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Monthly condensed analyses of crucial real estate and economic issues offered by the UCLA Anderson Forecast and the UCLA Ziman Center for Real Estate. In this March 2021 Letter, UCLA Anderson Forecast Director Jerry Nickelsburg compares COVID-19 related contraction in Northern California to previous recessions.

How Serious Is the Bay Area Exodus?

Housing Numbers Suggest Contractions Could Reverse After the Pandemic

By [Jerry Nickelsburg](#)

A mass exodus from the Bay Area emptying out San Francisco and Silicon Valley is on. Or so it is reported, for example, in a January 2021 New York Times article "They Can't Leave the Bay Area Fast Enough," and an August 2020 Wall Street Journal article "Remote Work is Reshaping San Francisco as Tech Workers Flee and Rents Fall." The articles are replete with anecdotes which add color. However, the anecdotes suffer from what survey experts call selectivity bias. For a story about moving away from San Francisco, color is given by interviewing someone who did, not someone who did not.

"The data does not unequivocally support a mass exodus from the Bay Area. On the contrary, it is consistent with a pandemic recession, which may be temporary."

To be fair, after a decade of stories about the demise of the Bay Area, only to be confronted with the opposite happening, the stories included important caveats about a future post-COVID-19 pandemic return to the Bay Area. But those are buried away from the headlines. However, where there is smoke there sometimes is fire, and therefore one has to take these stories seriously.

An important data series suggesting reduced demand for the Bay Area is found in the falling rents across the region. And they are falling by a lot. From January 2000 to January 2001, rents fell by 13% on average for the seven county Bay Area, and in the city of San Francisco by an eye popping 24%.¹ To understand if this is indicative of a permanent exodus or a temporary “yo-yo” exodus we have to look deeper into the data and ask, why are they falling? To accomplish that, we look at factors that could explain the falling Bay Area rents and conclude that while it is likely that some of those departing the area will not return, in the aggregate this is a temporary event.

In 2001 the U.S. economy entered into a mild recession. For tech, it was anything but mild. The recession was in part related to the end of the dot-com speculative boom and the worldwide contraction in demand for silicon chips and microprocessors. The Bay Area experienced an 7.5% contraction in payroll employment from January to December of 2001. When one excludes four sectors; leisure and hospitality, other services, retail, and education – sectors that do not have a significant tech component – the contraction in Bay Area employment was -10.1%. This implosion in tech led to people leaving the area. As a consequence of the departure, there was a decreased demand for housing, both rental and owner occupied. In 2001 rents fell by 28.0% in San Francisco and 22.1% in Silicon Valley. Home prices fell by 1.8% in San Francisco and 7.1% in Silicon Valley as measured by the FHFA Home Price Index and by 2.4% for San Francisco as measured by the Case Shiller Index.

We benchmark to the 2001 episode because it was in the Bay Area, but it is also typical of other regions that have experienced a decline in an industry and the exodus of people. In Los Angeles as the aerospace contraction began, home prices fell by 3.3% (1990) and 3.7% (1991) as home sales fell by double-digit percentages. Rents declined through the decade as manufacturing workers left the state and immigration of lower skilled labor from Mexico and Central America took their place.² In both of these examples population growth slowed dramatically to 0.4% for the Bay Area in 2001 and 0.5% for Los Angeles in 1991, but with deaths less than births and international migration the growth rate did not dip to negative.³ However, between 1990 and 1994 an annual average of 155,000 people left California for other states.⁴

What is happening in the Bay Area today? Superficially the employment situation is the same. Payroll employment dropped by 8.8% in 2021. But, when the same four non-tech sectors are excluded, Bay Area employment fell by only 2.5%. The City of San Francisco has seen rents decline by 23% and the Bay Area by 13%. While these are big numbers, the Bay Area decline is significantly less than in 2001. Home sales in the Bay Area are up by 40% from the previous year with sales growth higher in the over \$500K segment.⁵ And housing prices have increased rather than decreased.⁶ There seems to be something very different here. It does not take much head scratching to surmise what is different is the pandemic. Tech has not been in freefall. Indeed, its profitability has grown,⁷ and tech equities are the star performers through the year.⁸ Though renters are pulling back on demand, higher income homeowners are not. To understand this, we look at the decline in rents to see what factors might explain the magnitude and pattern of rent declines across the seven county Bay Area.

¹ Zumper.com provides estimates of rental data for cities in the Bay Area based on apartment size and characteristics.

² <https://luskincenter.history.ucla.edu/wp-content/uploads/sites/66/2018/09/People-Are-Simply-Unable-to-Pay-the-Rent.pdf>

³ Dof.ca.gov demographic reports

⁴ https://dof.ca.gov/Reports/Demographic_Reports/documents/DOMMIG.pdf

⁵ California Association of Realtors market data

⁶ Home prices in the City of San Francisco proper are, according to Zillow estimates, down by about 1%, but home prices in the MSA metropolitan district including the city have risen over the past year. The -1.8% for San Francisco in 2001 is for the MSA metropolitan district.

⁷ <https://www.wsj.com/articles/amazon-sales-surge-amid-pandemic-driven-online-shopping-11604003107>

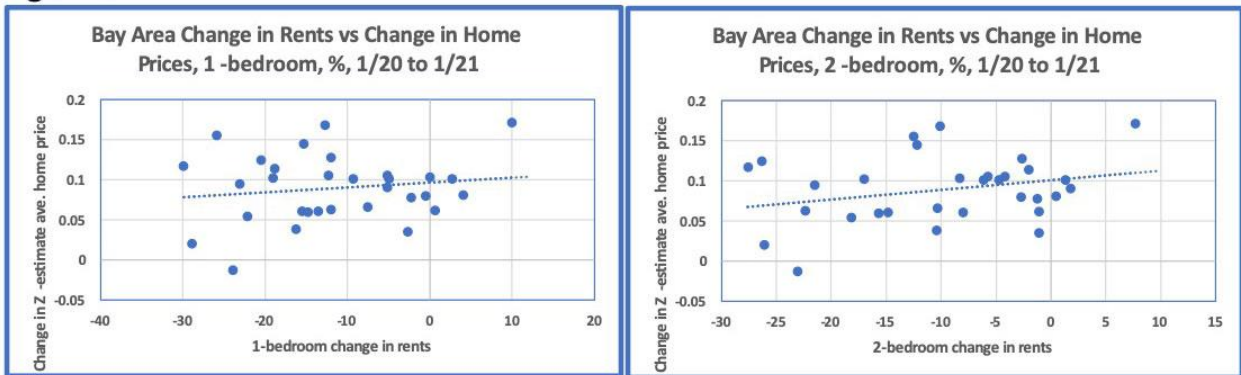
<https://www.nytimes.com/2020/09/17/business/small-tech-stocks-coronavirus.html>

⁸ <https://www.nasdaq.com/articles/5-top-value-stocks-to-buy-now-2021-01-08>

To understand the decline in rents we first examine the relationship between rents and home prices. If rents are declining and home prices are increasing, there is at least some evidence that the rental rate decline is reflective of changed tastes and lower mortgage interest rates shifting demand from rental to owned residences. Rents are measured for 31 cities in the seven county Bay Area from Campbell to San Rafael and Vallejo to Livermore. The rental data are the change in average rents for one-bedroom and two-bedroom apartments. The home price change data are calculated from the Zillow average mid-value estimate. Since both data sets are from samples a bit of caution is required, as each observation may contain sampling error.

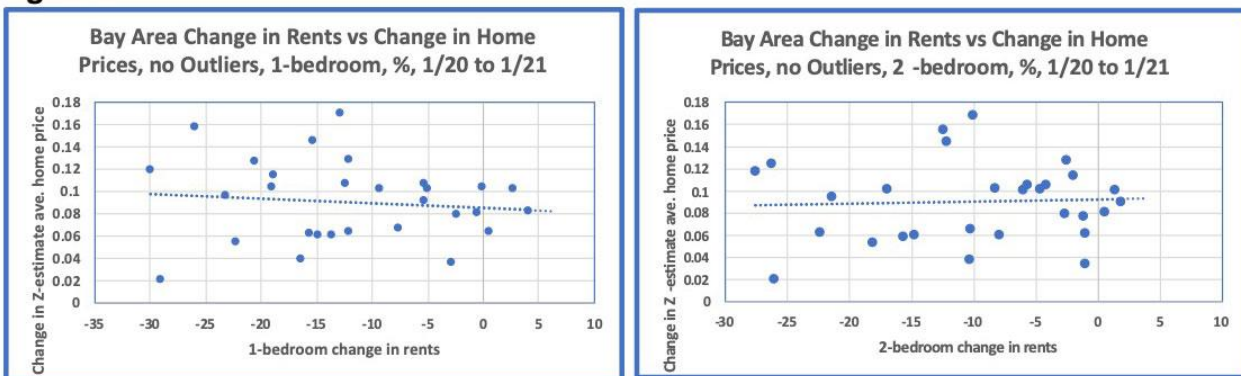
Figure 1 displays the relationship between home price changes and rental rate changes for the entire sample of 31 cities. The correlation between the two is relatively low, 15% for one bedroom apartment rents and 27% for two bedroom apartment rents, and the correlation is positive. There are two outliers, the city of San Francisco with home prices and rents falling and the city of Milpitas with home prices and rents rising. When these two outliers, San Francisco and Milpitas, are removed from the data (Figure 2), the correlation drops to 11% and 5% for one- and two-bedroom apartments, and for the one-bedroom apartments the correlation changes from positive to negative.

Figure 1



Sources: Zumper, Zillow

Figure 2



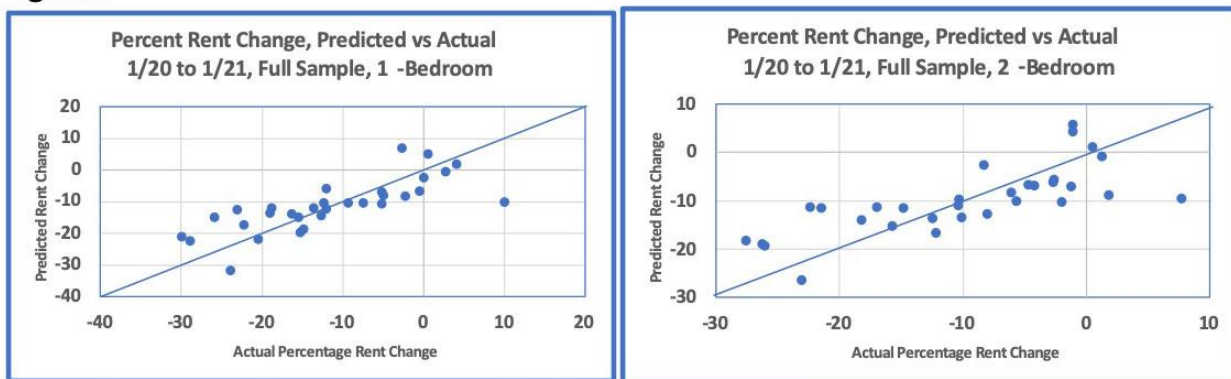
Sources: Zumper, Zillow

To examine other explanations of the rental/price data, a multi-variate analysis was conducted. The variables examined were: the number of restaurants and the volume of sales of restaurants in each city, the distance from a major university, the number of students attending a college or university in the city, the percentage of the labor force in the professional, scientific and technical and information sectors, a measure of overshooting of rents in the expansion prior to the recession, and the aforementioned house prices. The restaurant data is to capture the unemployment of lower wage workers who might have given up their apartment due to a lack of resources to pay the rent. For this variable it is important to note that rent and eviction moratoria were in place during the time frame studied. The university and student variables are to capture the lack of demand on the part of students, junior and visiting faculty who are not on campus and therefore not demanding housing near campus. The percentage of tech

workers is to capture the lower wage tech workers, the renters, who having been told that they won't be going to the office for a year, might have moved back with parents, moved to Bodega Bay or the Sierras or the like to sit out the pandemic, or bailed on California altogether.

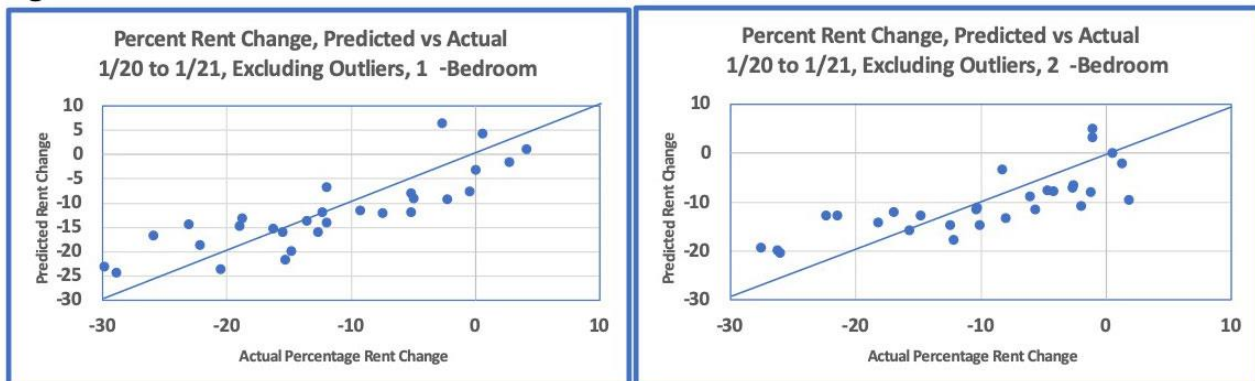
A large number of regressions with various permutation of the variables including non-linear combinations were examined. The common thread was that restaurants and housing prices did not explain the rental data. The variables that did were the distance from one of the major universities, the percentage of tech workers, and the overshooting variable. For one-bedroom apartments and the full sample of 31 cities these three variables explained 78% of the rent declines and for the two-bedroom apartments they explained 73% (Figure 3). When the two outliers, San Francisco and Milpitas, were excluded from the regressions the model explanatory power increased to 84% and 77%. The exclusion of these outliers did not change the relationship between the variables qualitatively (Figure 4).

Figure 3



Sources: Zumper, GoogleMaps, EDD.CA.Gov, Anderson Forecast

Figure 4



Sources: Zumper, GoogleMaps, EDD.CA.Gov, Anderson Forecast

How do we interpret these results? Clearly students will be returning to campus post-pandemic. When they do, their demand for apartments will return as well. Indeed, there likely will be an increased demand with limited occupancy in dorms and off-campus apartments becoming more desirable.

What about tech workers? The fact that home prices did not matter is strongly suggestive that the tech jobs have not left. A plausible explanation for the rental data is that lower-level tech workers, not having to pay high rents to be near work, have found alternatives. Restaurant workers are perhaps taking advantage of the renter protections and staying put, and higher-income Bay Area residents, including and importantly those in the tech industries, are not engaging in a mass exodus, which means their enterprises are not as well.

The open question is, will these lower-level tech workers continue to work remotely from other parts of the Bay Area, other parts of California, or outside of California when the pandemic is in the rearview mirror. To speculate on this, one should ask why they were in the Bay Area to begin with as there are a number of less-expensive cities with

vibrant tech industries including Nashville, Salt Lake, Austin and Seattle. For some - though I speculate a small percentage - it was inertia. Having graduated from a Bay Area university and finding employment locally they took a path of least resistance and settled-in for a few years. For others it was a chance to be where the cutting edge action was (and is) and a chance to grab that brass ring from the start-up that ends of being worth a billion or so. And for others it was for the professional and social networks of the vibrant Bay Area. The first group will likely leave, but they were going to eventually. For the rest, some will find the bucolic life they have enjoyed in places like Grand Junction to their liking and will give up the networks and fast pace of the city. For those two groups, I surmise a generation of talented Generation Z's having graduated from university into a pandemic-induced recession are waiting to take their place in the Bay Area. And for the rest, the brass ring is still there.

Though the statistical analysis was little changed when San Francisco and Milpitas were excluded, these two outliers deserve further discussion. It is entirely possible that the greater declines in the city of San Francisco proper indicate a move to other, less expensive parts of the Bay Area and its environs. It might also reflect the fact that San Francisco is more likely to have pied-a-terre apartments and condos that are not needed during the pandemic and have therefore been thrown onto the rental market. Of the Bay Area cities surveyed, there is more uncertainty about the return to pre-pandemic rental markets in San Francisco than elsewhere, though even there, the data do not indicate a 2001-style migration away from the city. Milpitas, on the other hand, had increases in home prices and rents. This is a city that is close to Silicon Valley, but much more affordable. Recently Milpitas passed strong tenant-protection rules. Taken together, the two suggest a shifting around the Bay induced by pandemic work requirements.

The important message from the data is that it does not unequivocally support a mass exodus from the Bay Area. On the contrary, it is consistent with a pandemic recession. PWC reports that venture capital investment in the Bay Area topped \$24B in the 2nd half of 2020, 2.4 times the next largest regions of New York and Southern California. And various reports on USPS change of address filings do not show an exodus from the state, but rather to the Bay Area suburbs. Those moves are consistent with a shift to home ownership and away from renting, but not to an exodus from the Bay Area. Nevertheless, remote work and the experience of living elsewhere might in fact have an important impact on the growth and character of the Valley and the entire Bay Area in the coming years. For that, we will have to wait until a few years after the pandemic ends to ascertain as there is no historical precedent to rely on. The analysis presented here provides an explanation of the difference between today's fall in rents and the 2001 contraction. Could a mass exodus occur in the future? Of course, there is always that possibility. But we find no statistical indication of a 2001 déjà vu happening today.

