

EastBay

Q3 07



ECONOMIC OUTLOOK



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East Bay Economic Development Alliance
&
The Contra Costa Council

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Executive Summary of the UCLA Anderson Forecast's June 2007 National Forecast

By David Shulman

Last September we highlighted our view that the U.S. economy was headed for a soft landing, albeit one with a great deal of turbulence caused by a rapid deterioration in the housing market. Although the actual data didn't turn out exactly as forecast, it turned out to be a reasonably good description of the past few quarters. Real GDP growth stalled at a revised 0.6% growth rate in the first quarter and we forecast that the economy will be growing at less than a 2% growth rate in both the second and third quarters and then only modestly exceed 2% in the fourth quarter.

This is not a recession -- but it is certainly close. Real growth in 2007 is forecast at 1.8%, roughly on par with the near-recessionary environment of 2002 when real GDP advanced at a 1.6% rate. Nevertheless by mid-2008 growth will return to around 3% as the contraction forces coming from housing abate and improvement in net exports and investment propel the economy forward. If our forecast is close to the mark, the period from the second quarter of 2006 to the first quarter of 2008 will mark a historically anomalous long period of below trend growth. Since unemployment has yet to increase, there exists the possibility that GDP growth has been understated and will subsequently be revised higher.

Because core inflation will remain above the Fed's 2% comfort zone, we do not expect much help from monetary policy until the fourth quarter. In recent quarters we had thought the Fed would be more forward looking and already eased by now. Remember, if GDP growth has been understated, the Fed's reluctance to cut rates would, in the light of hindsight, be viewed as wise policy. Nevertheless, the delay will push back the housing recovery until well into 2008. In their May 9th statement the Fed's Open Market Committee (FOMC) noted, "In these circumstances the committee's predominant policy concern remains the risk that inflation will fail to moderate as expected."

To sum up, our forecast calls for a continuation of the housing induced sluggishness in the U.S. economy to last into early 2008. For all of 2007 real GDP growth is expected to be less than 2%. In response to lower core inflation and a 5% unemployment rate by the fourth quarter of this year, we expect the Fed to cut interest rates by a total of 75 basis points starting in the fourth quarter. By mid-2008 we anticipate an economy with the housing decline behind us, the trade deficit improving and moderately strong business investment that will put the economy back on a 3%+ growth path.

Executive Summary of the UCLA Anderson Forecast's June 2007 California Forecast

By Ryan Ratcliff

So far, 2007 has been a bit of a puzzle. Falling sales, weak prices, and rising foreclosures have continued to be the rule in local housing markets, and both national and state measures of construction activity suggest that real estate has been a drag on economic growth for close to a year now. But in spite of all this bad news from real estate, the wider California economy is mostly unfazed: job growth has slowed only slightly, and we've seen only a minor uptick in unemployment.

Was the landing from our high-flying real estate markets so soft that we didn't notice touching down, or is the better metaphor that real estate job losses are like that elusive Godot: always anticipated but never arriving? Our analysis of 44 years of construction data suggests annual average construction employment usually drops 2-3 years after annual permits hit their peak. Given that annual permits peaked in 2004 and that the first four months of employment data are already below the 2006 average, this historical data suggests that this building cycle and its effects on the wider economy may take longer to work through than we originally thought.

The pipeline of mortgage resets suggests it may be mid-2009 before California sees a normal housing market again. The historical data on building cycles paints a slightly more optimistic picture, suggesting that building activity may get back to normal by mid-2008 if history is any guide. Unfortunately, both of these perspectives argue that things in the housing market will get worse before they get better. While we don't see any calamitous implosion of home prices in the near future, this pattern of flat to slight falling prices and weak sales volumes will be the norm for some time to come.

This also means that the rest of 2007 and beginning of 2008 will be the period when real estate weakness finally spills over into the job market. We predict that the combination of job losses in Construction and Real Estate Finance will pull down overall payroll job growth in California to less than 1% for the next 5 quarters, with unemployment rising to 5.5% and broad measures of real output (GSP, Personal Income) growing at a less-than-average rate of below 3%. Mid-2008 starts to look a little better, with normal levels of growth returning in most indicators by the end of the year.

The East Bay Economic Update: 2007Q2

Summary

The building boom made the East Bay the bright spot in the Bay Area economy over the past few years. Unfortunately, what the boom giveth, the bust taketh away: real estate has become a serious drag on the East Bay economy, as the combination of a slow but steady loss of real-estate related finance jobs has been exacerbated by the long-anticipated downturn in construction employment. Year-over-year growth in non-farm payrolls has slowed to just above 1%, with the unemployment rate rising to 4.5% after bottoming out at 4% near the end of 2006.

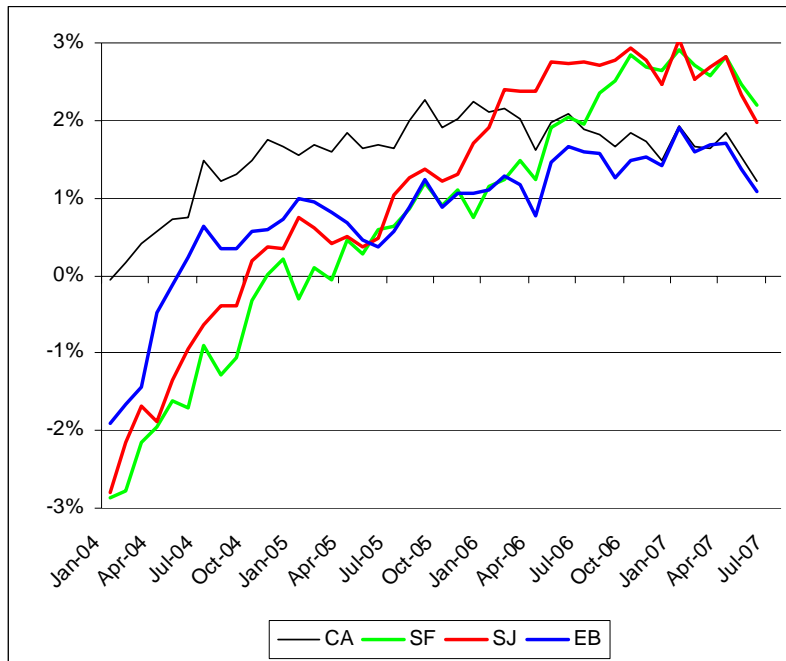
East Bay housing markets are a classic half-full/half-empty story. The optimist will note that home prices are volatile but mostly flat, and the precipitous decline in sales volumes seems to be slowing. However, the pessimist will point out that foreclosure activity in Contra Costa County is among the worst in all of California, and that the worst of this problem is yet to come.

Over the next two years, we maintain our forecast that real estate weakness will keep the East Bay economy in the doldrums through 2008, but will not be enough to generate a full-blown recession. In this installment of the East Bay Report, we also take a longer-term view of the Bay Area economy, and explore some of the economic implications of the retirement of the baby boomers. The high proportion of older residents in the Bay Area will put the pinch on labor force growth over the next 35 years, and the different spending patterns of these retirees may well lead to a reshuffling of the internally-oriented parts of the economy.

Employment Update

While California's year-over-year growth in non-farm payrolls has been slowing since the middle of 2006, the Bay Area had been largely immune to this slowdown thanks to recovery of the technology side of the Bay Area economy. This only seems fair. The Bay Area continued to suffer from a tech sector hangover long after the rest of California was shrugging off the 2001 recession, so now the Bay Area's tech recovery should be helping when the rest of California is starting to slow. However, the data from the first half of 2007 show that the Bay Area has not been able to completely ignore this slowdown. Unemployment has been edging up for most of the year, and non-farm payroll growth is slowing throughout the Bay Area. Even with this slowing, the San Francisco and San Jose metros still rank among the fastest growing regions of California. However, the East Bay looks much more like the rest of California, largely because its reliance on real estate as an engine of recovery in the past few years has been much more like the rest of the state.

Figure 1: Bay Area Year-over-Year Growth in Non-Farm Payroll Employment



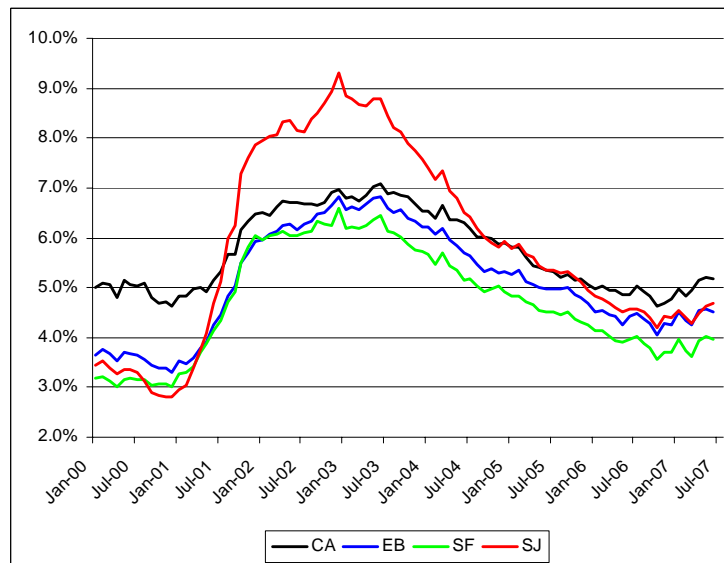
Source: CA EDD, UCLA Anderson Forecast

As we have already noted, the main employment story in the East Bay in 2007 continues to be the drag from real estate, as the slow bleed of Financial Activities jobs since 2005 has been compounded by job loss in Construction in 2007. The trends in both these industries mirror what we've seen throughout the state. In Financial Activities, job losses in mortgage lending and real estate have wiped out the gains made in non-real estate finance. Similarly, while non-residential construction is still adding jobs, these gains have been overwhelmed by job loss in the specialty contractors most closely tied to residential construction, as well as the general contractors whose primary business is home building.

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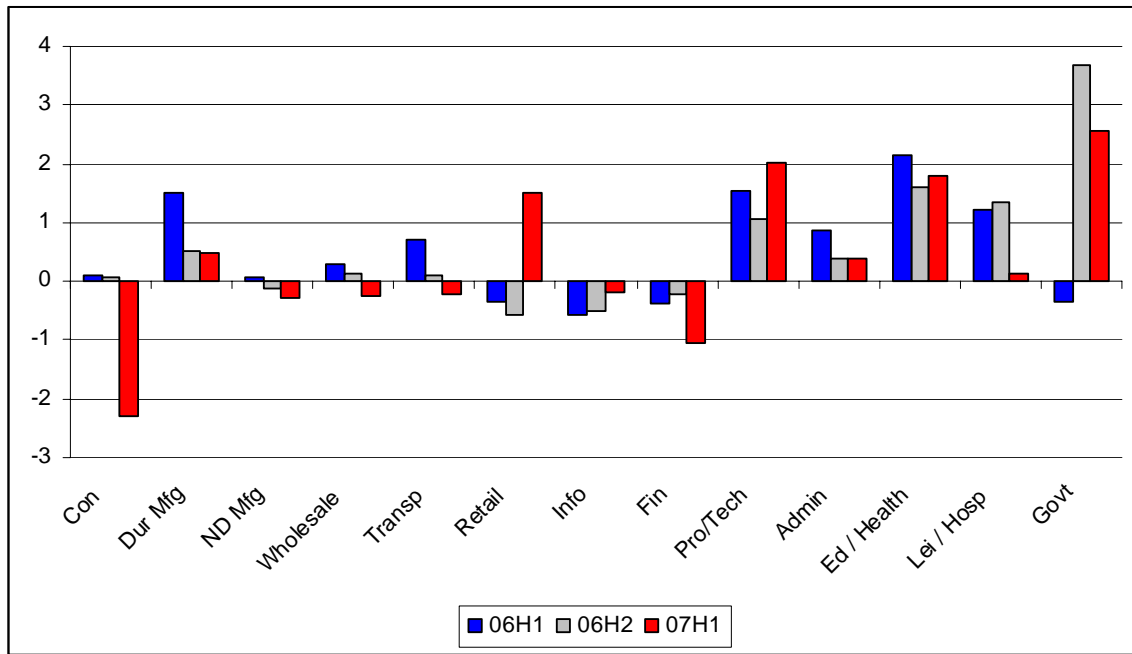
Compared to other regions in California, the East Bay's declines in real estate employment are about average: slightly better in Construction, but slightly worse than average in Financial Activities. The East Bay's real estate related job losses are the worst of the Bay Area metros, but not nearly as bad as places like Stockton and San Diego.

Figure 2: Unemployment Rate (SA)



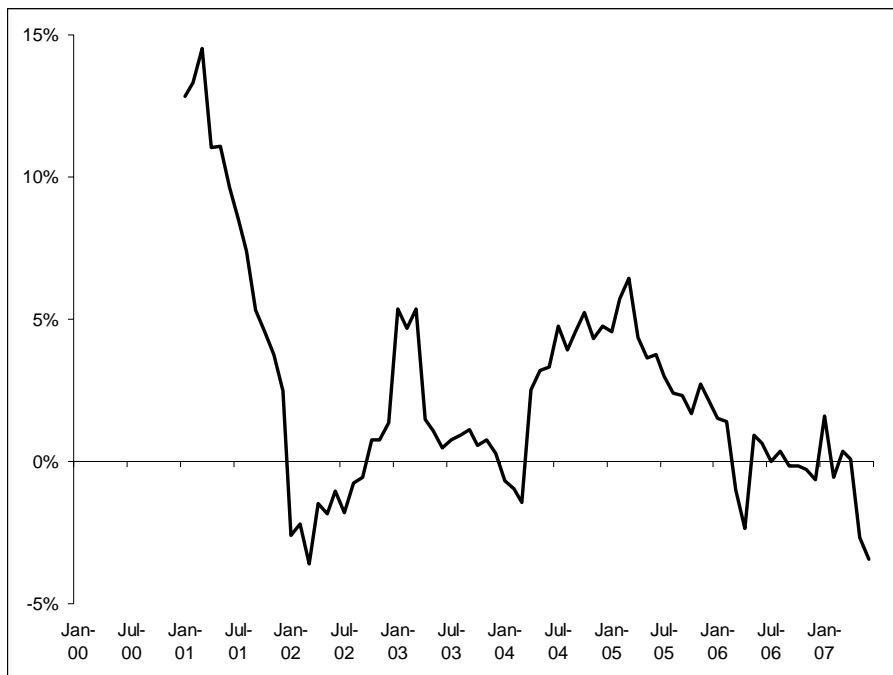
Source: CA EDD, UCLA Anderson Forecast

Figure 3: New East Bay Jobs by Major Sector 2006-7 (1000s SA)



Source: CA EDD, UCLA Anderson Forecast

Figure 4: Year-over-Year Growth in East Bay Real Estate Related Employment (Construction + Credit Intermediation + Real Estate)



Source: CA EDD, UCLA Anderson Forecast

Table 1: Percentage Change in Employment in Construction and Financial Activities for Selected Counties / MSAs, 3/06 to 6/07

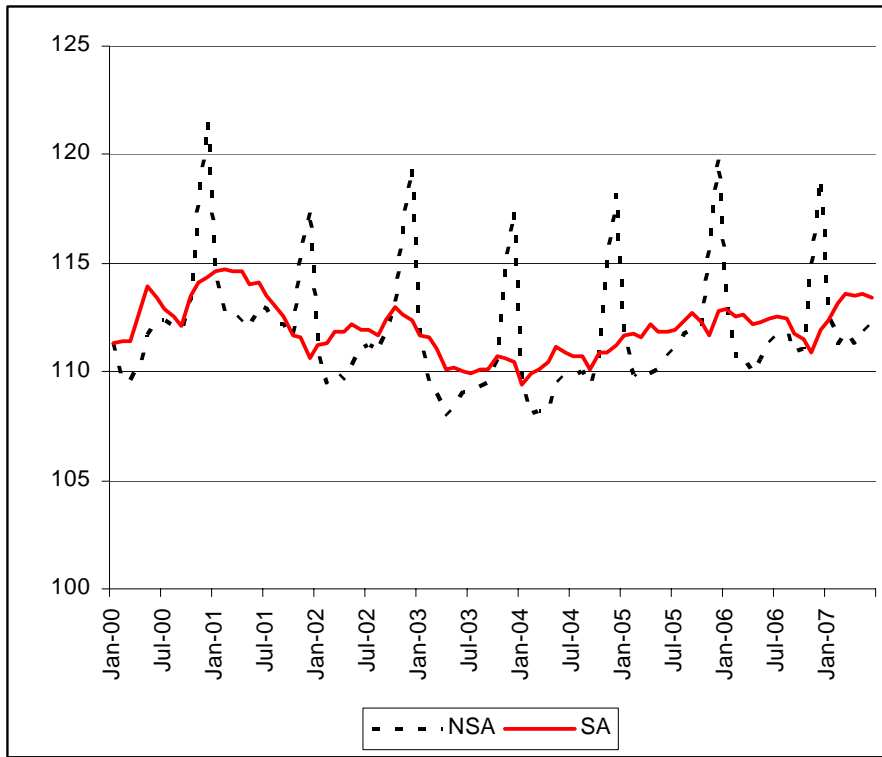
	Constr.	Fin Act.
Fresno	0.1%	-1.0%
Riv/SB	0.1%	3.7%
Kern	0.0%	-0.5%
OC	0.0%	-3.6%
CA	-1.0%	-0.8%
East Bay	-1.3%	-1.9%
Sac	-1.5%	-1.5%
LA	-1.6%	0.4%
Ventura	-1.9%	-1.1%
San Diego	-7.6%	-4.3%
Stockton	-8.6%	-4.8%

Source: CA EDD, UCLA Anderson Forecast

This real estate weakness has led to a case of the blahs in most other sectors of the East Bay economy, with job growth in many sectors continuing the trend of slowing we've seen in the past twelve months. However, there have been some bright spots. The biggest source of new jobs in the East Bay economy continues to be the Government sector, fueled by increased hiring in Local Government Education. Within the private sector, the continuing recovery of Computer Design related employment in the East Bay made Professional/Technical Services the biggest source of new private sector jobs, with continued hiring at local hospitals giving the Education/Health Care sector the second place spot.

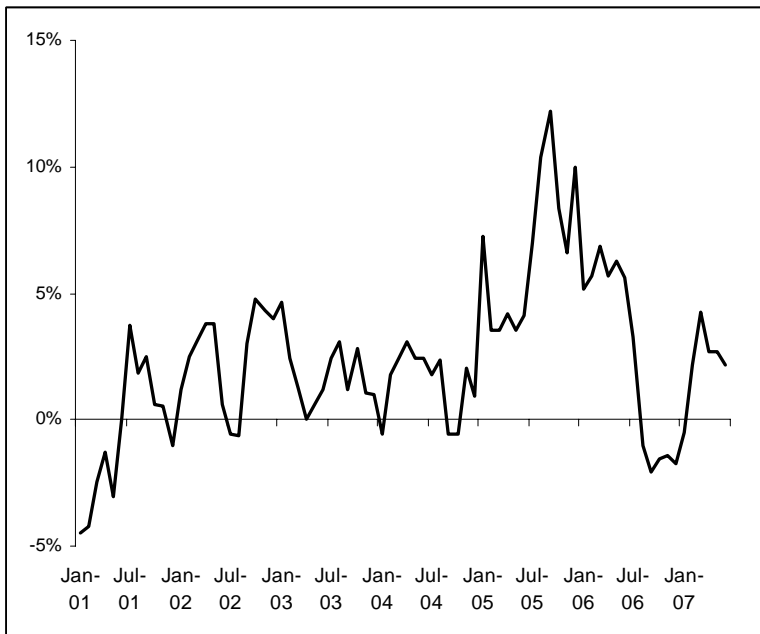
But perhaps the biggest surprise across the sector-by-sector comparison has been the resurgence of the Retail sector in the East Bay. After languishing for most of 2006, this sector was the third biggest source of private sector job growth in the first half of 2007. Part of this surge comes from the seasonality of the retail business: when retailers chose to reduce 2007Q1 employment by less than usual after the holiday season, it shows up as a seasonally-adjusted increase in employment. But this statistical quirk is only part of the story. Most of the action in East Bay retail in 2007 has come in the General Merchandise category, which is primarily made up of department stores. The second half of 2006 saw a major decline in year-over-year job growth in this category as consolidation in the department store category took its toll on employment, which makes the bounce back in 2007 look more like the re-absorption of displaced retail workers than a more permanent acceleration of employment growth.

Figure 5: East Bay Retail Trade Employment (1000s, NSA dotted line)



Source: CA EDD, UCLA Anderson Forecast

Figure 6: Year-over-Year Growth in East Bay Gen'l Merchandise Retail Trade Employment

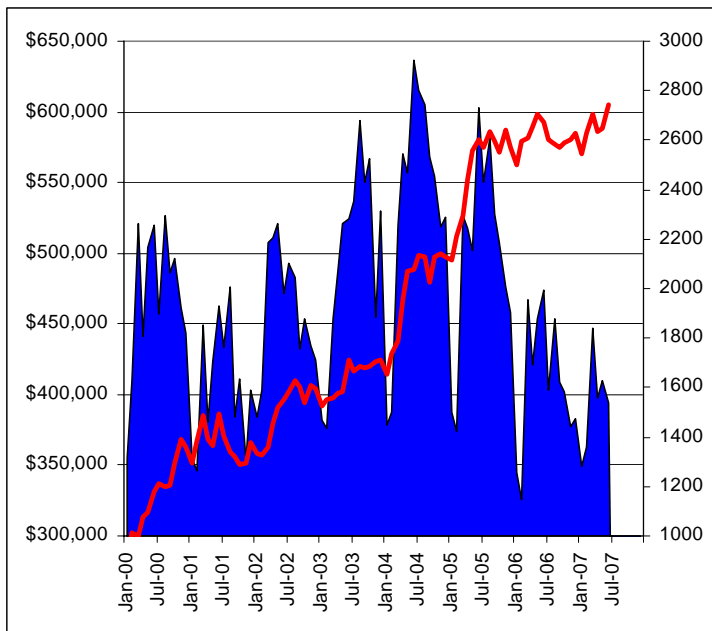


Source: CA EDD, UCLA Anderson Forecast

Housing Market Update

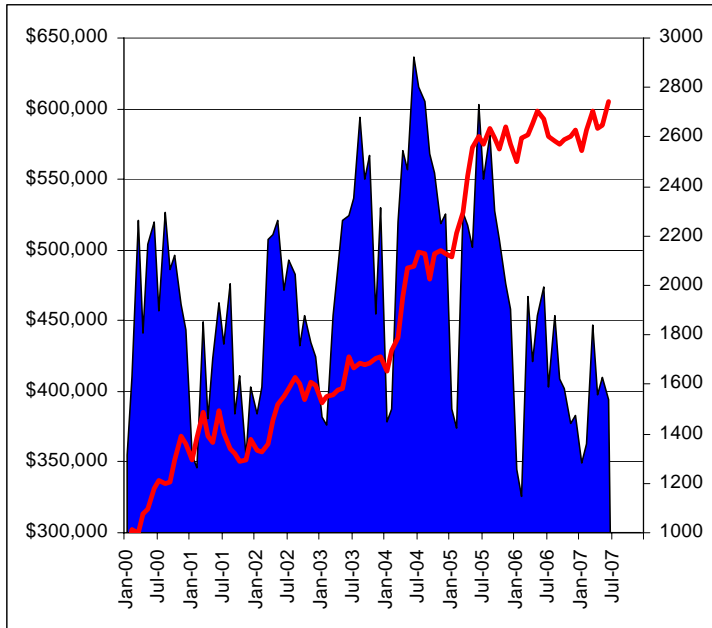
For the Bay Area as a whole and the East Bay in particular, the 2007 housing market continues to show the pattern of flat prices and falling sales that we've seen throughout California – at least in broad terms. The specifics of these trends in the East Bay have actually proved somewhat unique. The second half of 2006 saw outright price declines in the East Bay that were among the most severe in California. However, in 2007 both markets have not only erased these losses but have established all-time highs for median sales prices. But before we crack open the champagne to celebrate the end of the real estate doldrums, a more in-depth look at these numbers is required. This kind of volatility in median sales price suggests that in today's low volume market, the month to month changes in the mix of homes sold is obscuring the longer-term trends of slightly rising prices in Alameda County and slightly falling prices in Contra Costa County.

Figure 7: Total Sales (area) and Median Sales Price for All Homes, Alameda County, Not Seasonally Adjusted



Source: Dataquick, UCLA Anderson Forecast

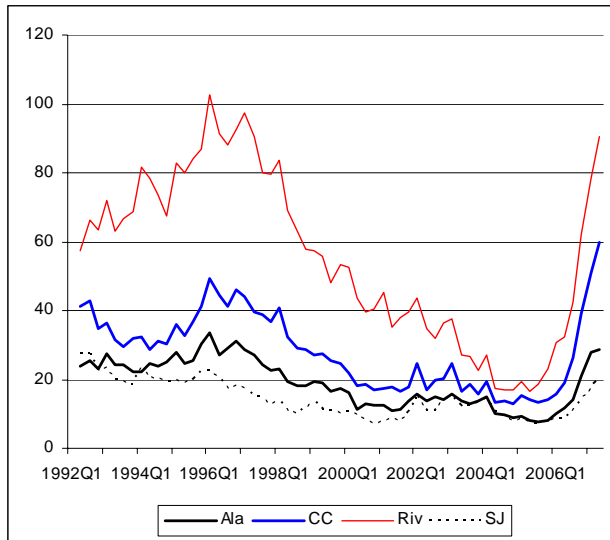
Figure 8: Total Sales (area) and Median Sales Price(line) for All Homes, Contra Costa County, Not Seasonally Adjusted



Source: Dataquick, UCLA Anderson Forecast

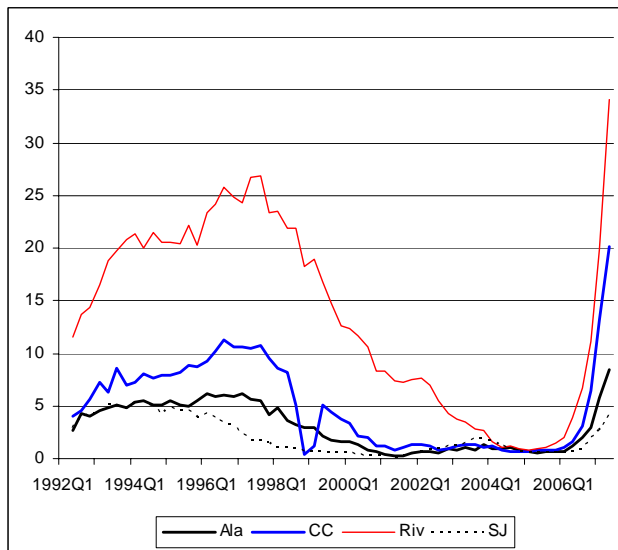
While the overall data on home prices gives the indication that the housing market in Alameda County is holding up slightly better than in Contra Costa County, the newly released data on mortgage defaults shows a much starker divide between the two. The following graphs present Notices of Default (the official beginning of the foreclosure process) and Trustee Deeds of Sale (actual loss of the home) recorded per 10,000 households for the East Bay, along with the data for Riverside and Santa Clara Counties to indicate the upper and lower bounds of what we're currently seeing in California. Like everywhere else in California, Alameda County has seen a surge in mortgage defaults -- slightly higher than the least affected counties, but still definitely in the lower half of the distribution. In contrast, Contra Costa County has been hit hard by mortgage problems -- not quite as bad as Riverside County, but among the top ten counties in California in both Notices of Default and Trustee Deeds of Sale per 10,000 households.

Figure 9: Notices of Default Filed per 10,000 Households in Selected Counties



Source: Dataquick, UCLA Anderson Forecast

Figure 10: Trustee Deeds of Sale Filed per 10,000 Households in Selected Counties



Source: Dataquick, UCLA Anderson Forecast

There are also some indications that this financial distress is more widespread than just mortgages. Year-to-date bankruptcy filings in the Oakland Division of the Northern District of California are nearly twice what we saw at this point in 2006 (2,029 vs. 1,083). The rules governing bankruptcy filings were significantly toughened in 2005, which may have artificially lowered the filing rate in 2006. However, this increase is still striking. This highlights an important point: while the weak housing market and spiking mortgage defaults may only be a drag on the economy as a whole, it is a source of

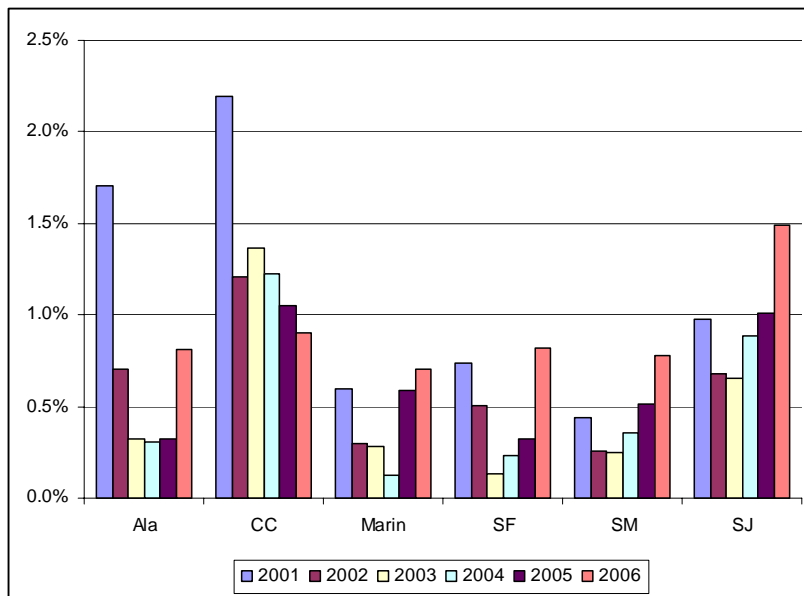
significant hardship for those caught in the trap of a resetting adjustable rate mortgage in a market where selling is difficult and refinancing is scarce.

The Aging of the Bay Area, 2000 – 2040

Be Sure to Wear Some Flowers in Your Hair... If You Have Any Left

The most lasting effect of the collapse of the tech bubble in 2001 has been demographic. From 2001 to 2005, approximately 250,000 residents moved out of the six county area defined by the San Francisco MSA and Santa Clara County (i.e. Marin, San Francisco, Alameda, Contra Costa, San Mateo, and Santa Clara Counties).^{*} While natural increase of the population and foreign immigration were able to offset some of this exodus, this wave of out-migration slowed population growth in all the counties in this area to below 1% for several years, and has quashed any hope of a quick recovery to pre-recession employment levels. The good news is that the tide has finally turned. Net migration (foreign plus domestic) is now positive for all counties in this six county region, and is rising for all the counties except Contra Costa.

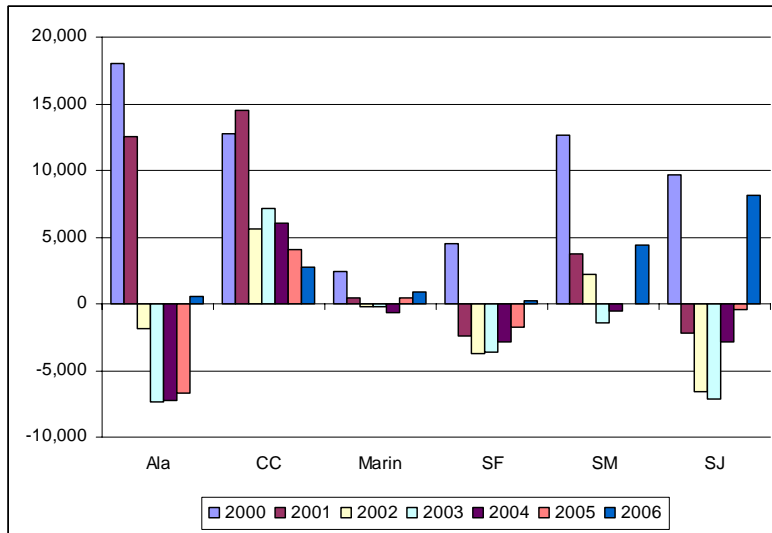
Figure 11: July to July Percentage Change in Population



Source: CA Dept. of Finance, UCLA Anderson Forecast

^{*} This number represents the sum of net domestic migration out of the five counties. It may overestimate total out-migration since it also captures migration from one MSA county to another; however, the economic conditions in the Bay Area suggest that the bulk of these moves were to destinations outside the region.

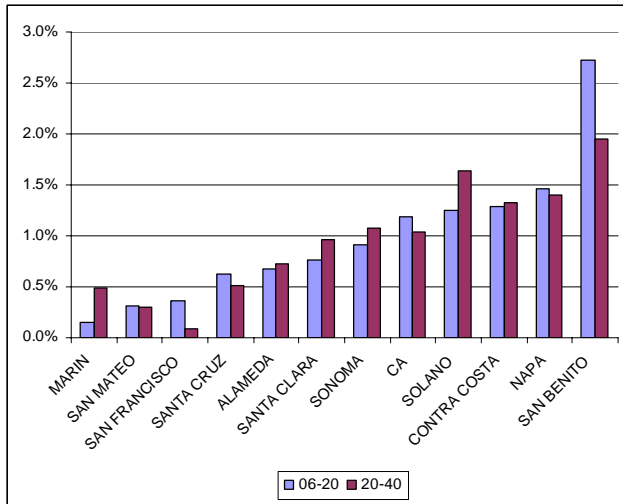
Figure 12: Net Migration by County



Source: CA Dept. of Finance, UCLA Anderson Forecast

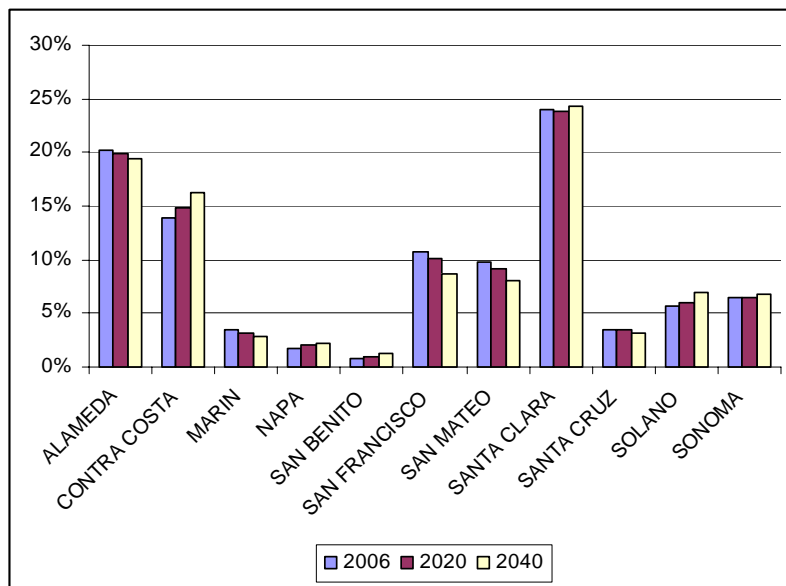
The 2007 population projections recently released by the California Dept. of Finance (DOF) temper this optimism somewhat. They predict that population growth in the larger 11-county Consolidated Metropolitan Statistical Area, or CMSA, (which includes the San Francisco MSA plus Napa, Sonoma, Solano, Santa Clara, Santa Cruz and San Benito counties) will average below 1% from now through 2040. The projected differences between growth in the Bay Area and the rest of California mean that the 11-county CMSA's share of California's population will decline from 20% in 2006 to 18.3% in 2040. Within the CMSA, most of the changes in the distribution of the population will occur in the counties bordering the Bay. The shares of the Bay Area's population in Marin, San Francisco, and San Mateo counties are all expected to decline, while the shares in Santa Clara and Contra Costa county increase and the balance of the counties essentially hold steady.

Figure 13: Projected Average Annual Population Growth in San Francisco CMSA



Source: CA Dept. of Finance, UCLA Anderson Forecast

Figure 14: County’s Projected Population Share in San Francisco CMSA

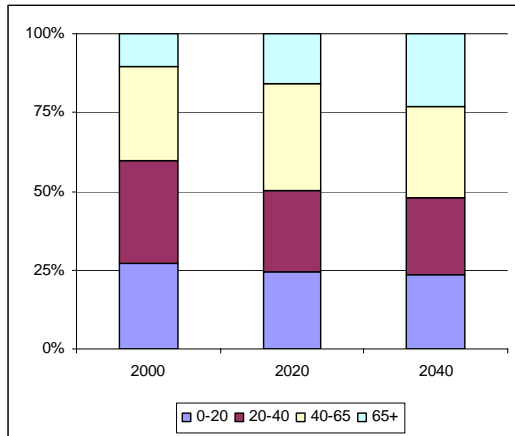


Source: CA Dept. of Finance, UCLA Anderson Forecast

These next 35 years will present an additional challenge for the Bay Area because of the age distribution of the local population. The Bay Area has the highest median ages of any region of California, and the highest share of residents 65 years and older. The oldest of the baby boom generation is in their early sixties, and as this largest cohort of the population moves from working age into retirement, the Bay Area’s population will get increasingly older relative to the rest of California. To take the most extreme example, by 2040, the DOF’s projections expect that 30% of San Francisco County’s population will be over 65, compared to 19% for the state as a whole. Most of the

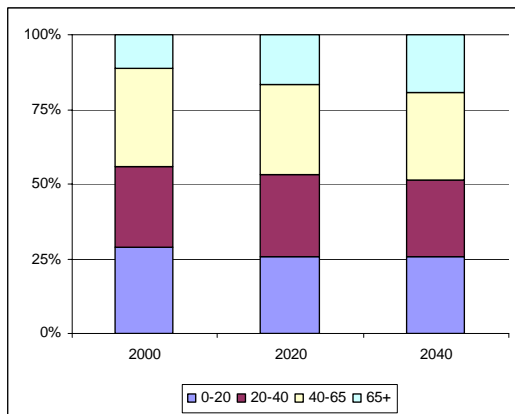
difference in age profile comes from the peninsula: the East Bay's age profile is only slightly older than California as a whole, and these differences stay essentially constant through 2040.

Figure 15: Projected Age Distribution in Alameda County



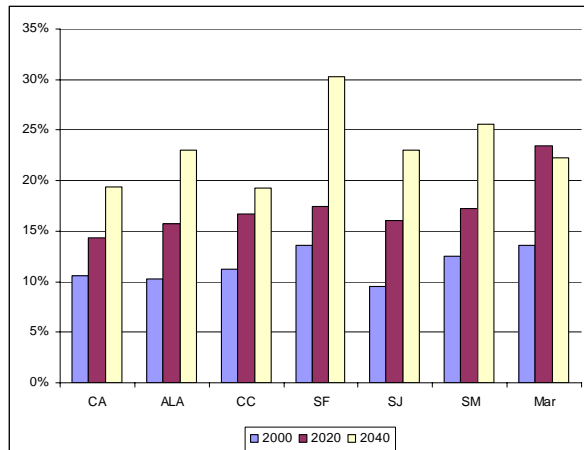
Source: CA Dept. of Finance, UCLA Anderson Forecast

Figure 16: Projected Age Distribution in Contra Costa County



Source: CA Dept. of Finance, UCLA Anderson Forecast

Figure 17: Projected Share of Population Over 65



The retirement of the baby boomers will lead to substantial economic changes. This section of the report will focus on two issues that can be quantified and studied at the level of the local economy. First, we will explore the effects that the coming changes in the ratio between working and retired residents could have on economic growth in the Bay Area. Second, we look at how the spending habits of the 65 and over age group compare with the population as a whole, and speculate on what effects that may have on the composition of the Bay Area economy over the next 35 years.

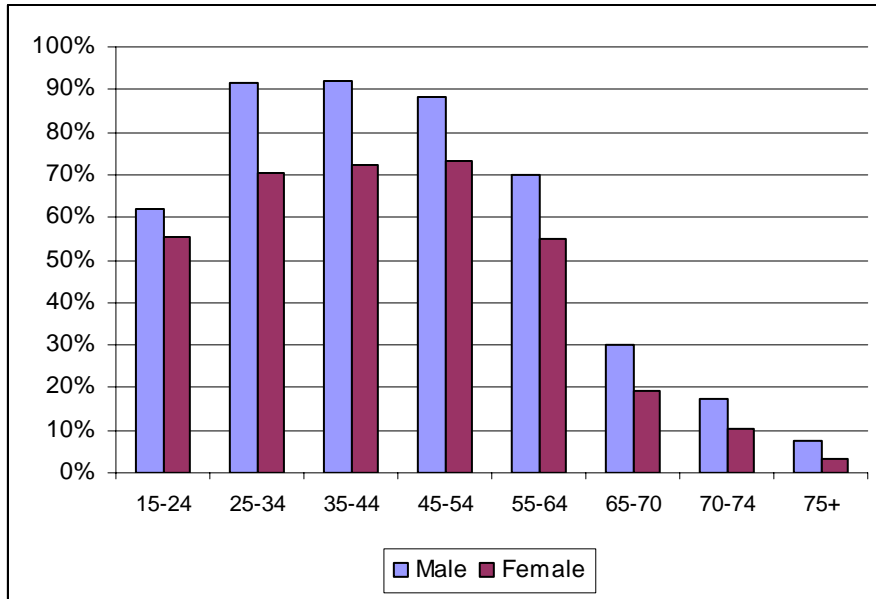
More Retirees = Slower Job Growth

The aging of the Bay Area holds a potential double whammy for the economy. A higher share of residents over 65 means labor force participation will most likely fall in the coming years. Coupled to the projected slowdown in population growth, this means that growth in the local labor force may slow dramatically in the next 35 years. Since in the long run local employment can grow no faster than the local labor force grows, this combination of factors could lead to a long-term slowdown of the Bay Area economy. Like many things in economics, this story is grossly oversimplified, yet retains a central kernel of truth. To get a better sense of the subtleties involved, we'll proceed in several steps.

First, to establish a baseline, we'll examine what would happen to overall growth of the labor force if there's no change in retirement behavior. Specifically, let's assume that labor force participation rates by age group stay the same as they are today, so that any changes in overall labor force participation are solely driven by the changing age distribution of the population.*

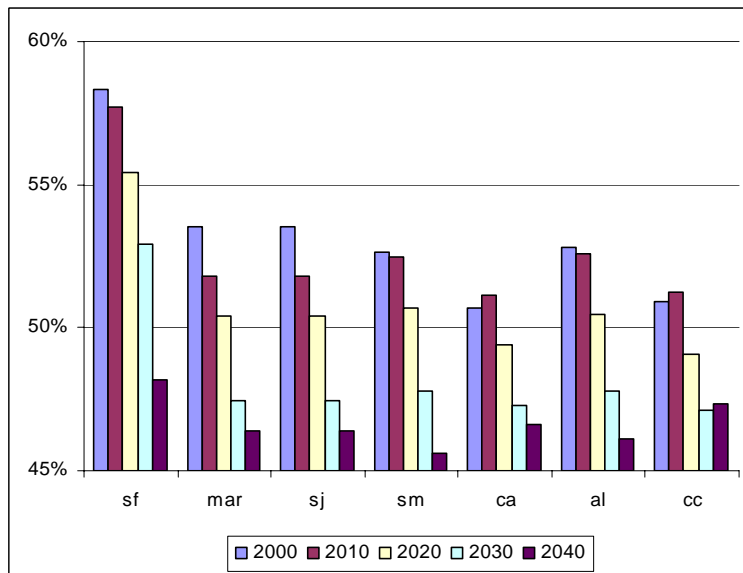
* Actually, the data on labor force participation by age group is pretty thin at the local level. These labor force participation rates are based on statewide data. In addition, we disaggregated the 65+ category for California into smaller groups using US data – implicitly assuming that the retirement decisions of older Californians aren't that much different than the rest of the nation. This is a debatable assumption, but it's the best we can do with the data we have.

Figure 18: Average Estimated CA Labor Force Participation Rates by Age Group, 2000-2006



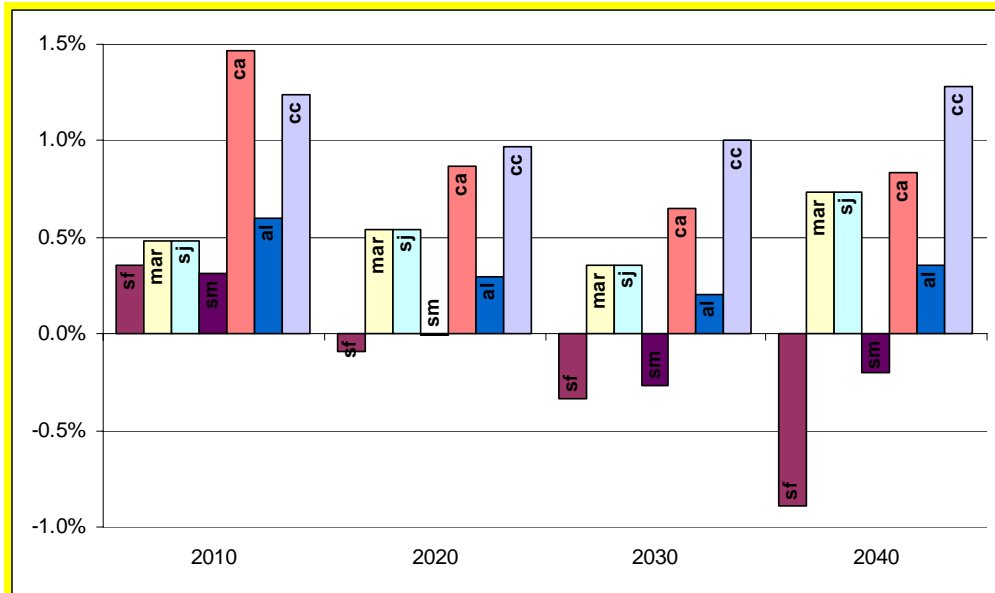
Source: CA EDD, BLS, UCLA Anderson Forecast

Figure 19: Projected Overall Labor Force Participation Rates, Assuming Constant Labor Force Participation Rates by Age Group



Source: CA Dept. of Finance, CA EDD, BLS, UCLA Anderson Forecast

Figure 20: Projected Average Annual Labor Force Growth by Decade, Assuming Constant Labor Force Participation Rates by Age Group

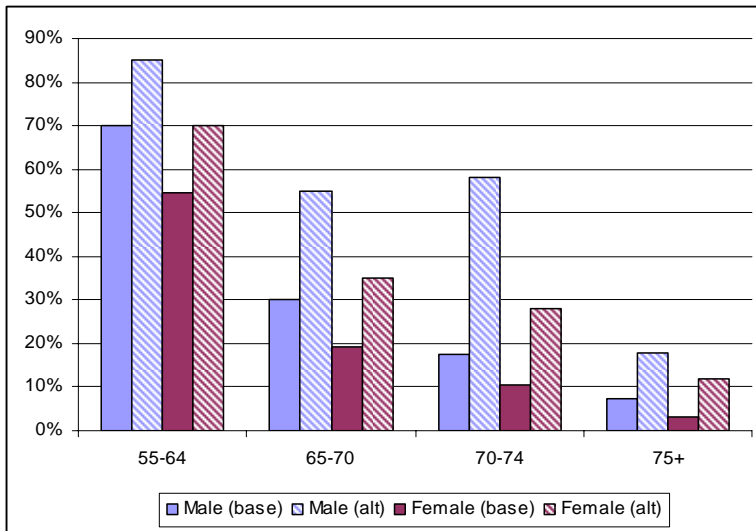


Source: CA Dept. of Finance, CA EDD, BLS, UCLA Anderson Forecast

This simple assumption yields some stark conclusions. Given the projected changes in local age distributions, overall labor force participation rates are projected to fall throughout the six county area, though still remaining higher than the California average. However, in San Francisco and San Mateo, the share of older residents is so high that these assumptions actually predict a *contracting* labor force. With the exception of Contra Costa County, the rest of the six county area’s projected labor force growth lags the California average.

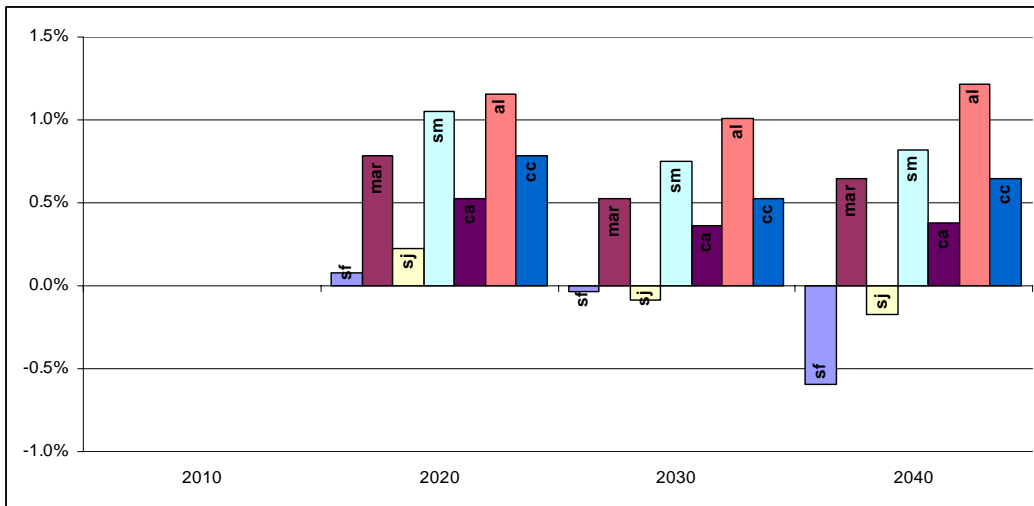
There are a number of reasons to question this assumption. Better health care, less retirement savings, the uncertainty around Social Security, etc. all suggest that the baby boomers will retire later than previous generations, implying that labor force participation among older residents will probably rise over the next 35 years. Our next experiment is to look at whether this increase in the number of older workers will be enough to offset the slower labor force growth projected from the shifting age distribution. We have taken a decidedly “back of the envelope” approach to keep things simple: rather than allowing participation rates to increase steadily, we instead chose to apply higher average rates over the entire projected period.

Figure 21: Labor Force Participation Rate by Age Group, Base vs. Hypothetical



Source: UCLA Anderson Forecast

Figure 22: Projected Average Annual Labor Force Growth by Decade, Assuming Hypothetical Higher Labor Force Participation Rates by Age Group



Source: CA Dept. of Finance, CA EDD, BLS, UCLA Anderson Forecast

We've omitted the growth from 2000 to 2010 in this alternative scenario since the baseline numbers are based on most of this period. Through 2020, the increased labor force participation of the older workers does indeed raise local labor force growth, thanks mostly to that fact that 55-64 year olds are now working as much as 45-54 year olds. The Bay Area counties benefit disproportionately from this hypothetical increase precisely because they have a bigger share in this age group. But even the ludicrously high labor force participation rates we've examined here don't help much past 2020: by

that point, the boomers are mostly past 75, and we still see the same slowdown as the baseline scenario.

Thus, boomers delaying retirement is of limited help in bridging the gap. There are two other potential ways to offset this demographic drag on labor force growth. If the projected growth in Bay Area labor supply falls short of future labor demand at the prevailing wage, wages will obviously rise. Not only will this act to further increase labor force participation across all age groups, but it will also induce migration – both foreign and domestic. While in-migration represents the most likely mechanism for offsetting the demographic drag on labor supply growth, there are several factors that potentially limit the inflow of new workers.

The DOF's population projections have already built in the assumption that foreign migration will continue at roughly the same levels we see today. Thus, if foreign immigration is to mitigate the slowdown in labor force growth we've projected, it would have to significantly exceed the levels we've seen recently. Consider how contentious the issues of immigration are today. Is there currently a shortage of high skilled workers that needs to be filled by foreigners with H1-B visas, or is this simply a source of cheaper labor? Are low skilled immigrants a net positive for the economy? Is outsourcing a win-win reorganization of inputs to minimize costs, or a wholesale betrayal of the American worker? Now consider how much more heated this debate will become as these demographic shifts slow growth of the native born workforce. While the incentives for foreigners to immigrate to the Bay Area will be bigger than ever before, today's experience suggests that we should not look for substantial increases in the inflow of foreign workers to fill the gap.

For domestic migrants, the Bay Area's obvious attractions are offset by one of the highest costs of living in the country. Ironically, the very counties where the slowdown in labor supply growth will be most severe (San Francisco and San Mateo) are also the most expensive counties. Like so many places in California, this lack of affordability in areas of high employment suggests the acceleration of two trends we're already seeing: the commutes of tomorrow will make today's look breezy, and, as a result, this will eventually cause some redistribution of economic activity to the lower cost areas where people live.

So far, this analysis has been pretty dismal. Actually, it's similar to the analysis of the original dismal scientist, Malthus. Malthus argued that since the amount of food was a function of land under cultivation, the food supply could never keep up with population growth, which would eventually limit the expansion of the economy. The solution to the Malthusian trap was technology: get more food out of existing land. A similar solution will likely play a role in the Bay Area economy in the coming years. While the supply of workers may grow slower in the future, this need not translate into an economic slowdown if each worker can keep producing more. The Bay Area has proven itself to be one of the best places in the world at fostering technological progress – which is good, because these demographic projections imply we're going to need it.

Changes in Spending Patterns

It probably comes as no surprise that spending habits of older Americans are somewhat different than the national average. As a larger share of the population moves into these older age groups, we should expect to see buying patterns of the population as a whole change. The BLS' Consumer Expenditure Survey offers some insight into what we might expect, assuming that the 65-year olds in 2040 have the same consumption habits as 65-year olds today. The data is primarily available for Census Regions, which lumps the Bay Area in with most of the western U.S. However, the limited data that is available for the San Francisco MSA suggests that aside from spending a higher share on Shelter and lower share on Transportation, the expenditure shares of Bay Area residents aren't that different from the rest of the West.

The most obvious feature of the data is that both the average annual income and expenditures of residents of the West region decrease as they get older: the average 75 year old spends almost \$20,000 a year less than the average for all consumers. Moreover, they spend their money differently. Most of the differences in expenditure share aren't surprising. Older consumers spend a significantly higher share of their income on health care, and spend less on cars and transportation. They spend more on food at home than they spend on meals out. They spend less on clothes and entertainment, and more on books (in the Other category).

Figure 23: Average Annual Expenditures in West Region

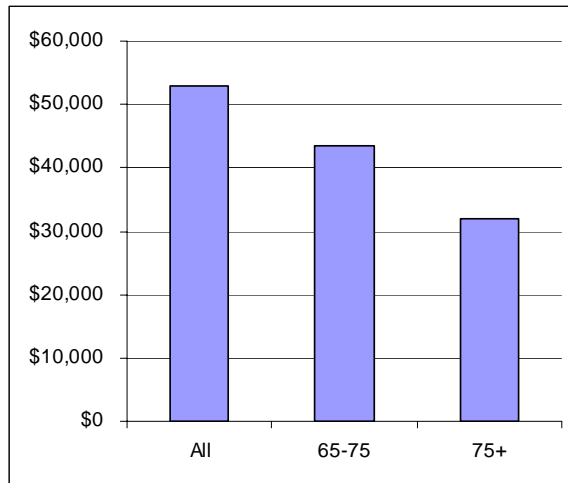
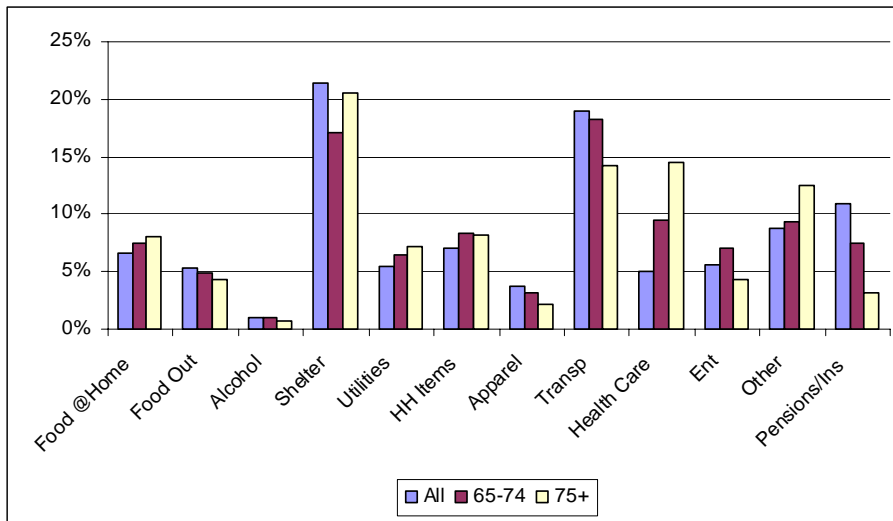
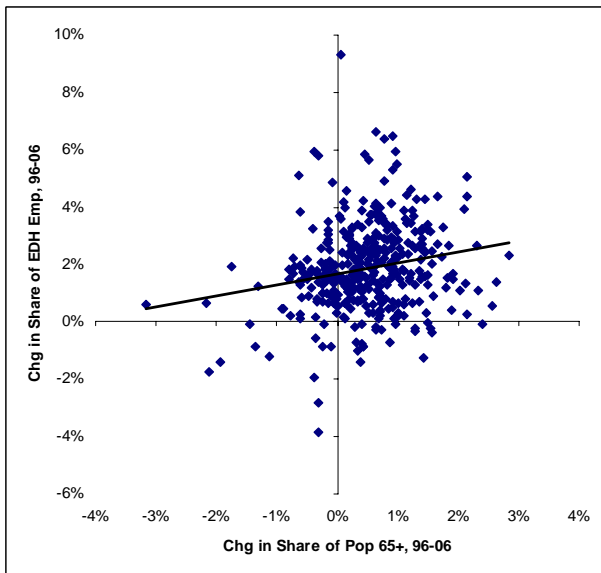


Figure 24: Share of Total Expenditures in West Region by Age of Consumer Unit



Source: BLS, UCLA Anderson Forecast

Figure 25: Change in Share of MSA Population 65+ versus Change in Share of MSA Employment in Education and Health Care



Source: US Census, BLS, UCLA Anderson Forecast

While there's some room to argue that the retirees of the future may very well be playing Playstation 10 at the retirement home, most of these changes in expenditure patterns are likely to persist over the next 35 years. These demographics-driven shifts in the overall patterns of local consumption have significant implications for the local economy. Looking across all of the major MSAs in the country, we see that the higher the growth in the share of residents over 65 from 1996 to 2006, the larger the increase in the share of local employment in the Education and Health Care super-sector – which

is hardly a surprise given the expenditure data.* The Bay Area already has an above average concentration of health care related employment, and this data argues that this concentration will surely rise over the foreseeable future.

While the shift towards more health care services will be the biggest demographics-driven shift in the composition of the economy, the expenditure data suggests that we should see other shifts as well. Clothes stores, car dealerships, restaurants, and entertainment venues may all see local demand for their services drop as a larger share of the population spends a smaller share of their smaller incomes on these services.

Conclusions

About the only thing we can predict about the Bay Area in 2040 are the demographic shifts that we can expect based on today's population. However, these demographic changes have wide ranging implications for the nation and state, but are even more of a factor for the Bay Area thanks to its above-average concentration of older residents. As a bigger share of the local population moves into retirement, labor force growth in the region will likely slow even if baby boomers retire later than previous generations. The only way that this slowdown will not be a brake on the future growth of the Bay Area economy is some combination of in-migration to the area (from both the U.S. and abroad) and continued technological progress that allows the Bay Area to produce more with the same amount of inputs. The differences in the spending patterns of older Bay Area residents will also be a major force in shaping the economy over the next 45 years, as spending on mid-life luxury goods is supplanted by increased spending on health care.

* Focusing on the Education and Health Care super-sector allows the inclusion of many more metro areas, even if the educational component muddies the waters a bit. However, our analysis of the smaller sample where Health Care and Education are disaggregated suggests that the primary source of variation in employment growth in the super-sector across the MSAs comes from Health Care.