

SAN JOAQUIN COUNTY SPOTLIGHT

COVID-19, INFLATION AND THE COST OF LIVING



April 2023



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“Many San Joaquin County residents were already facing challenges meeting their basic needs prior to entering the COVID-19 pandemic... nearly one in three households (32%) in San Joaquin County lacked an income to cover essential housing, food, health care, and childcare expenses in 2019.”

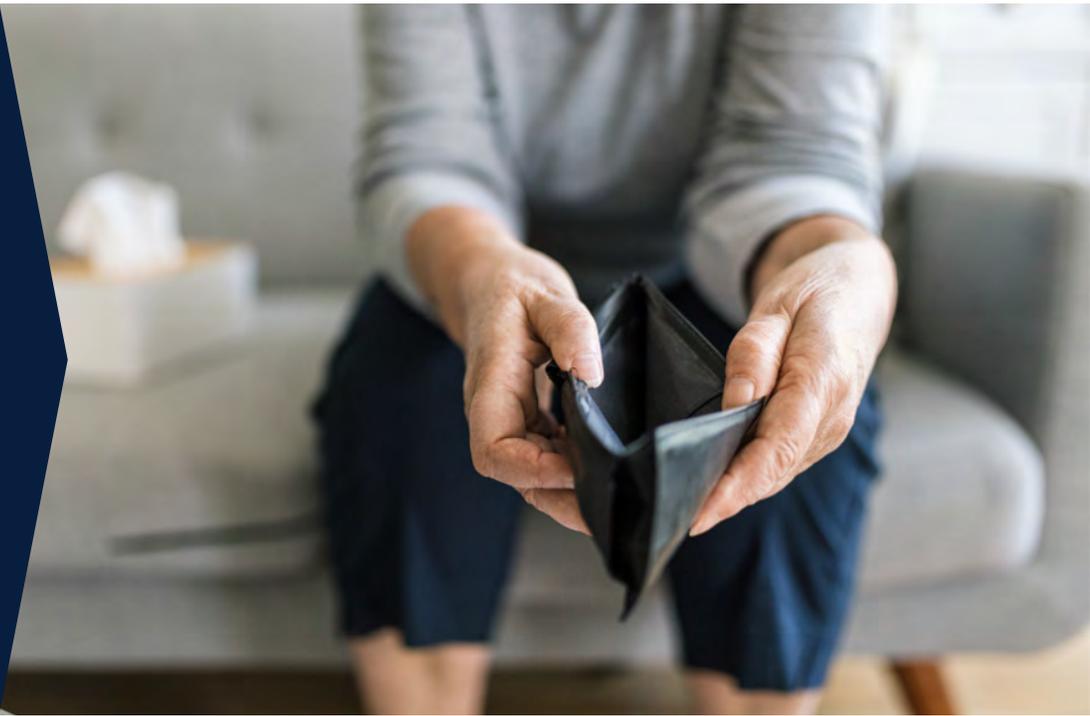
Supply chain and labor shortages, expansive monetary policy and fiscal support, plus pent-up consumer demand as a result of the COVID-19 pandemic ended an era of relatively low inflation. Russia’s invasion of Ukraine added further cost pressures, particularly on energy and food prices. As a result, financial authorities around the world have undertaken aggressive action to reign in inflation. This County Spotlight reviews the effects of these forces on San Joaquin County, beginning with a brief recounting of some of the impacts of the pandemic on residents’ cost of living. Attention then turns to price changes and a discussion of some of the drivers of inflation, including distinct features of the regional experience. The

discussion concludes with data on the relative costs facing San Joaquin County residents based on the 2022 Cost of Living Index (COLI), the only local level cost of living index available in the U.S.

ESSENTIAL EXPENSES

Many San Joaquin County residents were already facing challenges meeting their basic needs prior to entering the COVID-19 pandemic. Indeed, the United Way of California’s recently released Real Cost Measure demonstrates that nearly one in three households (32%) in San Joaquin County lacked an income to cover essential housing, food, health care, and childcare expenses in 2019.^[1] Among the County’s Black, Indigenous, and People of Color (BIPOC) populations,

“The fluctuations in gasoline prices were even more pronounced, with costs down 16.5% in April 2020 amidst initial stay-at-home orders; however, in June 2022, prices were 84.9% above February 2020 levels as a result of the war in Ukraine.”



these rates were even higher, with 43% of African American households and 46% of Hispanic households estimated to have incomes below what is necessary to meet basic needs.

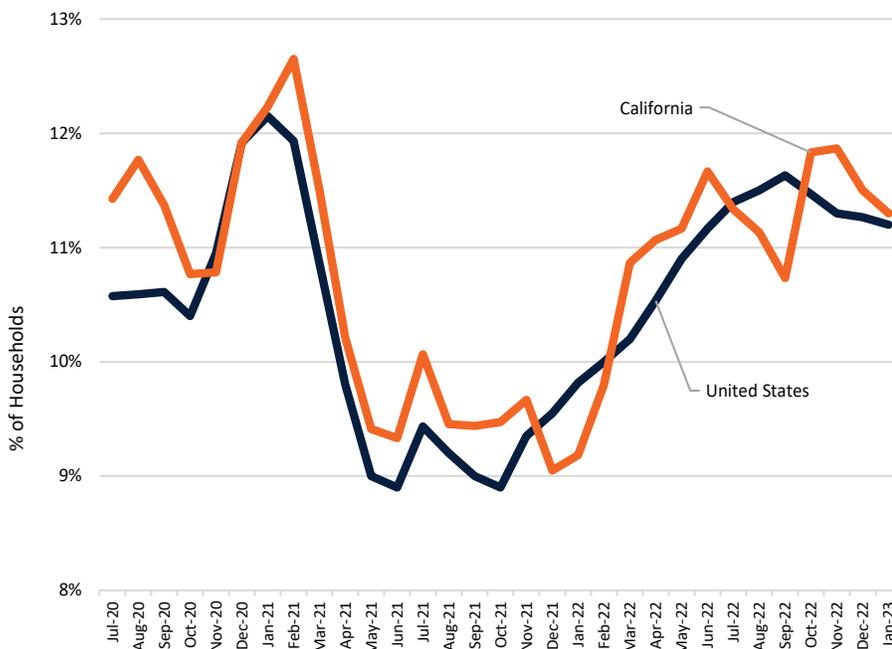
Therefore, as emergency declarations and stay-at-home orders were issued, there was considerable concern about the cost of living impacts and inequitable outcomes of the

pandemic on the County’s residents, which exacerbated the very real health threats caused by COVID-19.

As a result, several federal, state, and local assistance programs were undertaken to alleviate some of these impacts. Table 1 describes a few of these pandemic era assistance initiatives. While local data on the effectiveness of these programs is not available,^[2] data from the U.S. Census Bureau’s Household Pulse Survey (HPS) is reported in Figures 1–3.

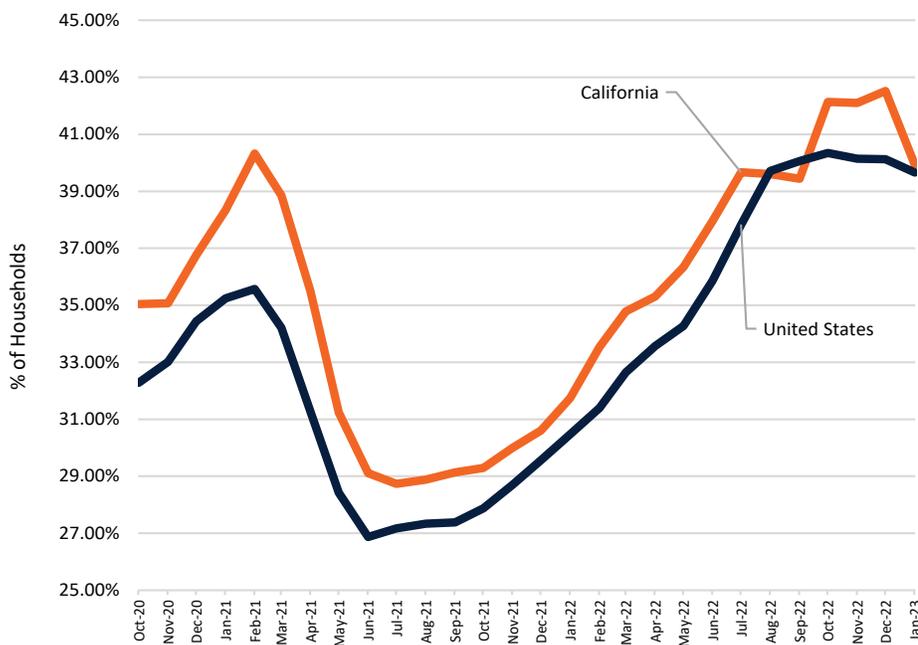
The share of households reporting that they lacked enough to eat sometimes or frequently in the previous week is reported in Figure 1, and the share of households with some or significant difficulty

FIGURE 1: Sometimes or often not enough to eat



Source: U.S. Census Bureau Household Pulse Survey (3-Mnth Moving Avg)

FIGURE 2: Sometimes or very difficult to pay for usual expenses



Source: U.S. Census Bureau Household Pulse Survey (3-Mnth Moving Avg)

paying for usual expenses in the previous week is reported in Figure 2. Both these figures suggest rising challenges were experienced by households through the end of 2020, but some relief appeared around the second quarter of 2021. However, by the end of 2021 increasing challenges with food security and paying for usual expenses were reported again. The share of households reporting that eviction or foreclosure in the next two months was either very likely or somewhat likely is reported in Figure 3, which points to a

TABLE 1: Pandemic era assistance programs

SELECTION OF PANDEMIC-ERA RELIEF PROGRAMS	DURATION
COVID-19 Public Health Emergency	January 31, 2020 to May 11, 2023 (Anticipated)
California COVID-19 Tenant Relief Act Eviction Moratorium	March 1, 2020 to June 30, 2022
California COVID-19 State of Emergency	March 4, 2020 to February 28, 2023
Federal Student Loan Payment Moratorium	March 13, 2020 to September 30, 2023 (Anticipated)
Paycheck Protection Program (PPP)	March 27, 2020 to May 31, 2021
Federal Economic Impact Payment (EIP)	Payment #1 April 2020; #2 December 2020; #3 March 2021
Federal CalFresh (Supplemental Nutrition Assistance Program (SNAP)) Increases	April 2020 - March 2023
Federal Advance/Expanded Child Tax Credit	2021 Tax Year - Payments July - December 2021
California Golden State Stimulus	Payment #1 April-May 2021; Payment #2 October 2021 - January 2022
California Golden State Grant	Payments May - June 2021
California Middle Class Tax Refund	Payments October 2022 - January 2023

high level of housing insecurity throughout the pandemic, with some evidence of improvement in the last quarter of 2022. As further evidence of the increased strain placed on households, the Emergency Food Bank Stockton / San Joaquin recently reported that while it served about 124,000 San Joaquin County families before the pandemic in 2019, it served about 300,000 families in 2022—an increase of approximately 142% from 2019 to 2022.^[3]

PRICE CHANGES AND INFLATION

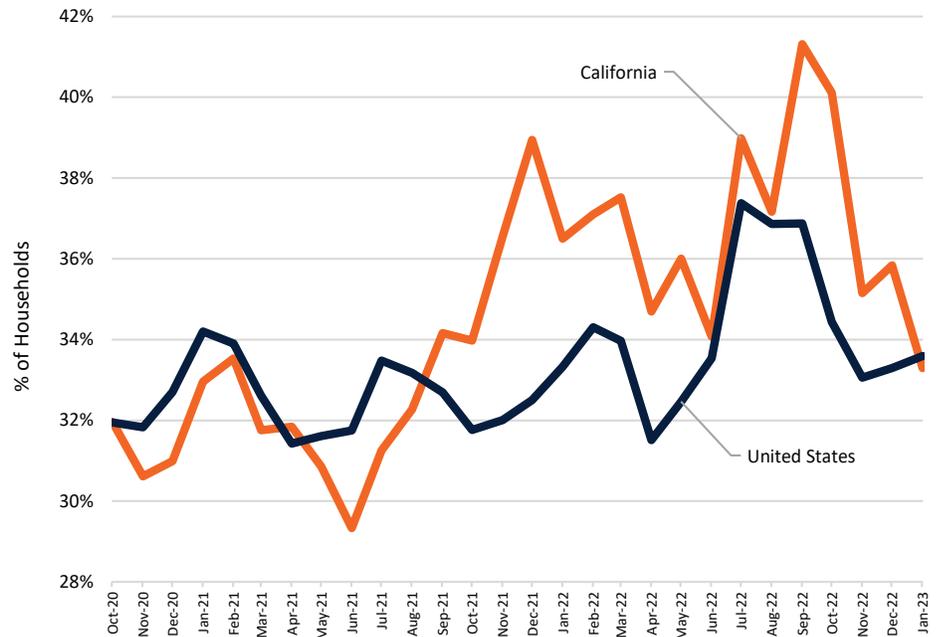
Many businesses were unable to sell their goods as a result of lock-down and stay-at-home orders at the beginning of the pandemic. As a result of this

limited demand, inventories for some goods increased.

However, inventories of essential and pandemic-related

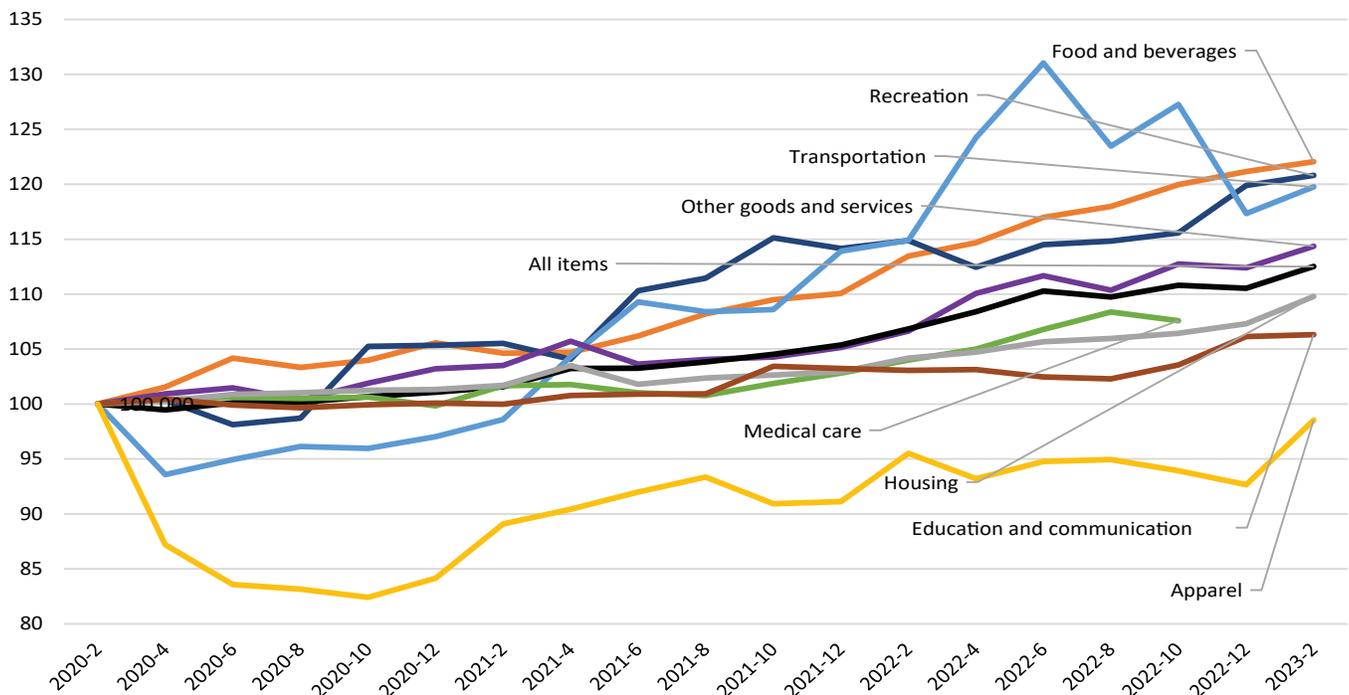
products remained low. As the economy began to recover, the situation for some goods rapidly changed.

FIGURE 3: Eviction or foreclosure somewhat or very likely



Source: U.S. Census Bureau Household Pulse Survey (3-Mnth Moving Avg)

FIGURE 4: Regional components of inflation



Source: U.S. Bureau of Labor Statistics CPI-U (Not Seasonally Adjusted)

TABLE 2: Select price changes in San Joaquin County 2016, 2019, and 2022

ITEM	2016	2019	2022	2016 to 2019	2019 to 2022
Ground Beef \$/lb	\$4.16	\$4.79	\$6.83	15%	43%
Whole Chicken \$/lb	\$1.34	\$1.76	\$1.84	31%	5%
1/2 Gallon Whole Milk	\$2.77	\$2.80	\$2.99	1%	7%
Eggs 1 doz.	\$2.96	\$2.82	\$2.97	-5%	5%
Bananas \$/lb	\$0.65	\$0.68	\$0.76	4%	11%
Fresh Orange Juice 52 oz.	\$3.74	\$4.13	\$4.41	10%	7%
Gasoline	\$2.68	\$3.42	\$5.26	28%	54%
Hamburger Sandwich	\$4.41	\$4.96	\$5.37	12%	8%
11"-12" Cheese Pizza	\$14.43	\$15.25	\$16.07	6%	5%
Man's barbershop haircut, no styling	\$15.78	\$17.19	\$21.88	9%	27%
Woman's cut with shampoo and blow-dry	\$37.20	\$39.79	\$42.08	7%	6%

Source: CBPR, COLI Pricing data, various years.

While pandemic restrictions, such as social distancing, continued to limit consumption of services, demand for goods increased. At the same time, labor and other input shortages began to generate supply-chain disruptions. As these disruptions grew, they also became manifest in rising prices.

The rise in prices and the associated inflation pressure were not uniform. Figure 4 reports major components of inflation for the San Francisco-Oakland-Hayward Core Based Statistical Area, which includes San Joaquin County.⁴ Overall, from February 2020 to February 2023, inflation in the region rose 12.5%. However, that increase varied substantially by component. Food and beverage costs increased by

22%, while recreation costs rose 20.8%, and transportation 19.8%. In contrast, education and communication costs rose by just 6.3% and apparel declined by 1.5%.

Examination of subcomponents provides further details on the drivers of inflation. For instance, within the food and beverage component, costs of food at home rose by 29.3% between February 2020 and February 2023, while that of food away from home rose 17.8%. Similarly, within the housing component, costs of shelter rose 6.8%, but housing energy (electricity and natural gas) went up 50.5%.

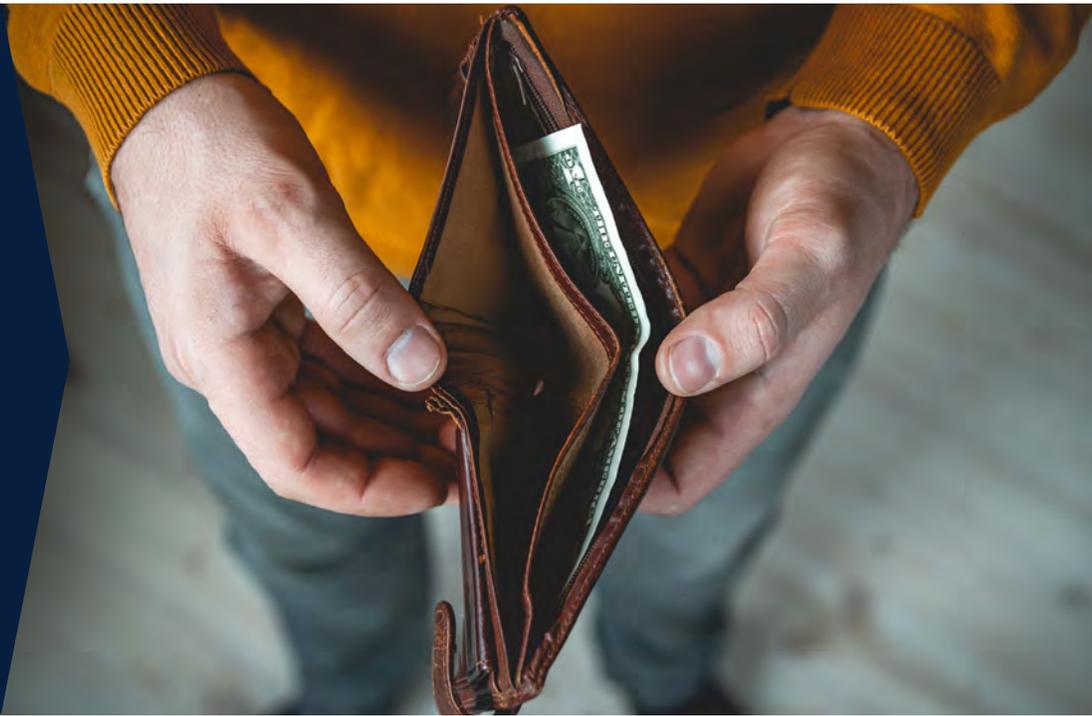
In addition to differences in component and subcomponent costs, there were significant fluctuations in component and

subcomponent prices during the pandemic.

For instance, between December 2021 and August 2022, the costs of used cars and trucks were 51.6% higher than their February 2020 level, but they had reduced somewhat to a point 33.8% above February 2020 costs by February 2023. The fluctuations in gasoline prices were even more pronounced, with costs down 16.5% in April 2020 amidst initial stay-at-home orders; however, in June 2022 gasoline prices were 84.9% above February 2020 levels as a result of the war in Ukraine.

In addition to the component and subcomponent indices published by the U.S. Bureau of Labor Statistics as part of its consumer price index (CPI),

“[C]osts of food at home rose by 29.3% between February 2020 and February 2023, while that of food away from home rose 17.8%.”



the CBPR has collected data on the cost of a basket of goods and services for the past decade as part of its work for the national Cost of Living Index (COLI). A selection of prices from this initiative across San Joaquin County are reported in Table 2.

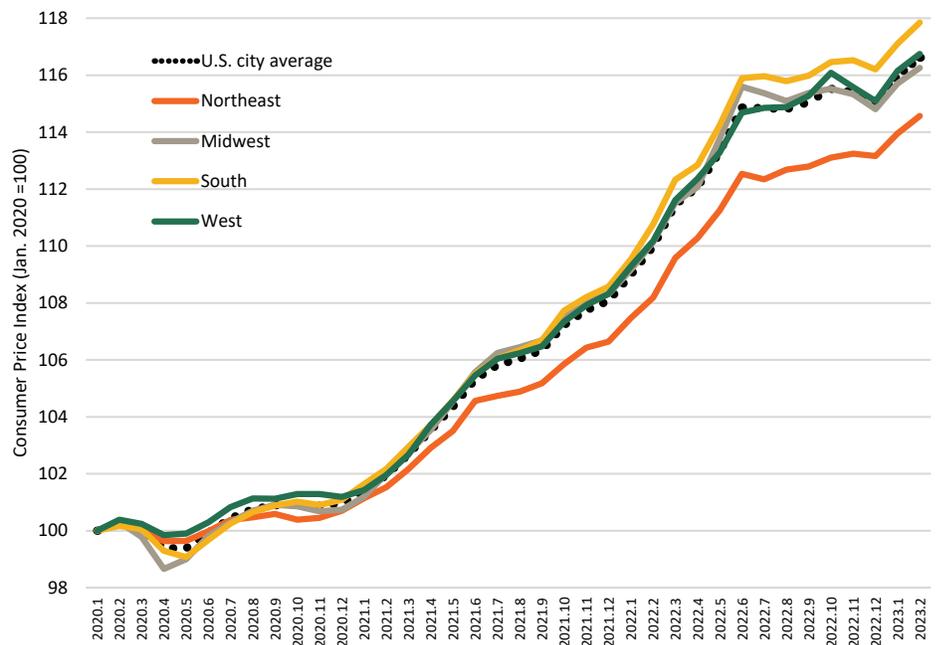
Following a description of the items, the next three columns in the table report their median annual average price in 2016, 2019, and 2022. The final two columns of the table then report the items’ percentage change in prices across the three years preceding the pandemic (2016 compared to 2019) and the years since the pandemic (2019 compared to 2022). That data shows that, despite the relatively tame overall rate of inflation before the pandemic, fluctuating costs

of individual items were a common feature of the local economy, though not at the level realized with some of the goods after the pandemic, such

as ground beef and gasoline.

While prices of many goods and service are similar nationally, differences in

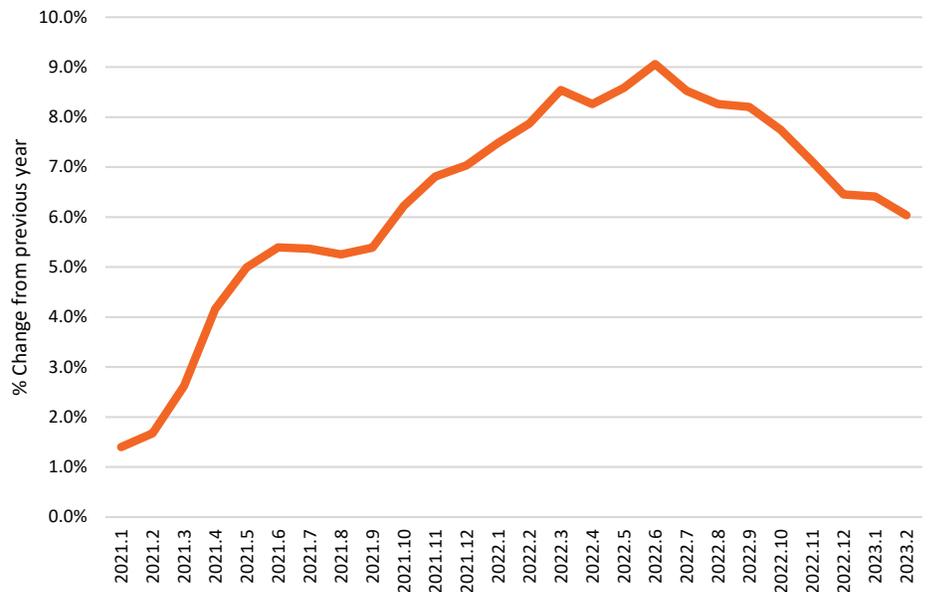
FIGURE 5: Inflation nationally and regionally



Source: U.S. Bureau of Labor Statistics CPI-U (Not Seasonally Adjusted)

“[A]s a result of inflation, the minimum wage in real terms has remained unchanged despite a nominal \$3/hour increase from Q1 2020 to Q4 2022.”

FIGURE 6: Year-on-year change in inflation nationally



Source: U.S. Bureau of Labor Statistics CPI-U (Not Seasonally Adjusted)

regional demand, resources and factors can equate to distinct regional dynamics. These differences can be seen in Figure 5, where the national U.S. city monthly average CPI is reported along with regional CPI rates. In order to track the impacts of the pandemic, the national rate and each regional rate have been indexed (set to equal a value of 100) to January 2020. All four regions moved pretty similarly during 2020; however, moving into 2021 and continuing to early 2023, there is a marked divergence between the experience of the South and the Northeast. The different experience between the South and Northeast largely reflects differences in housing, the largest component of inflation.

The South experienced higher

increases in shelter costs, which measures rent and ownership costs, than the Northeast. From February 2020 to February 2023, the cost of shelter in the South increased 18.3%, which was highest rate in the nation. During the same period, shelter cost in the Northeast costs rose 10.5% the lowest of any region, while in the West they rose 14.9% the same as the national rate.^[5]

Despite the similarities with the national experience, costs of housing in California and other parts of the west remain high, with increasing interest rates further exacerbating housing affordability issues. After accounting for inflation, rents in San Joaquin County increased 9.4% from January 2020 to January 2023, while, in contrast, real rents in the San

Francisco MSA declined 9.2%. In terms of the level of rents, among the 200 largest metros in the U.S., the San Joaquin County moved from the 23rd most expensive rents nationally in January 2020 to 22nd most expensive in January 2023.^[6]

The influence of inflation is further illustrated in terms of the median sale price of all housing. From January 2020 to January 2023, the median price in San Joaquin County increased by \$107,100 in nominal terms, a 28% increase from its \$379,100 level in January 2020. However, after adjusting for inflation during the period that equated to a real increase of 11%, or a rise of \$46,600 in January 2023 real terms. Nationally, San Joaquin County ranked as the 78th largest metro in terms of

DISCUSSION BOX: COMPONENT WEIGHTING

When estimating the rate of inflation or the cost of living, each component is weighted in proportion to the share of a household's total budget that it accounts. As a result, fluctuations in the costs of a particular good or service, such as eggs, will usually have a negligible impact unless their cost fluctuation is part of a broader trend. While the weights of components are continually updated to reflect changing consumption preferences as well as regional differences,^[7] the overall impact is usually relatively stable, at least over a short period of time. For example, the price of eggs in the U.S. city average CPI was 0.167% in the 2021 weights; however, they formed 0.164% in the 2019-20 weights and 0.103% in the 2017-18 weights. Larger components, such as food and beverages, will fluctuate based on how much change its sub-components experience as well as the relative change in the share of other large components, such as housing. Thus, while food and beverage costs formed 14.376% of household expenditure budgets in the 2021 weights, it accounted for 14.75% in the 2019-20 weights and 15.01% in the 2017-18 weights.

population, but the County's 2023 median sale price ranked 17th highest among the 100 largest metros. Nonetheless, in terms of the relative percentage increase, the County's growth only ranked 64th.^[8]

Several factors, including changing composition of employed workers, influenced the rising nominal and real wage rates during the pandemic in San Joaquin County.^[9] However, the indexed values of nominal and real wages reported in Figure 8 suggest that real wages in the County are behaving similar to the nation and returning closer to their pre-pandemic trends. Although this suggests that persistent wage increases may not have been a significant driver of inflation so far, inflation and

wage expectations may change that relationship.^[10] Traditionally, declining labor force participation also puts pressure on wages to grow, which furthers inflation; however, Figure 8 shows that San Joaquin County's challenges with a low labor force participation rate, like that of the nation as a whole, predates the pandemic by many years.^[11]

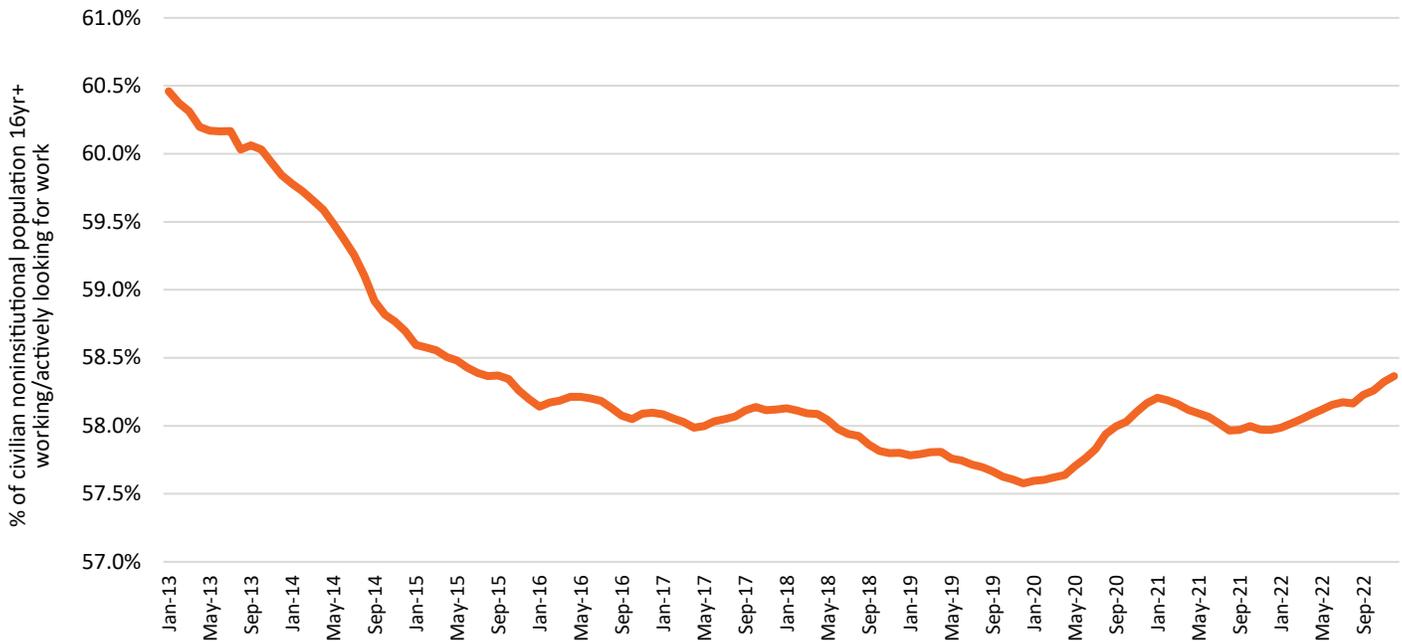
The impact of inflation has also undermined efforts to protect lower wage workers. Figure 9 shows the difference between the California State minimum wage in nominal terms and real terms based on prices in Q1 of 2017 when the current minimum wage legislation was enacted. It shows that, as a result of inflation, the minimum wage

FIGURE 7: Local and national nominal and real wages



Source: Center for Business and Policy Research based on U.S. Bureau of Labor Statistics OCEW & CPI-U series

FIGURE 8: San Joaquin County labor force participation rate



Source: CBPR estimates using Local Area Unemployment Statistics (LAUS) and U.S. Census Bureau ACS population data (Series S1811)

in real terms has remained unchanged despite a nominal \$3/hour increase from Q1 2020 to Q4 2022. The rising interest rates, being used to fight inflation, have also imposed severe challenges to consumers and businesses. Recent banking turmoil has highlighted some of the many very real impacts of these costs.

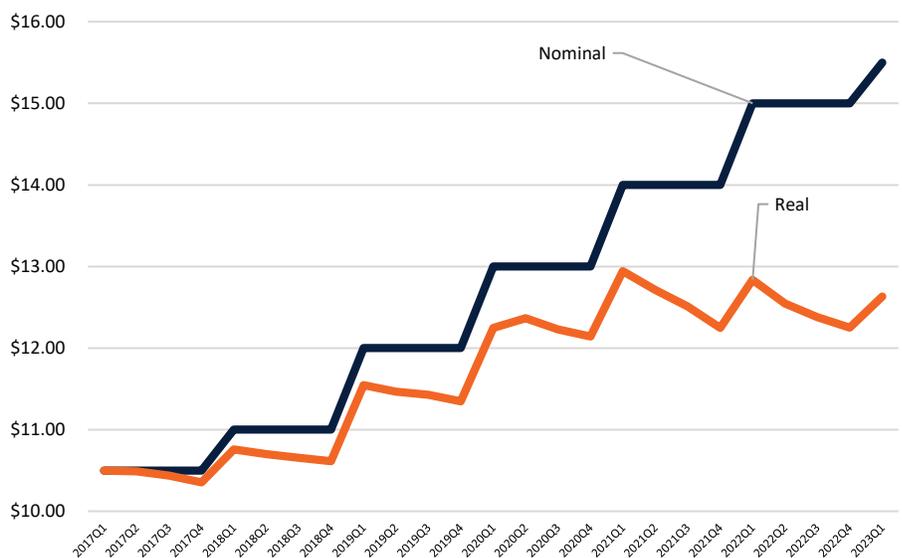
COMPARATIVE COSTS AND THE COST OF LIVING INDEX (COLI)

A further important measure of costs is the Council for Community and Economic Research’s (C2ER) Cost of Living Index (COLI). The COLI is widely used to evaluate comparative costs, and it is the source data that drives most online cost of living calculators. Since 2013, the CBPR has collected local cost of living data across San

Joaquin County’s cities, which enables their inclusion in the national index. The most recent data available from C2ER is the 2022 COLI, which reports the average costs

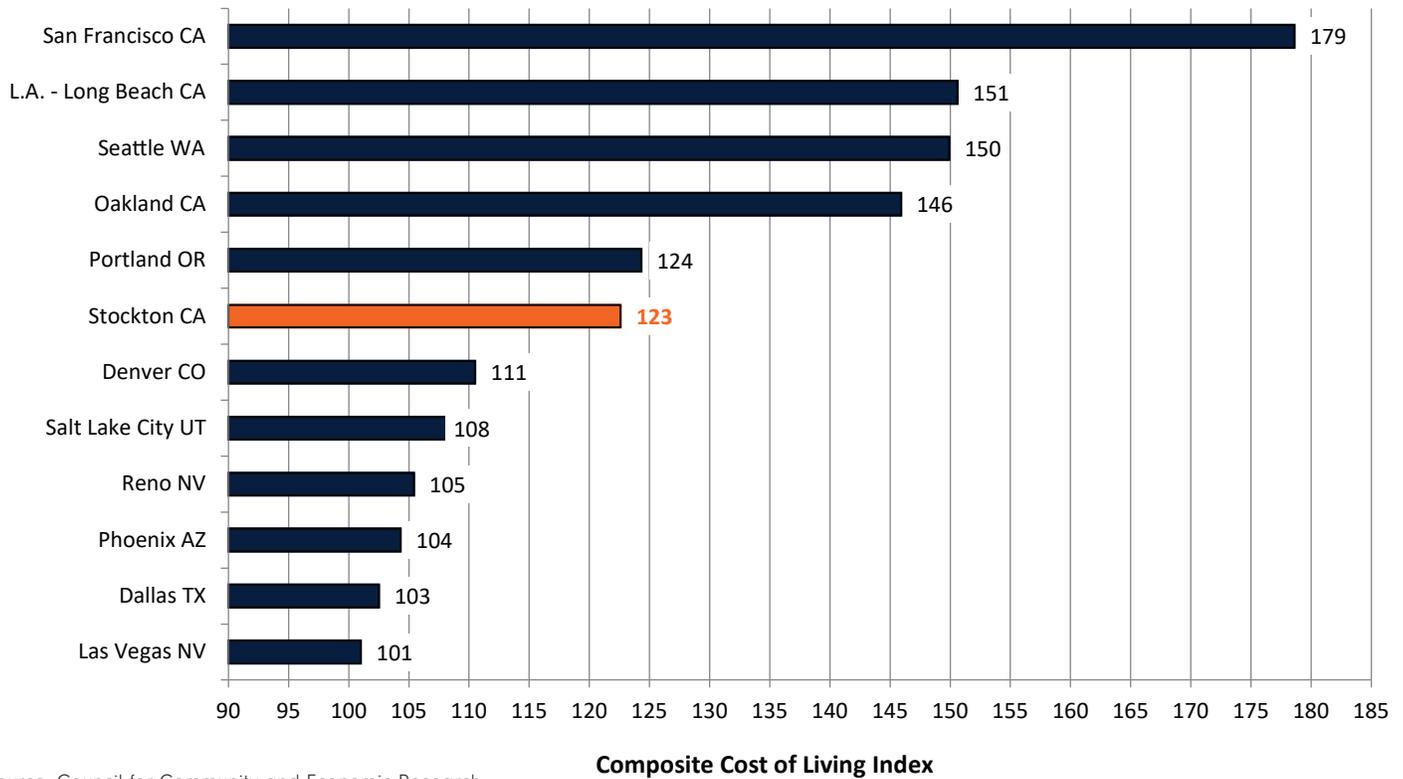
for a professional household in San Joaquin County in comparison to 264 other urban areas across the United States. While the report shows that San Joaquin County (Stockton-

FIGURE 9: California’s real & nominal minimum wage



Note: Real minimum wage values equate to 2017Q1 dollars

FIGURE 10: Select Western Urban Areas in the Cost of Living Index (COLI) 2022 Annual



Source: Council for Community and Economic Research

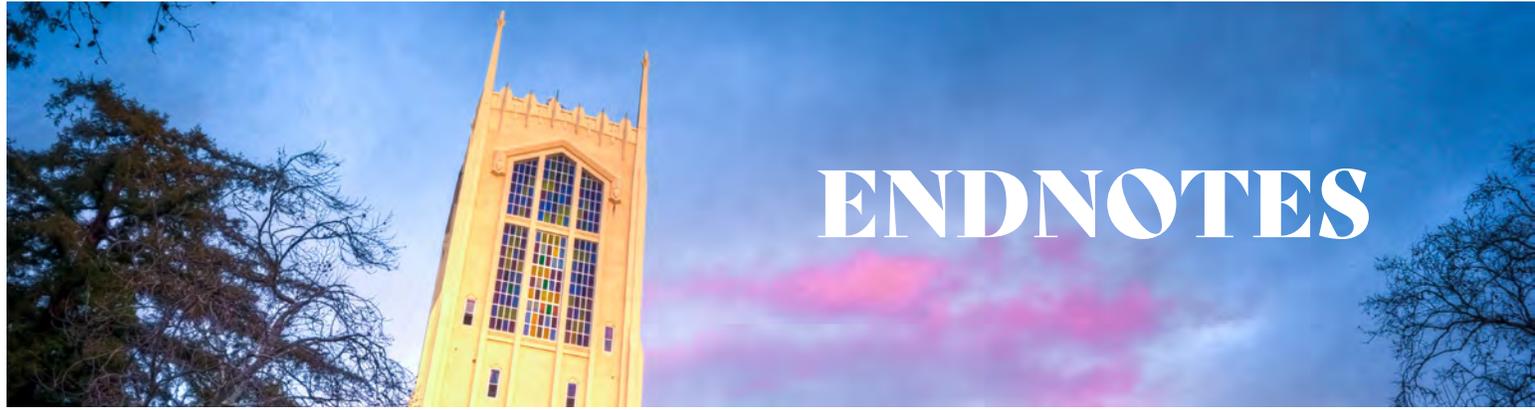
Lodi MSA) is among the least expensive urban areas on the west coast, Figure 10 shows that its costs of living are higher than many other western cities. In fact, given that the COLI reports the average cost of living in urban areas nationally as 100, the County's COLI

value of 123 indicates that the costs of living in San Joaquin County are 23% higher than the national average. However, as detailed in Table 3, the COLI shows that San Joaquin County is among the least expensive urban areas in California.

Indeed, in comparison to larger urban areas like Los Angeles and San Francisco, the COLI estimates indicate that after-tax expenditures in San Joaquin County are respectively 22% and 46% lower.^[12]

TABLE 3: Comparative Cost of Living 2022 Annual

Participating California Urban Areas	Composite Index	Grocery Items	Housing	Utilities	Transportation	Health Care	Misc. Goods & Services
Orange County	151.2	111.5	256.3	91.4	129.1	99.3	111.3
Kern County	109.6	110.2	102.2	157.4	116.5	101.6	102.0
Los Angeles Metro	150.6	111.3	239.8	110.4	128.5	112.1	116.6
Stanislaus County	117.7	107.2	136.5	140.4	127.6	95.5	101.5
Oakland Metro	145.9	130.4	198.9	129.6	134.4	128.5	118.7
Sacramento Metro	118.7	105.6	142.6	105.7	124.2	114.6	107.7
San Diego County	143.7	112.0	222.3	112.5	131.7	104.8	110.1
San Francisco Metro	178.6	131.4	306.6	131.8	138.4	131.5	123.6
San Joaquin County	122.6	117.3	138.9	140.9	131.4	106.2	106.7



ENDNOTES

EN1:

United Ways of California's Real Cost Measure is available at: <https://www.unitedwaysca.org/the-real-cost-measure-in-california-2021>

EN2:

Although local survey data on the pandemic's impact on San Joaquin County residents is not available, a December 2020 survey conducted by the Community and Labor Center at the University of California, Merced found that 44 percent of rural San Joaquin Valley households in Merced, Fresno, and Tulare counties realized income reduction during the pandemic, 30 percent struggled to secure food, 15 percent could not pay rent, and 57 percent were unable to work from home. See Flores, E. (2020) "The Impact of the COVID-19 Pandemic on Rural San Joaquin Valley Households and Workers", Research Brief, Community and Labor Center at the University of California Merced, December 2020. https://clc.ucmerced.edu/sites/clc.ucmerced.edu/files/page/documents/harvesting_safety_study.pdf. Further discussion of the COVID-19 impacts on residents of the North San Joaquin Valley (NSJV) is also reported in the CBPR's NSJV COVID-19 Impact Review, available at: <https://www.pacificcbpr.org/econdev/regional/nsjv/nsjv-covid-19-impacts/>

EN3:

<http://www.stocktonfoodbank.org/News/2021-community-impact>, <http://www.stocktonfoodbank.org/>

EN4:

<https://www.census.gov/programs-surveys/metro-micro/about/glossary.html> <https://www.federalregister.gov/documents/2021/07/16/2021-15159/2020-standards-fordelineating-core-based-statistical-areas>

EN5:

Shelter costs are taken from the Bureau of Labor Statistics CPI-U series (ID#CUUR0000SAH1)

EN6:

Zillow ZORI and CPI-U

EN7:

<https://www.bls.gov/cpi/tables/relative-importance/home.htm>

EN8:

Zillow Median Sale Price and CPI-U

EN9:

For further discussion of the employment impacts, see Part-One (pp. 10-16) of the CBPR's NSJV COVID-19 Impact Review, available at: <https://www.pacificcbpr.org/econdev/regional/nsjv/nsjv-covid-19-impacts/>

EN10:

For further discussion of the relationship between wages and inflation during the pandemic, see Chapter 2 of the International Monetary Fund's October 2022 World Economic Outlook Report, available at: <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>

EN11:

For discussions of the long run trends and influences on Labor Force Participation, see: Hornstein, A., M. Kudlyak, and A. Schweinert (2018) The Labor Force Participation Rate Trend and Its Projections, Federal Reserve Bank of San Francisco, available at: <https://www.frbsf.org/economic-research/publications/economic-letter/2018/november/us-labor-forceparticipation-rate-trend-projection/> and Bauer, A. (2018) Understanding Recent Trends in Labor Market Participation, Federal Reserve Bank of Richmond, available at: https://www.richmondfed.org/publications/research/econ_focus/2018/q4/district_digest.

EN12:

The difference in after-tax costs of living to maintain the same lifestyle is calculated by taking the composite index of the comparative region with that of San Joaquin County (or any other comparator region). This is given by: $100 * [(Composite\ Index\ of\ San\ Francisco - Composite\ Index\ of\ San\ Joaquin\ County) / Composite\ Index\ of\ San\ Joaquin\ County]$. Since the Composite Index of San Francisco in 2022 equaled 178.6 and San Joaquin County equaled 122.6, the formula is $100 * [(178.6 - 122.6) / 122.6] = 100 * (0.4568) = 45.68\%$, or about a 46% increase.

Prepared by:

UNIVERSITY OF THE
PACIFIC

Center for Business
and Policy Research

3601 Pacific Avenue, Stockton, CA 95211

Thomas Pogue,
Executive Director

E: tpogue@pacific.edu
P: (209) 946-2913

Steven McCarty,
Senior Research Analyst

E: smccarty@pacific.edu
P: (209) 946-2623

We would like to recognize



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**COVID-19 and Residents'
Journey to Work in San
Joaquin County Spotlight.**