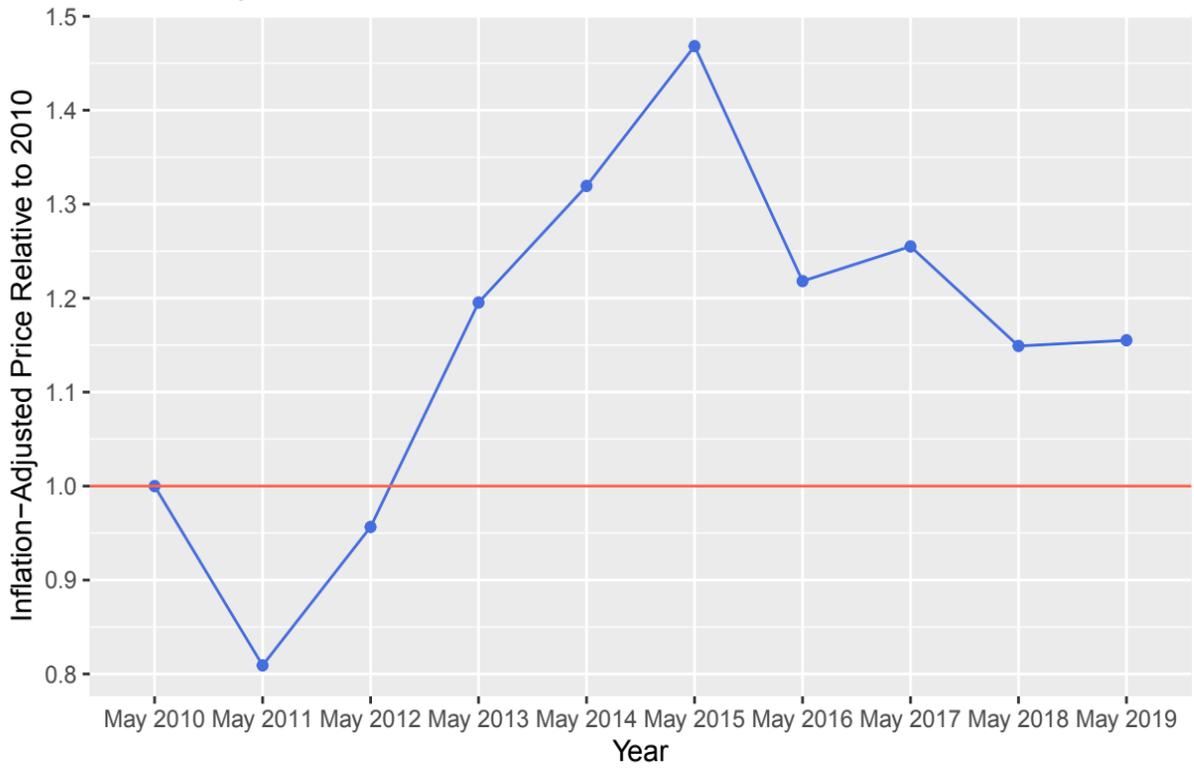


#### *Santa Barbara County Middle Class Trends*

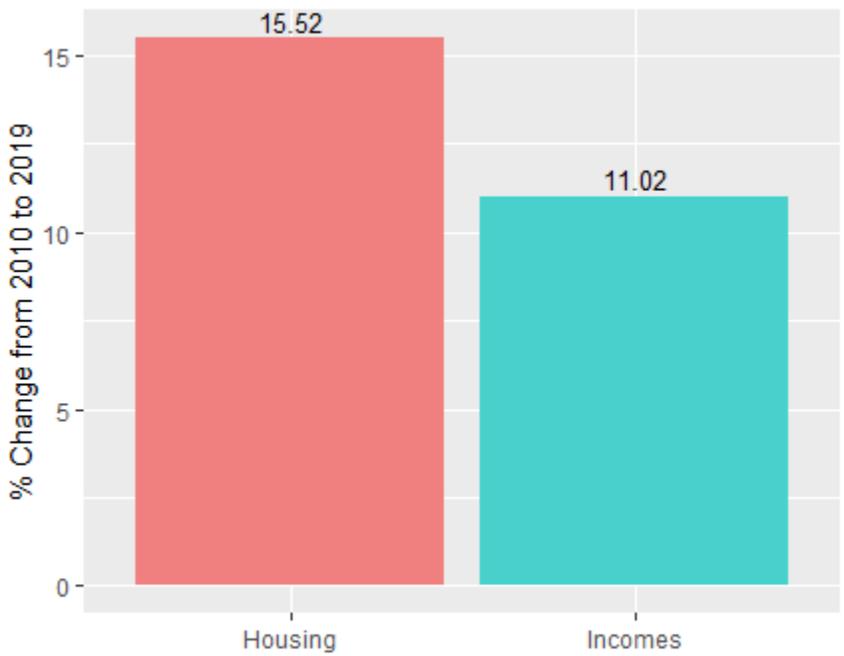
Year	MC_Size	MC_Percent
2010	63120	0.4554573
2011	62672	0.4505374
2012	65073	0.4641838
2013	60055	0.4294029
2014	63840	0.4533608
2015	63537	0.4453767
2016	63234	0.4494818
2017	69422	0.4747355
2018	65638	0.4527102
2019	64436	0.4438047

### Santa Barbara

Inflation-Adjusted Median Home Prices 2010-2019

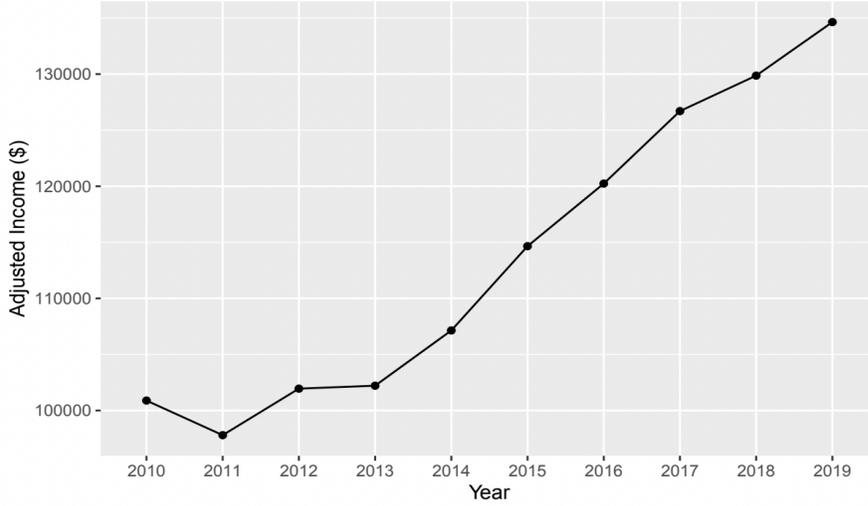


### Santa Barbara

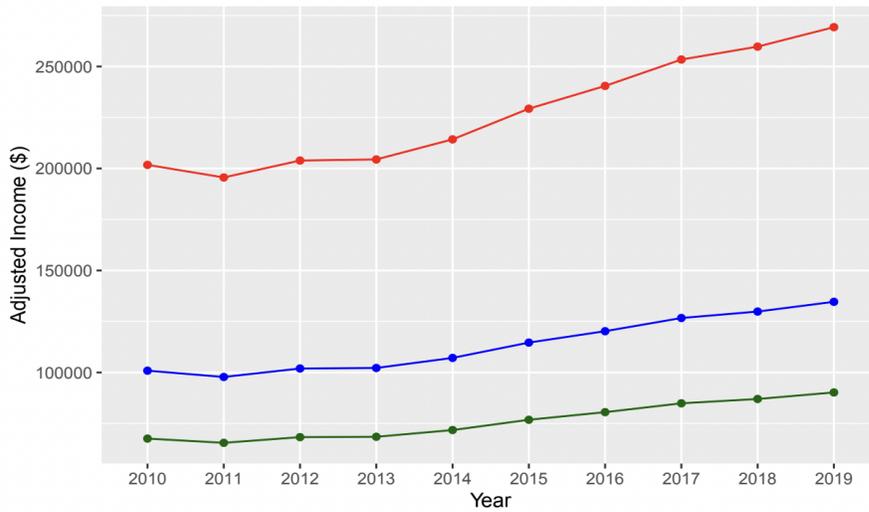


# Santa Clara County

Inflation-Adjusted Median Income 2010-2019  
Santa Clara

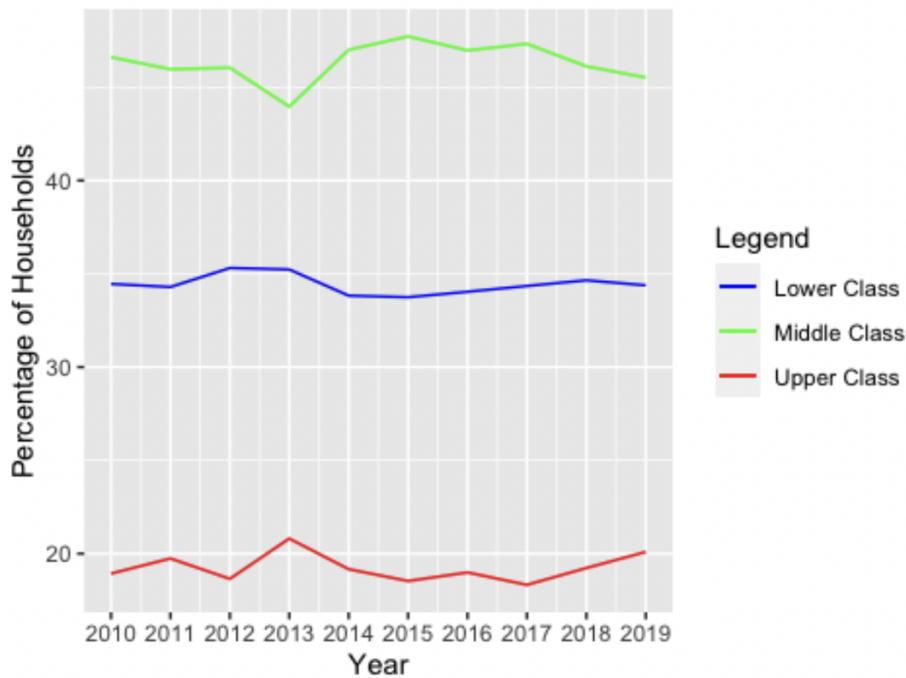


Inflation-Adjusted Middle Income Range 2010-2019  
Santa Clara



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Santa Clara	2010	100886.63	67594.04	201773.3	67653.39
2	Santa Clara	2011	97799.56	65525.70	195599.1	65583.23
3	Santa Clara	2012	101948.95	68305.80	203897.9	68311.66
4	Santa Clara	2013	102210.33	68480.92	204420.7	68547.58
5	Santa Clara	2014	107138.24	71782.62	214276.5	71935.67
6	Santa Clara	2015	114654.88	76818.77	229309.8	76982.56
7	Santa Clara	2016	120235.77	80557.97	240471.5	80660.41
8	Santa Clara	2017	126702.51	84890.68	253405.0	84996.27
9	Santa Clara	2018	129865.70	87010.02	259731.4	87092.47
10	Santa Clara	2019	134640.80	90209.34	269281.6	90401.68
	highest_obs					
1	201654.6					
2	195253.9					
3	203695.0					
4	204309.6					
5	213948.5					
6	229091.4					
7	240040.2					
8	253193.9					
9	259061.5					
10	269180.4					

Income Group Composition For Santa Clara County

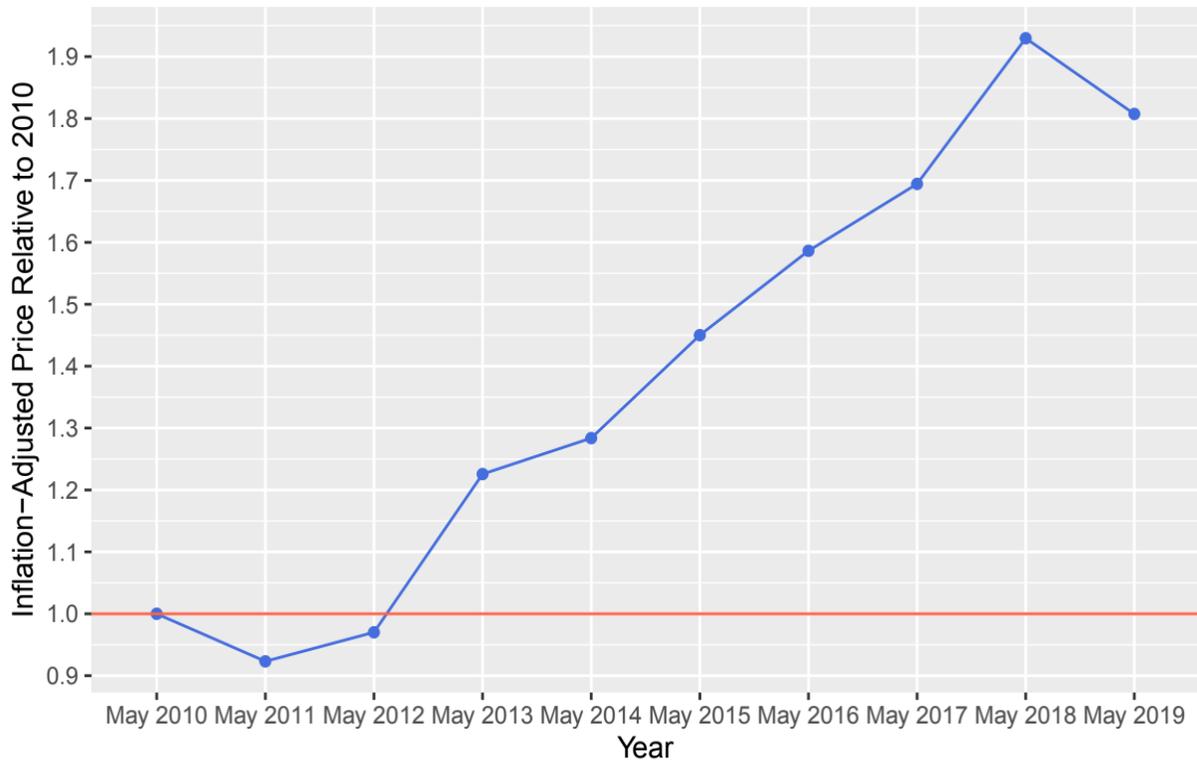


*Santa Clara County Middle Class Trends*

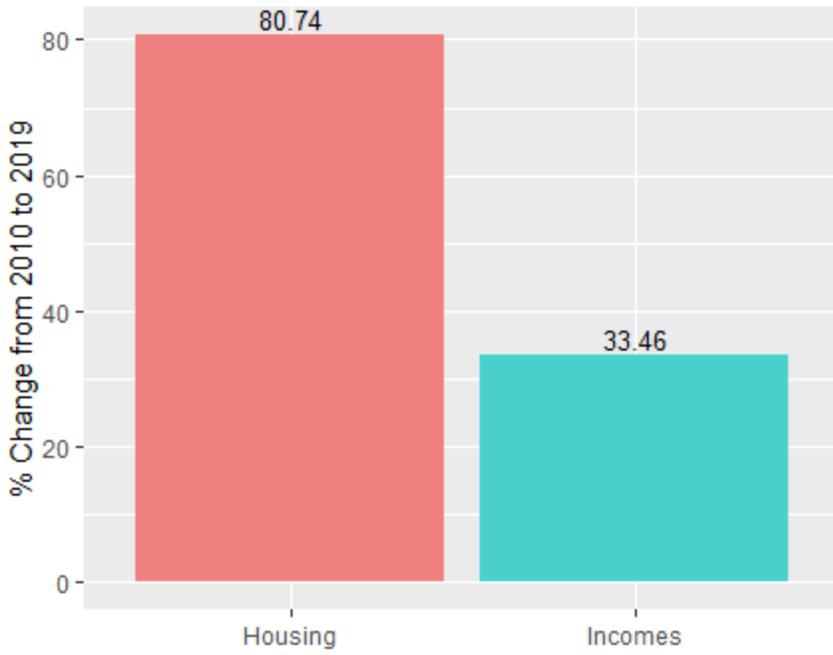
Year	MC_Size	MC_Percent
2010	276383	0.4661293
2011	275832	0.4596710
2012	279867	0.4604265
2013	269599	0.4396047
2014	290444	0.4700342
2015	299085	0.4772349
2016	294861	0.4697273
2017	296664	0.4732683
2018	294628	0.4612008
2019	290520	0.4552249

**Santa Clara**

Inflation-Adjusted Median Home Prices 2010-2019

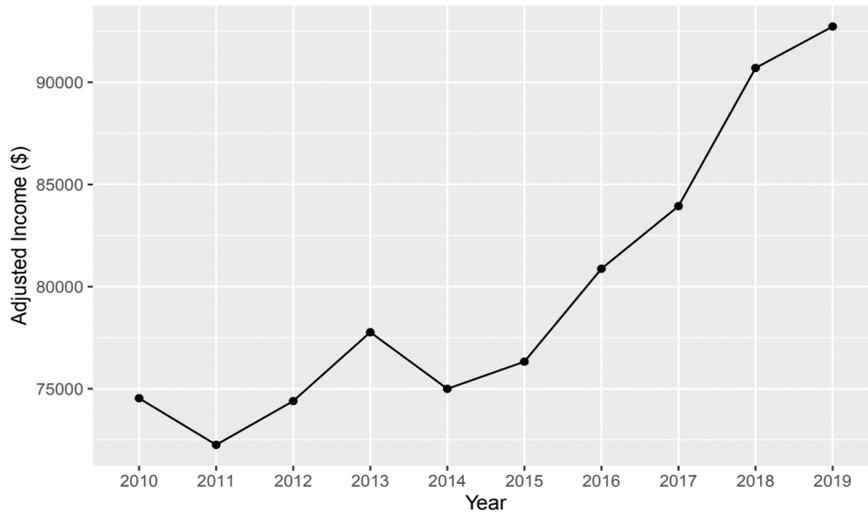


## Santa Clara

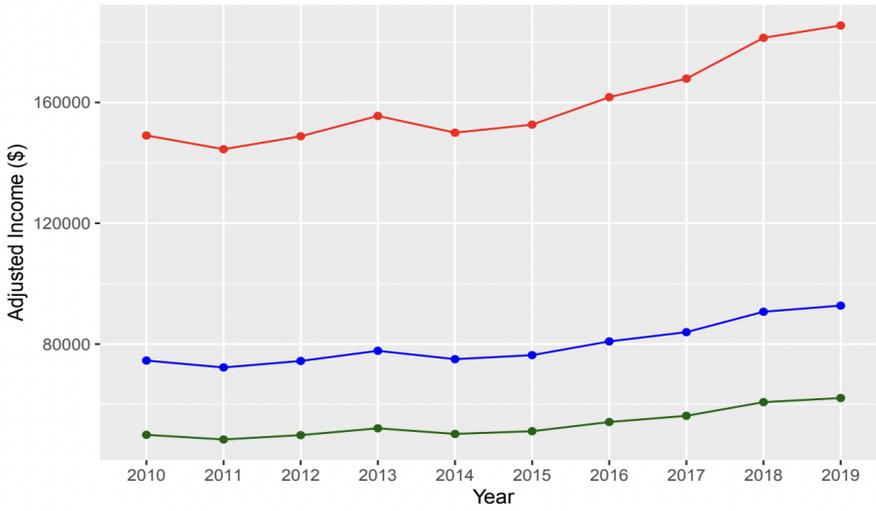


## Santa Cruz County

Inflation-Adjusted Median Income 2010-2019  
Santa Cruz

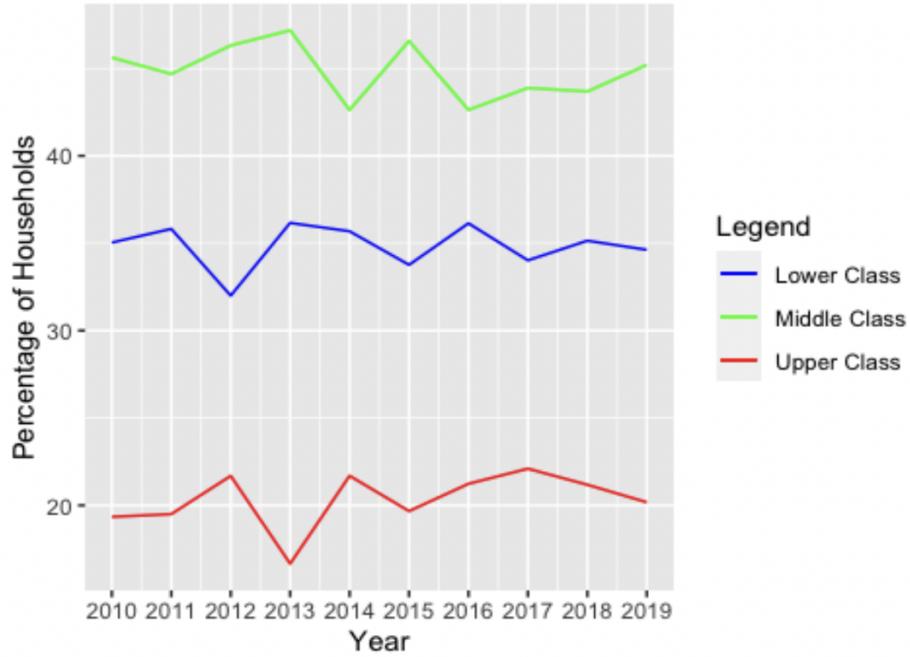


Inflation-Adjusted Middle Income Range 2010-2019  
Santa Cruz



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs	highest_obs
1	Santa Cruz	2010	74537.42	49940.07	149074.8	50324.62	148600.1
2	Santa Cruz	2011	72256.62	48411.93	144513.2	48784.72	143822.9
3	Santa Cruz	2012	74398.83	49847.22	148797.7	49937.40	148346.8
4	Santa Cruz	2013	77768.73	52105.05	155537.5	52216.15	155093.1
5	Santa Cruz	2014	74996.77	50247.83	149993.5	50289.38	149774.9
6	Santa Cruz	2015	76327.39	51139.35	152654.8	51321.71	151999.6
7	Santa Cruz	2016	80876.08	54186.97	161752.2	54240.89	161105.1
8	Santa Cruz	2017	83940.41	56240.08	167880.8	56277.03	167669.7
9	Santa Cruz	2018	90699.85	60768.90	181399.7	60810.13	181296.6
10	Santa Cruz	2019	92730.05	62129.14	185460.1	62562.42	185257.6

### Income Group Composition For Santa Cruz County

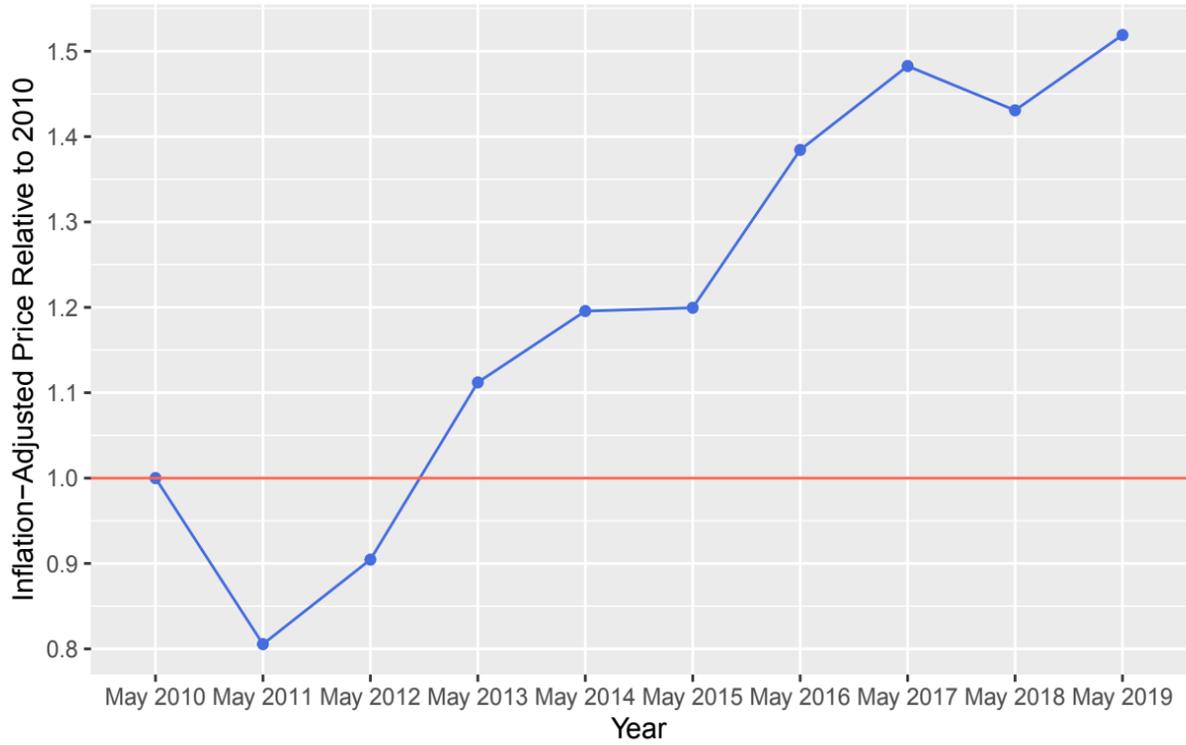


#### *Santa Cruz County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	41142	0.4562007
2011	41991	0.4468268
2012	42944	0.4631429
2013	43628	0.4717816
2014	40602	0.4262632
2015	42829	0.4656895
2016	40697	0.4262850
2017	41537	0.4388252
2018	40954	0.4367914
2019	43766	0.4520114

## Santa Cruz

Inflation-Adjusted Median Home Prices 2010-2019

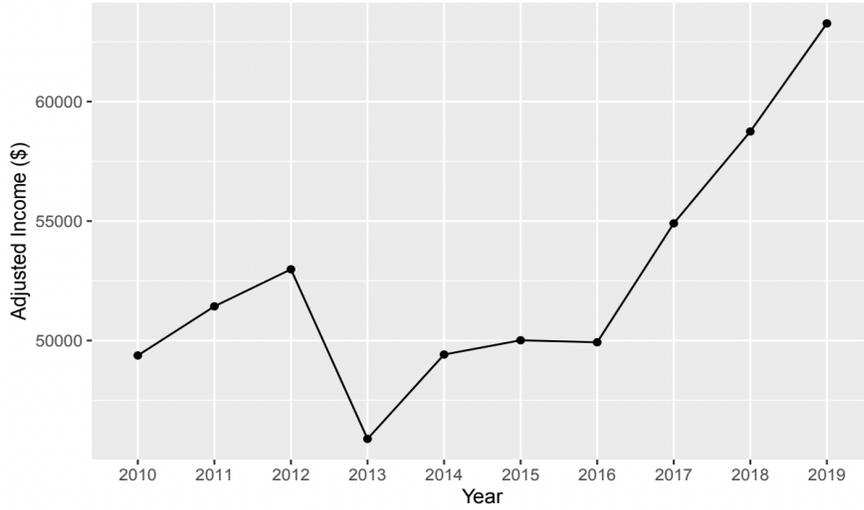


## Santa Cruz

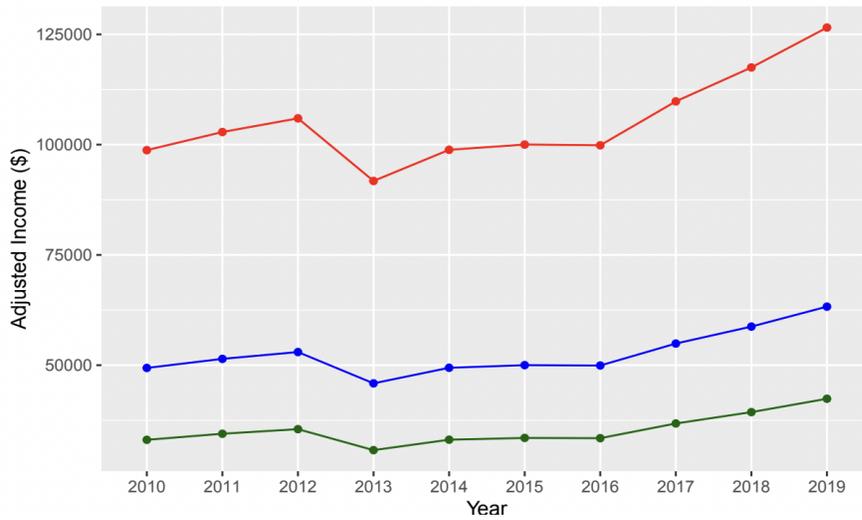


# Shasta County

Inflation-Adjusted Median Income 2010-2019  
Shasta



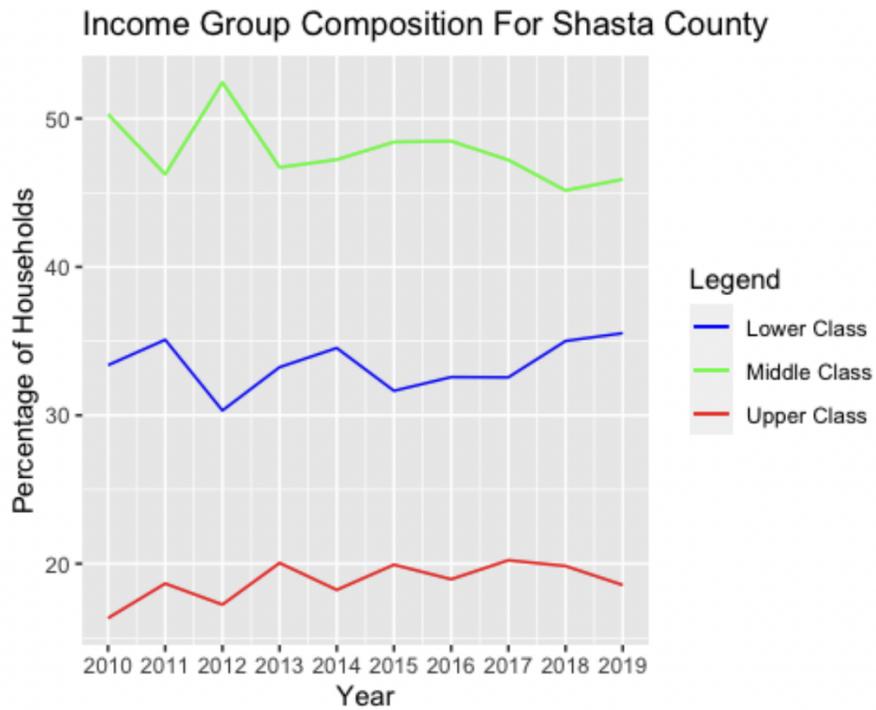
Inflation-Adjusted Middle Income Range 2010-2019  
Shasta



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Shasta	2010	49375.10	33081.32	98750.21	33233.24
2	Shasta	2011	51431.06	34458.81	102862.12	34517.49
3	Shasta	2012	52980.99	35497.26	105961.98	35508.53
4	Shasta	2013	45883.55	30741.98	91767.10	30774.20
5	Shasta	2014	49414.78	33107.90	98829.56	33890.67
6	Shasta	2015	50011.37	33507.61	100022.73	33522.90
7	Shasta	2016	49927.50	33451.42	99855.00	33644.45
8	Shasta	2017	54904.42	36785.96	109808.84	36954.90
9	Shasta	2018	58748.77	39361.67	117497.54	39371.98
10	Shasta	2019	63271.05	42391.61	126542.11	42416.91

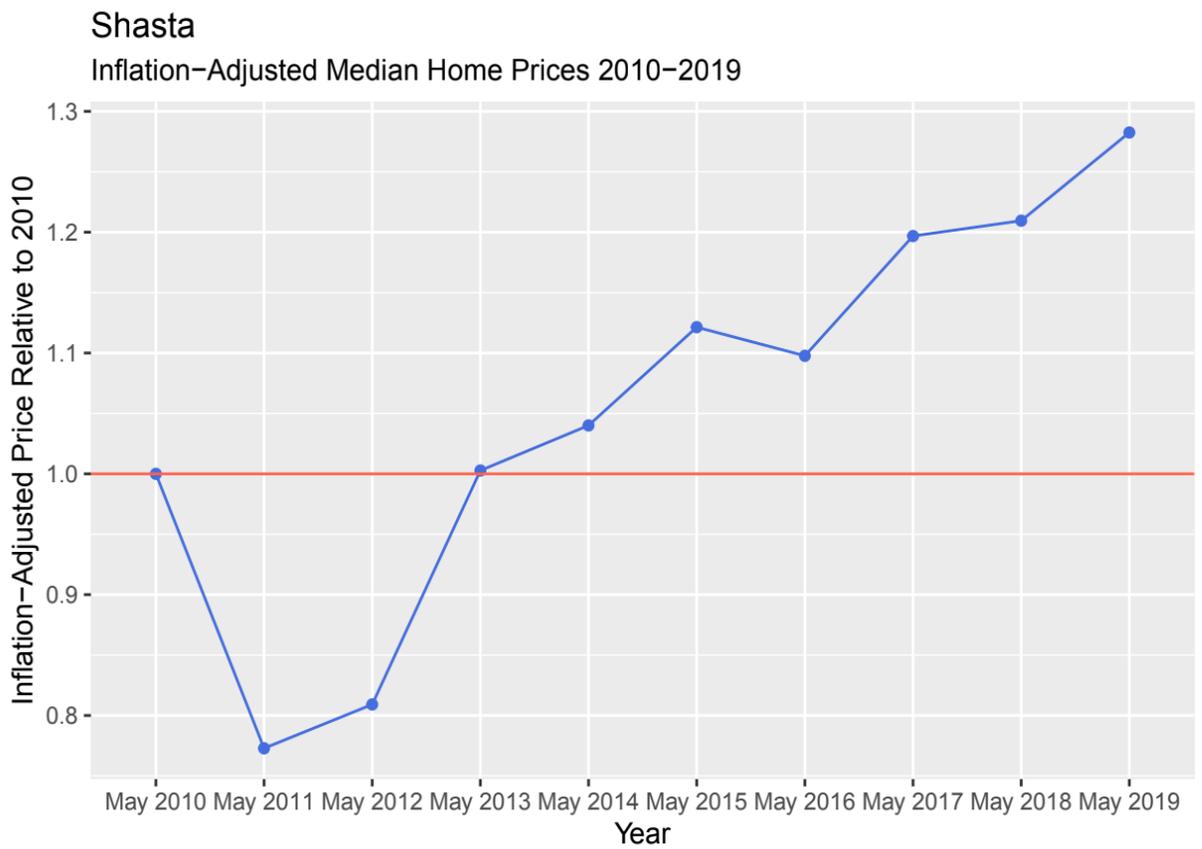
  

	highest_obs
1	98631.52
2	102632.01
3	105849.25
4	91100.51
5	98392.26
6	99913.54
7	99003.10
8	108225.06
9	116982.20
10	126137.17



*Shasta County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	33656	0.5029289
2011	31833	0.4624738
2012	35429	0.5243381
2013	32139	0.4670823
2014	31872	0.4723107
2015	33343	0.4841933
2016	34092	0.4847296
2017	33724	0.4721001
2018	30179	0.4515043
2019	33144	0.4590391

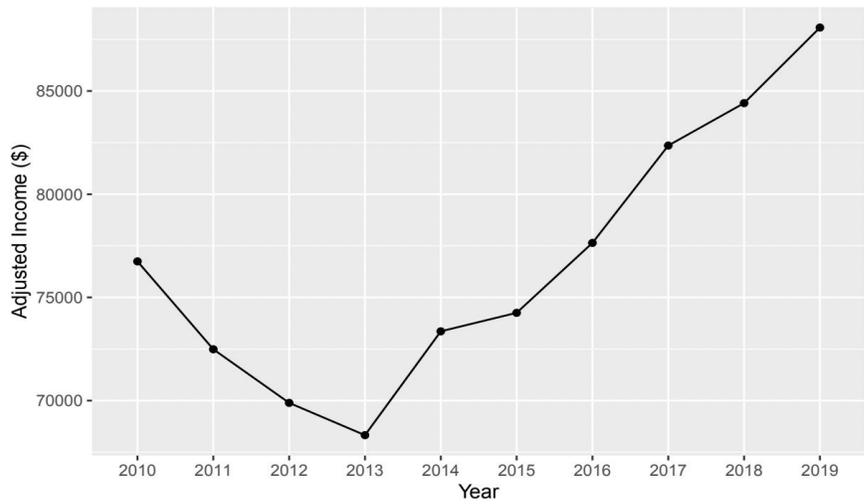


## Shasta

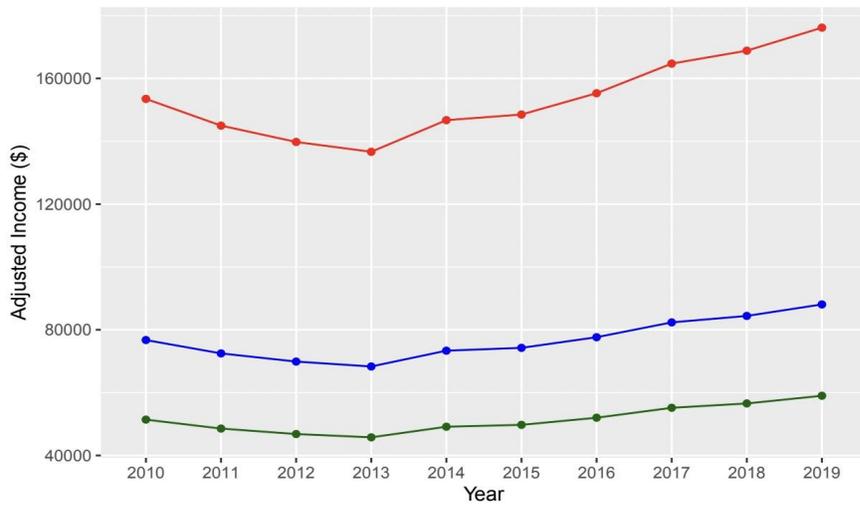


## Solano County

Inflation-Adjusted Median Income 2010-2019  
Solano

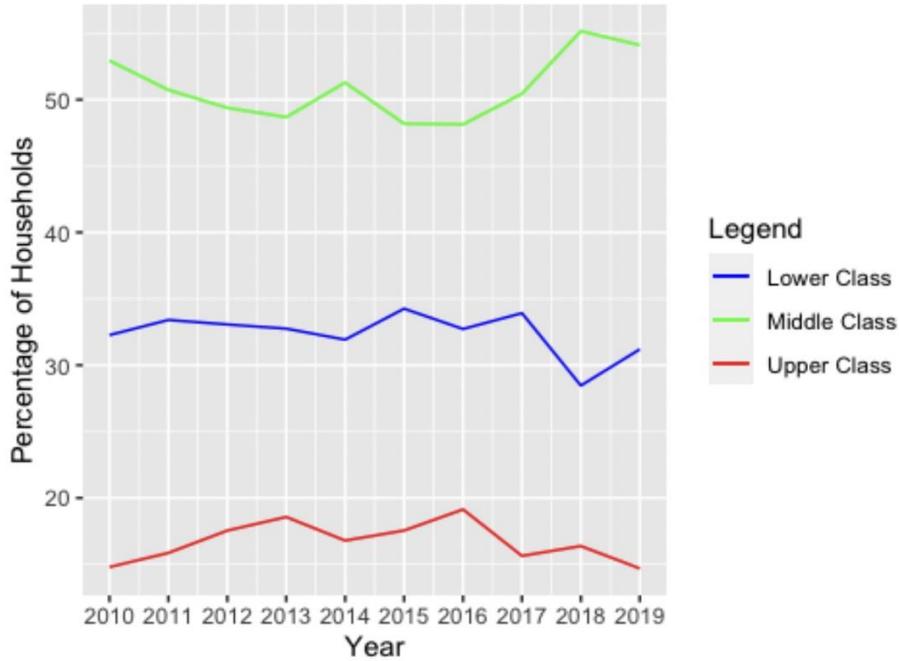


Inflation-Adjusted Middle Income Range 2010-2019  
Solano



countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs	highest_obs
1	Solano	2010	76745.05	51419.19	153490.1	51511.53
2	Solano	2011	72486.73	48566.11	144973.5	48681.17
3	Solano	2012	69889.81	46826.18	139779.6	46893.81
4	Solano	2013	68325.38	45778.01	136650.8	45994.65
5	Solano	2014	73356.90	49149.12	146713.8	49196.13
6	Solano	2015	74252.68	49749.30	148505.4	49902.17
7	Solano	2016	77641.04	52019.49	155282.1	52192.03
8	Solano	2017	82356.63	55178.94	164713.3	55284.53
9	Solano	2018	84412.70	56556.51	168825.4	56687.41
10	Solano	2019	88073.31	59009.11	176146.6	59626.64

### Income Group Composition For Solano County

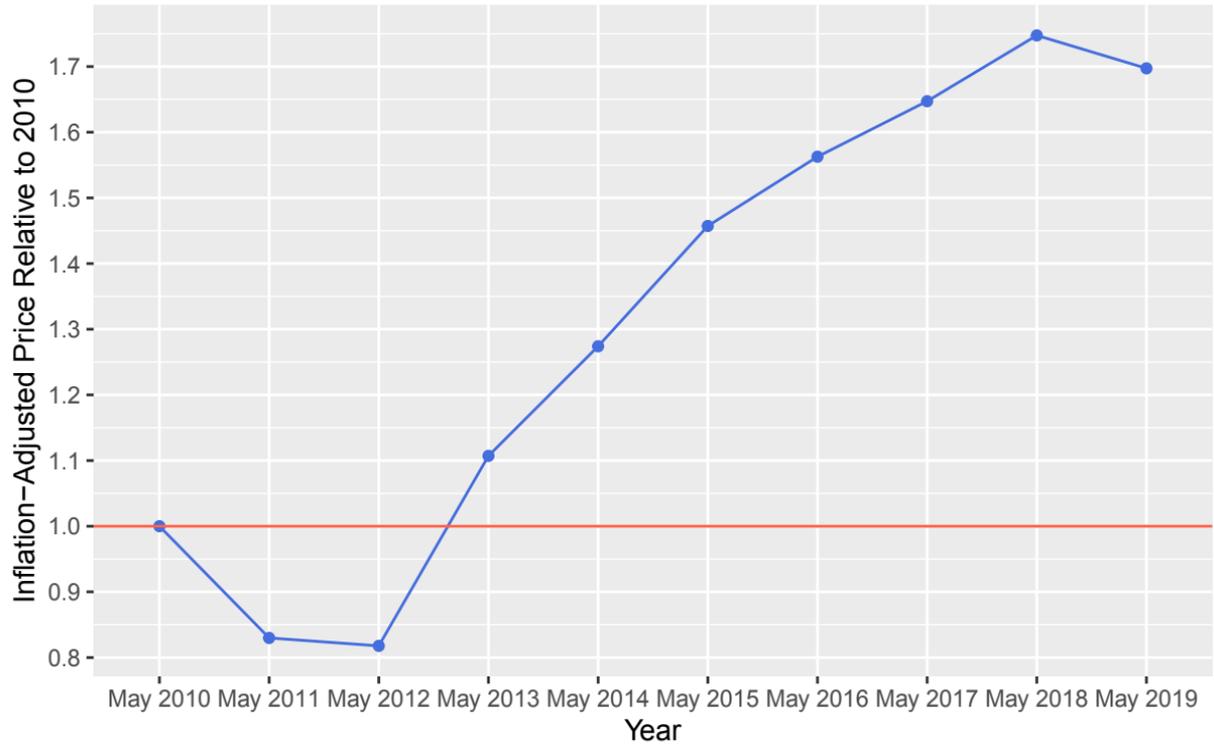


### *Solano County Middle Class Trends*

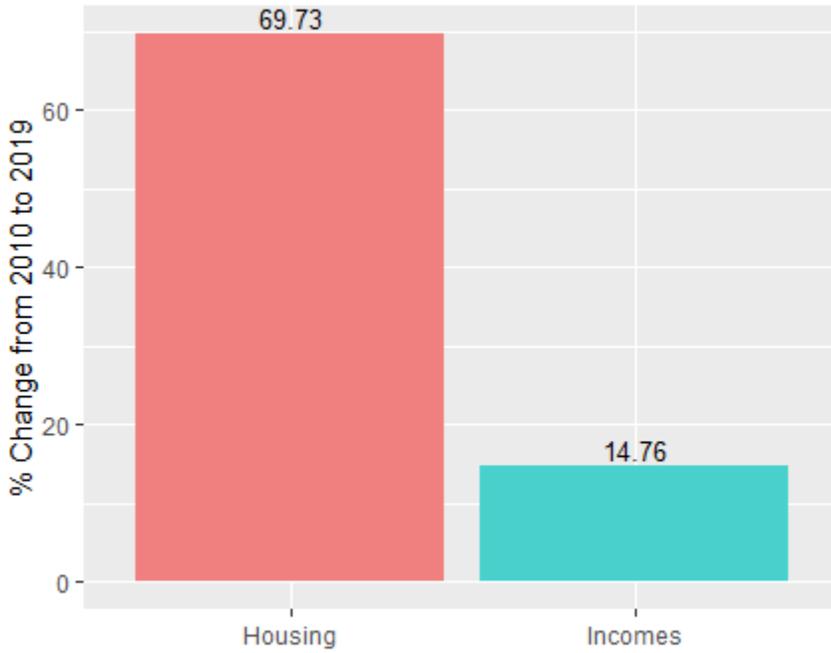
Year	MC_Size	MC_Percent
2010	73839	0.5293801
2011	70622	0.5073201
2012	68731	0.4938636
2013	68896	0.4868012
2014	73802	0.5128522
2015	69583	0.4819168
2016	71350	0.4813855
2017	75554	0.5044298
2018	82983	0.5516056
2019	80616	0.5411087

## Solano

Inflation-Adjusted Median Home Prices 2010-2019

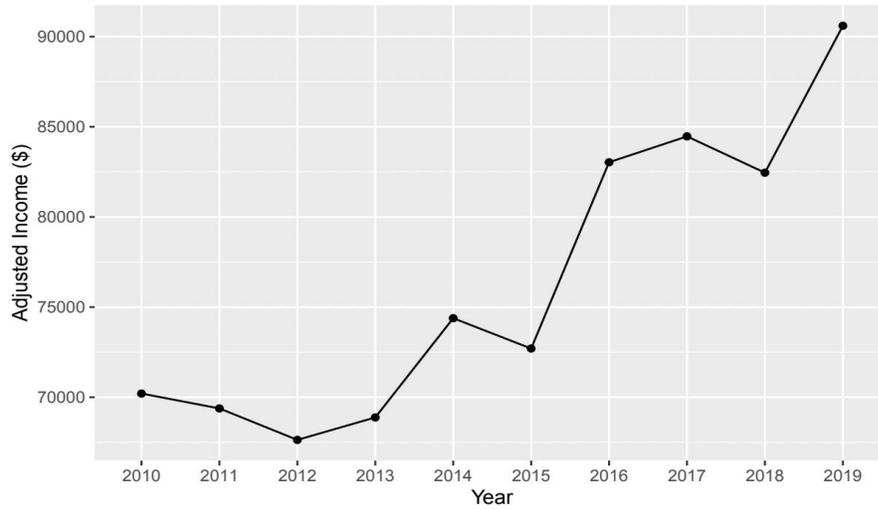


## Solano

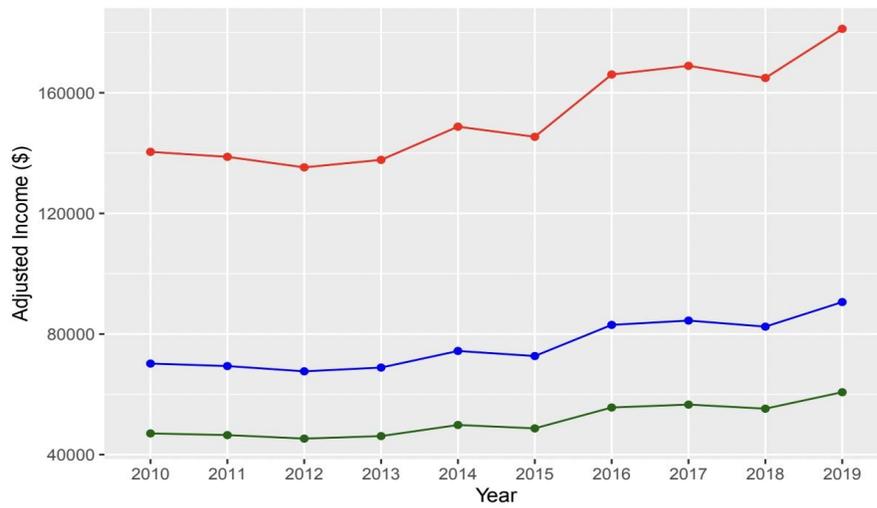


# Sonoma County

Inflation-Adjusted Median Income 2010-2019  
Sonoma



Inflation-Adjusted Middle Income Range 2010-2019  
Sonoma

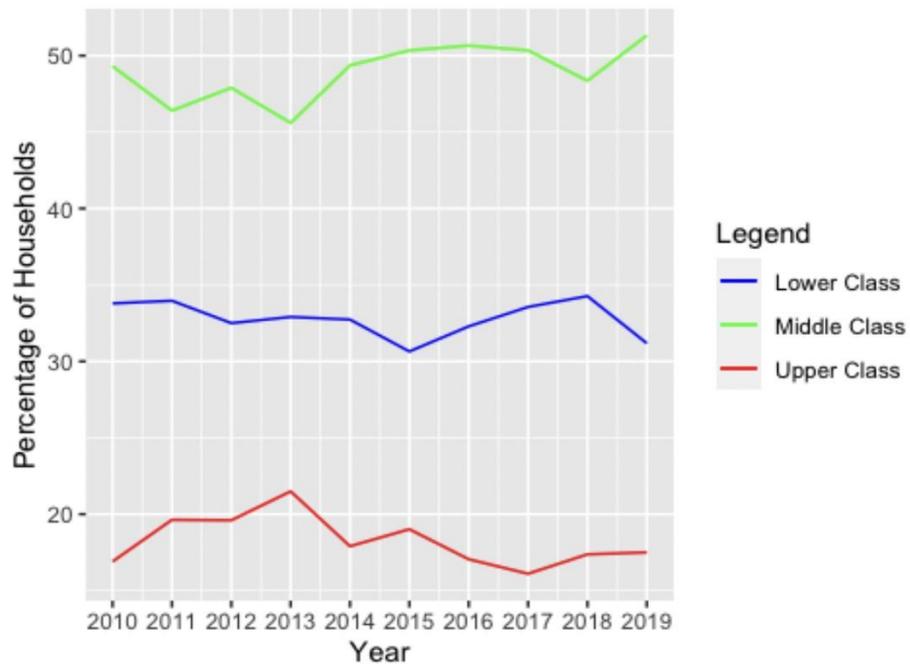


	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Sonoma	2010	70205.23	47037.50	140410.5	47119.99
2	Sonoma	2011	69380.16	46484.71	138760.3	46713.67
3	Sonoma	2012	67635.30	45315.65	135270.6	45428.38
4	Sonoma	2013	68880.88	46150.19	137761.8	46216.85
5	Sonoma	2014	74384.55	49837.65	148769.1	49852.08
6	Sonoma	2015	72702.11	48710.41	145404.2	49028.61
7	Sonoma	2016	83032.77	55631.96	166065.5	55642.74
8	Sonoma	2017	84468.34	56593.79	168936.7	56699.37
9	Sonoma	2018	82454.41	55244.46	164908.8	55347.52
10	Sonoma	2019	90604.15	60704.78	181208.3	60740.21

	highest_obs
1	140054.4
2	138415.1
3	135157.9
4	137206.3
5	148681.6
6	145229.5
7	165526.4
8	168831.1
9	164001.8
10	180803.4

Income Group Composition For Sonoma County

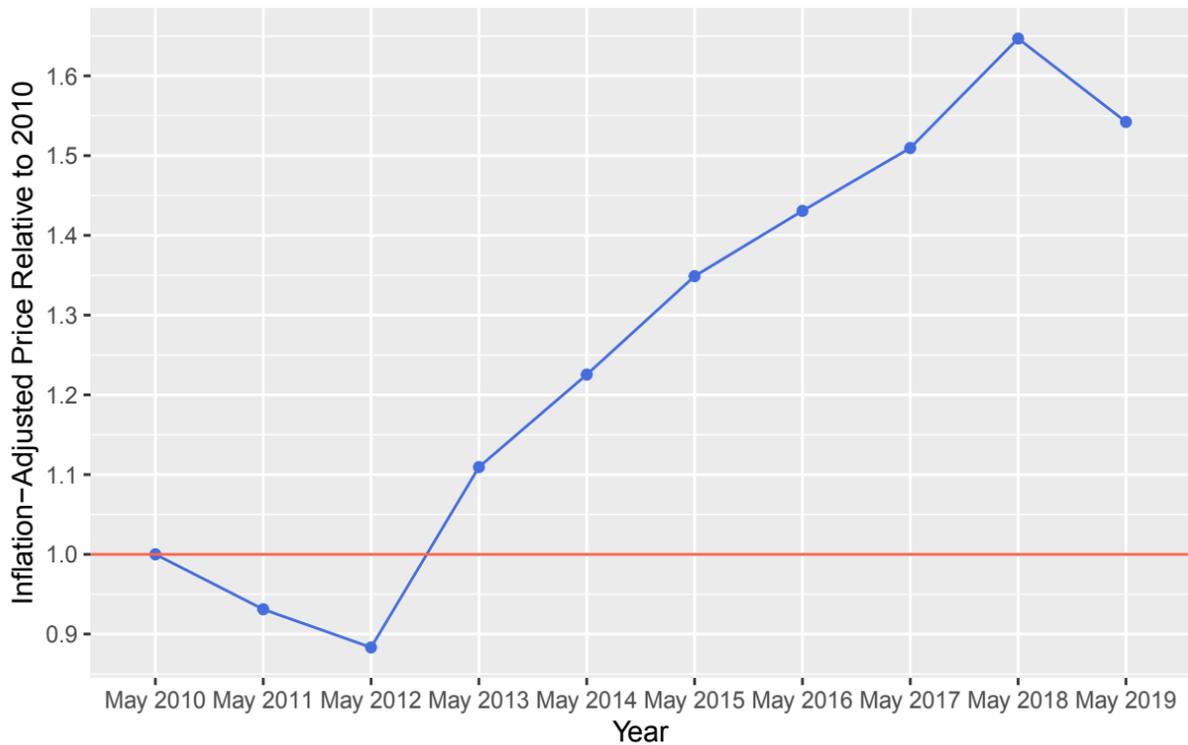


*Sonoma County Middle Class Trends*

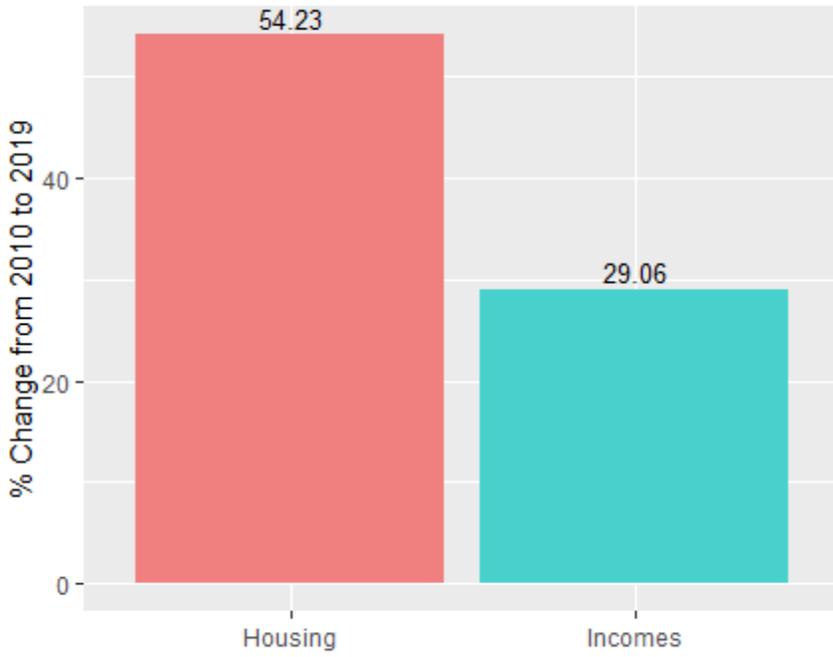
Year	MC_Size	MC_Percent
2010	90485	0.4930875
2011	83063	0.4640521
2012	87387	0.4789720
2013	85652	0.4560445
2014	92780	0.4936288
2015	95588	0.5033994
2016	93969	0.5066097
2017	94380	0.5034056
2018	89987	0.4836009
2019	96849	0.5131861

**Sonoma**

Inflation-Adjusted Median Home Prices 2010-2019

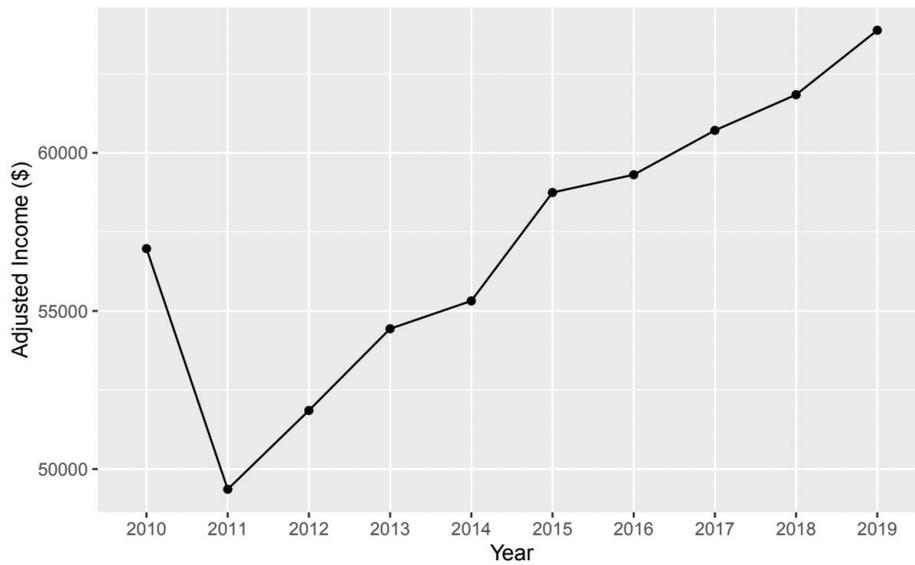


## Sonoma

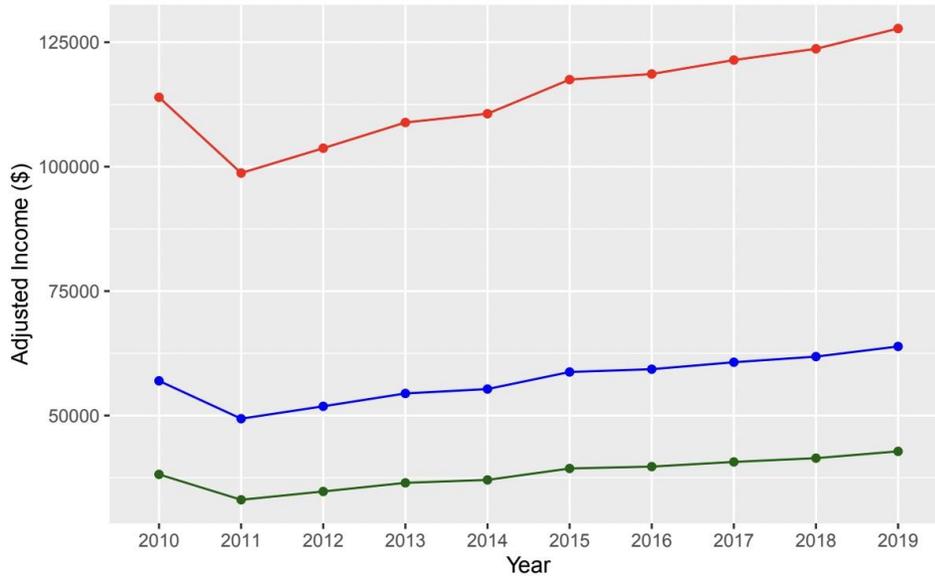


## Stanislaus County

Inflation-Adjusted Median Income 2010-2019  
Stanislaus

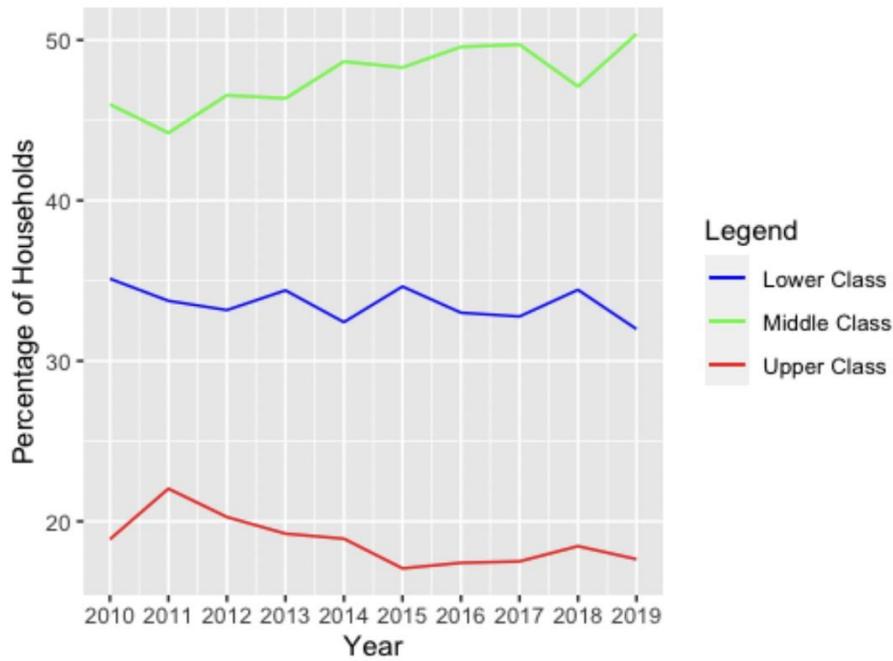


Inflation-Adjusted Middle Income Range 2010-2019  
Stanislaus



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Stanislaus	2010	56971.27	38170.75	113942.55	38218.23
2	Stanislaus	2011	49360.01	33071.21	98720.03	33136.79
3	Stanislaus	2012	51853.73	34742.00	103707.47	34832.18
4	Stanislaus	2013	54438.11	36473.53	108876.22	36495.75
5	Stanislaus	2014	55318.31	37063.27	110636.63	37170.41
6	Stanislaus	2015	58746.98	39360.47	117493.95	39419.44
7	Stanislaus	2016	59309.12	39737.11	118618.25	39898.87
8	Stanislaus	2017	60711.62	40676.79	121423.24	40682.07
9	Stanislaus	2018	61840.81	41433.34	123681.62	41639.48
10	Stanislaus	2019	63878.45	42798.56	127756.91	42821.85
			highest_obs			
1						112993.03
2						98639.48
3						103482.02
4						108654.03
5						110417.98
6						116838.78
7						118186.91
8						120789.73
9						123011.68
10						127351.97

### Income Group Composition For Stanislaus County

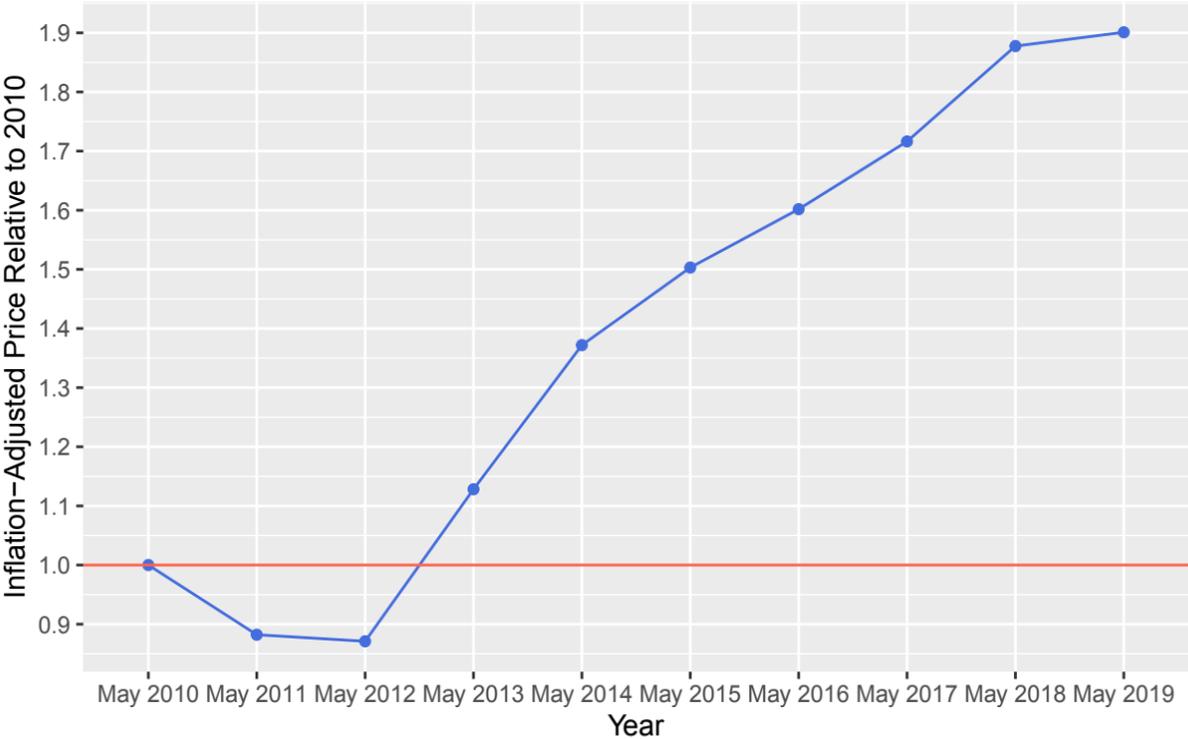


#### Stanislaus County Middle Class Trends

Year	MC_Size	MC_Percent
2010	75114	0.4598995
2011	73325	0.4421537
2012	77236	0.4655884
2013	77143	0.4636555
2014	81706	0.4866320
2015	82325	0.4828871
2016	85065	0.4957746
2017	85304	0.4972284
2018	81392	0.4710921
2019	86787	0.5037175

# Stanislaus

## Inflation-Adjusted Median Home Prices 2010-2019

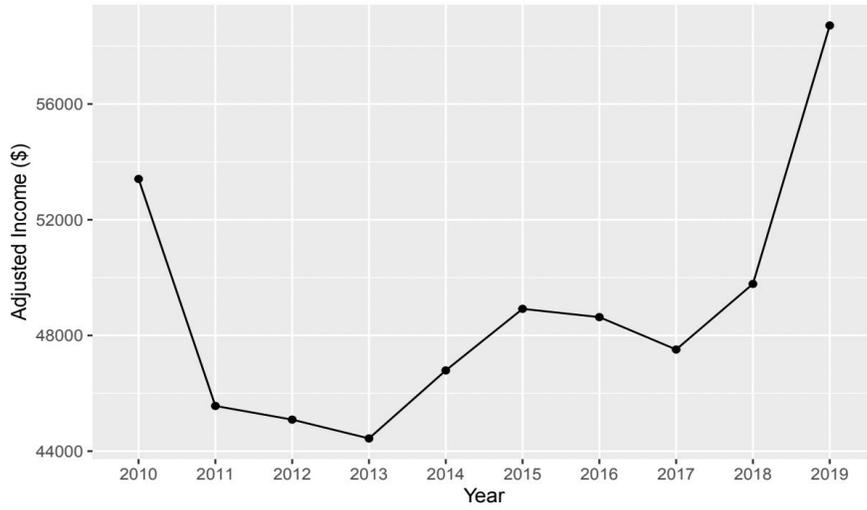


# Stanislaus

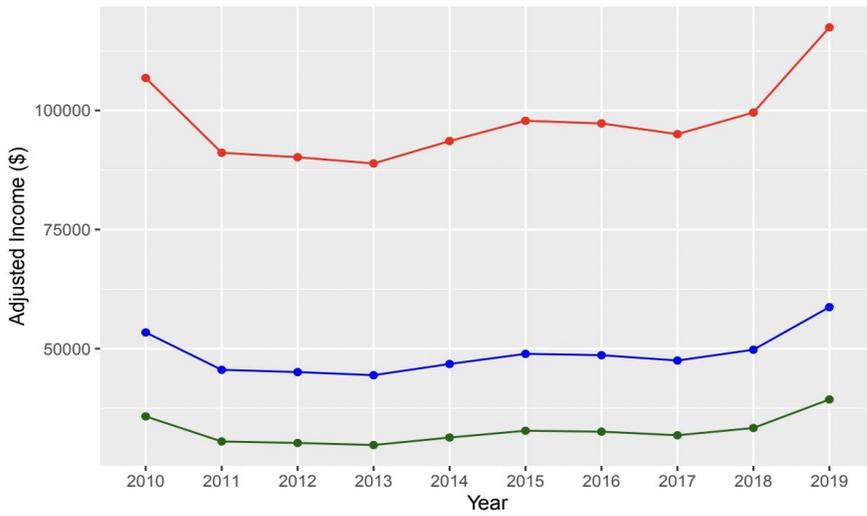


# Tulare County

Inflation-Adjusted Median Income 2010-2019  
Tulare



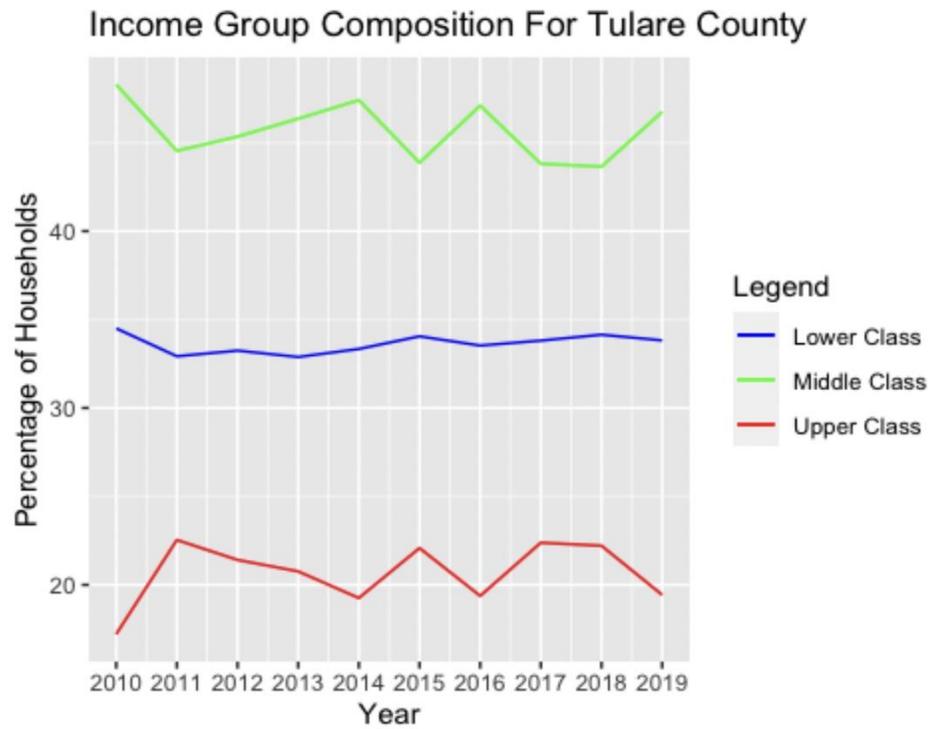
Inflation-Adjusted Middle Income Range 2010-2019  
Tulare



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Tulare	2010	53410.57	35785.08	106821.14	35844.43
2	Tulare	2011	45563.09	30527.27	91126.18	30605.51
3	Tulare	2012	45090.20	30210.44	90180.41	30345.71
4	Tulare	2013	44439.27	29774.31	88878.55	29885.41
5	Tulare	2014	46790.99	31349.96	93581.97	31485.52
6	Tulare	2015	48919.41	32776.01	97838.83	32867.73
7	Tulare	2016	48633.48	32584.43	97266.96	32673.94
8	Tulare	2017	47513.44	31834.01	95026.88	31886.80
9	Tulare	2018	49781.85	33353.84	99563.70	33394.04
10	Tulare	2019	58715.54	39339.41	117431.07	39379.90

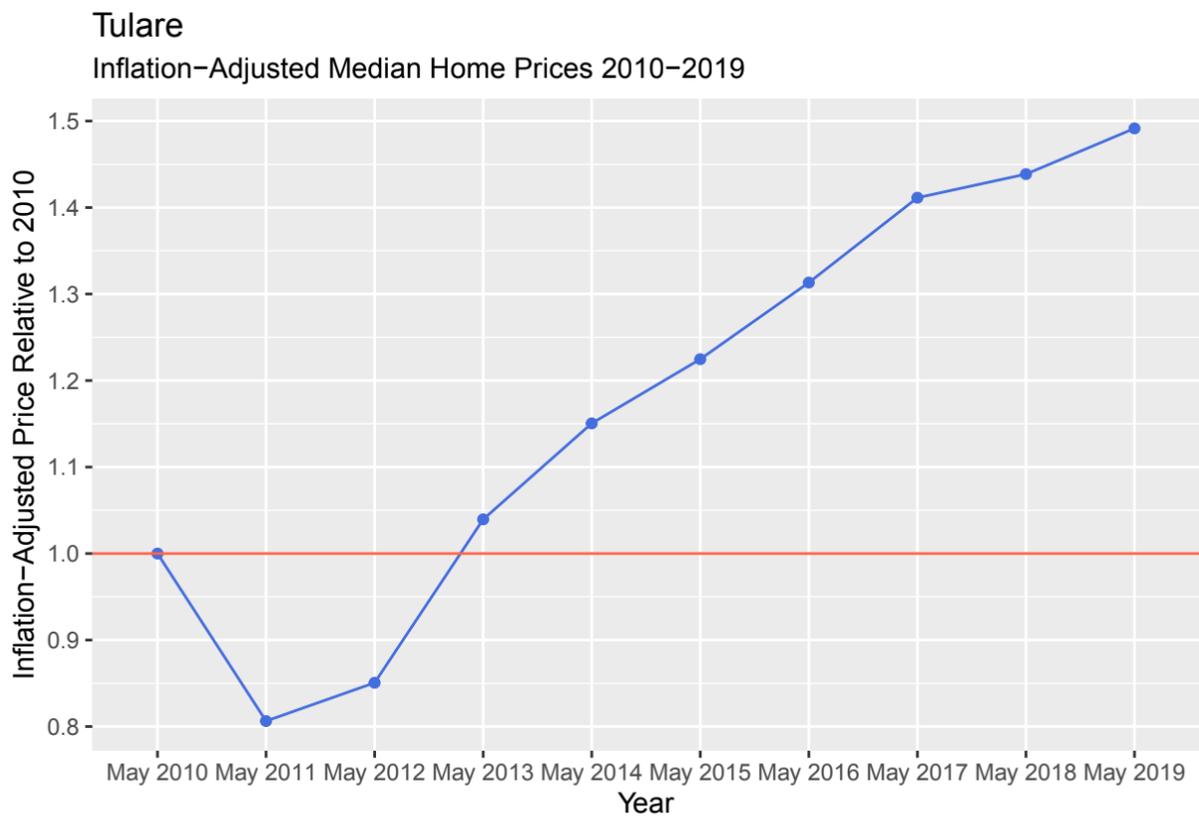
  

	highest_obs
1	106583.76
2	90896.06
3	90067.68
4	88767.45
5	92926.02
6	97816.99
7	97051.29
8	94393.37
9	99357.57
10	117329.84

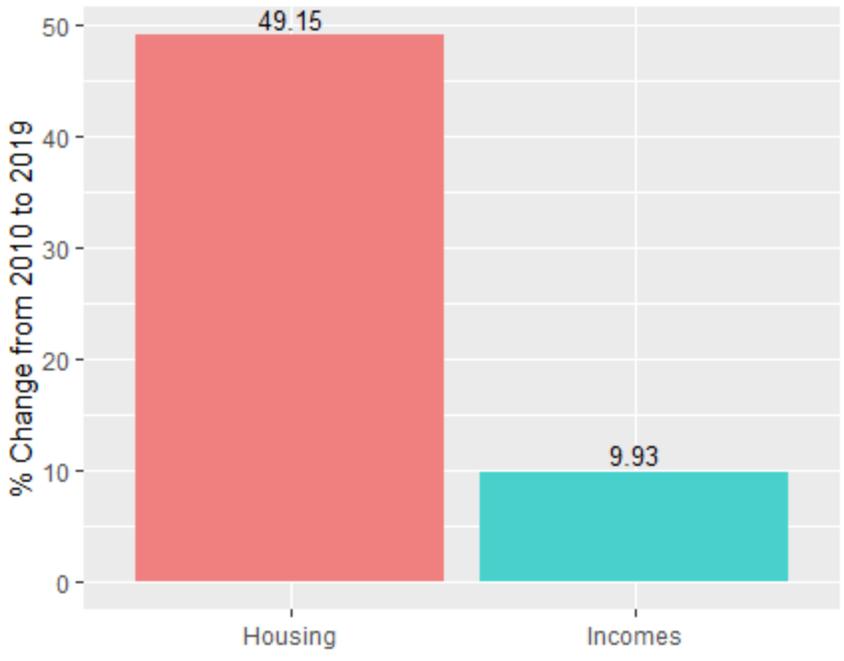


*Tulare County Middle Class Trends*

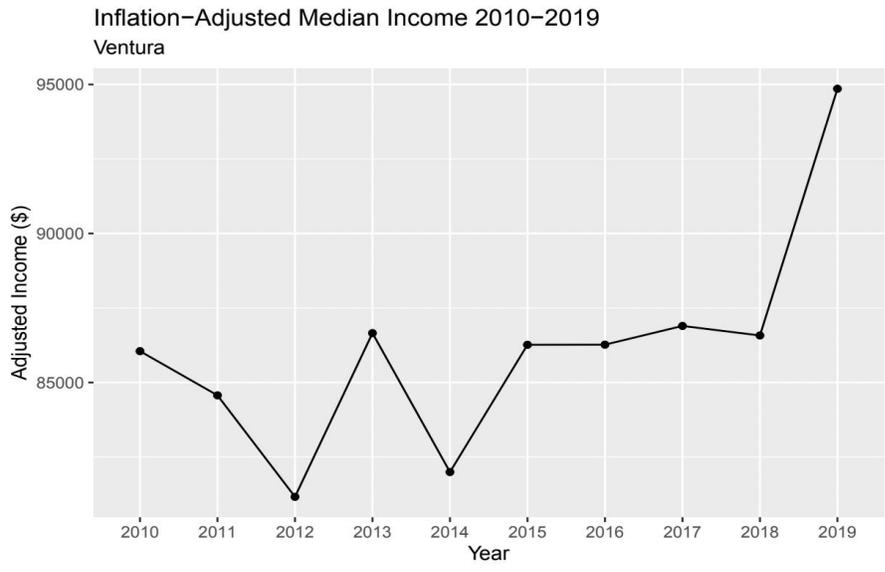
Year	MC_Size	MC_Percent
2010	62048	0.4828676
2011	58269	0.4453829
2012	59311	0.4534549
2013	60721	0.4635686
2014	62142	0.4740660
2015	58471	0.4386915
2016	63097	0.4709399
2017	59695	0.4380834
2018	60079	0.4364494
2019	66611	0.4674456



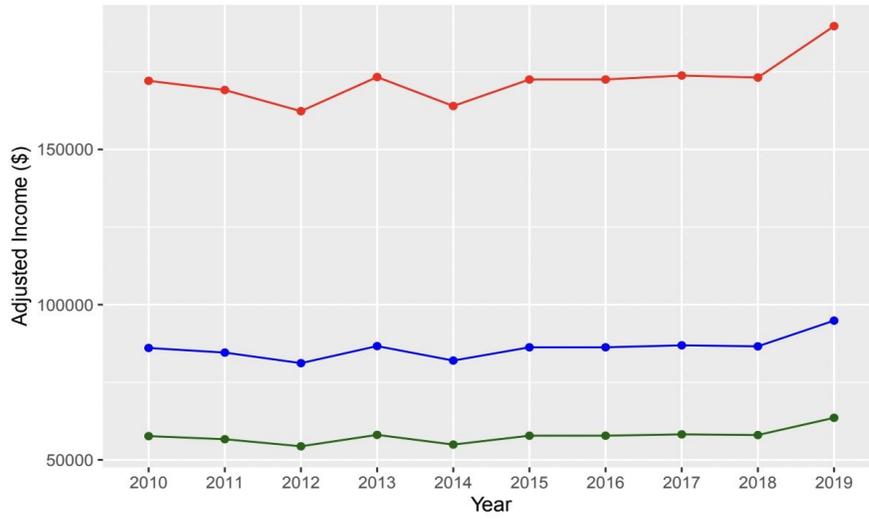
## Tulare



## Ventura County



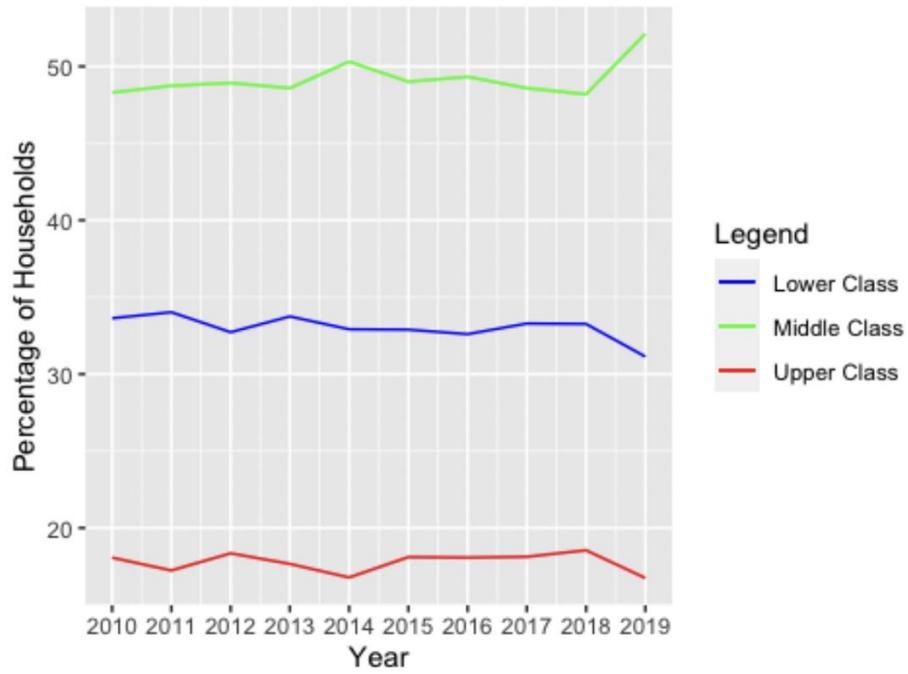
Inflation-Adjusted Middle Income Range 2010-2019  
Ventura



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Ventura	2010	86050.36	57653.74	172100.7	57683.41
2	Ventura	2011	84567.85	56660.46	169135.7	56838.80
3	Ventura	2012	81162.36	54378.78	162324.7	54446.42
4	Ventura	2013	86656.58	58059.91	173313.2	58104.35
5	Ventura	2014	81993.55	54935.68	163987.1	54990.34
6	Ventura	2015	86264.15	57796.98	172528.3	57873.41
7	Ventura	2016	86267.82	57799.44	172535.6	58230.78
8	Ventura	2017	86896.81	58220.86	173793.6	58283.16
9	Ventura	2018	86577.13	58006.68	173154.3	58130.36
10	Ventura	2019	94855.96	63553.49	189711.9	63675.99

	highest_obs
1	171507.3
2	168675.5
3	161873.8
4	173202.1
5	163549.8
6	172364.5
7	172104.3
8	173593.0
9	172948.1
10	189307.0

### Income Group Composition For Ventura County

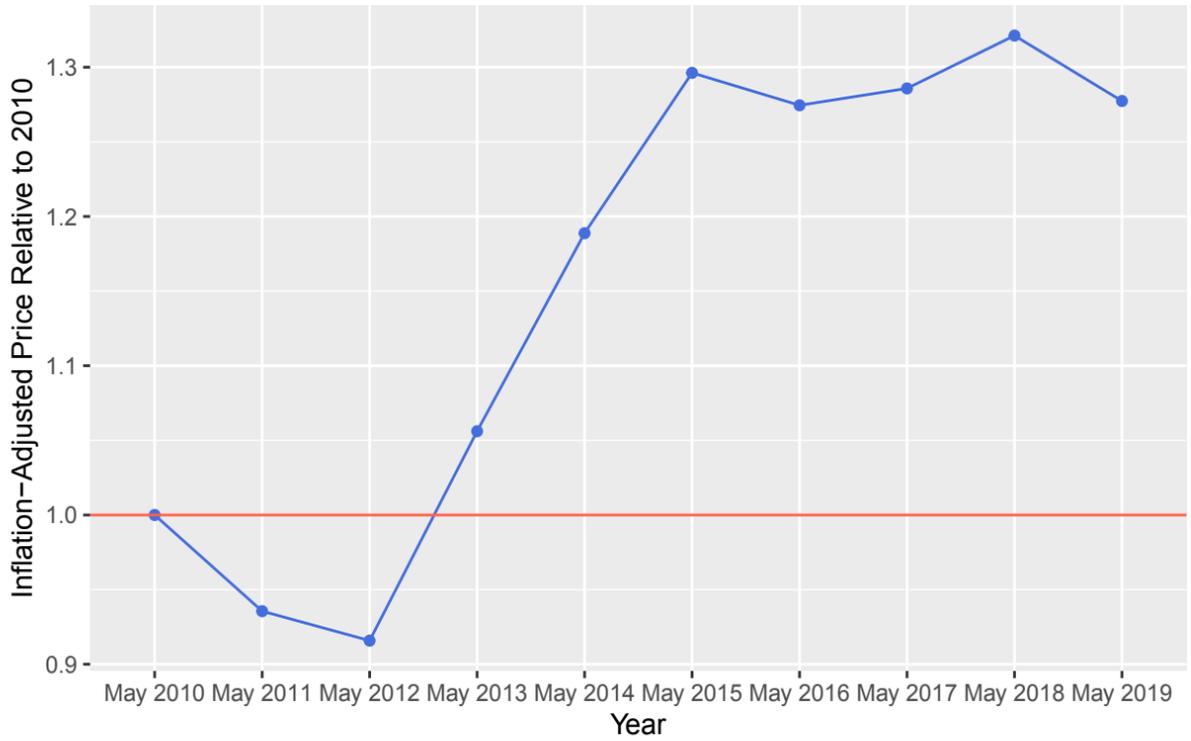


#### Ventura County Middle Class Trends

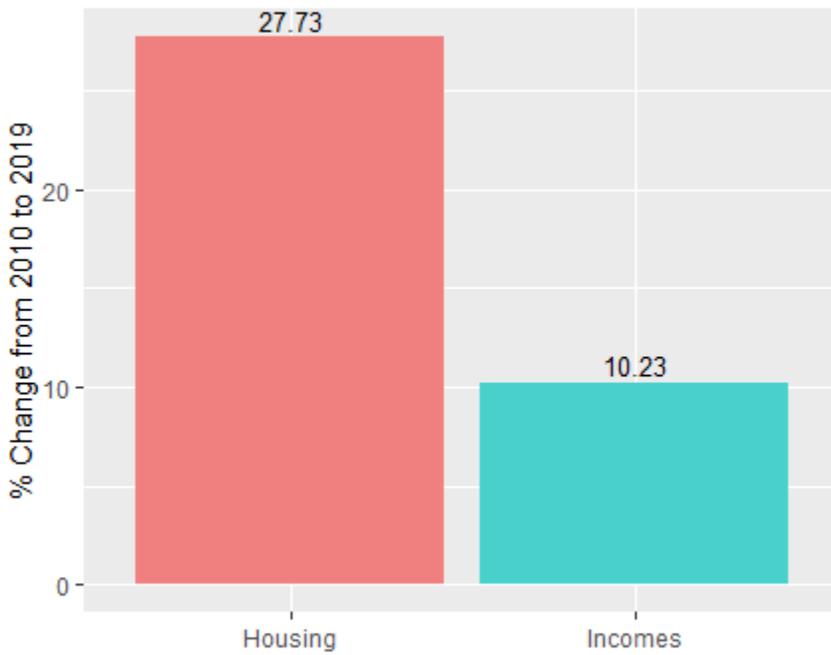
Year	MC_Size	MC_Percent
2010	127338	0.4830032
2011	128855	0.4874077
2012	130374	0.4892615
2013	128342	0.4858991
2014	134262	0.5030668
2015	131057	0.4900756
2016	130630	0.4932598
2017	131414	0.4858656
2018	129891	0.4819095
2019	139212	0.5212156

## Ventura

### Inflation-Adjusted Median Home Prices 2010-2019

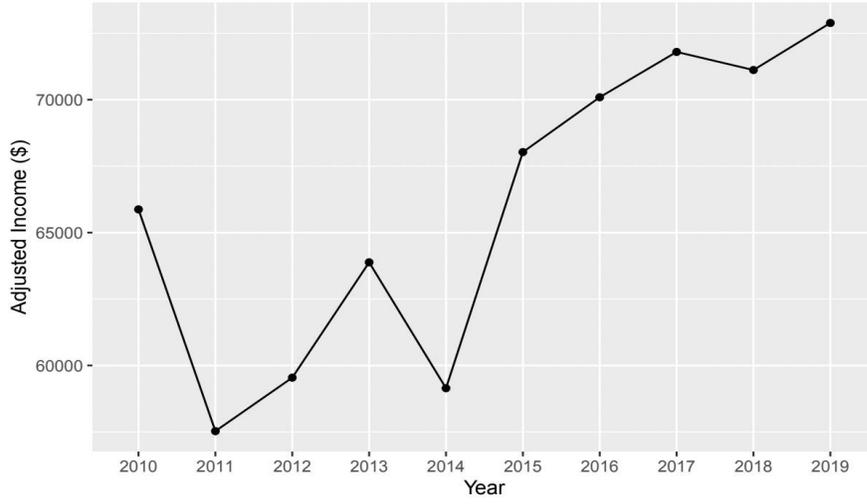


## Ventura

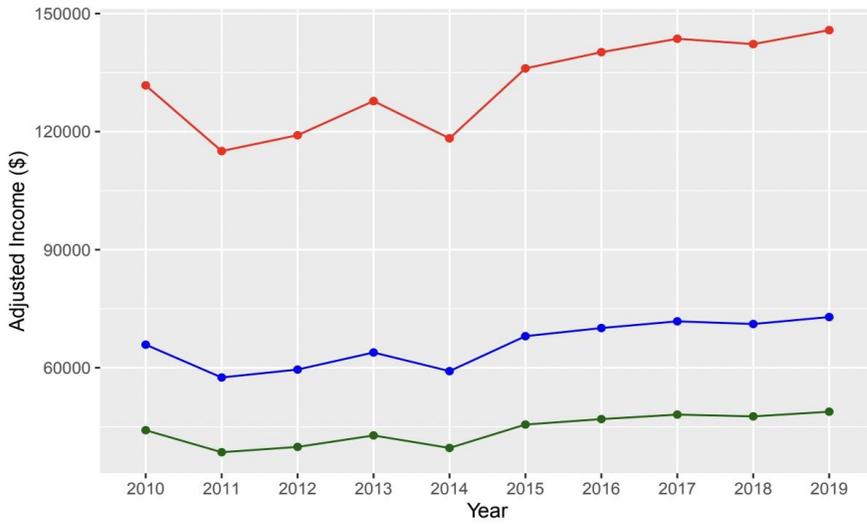


# Yolo County

Inflation-Adjusted Median Income 2010-2019  
Yolo



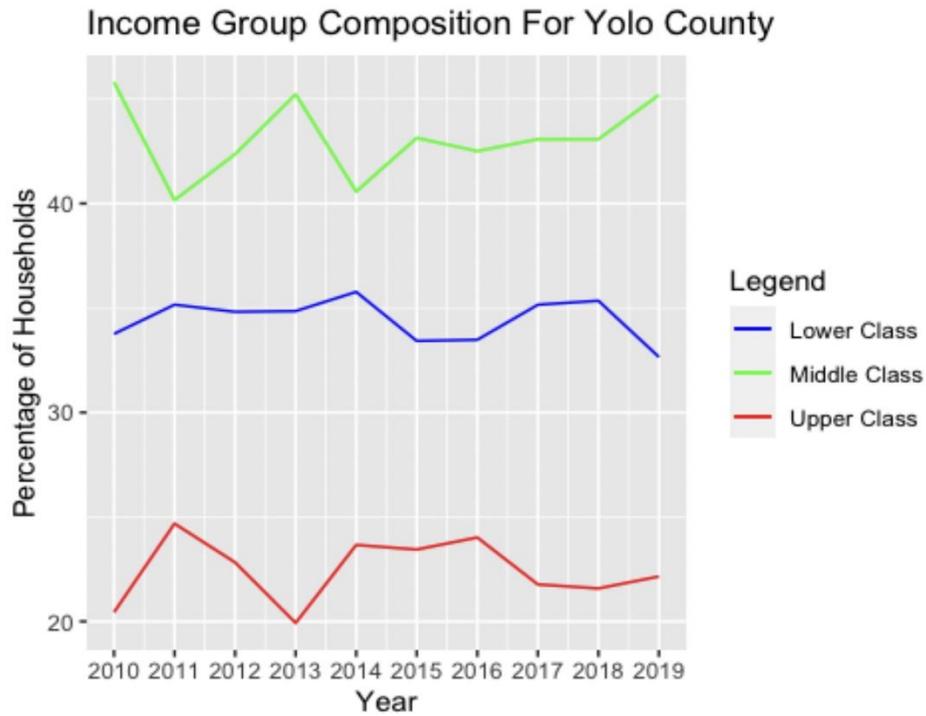
Inflation-Adjusted Middle Income Range 2010-2019  
Yolo



	countyname	year	med_hhincome_2020	low_bounds	high_bounds	lowest_obs
1	Yolo	2010	65873.03	44134.93	131746.1	44271.43
2	Yolo	2011	57529.15	38544.53	115058.3	38889.71
3	Yolo	2012	59541.61	39892.88	119083.2	40017.55
4	Yolo	2013	63881.46	42800.58	127762.9	43106.10
5	Yolo	2014	59144.68	39626.94	118289.4	39684.88
6	Yolo	2015	68028.56	45579.14	136057.1	45861.95
7	Yolo	2016	70092.60	46962.04	140185.2	47447.30
8	Yolo	2017	71798.09	48104.72	143596.2	48463.71
9	Yolo	2018	71116.93	47648.34	142233.9	47926.63
10	Yolo	2019	72888.25	48835.13	145776.5	48895.87

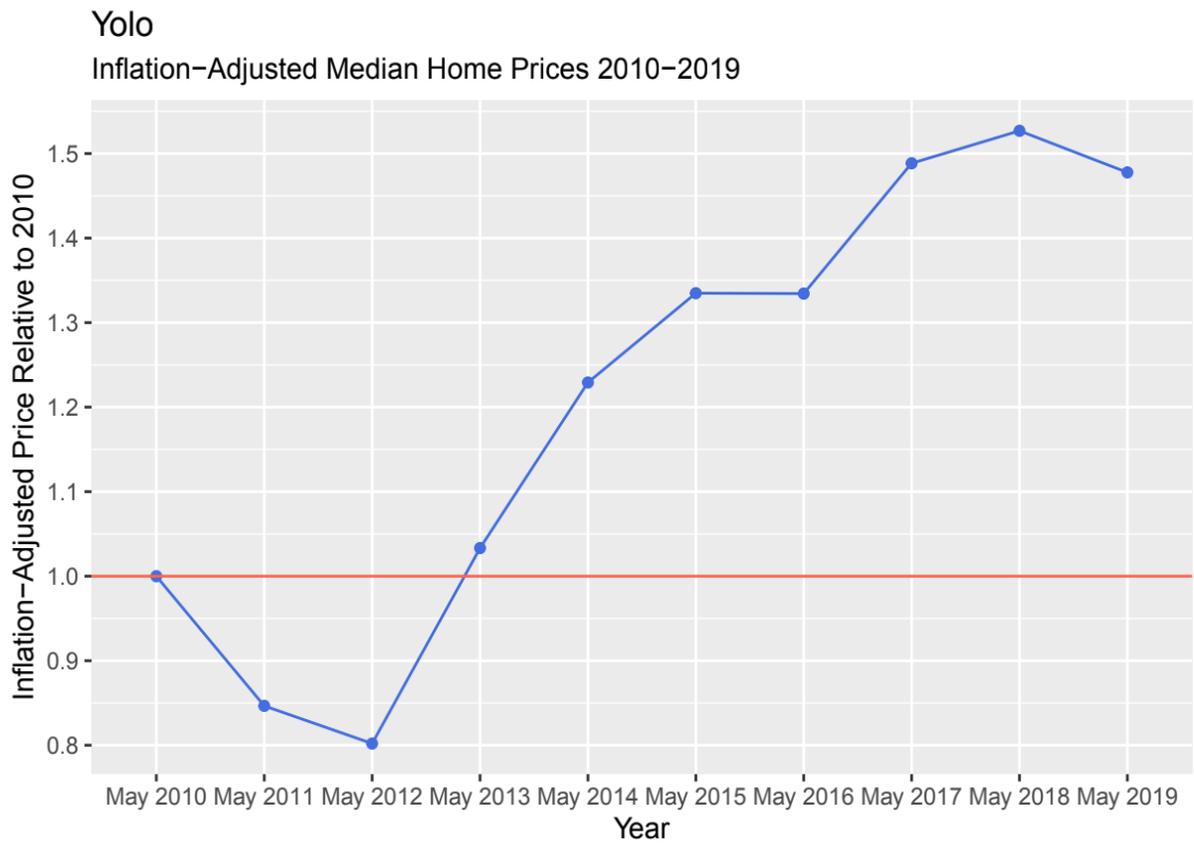
  

	highest_obs
1	130559.2
2	113907.7
3	118925.4
4	127063.0
5	118070.7
6	134310.0
7	136411.0
8	141484.5
9	141636.1
10	144764.2



*Yolo County Middle Class Trends*

Year	MC_Size	MC_Percent
2010	31111	0.4580334
2011	27839	0.4016244
2012	29962	0.4236049
2013	31220	0.4522409
2014	28439	0.4057150
2015	31150	0.4313628
2016	29972	0.4250443
2017	31405	0.4307542
2018	31644	0.4307533
2019	33180	0.4519759



## Yolo

