

East Bay Economic **OUTLOOK** 2018-19





EAST BAY ECONOMIC OUTLOOK 2018-19

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ABOUT THIS REPORT

The **East Bay Economic Development Alliance** (East Bay EDA) is a public/private partnership serving the San Francisco Bay Area's East Bay (Alameda and Contra Costa Counties). East Bay EDA's mission is to be the regional voice and networking resource for strengthening the economy, building the workforce and enhancing the quality of life in the East Bay.

One of East Bay EDA's core strategies is to provide valuable information about trends impacting the East Bay economy. Each year we produce an annual East Bay Economic Outlook report, which is both a forecast and a summary of key economic indicators for the East Bay as it compares to the Bay Area region, the state of California and the nation as a whole.

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THE U.S. ECONOMY IS EXPERIENCING the second-longest expansion in its history—the labor market is booming and consumer and business spending are solid. The Tax Cuts and Jobs Act (TCJA) of 2017 represents a major fiscal expansion that will reduce U.S. federal budget revenues over the next decade by \$1.5 trillion. The associated stimulus effects from the TCJA are front-loaded and will be most noticeable during its first three years, which will provide a temporary spike in U.S. GDP growth.

In the East Bay, all major indicators point to continued growth for the local economy in 2018. The region is adding jobs at a solid pace, the unemployment rate is declining, and most major industries have seen employment gains since the start of the year. This continued growth has Beacon Economics projecting another strong year in 2018 for consumer spending activity in the region.

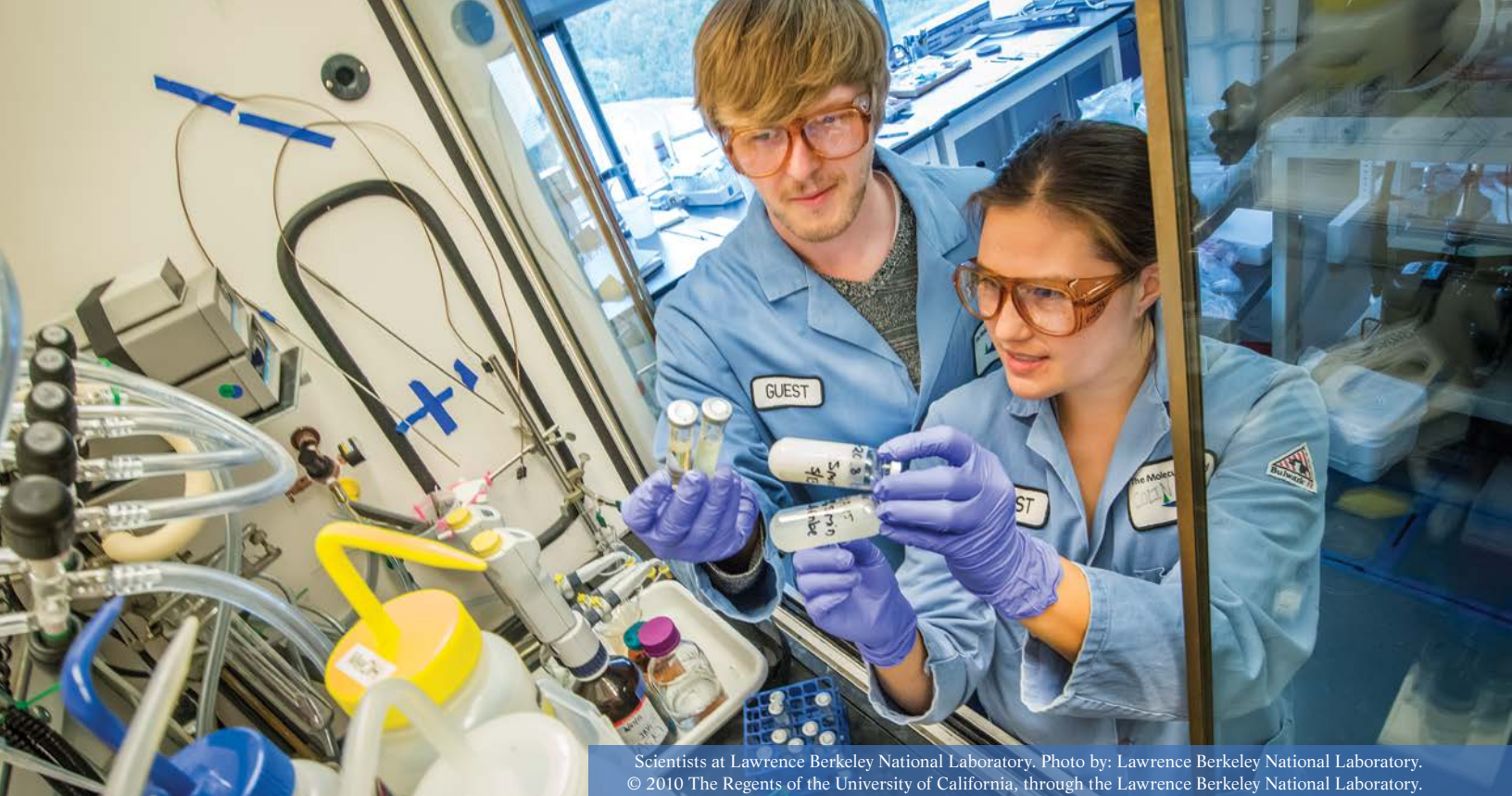
The supply constraints that have hindered the East Bay housing market in recent years are continuing to drive double-digit price appreciation in the East Bay. Though overall residential construction activity picked up over the last year, new housing construction remains well below its historical pace and has done little to curb the low inventory of homes for sale in the East Bay.

The 2018-19 East Bay Economic Outlook report that follows examines the recent performance of the East Bay economy by focusing on trends in Employment, Business Activity, Investments, Commercial and Residential Real Estate, Demographics and local Quality of Life.

Key highlights from this report include:

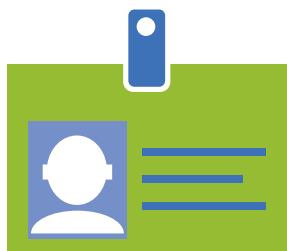
- Recent revised estimates show that employment growth in 2017 was much better than previously reported. Nonfarm jobs from December 2016 to December 2017 grew by 1.9%, rather than by the 1.1% originally estimated. More recently, East Bay nonfarm employment grew by 1.7% (19,200 jobs) from March 2017 to March 2018, outpacing the 1.5% growth for the nation during the same period.
- In 2016, roughly one-third of workers (33.7%) in the East Bay commuted out of the area each day, with San Francisco County and Santa Clara County as the most popular destinations.
- East Bay spending activity posted another strong year of growth in 2017, as evidenced by taxable sales reaching a record \$48.9 billion. This represents a 4.4% increase in spending over 2016 — a much higher growth rate compared to both San Francisco and the South Bay, which saw taxable sales grow by 2.3% and 2.1%, respectively, during this same period.
- Venture capital funding reached \$2.4 billion for 2017 – a new record. This represented an 8.5% increase over 2016, and extended the three-year trend of total annual funding exceeding the annual amounts during the dot.com bubble years. The total number of deals issued dropped, however, from 407 in 2016 to 329 in 2017.
- The commercial real estate market vacancy rates are continuing to remain near post-recession lows, while rents are on the rise and new stock is coming on line at a stable pace. As of the fourth quarter in 2017, the vacancy rate for retail stood at 6.6%, office came in at 14.1%, and warehouse vacancy hit a new post-recession low of 6.7%.
- With a limited number of houses coming on the market in 2017, coupled with the relative affordability of housing in the East Bay, price appreciation in the region continued at a double-digit pace in 2017. Price appreciation in Alameda County (13.1%) and Contra Costa County (12.6%) outpaced growth in San Francisco County (8.3%) from the fourth quarter of 2016 to the fourth quarter of 2017.

The region will continue to experience growth as it has one of the lowest unemployment rates in the state. Over the next year, Beacon Economics is forecasting total nonfarm employment in the East Bay to increase by about 1.7%, while the unemployment rate is expected to edge down further from its current levels. The East Bay's relative home affordability advantage compared to neighboring counties continues to drive local demand. Beacon Economics expects the East Bay's median home price to continue increasing throughout 2018, rising in the range of 5% to 9% over the coming year.



Scientists at Lawrence Berkeley National Laboratory. Photo by: Lawrence Berkeley National Laboratory.
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EAST BAY EMPLOYMENT



OVERVIEW

THE EAST BAY'S LABOR MARKET continues to post steady gains and is poised for further growth in 2018 and 2019. Despite posting minor job losses from February 2018 to March 2018, East Bay nonfarm employment grew by 1.7% (19,200 jobs) from March 2017 to March 2018, outpacing the 1.5% growth in the nation during the same period. Although this is slightly behind the state overall (1.9%), and the continued extraordinary growth in San Jose (2.6%), the East Bay surpassed the San Francisco Metropolitan Division (MD).

Along with the solid growth to start 2018, recent revised estimates show that the East Bay's growth in 2017 was much better than previously reported.

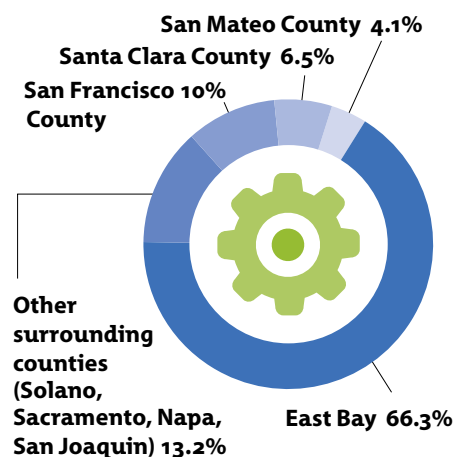
Fastest-growing sectors:

Construction (7.2%)
Transportation, Warehouse, and
Utilities (4.5%)
Manufacturing (3.4%)

Employment grew by 1.7% (19,200 jobs)

The East Bay outpaced the 1.5% growth in the nation during the same period.

Place of work for East Bay Residents



Unemployment rate – 3.0%

East Bay unemployment fares better than the 4.3% state unemployment rate.

Nonfarm jobs from December 2016 to December 2017 grew by 1.9%, rather than by the 1.1% originally estimated by the State's Employment Development Department (EDD).

The East Bay's unemployment rate fell to 3.0% in March 2018, compared with 4.3% in the state of California. Over the last year, the Construction sector (+5,100 jobs), Health Care (+3,800 jobs), Professional, Scientific, and Technical Services (+3,200), and Manufacturing (+3,200) sectors led in absolute jobs gains. The East Bay's Construction sector has led in percentage gains, increasing payrolls by 5.1% from March 2017 to March 2018 and outpacing every other major industry. From March 2016 to March 2018, this sector has grown by a sizeable 13.9%. This is a welcome sign for the region, indicating an agreement between public policy and market conditions. With the East Bay's labor market continuing to tighten, the labor force will need to expand at a faster rate to sustain the payroll growth rate experienced in recent years. New housing stock will also be necessary for both existing and new workers if the East Bay is to grow and attract new residents in the years to come.

Overall, the East Bay is poised for steady growth, and Beacon Economics forecasts a payroll employment increase of 1.7% during 2018.

LABOR MARKETS

Employment in the East Bay increased at a faster pace than the nation as a

whole and in many other urban areas. Employment growth in the East Bay outpaced Miami; Washington, D.C.; Los Angeles; New York City; Chicago; and Boston, among others. From March 2017 to March 2018, nonfarm employment in the East Bay grew by 1.7% (19,200 jobs), outpacing the 1.5% growth in the nation over the same period. Job growth in the East Bay outpaced San Francisco (MD) (1.6%), and fell short of San Jose (2.6%) and the state overall (1.9%) over the same period.

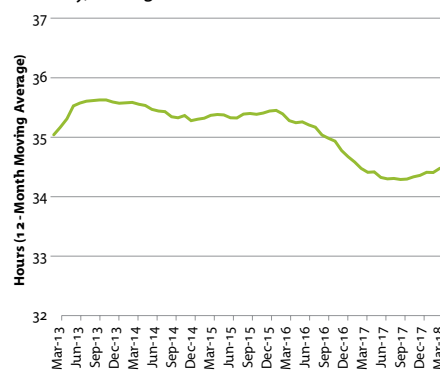
The East Bay's 3.0% unemployment rate in March 2018 is well below the rate in the nation (4.1%) and the state overall (4.3%) but higher than in the tight labor markets in San Francisco (2.3%) and San Jose (2.7%). Still, as unemployment has fallen in the East Bay, growth in the labor force has slowed significantly, growing by just 200 over the past year.¹ With the East Bay's labor market continuing to tighten, the labor force will need to expand at a faster rate in order to sustain the payroll growth rate experienced in recent years.

The average work week in the East Bay was 34.5 hours in March 2018 on a seasonally adjusted basis, a slight increase from 34.4 hours in March 2017. Furthermore, a smaller share of workers are working part-time positions because of a more robust economy. The number of those employed part time has steadily declined across the state, falling by a significant 14.7% from March 2017 to March 2018.

Growth in the East Bay's nonfarm jobs from December 2016 to December 2017 went from an estimated 1.1%

Average Weekly Hours

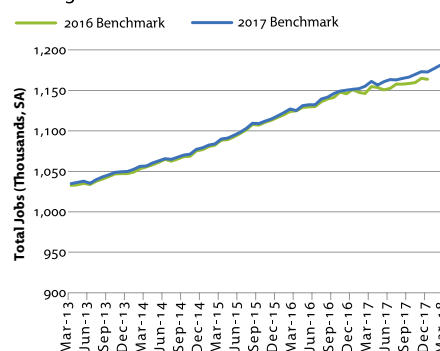
East Bay, Mar-13 -Mar-18



Source: U.S. Bureau of Labor Statistics

East Bay Payroll Employment

Mar-13 -Mar-18



Source: CA Employment Development Department
Note: SA stands for Seasonally Adjusted

¹ Labor Force: the sum of civilian employment and civilian unemployment. Civilians, as defined, are age 16 years or older, not members of the Armed Services, and are not in institutions such as prisons, mental hospitals, or nursing homes.

EAST BAY EMPLOYMENT



Praxair, a welding and industrial gases distributor. Photo by: City of Pittsburgh.

to 1.9%. That translates into an additional 8,500 new jobs across nonfarm employment sectors and puts the East Bay well ahead of the 1.5% growth in the nation overall over the same period.

Employment gains have been seen across a broad range of sectors in the East Bay in recent years, and the region is creating jobs on both ends of the wage spectrum. Some of the fastest-growing sectors over the last year have been Construction (7.2%), Transportation, Warehouse, and Utilities (4.5%), and Manufacturing (3.4%). Construction sector payrolls have expanded by 13.9% since March 2016, making it the fastest growing major sector over this period and reaffirming the observation

that developers are capitalizing on residential and commercial development opportunities in the area. However, building more housing, including affordable housing units, will be necessary to help offset the affordability issues many households and potential residents are facing throughout the region and state.

High-skilled sectors such as Professional, Scientific, and Technical Services (3.4%) also posted significant growth. Meanwhile, the East Bay's largest sector, Government, remained largely unchanged, growing by just 0.5%.

Construction led in absolute job gains, increasing payrolls by

Construction sector payrolls have expanded by 13.9% since March 2016, making it the fastest growing major sector over this period.

East Bay Payroll Employment Growth by Industry

	March 2018 (thousands)	% Change	
		1 yr.	2 yr.
Total Nonfarm	1,180.3	1.7	4.9
Total Private	1,004.5	1.9	5.4
Natural Resources and Mining	0.4	34.1	34.6
Construction	75.7	7.2	13.9
Transportation, Warehouse, and Utilities	41.8	4.5	10.1
Manufacturing	97.7	3.4	8.2
Professional, Scientific and Technical Services	98.5	3.4	5.1
Health Care	172.0	2.2	7.1
Administrative Support	68.8	1.8	8.7
Educational Services	23.8	1.6	4.2
Management	22.9	1.3	1.2
Retail Trade	116.2	0.6	1.5
Government	175.8	0.5	2.1
Information	26.6	0.3	1.7
Leisure and Hospitality	114.7	0.2	4.1
Wholesale Trade	49.3	0.2	1.8
Financial Activities	57.3	-1.2	1.2
Other Services	38.8	-2.6	0.0

Source: CA Employment Development Department

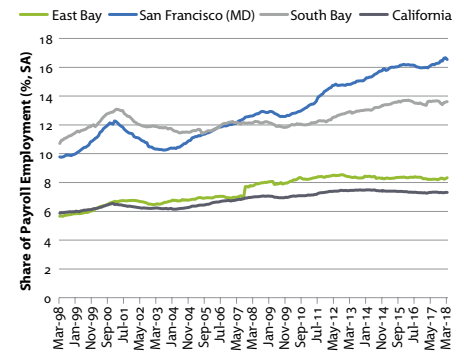
5,100 from March 2017 to March 2018. Health Care (3,800 jobs), Professional, Scientific, and Technical Services (3,200), and Manufacturing (3,200 jobs) followed.

High-tech jobs remain a strong presence in the East Bay. The Computer and Electronic Product Manufacturing sector was a significant source of new jobs, generating 500 new positions from March 2017 to March 2018 and demand for skilled workers extends beyond electronic manufacturing jobs. Computer Systems Design and Architectural and Engineering Services created a combined total of 1,100 jobs in the East Bay last year.

INDUSTRY CONCENTRATION AND FIRM SIZE

In assessing job numbers, it is helpful to note that the industrial composition of the economy in the East Bay is noticeably different from San Jose's and San Francisco's. The latter has a higher share of payroll jobs in Professional, Scientific, and Technical Services and Tourism/Leisure and Hospitality, and San Jose is more concentrated in Professional, Scientific, and Technical Services and Manufacturing. The East Bay is more concentrated in Retail Trade, Health Care, Government, and Construction, which are largely inward-facing industries that serve the local population. However, it is worth noting that, outside the Bay Area,

Share of Payroll Employment, Mar-98 - Mar-18



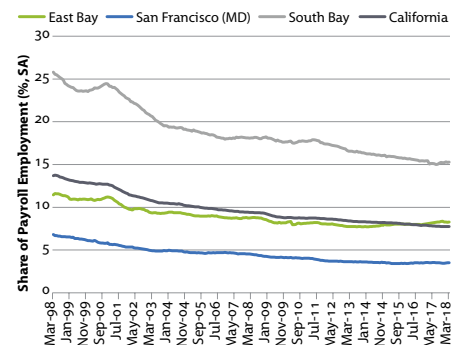
Share of Total Payroll Employment by Industry

	East Bay		San Francisco		San Jose		California	
	2018 (%)	1998 (%)	2018 (%)	1998 (%)	2018 (%)	1998 (%)	2018 (%)	1998 (%)
Government	14.9	17.2	11.5	12.1	8.6	9.5	15.1	15.8
Health Care	14.6	10.3	9.8	8.1	11.2	6.4	13.6	8.9
Retail Trade	9.8	11.0	7.1	8.7	7.7	8.9	10.0	10.8
Leisure and Hospitality	9.7	7.1	12.5	11.2	9.2	6.8	11.7	9.3
Manufacturing	8.3	11.4	3.5	6.8	15.3	25.8	7.8	13.7
Professional, Scientific and Technical Services	8.3	5.7	16.5	9.8	13.6	10.7	7.3	5.9
Construction	6.4	5.1	3.5	3.6	4.5	4.2	5.0	4.4
Administrative Support	5.8	6.9	5.7	6.3	5.8	7.5	6.6	6.7
Financial Activities	4.9	4.6	7.1	9.7	3.3	3.5	4.9	5.7
Wholesale Trade	4.2	5.1	2.5	3.6	3.2	4.5	4.3	4.5
Transportation, Warehouse, Utilities	3.5	4.2	4.4	6.5	1.3	1.8	3.8	3.7
Other Services	3.3	3.2	3.5	4.0	2.5	2.8	3.3	3.4
Information	2.3	3.6	7.1	4.0	8.1	3.1	3.1	3.5
Educational Services	2.0	1.4	2.5	2.1	4.3	2.5	2.2	1.5
Management	1.9	3.0	2.7	3.4	1.3	2.1	1.4	2.1
Natural Resources/Mining	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.2

Source: CA Employment Development Department

Manufacturing Employment

Share of Payroll Employment, Mar-98 - Mar-18



Over the last 20 years...the East Bay region has seen growth in Professional, Scientific, and Technical Services jobs, with 2.6 percent more of those jobs in the East Bay today than 20 years ago. This outpaces California as a whole.

the East Bay leads the state in both Professional, Scientific and Technical Services as well as Manufacturing.

The East Bay's job structure has been changing over time. Over the last 20 years, encompassing the dot-com collapse and the Great Recession, the East Bay region has seen growth in Professional, Scientific, and Technical Services jobs, with 2.6 percent more of those jobs in the East Bay today than 20 years ago. This outpaces California as a whole, which saw shares rise by 1.4 percentage points over the same period.

The East Bay's Manufacturing sector has also been somewhat more resilient over the last 20 years, with its share of total employment falling by 3.1 percent relative to California's -5.9 percent, San Francisco's -5.3 percent, and San Jose's -10.5 percent. The recent uptick in employment levels over the last year also suggests the sector is on the upswing. It appears the East Bay is becoming a higher-skilled labor market more quickly than the rest of the state, while losing fewer of its mid-skilled jobs.

Place of Work for East Bay Residents

County of Work	Employed Residents 2016	2016 Share (%)
East Bay	925,426	66.3
Other	183,629	13.2
San Francisco	139,922	10.0
Santa Clara	90,545	6.5
San Mateo	56,612	4.1
Total	1,396,134	100.0

Source: U.S. Census Bureau, American Community Survey

COMMUTE PATTERNS

A significant portion of East Bay residents commute outside of the East Bay for work each day. San Francisco County (10.0%) and Santa Clara County (6.5%) remain the most popular destinations, accounting for nearly half of the overall outbound commuters (33.7%) in 2016, which is the most recent data available.

As the economic expansion in the East Bay has continued, the share of residents who commute outside the East Bay for work has grown. This trend is most pronounced among East Bay residents who work in San Francisco County. From 2011 to 2016, the share of East Bay residents commuting to San Francisco County has increased by just over three percent. San Mateo has also begun to attract a larger share of East Bay residents, with the share of East Bay residents commuting to San Mateo County growing by 0.9 percent during this time period. In contrast to the more sizeable gains in San Francisco County and San Mateo County, the share of East Bay residents commuting to Santa Clara County has grown by merely 0.1 percent over the same period. In order to keep up with demand, the Bay Area Rapid Transit (BART) continues to expand services, but the continued increase in traffic and commuters is straining local infrastructure.

Outbound commuters tend to be some of the highest-skilled residents of the East Bay. Information (50.3%), Professional, Scientific, and Technical Services (49.7%), and Construction (45.1%). Clearly, many Bay Area residents are taking advantage of affordable housing and the high

quality of life in the East Bay while commuting to nearby counties for jobs. As mentioned earlier, this puts a strain on the region's infrastructure, but the East Bay benefits from these commuters over the short run through increased purchasing

power in the local economy. More importantly, over the longer term, these outbound commuters represent a significant local asset that can be leveraged for a variety of economic development efforts.

East Bay Residents Commute Pattern Shares (2011-2016)

County of Work	Share (%)					
	2011	2012	2013	2014	2015	2016
East Bay	70.6	69.5	68.2	68.2	66.9	66.3
San Francisco	10.5	11.0	11.5	12.3	12.9	13.2
Other	9.3	8.8	9.9	9.7	10.3	10.0
Santa Clara	6.4	7.2	6.8	6.0	6.7	6.5
San Mateo	3.2	3.5	3.6	3.8	3.3	4.1

Source: CA Employment Development Department



Platform at Dublin/Pleasanton BART.

Photo by: City of Dublin.

Place of Work for East Bay Residents by Industry (2016)

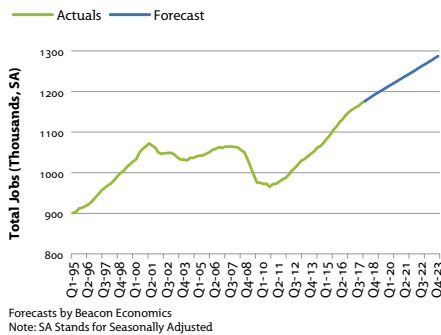
	East Bay		San Francisco		San Mateo		Santa Clara		Other	
	Share (%)	Number	Share (%)	Number	Share (%)	Number	Share (%)	Number	Share (%)	Number
Real Estate	80.9	24,558	10.5	3,178	3.0	900	3.3	1,007	2.4	714
Government	74.8	138,615	10.3	19,179	2.6	4,780	3.9	7,264	8.4	15,528
Management	74.6	1,618	14.2	307	2.5	54	8.8	190	0.0	0
Retail Trade	73.5	99,007	10.4	14,072	2.7	3,644	3.5	4,770	9.8	13,237
Art & Entertainment	73.1	19,480	14.8	3,934	2.8	737	5.2	1,374	4.2	1,127
Educational Services	72.7	37,164	11.2	5,730	1.3	686	4.6	2,349	10.1	5,177
Health Care	72.7	110,923	9.8	14,941	2.4	3,722	3.9	6,011	11.2	17,048
Wholesale Trade	72.0	24,205	9.3	3,119	2.6	864	7.1	2,379	9.1	3,069
Accommodations	70.8	69,365	13.8	13,485	3.3	3,229	2.9	2,845	9.3	9,102
Other Services	70.3	50,200	10.2	7,266	2.8	1,966	2.0	1,427	14.7	10,511
Administrative Support	66.3	42,542	12.4	7,934	4.1	2,630	5.4	3,493	11.8	7,591
Transport/Warehouse	64.2	28,744	11.0	4,928	8.9	4,005	3.2	1,429	12.7	5,694
Utilities	63.2	5,310	19.6	1,650	6.4	539	5.7	479	5.1	426
Finance & Insurance	62.4	42,908	22.9	15,766	5.6	3,865	3.8	2,636	5.2	3,545
Manufacturing	62.4	70,631	4.7	5,344	5.2	5,905	17.7	20,022	10.0	11,276
Natural Resource/Mining	60.3	2,670	17.1	756	9.4	414	0.0	0	13.2	585
Construction	54.9	43,117	16.1	12,625	7.2	5,666	9.0	7,096	12.8	10,012
Professional, Scientific and Technical Services	50.3	92,433	21.5	39,578	4.9	8,924	10.7	19,628	12.6	23,184
Information	49.7	21,936	22.3	9,837	9.3	4,082	13.9	6,146	4.8	2,096
Total	66.3	925,426	10.0	139,922	4.1	56,612	6.5	90,545	13.2	183,629

Source: U.S. Census Bureau, American Community Survey

EAST BAY EMPLOYMENT

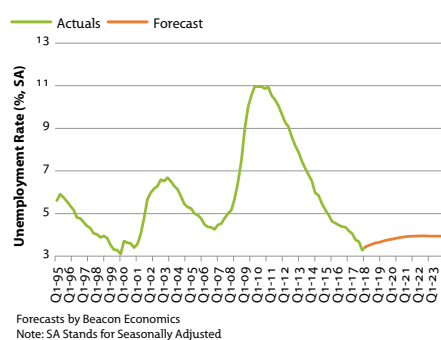
Payroll Employment Forecast

East Bay, Q1-95 to Q4-23



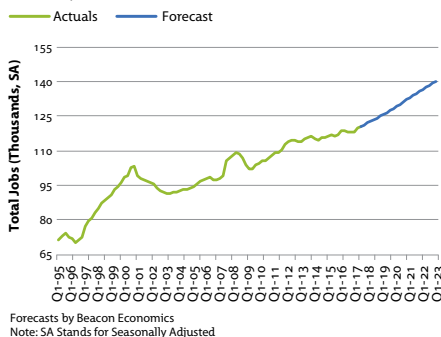
Unemployment Rate Forecast

East Bay, Q1-95 to Q4-23



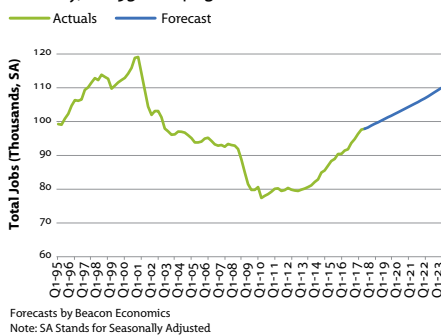
Mgmt. and Pro. Employment Forecast

East Bay, Q1-95 to Q4-23



Manufacturing Employment Forecast

East Bay, Q1-95 to Q4-23



Although numerous residents commute each day, there is a high level of self-containment for certain industries in the East Bay. For example, 80.9% of East Bay residents employed in Real Estate work primarily in the East Bay. Local residents account for 74.8% of workers in Government, 74.6% of workers in Management, and 73.5% with local jobs in Retail Trade.

DEMOGRAPHICS AND UNEMPLOYMENT

The unemployment rate for East Bay residents with a bachelor's degree or higher was 3.2% in 2016, the latest data available, compared with 5.5% for residents with only a high school diploma. These unemployment rates are lower than the statewide average across the majority of education levels. Furthermore, recent numbers from California's Employment Development Department suggest that the region's unemployment rates are continuing to decline.

In 2016, the unemployment rate for East Bay residents younger than 25 remained elevated (10.8%), but it was lower than the unemployment rate for the same age range in the state overall (14.6%). Young professionals in the East Bay were also ahead of their peers in other parts of the state, with the unemployment rate for residents 25 to 34 years of age at 5.3% in the East Bay, compared with 6.4% in the state overall.

East Bay Unemployment by Age (2016)

Age	Unemployment Rate
Under 25	10.8%
25 to 34	5.3%
35 to 44	3.9%
45 to 54	3.4%
55 to 64	4.7%
Over 65	5.4%

Source: U.S. Census Bureau, American Community Survey

East Bay Unemployment by Education (2016) (Residents 25 and Older)

Educational Attainment	Unemployment Rate
Less Than High School	5.3%
High School Graduate	5.5%
Some College	5.2%
Bachelor's Degree or higher	3.2%

Source: U.S. Census Bureau, American Community Survey

LABOR MARKET FORECAST

Beacon Economics forecasts that East Bay payroll employment will continue to grow at more than 1.7% through the end of 2018. With these gains, the unemployment rate in the East Bay is expected to remain below 4.0%, which is in line with the historical norms experienced before the Great Recession.

These gains are expected to continue in the long run. The region continues to attract new employees from other parts of the Bay Area and from all over the world. However, this growth

East Bay Employment Forecast, Q1-18 to Q4-22 by Industry

	Q1-17	Q1-18	Q1-19	Q4-21	Q1-17 to Q4-21 Change (%)
Total Nonfarm	1,176.7	1,197.1	1,215.5	1,268.0	7.8
Unemployment Rate	3.4	3.7	3.8	3.9	N/A
Government	175.9	178.4	180.3	182.8	3.9
Education/Health	195.0	199.3	203.5	215.6	10.6
Management/Professional	120.6	123.4	126.7	136.6	13.3
Retail Trade	115.6	115.6	115.5	115.0	-0.5
Leisure/Hospitality	116.2	118.3	120.1	125.5	8.0
Manufacturing	97.9	99.8	101.8	107.5	9.8
Construction	73.3	75.9	76.9	81.4	11.1
Administrative Support	65.9	65.3	65.2	65.8	-0.2
Financial Activities	57.2	57.4	58.5	62.9	10.0
Wholesale Trade	49.6	51.0	52.2	54.5	9.9
Other Services	40.3	40.9	41.5	43.1	6.9
Transportation/ Warehouse/ Utilities	42.0	43.6	44.5	46.7	11.2
Information	26.8	27.8	28.6	30.1	12.3
Natural Resources/Mining	0.4	0.4	0.4	0.5	25.0

Source: CA Employment Development Department

The unemployment rate in the East Bay is expected to remain below 4.0%.

is built on the assumption that new residential development will continue at current levels.

Payrolls are expected to grow by 7.8% (91,300 jobs) from 2018 to 2022. Perhaps more importantly, high-wage sectors are expected to be at the forefront of this growth, with Management and Professional Services expected to grow by 13.3% (16,000 jobs) during that period.



Downtown Walnut Creek. Photo by: City of Walnut Creek.

EAST BAY BUSINESS ACTIVITY



OVERVIEW

FROM 2016 TO 2017, the East Bay performed exceedingly well in terms of spending activity. Taxable sales and receipts data demonstrate significant

growth across the year, an indication of increased business and consumer spending activity. Tourism activity also increased during 2017, while hotels in the East Bay also finished off the year strong. Other indicators like personal income and international trade data also point toward growth and prosperity in the region.

9.3% increase in Building and Construction tax receipts

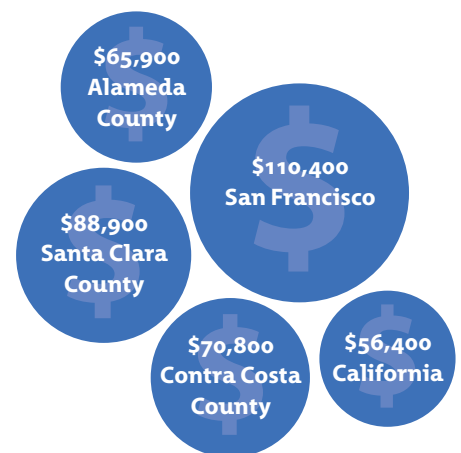
This reflects the rise in construction spending on residential and commercial units permitted in recent years.

1.1 million passengers traveled through Oakland International Airport (OAK)

A 7.1% increase in passenger traffic from November 2016.

Personal income

(Avg. total compensation per year)



\$48.9 billion in taxable sales (2017)

This represents a 4.4% increase in spending over 2016 – more growth than San Francisco and the South Bay.

LOCAL SPENDING

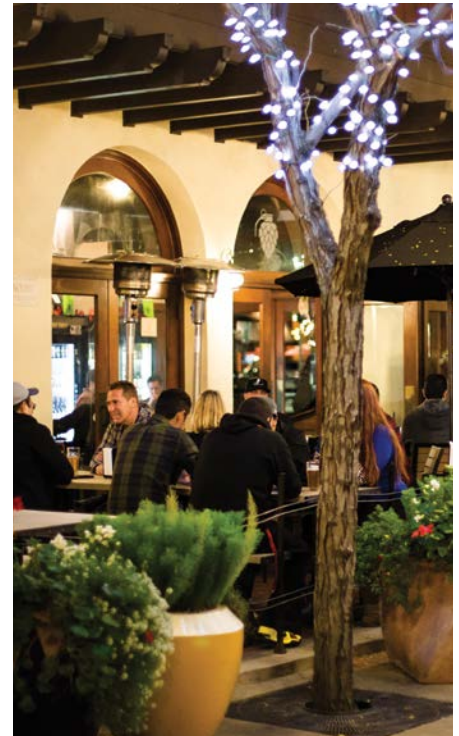
East Bay spending activity posted another strong year of growth in 2017, as evidenced by taxable sales reaching a record \$48.9 billion. This represents a 4.4% increase in spending over 2016 — a much higher growth rate compared to both San Francisco and the South Bay, which saw taxable sales grow by 2.3% and 2.1%, respectively, during this period. Part of this growth was also due to increases in sales tax rates in certain East Bay cities, with the highest rate of 9.75% in Alameda County and 9.25% in Contra Costa County. Tighter labor market conditions, rising wages and positive business and consumer sentiment are also responsible for increased activity.

The Town of Danville, with a tax rate of 8.25%, grew the most in terms of taxable sales during this time, increasing by 16.1%. While the Town of Danville's taxable sales base is lower than most East Bay cities, this is still a significant increase for their jurisdiction. Other fast-growing cities included Alameda (+ 13.6%), Fremont (+ 12.2%), and Pittsburg (+ 11.7%).

Berkeley saw the largest decrease in consumer spending during this time, falling by 4.1%, followed by Hercules (- 2.2%) and Hayward (- 0.2%).

The tax receipts data from HdL Companies shows that East Bay consumers and businesses ramped up spending in the Fuel and Service Stations category during 2017, as evidenced by a 13.3% increase over 2016. This sizeable increase reflects the rise in gas prices tied to global supply levels. Moreover, this spending category should continue to increase during 2018 in response to the new statewide gasoline tax increase, which went into effect in November 2017.¹

The Building and Construction category also posted strong growth, with a 9.3% increase during the year. This reflects the rise in construction spending on residential and commercial units permitted in recent years. The growth in the value of permits issued over the past year suggests construction activity will be continuing. Increased demand for East Bay housing has brought intensified attention to the need for building activity. In addition, the



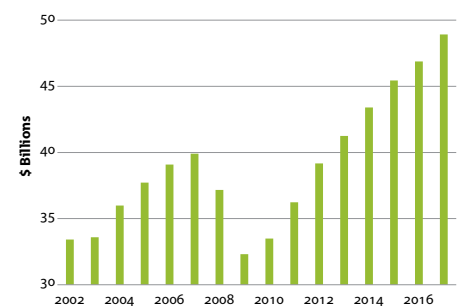
Customers at restaurant in downtown Concord. Photo by: City of Concord.

East Bay Tax Receipts, 2016 to 2017

Category	2016 (\$ Mil.)	2017 (\$ Mil.)	Change (%)
Fuel & Service Stations	31.9	36.1	13.3
Building & Construction	40.3	44.1	9.3
Autos & Transportation	81.8	86.6	5.9
Restaurants & Hotels	53.4	55.6	4.2
Food & Drugs	26.0	26.5	1.8
General Consumer Goods	94.3	94.9	0.7
Business & Industry	78.1	77.2	-1.1
Total	474.4	495.9	4.5

Source: HdL Companies

East Bay Taxable Sales 2002 to 2017



*Data are year-to-date through Q4 of each year.
Source: CA Board of Equalization, Analysis by Beacon Economics

¹ McGreevy, P. (2017, October 31). California's gas tax increases Wednesday, and the political fallout is likely to spill over into 2018 elections. *The Los Angeles Times*. Retrieved March 29, 2018, from <http://www.latimes.com/politics/la-pol-ca-gas-tax-increase-political-battle-20171031-story.html>

EAST BAY BUSINESS ACTIVITY



Antioch Marina. Photo by: City of Antioch.

Autos and Transportation as well as the Restaurants and Hotels categories had solid growth, as rising wages enabled consumers to spend more on leisurely activities and durable goods purchases. All this reflects the healthy state of the East Bay economy.

TOURISM & BUSINESS TRAVEL

Another vital sign trending in the right direction is East Bay tourism. Passenger traffic at Oakland International Airport (OAK) grew

East Bay Taxable Sales by City/Town, 2016 to 2017

City	2016 (\$ Mil.)	2017 (\$ Mil.)	Change (%)
Danville	428.6	497.5	16.1
Alameda	817.6	929.0	13.6
Fremont	4,100.8	4,600.3	12.2
Pittsburg	702.8	784.9	11.7
Union City	854.6	952.8	11.5
Richmond	1,290.8	1,438.1	11.4
Brentwood	676.2	744.9	10.2
Antioch	1,028.1	1,131.5	10.1
Livermore	2,507.1	2,718.5	8.4
Concord	2,815.6	3,052.4	8.4
Oakley	139.5	150.7	8.1
Oakland	4,459.6	4,797.0	7.6
San Pablo	186.7	200.5	7.4
Clayton	38.5	41.4	7.4
Albany	222.0	233.1	5.0
Pinole	320.5	336.1	4.8
Martinez	415.0	432.5	4.2
Newark	1,036.3	1,076.6	3.9
Moraga	88.1	91.4	3.8
Orinda	91.1	94.5	3.8
Pleasanton	2,054.2	2,113.7	2.9
San Leandro	2,540.1	2,610.2	2.8
Emeryville	768.8	788.7	2.6
Walnut Creek	2,044.2	2,090.8	2.3
Piedmont	15.4	15.8	2.0
Pleasant Hill	729.7	743.0	1.8
San Ramon	821.4	834.0	1.5
Dublin	1,756.8	1,771.5	0.8
Lafayette	262.4	263.9	0.6
El Cerrito	264.7	264.6	-0.1
Hayward	2,950.0	2,944.0	-0.2
Hercules	177.3	173.4	-2.2
Berkeley	1,628.2	1,562.1	-4.1
East Bay Total	46,883.1	48,922.8	4.4

Source: CA Board of Equalization

steadily over 2017, reaching a new high of over 1.1 million passengers in November 2017 — a 7.1% increase from November 2016. Over the past five years, OAK was the second-fastest growing airport for passenger traffic in the Bay Area, increasing by 35%. San Jose International (SJC) was the fastest growing, with passenger traffic growing by more than 60% during this period. San Francisco International (SFO) was the slowest growing airport in the region by comparison, increasing 32% during this period. Much of OAK's growth was due to increases in nonstop domestic flights and new international flight offerings.

With growing airport traffic, one would expect East Bay hotels to see a corresponding increase in performance, and indeed this was the case. From 2016 to 2017, the average daily room rate for East Bay hotels increased by 2.6% while occupancy rates held steady at about 80%. These improved conditions increased revenue per available room to about \$124 per room, an increase of 2% year over year. Although San Francisco and the South Bay had higher occupancy and room rates, the East Bay saw its average room rates increase the most, indicating traveler demand is increasing for the

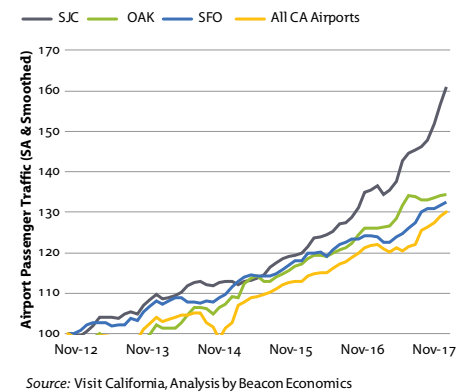
region. The East Bay's significant cost advantage should continue to draw more visitors to the East Bay for accommodations, and increase the region's occupancy rate.

PERSONAL INCOME

Growth in personal income is another sign of economic health in the East Bay. Personal income is defined by the Bureau of Economic Analysis (BEA) as the income received by all persons from all sources, including participation in the labor market, ownership of a home or business, and ownership of financial assets.² During 2016 (the latest available data), personal income in Alameda County reached an average of \$65,900 per year, while in Contra Costa County the average income was \$70,800 per year. In terms of rate of growth, personal income in Alameda County grew faster than personal income in other parts of the Bay Area, increasing by 4.8% during this time. By comparison, personal income in San Francisco grew by 4.2% and in Santa Clara County grew by 4.1%. At 4%, personal incomes did not grow as much in Contra Costa County compared to the rest of the Bay Area. Part of this growth is

Indexed Airport Traffic

Nov-12 to Nov-17



Bay Area Hotel Data

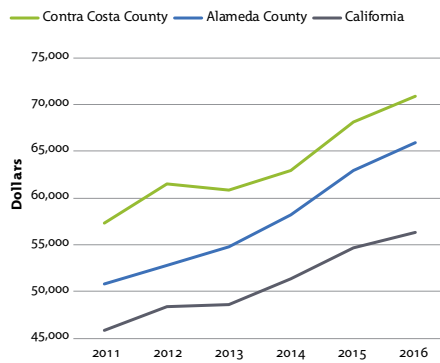
Region	Occupancy Rate (%)			Average Daily Room Rate (\$)			Revenue Per Available Room (\$)		
	2016	2017	Chg (%)	2016	2017	Chg (%)	2016	2017	Chg (%)
San Francisco	87.3	84.9	-2.7	275.28	271.03	-1.5	240.2	230.07	-4.2
South Bay	79.8	80.3	0.7	203.84	208.34	2.2	162.61	167.33	2.9
East Bay	80.0	79.6	-0.5	151.28	155.19	2.6	121.07	123.54	2.0

Source: PKF Consulting

2 https://www.bea.gov/newsreleases/regional/lapi/lapi_newsrelease.htm

Personal Income

East Bay, 2011 to 2016



Source: Bureau of Economic Analysis, Analysis by Beacon Economics

attributed to the implementation of new minimum wage requirements in various East Bay cities that exceed state benchmarks, such as Oakland, Emeryville, Richmond and El Cerrito. Because the impact of a minimum wage hike on a region's economy requires a careful analysis, more will be said on this matter as better data becomes available.

For comparison, annual personal income in California during 2016 was \$56,400, representing a 3% increase from 2015. For the United States, personal income was \$49,200 which equates to a 1.6% increase over the year. Clearly the East Bay is performing quite well compared to the state and nation. Much of the growth in Bay Area wages has to do with high-paying tech employers in the region. These jobs typically pay some of the highest salaries in the nation, causing the cost of living to rise in the area. In order to keep up with cost of living increases, employers are forced to offer higher wages to attract workers.

While basic living costs like rent, home ownership, child care, utilities, transportation, meals and entertainment are on the rise, the East Bay still represents a more affordable choice in the Bay Area. The key to keeping this affordability

advantage is maintaining a rate of residential construction activity that is in line with demand. With adequate supply, apartment and home prices will hold steady. Housing costs are often a household's biggest expense. Therefore, measures need to be taken to ensure East Bay residents are not overburdened by housing costs.

INTERNATIONAL TRADE

East Bay ports posted mixed results during 2017. For the Port of Oakland, exports remained stagnant for the first half of the year but saw strong growth in the second half. Overall, the Port of Oakland's export values reached \$19.7 billion, representing a 5% increase over 2016. Imports, on the other hand, fell by 5.1% during this time. In 2016, the Port of Richmond's exports grew by 39%, reaching \$1.5 billion. Their imports also grew by 13.3% during this time, totaling \$7.1 billion.

Top exports for the Port of Oakland were Meats, Industrial Machinery and Edible Fruits and Nuts; the latter which totaled \$5.6 billion — a 2.5% increase over 2016. The Port of Oakland's fastest growing export category was Dairy Products, which

Bay Area Personal Income, 2015 to 2016

County/Region	2015 Average (\$)	2016 Average (\$)	YOY Chg (%)
Alameda	62,900	65,900	4.8
Contra Costa	68,100	70,800	4.0
San Francisco	106,000	110,400	4.2
Santa Clara	85,400	88,900	4.1
California	54,700	56,400	3.1
United States	48,500	49,200	1.6

Source: BEA

Maritime Trade Activity, East Bay Ports, 2015-2016

Port	Total Export Values			Total Import Values		
	2016 (\$ Mil.)	2017 (\$ Mil.)	Chg (%)	2016 (\$ Mil.)	2017 (\$ Mil.)	Chg (%)
Port of Oakland	18,742.5	19,685.8	5.0	30,177.8	28,652.9	-5.1
Port of Richmond	1,113.7	1,546.4	38.9	6,242.1	7,071.4	13.3

Source: WISERTrade

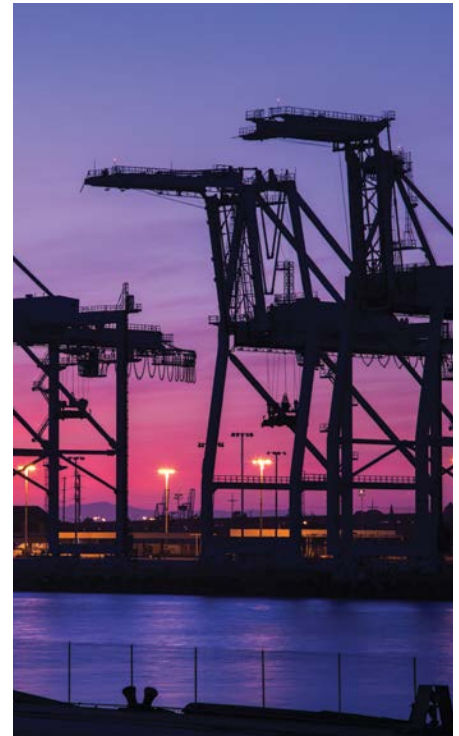
grew by nearly 31%, totaling \$632 million in 2017, and reflecting the slightly improved prices for milk over the year.

For the Port of Richmond, the top exports were Animal or Vegetable Fats, Iron and Steel and Mineral Fuel and Oil, with the latter remaining as the Port's top export during 2017. This export totaled \$1.4 billion during the year, representing a 53% increase over 2016. The City of Richmond is home to a major oil refinery, which, along with two other East Bay refiner accounts for oil making up the largest share of the port's exports. The current rate of use may change as clean technology goals and stricter emission standards incentivize the use of alternative energy products.

The impact on exports from possible Chinese tariffs, in response to proposed tariffs by the U.S. government, could be problematic for the East Bay. Many of these proposed tariffs focus on agriculture, beef, pork, whiskey and wine. Almonds are a top export product to Asia from the Port of Oakland. Furthermore, exports from the Livermore Valley wineries could be jeopardized by a 15% tariff placed specifically on wine.³ A 25% tariff was also

proposed on pork by the Chinese government. This could lead to a decline in pork exports, impacting the Port's "Cool Port" that is targeted for opening in September 2018, which would support the export of pork.⁴

As international political issues have surfaced, projections of future trade trends have become increasingly uncertain.



Port of Oakland. Photo by: Greg Linhares.

³ Daniels, J. (2018, April 03). China tariffs could help Australia gain share from US wine, nut and fruit producers. *CNBC*. Retrieved April 11, 2018, from <https://www.cnbc.com/2018/04/02/china-tariff-hit-for-us-agriculture-could-be-big-gain-for-australia.html>

⁴ Port of Oakland ag exports are up 42.7 percent in last four years. (2018, March 26). *Port of Oakland*. Retrieved April 11, 2018, from <https://www.portofoakland.com/seaport/port-oakland-ag-exports-42-7-percent-last-four-years/>



Downtown Oakland/Lake Merritt. Photo by: Greg Linhares.

EAST BAY INVESTMENT ACTIVITY



OVERVIEW

OVERALL, INVESTMENT ACTIVITY in the East Bay was mixed in 2017, with an increase in venture capital, but a decrease in government grant funding. Although there were fewer venture capital deals, total funding has increased, indicating

greater investment in maturing companies. This is important for the East Bay, as large venture capital deals typically go toward innovative businesses with high growth potential. The decrease in government grant funding was slight and is likely to change in the years ahead. Priorities for government funding often fluctuate and do not imply the East Bay is becoming less of a major entrepreneurial hub in the country.

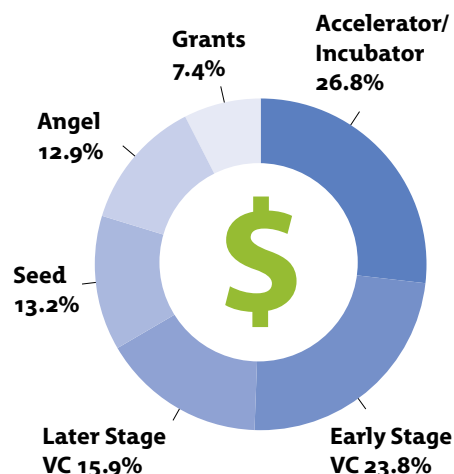
\$2.4 billion in VC funding

Venture capital (VC) funds invested in the East Bay totaled \$2.4 billion in 2017, an 8.5% increase over 2016.

43 deals for software firms

Software firms in the East Bay had the most venture capital deals in 2017 and biotech firms had 18 deals.

Deal type



Median VC deal was \$2.5 million

The median deal size increased from \$1.1 million in 2016 to \$2.5 million in 2017.

VENTURE CAPITAL

While venture capital may not be a huge element in the overall East Bay economy, it is a significant indicator for an economy that benefits from commercial innovation. Venture capital represents smart money bets on high risk investments with high payoff potential. Only a minority of these investments will succeed, but those that do will have a disproportionate impact on the economy and help provide the dynamic energy that is the hallmark of innovative, knowledge-based economies around the globe.

Venture capital trends in the East Bay were positive in 2017, with the total amount of funding reaching \$2.4 billion for the year – a new record. This represented an 8.5% increase over 2016, when total venture capital reached \$2.2 billion and extended the three-year trend of total annual funding exceeding the annual amounts during the dot.com bubble years (1997-2001). The total number of deals issued dropped, however,

from 407 in 2016 to 329 in all 2017. At the same time, the median deal size for 2017 increased from \$1.1 million to \$2.5 million, indicating strong investor interest in supporting the East Bay's pipeline of maturing companies.

The largest deal made in the East Bay during 2017 was valued at \$128.2 million and went to Kateeva, an inkjet printer equipment developer based in Newark. The company's technology is used to mass produce organic light emitting diodes (OLEDs) with tremendous speed and accuracy. Arcus Biosciences, a cancer immunotherapies developer based in Hayward, raised \$107 million in funding. Another biotech firm, Emeryville's Gritstone Oncology, a company focused on directing the patient's own immune system to attack tumors, raised \$93 million in September 2017. Altogether, biotech firms commanded 18 deals in the East Bay during 2017 — the second highest number of deals behind software companies (43 deals).



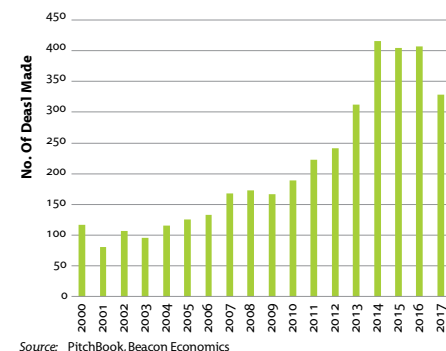
Saildrone fleet collecting data in Alameda.
Photo by: Saildrone.

Recent Venture Capital Deals by Company

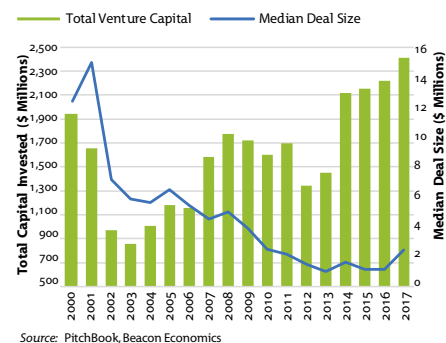
Company	Deal Size (\$ Mil.)	Deal Date	Primary Industry Code	HQ Location
Kateeva	128.2	17-Jan	Electronics (B2C)	Newark, CA
Arcus Biosciences (RCUS)	107.0	17-Nov	Biotechnology	Hayward, CA
Gritstone Oncology	93.0	17-Sep	Biotechnology	Emeryville, CA
Renew Financial	89.7	17-Mar	Specialized Finance	Oakland, CA
ShockWave Medical	80.0	17-Oct	Therapeutic Devices	Fremont, CA
YapStone	71.3	17-Dec	Financial Software	Walnut Creek, CA
Solar Mosaic	65.0	17-Sep	Consumer Finance	Oakland, CA
Kinestral Technologies	65.0	17-Oct	Building Products	Hayward, CA
Saildrone	60.0	17-Nov	Other Commercial Products	Alameda, CA
Intuity Medical	55.0	17-Jan	Monitoring Equipment	Fremont, CA

Source: PitchBook, Analysis by Beacon Economics

Venture Capital Deals East Bay, 2000 to 2017



Venture Capital Invested East Bay, 2000 to 2017



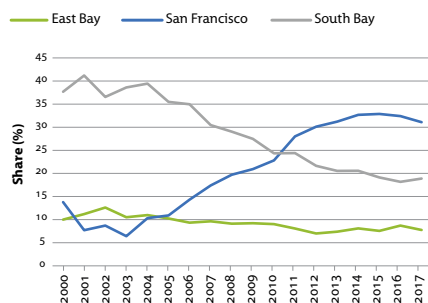
EAST BAY INVESTMENT ACTIVITY

Share of Venture Capital Funding by Industry Vertical

Industry Vertical	Share of VC Funding	Change from 2016 (%)
Life Sciences	25.1	-5.0
Oncology	16.6	1.3
CleanTech	16.2	-1.4
Software as a Service	14.8	-3.0
Manufacturing	13.4	5.9
Mobile	12.4	3.4
FinTech	12.4	-3.0
Robotics and Drones	9.0	7.9
Internet of Things	6.7	3.5
Artificial Intelligence & Machine Learning	6.1	0.3

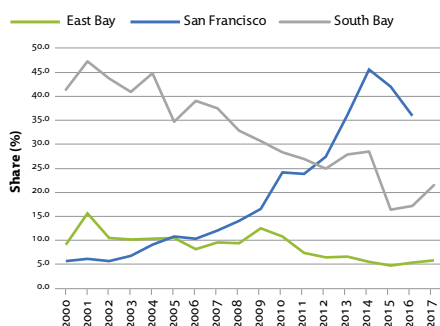
Source: PitchBook, Analysis by Beacon Economics

Share of California VC Deals by Region 2000-2017



Source: PitchBook, Beacon Economics

Share of California Capital by Region 2000 - 2017



On a more granular level, an industry vertical to see the largest share of funding during 2017 was the Life Sciences group, at 25% of all East Bay capital. However, this represents a five percentage point drop from 2016, a sign that investors may be taking an intermittent break from investing in these types of businesses. Companies in the Oncology category (companies focused on preventing, diagnosing and treating cancer) commanded the second largest share of funding, at nearly 17% — a 1.3 percentage point gain from 2016.

The category seeing the largest gain in share size was Robotics and Drones, which increased by nearly 8 percentage points from 2016 to 2017. This was in large part due to major deals for Saildrone and 3DR. Saildrone, an Alameda-based maker of sailing drones that collect ocean data, received \$60 million in early stage funding in November 2017. Based in Berkeley, 3DR received \$53 million in late stage funding for its land surveying drones.

In terms of deal type, at nearly 27%, the largest share of venture capital deals during 2017 went to the Accelerator and Incubator category. This represents a five percentage point drop from 2016 when deals in

this category made up about 32% of deals. At the same time, however, the category to see the largest increase in venture capital deal share was Early Stage investments, which are companies with a promising idea but little revenue. In 2017, these deal types made up nearly 24% of all deals, representing a 5.2 percentage point increase from 2016. Later Stage funding, which is the last stage of funding before investors exit a deal, increased its share by 1.4 percentage points — making up 16% of all capital invested in 2017.

The East Bay's share of all California venture capital deals fell slightly from 2016 to 2017, going from 8.7% to 7.8%. However, this is largely in line with the region's long run trend, so this is not a drastic shift. Conversely, the East Bay's share of all venture capital funding ticked up by 0.4 percentage points during this time, equating to 5.8% of all capital issued in California.

Venture Capital by Deal Type

Deal Type	Deal Share (%)	Median Invested (\$ Mil.)	Change in Deal Share (%) 2016-2017
Accelerator/Incubator	26.8	0.08	-4.7
Angel	12.9	0.88	-0.1
Seed	13.2	1.77	-1.3
Early Stage VC	23.8	7.70	5.2
Later Stage VC	15.9	15.67	1.4
Grants	7.4	0.21	-0.4
All	100.0	2.09	-

Source: PitchBook, Analysis by Beacon Economics

GRANTS

East Bay government grant funding fell by 1.4% from 2016 to 2017, totaling \$972.3 million in the latter year. The top cities for grant funding were Berkeley and Oakland, which together accounted for 82% of all East Bay grants in 2017. Government grants were distributed by entities such as the U.S. Department of Transportation, the National Science Foundation and the U.S. Department of Health and Human Services. These grants fund critical infrastructure like the ports, local education systems and hospitals.

Major funding was granted by the Department of Energy to the Joint BioEnergy Institute, which is led by the Lawrence Berkeley National Laboratory at the University of California, Berkeley.¹ Along with three other bioenergy research centers, Berkeley Lab will put \$40 million in funding toward research into carbon-neutral biofuels during the 2018 fiscal year.

Although most East Bay cities do not receive as much government grant funding as Berkeley or Oakland, some cities saw significant increases from 2016 to 2017. For instance, Hayward received \$43 million in grants in 2017, which equates to a 138% increase over 2016. Likewise, the City of Emeryville experienced more than a 600% increase in funding during this same time, obtaining just over \$9 million. Other cities, such as Alameda, San Leandro and Newark, saw their grant funding fall.

Because many of the cities in the East Bay have designated themselves

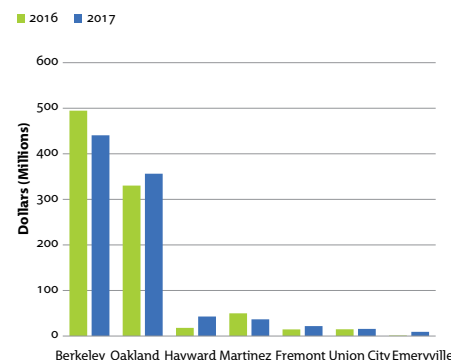
East Bay Government Grants by City/Town Recipient, Annual Totals

City	2016 (\$ Mil.)	2017 (\$ Mil.)	Change (%)
Berkeley	494.9	440.8	-10.9
Oakland	330.3	356.3	7.9
Hayward	18.0	42.9	137.9
Martinez	49.9	36.9	-26.0
Fremont	14.8	22.1	49.1
Union City	15.0	15.7	4.8
Emeryville	1.3	9.2	601.6
Livermore	9.6	8.1	-15.8
Richmond	6.7	7.6	13.1
Pleasanton	2.7	6.9	152.6
Concord	5.6	6.1	7.7
Alameda	5.9	3.2	-46.3
Pleasant Hill	1.2	2.9	136.7
Moraga	3.9	2.7	-30.6
San Leandro	12.0	2.6	-78.1
Walnut Creek	1.9	1.6	-18.6
Lafayette	0.0	1.0	-
Pittsburg	0.9	1.0	10.6
San Pablo	1.7	1.0	-44.4
Newark	2.4	0.7	-70.6
Other East Bay Cities	7.1	3.1	-56.1
Total East Bay	986.0	972.3	-1.4

Source: USAspending.gov

as “sanctuary cities,” (cities that protect low-priority undocumented immigrants and/or do not comply with federal immigration authorities), the threat of losing crucial federal funding is real. These “sanctuary cities” could see police enforcement, affordable housing and other important services negatively impacted if the federal government blocks allocated funding. More will be said on the matter if official laws are put in place.

Government Grant Recipients East Bay Cities, 2016-17



¹ DOE Renews Funding for Joint BioEnergy Institute at Berkeley Lab | Berkeley Lab. (2017, July 17). Retrieved from <http://newscenter.lbl.gov/2017/07/17/doe-renews-jbei-funding/>



Reviewing architectural drawings in Town of Danville. Photo by: Paige Green.

EAST BAY COMMERCIAL REAL ESTATE



OVERVIEW

THE COMMERCIAL REAL ESTATE MARKET in the East Bay continued to grow steadily in 2017. Vacancy rates are continuing to remain near post-recession lows, rents are on the rise, and new stock is coming online at a stable pace. Although growth is anticipated to be more modest compared to recent years, 2018 should be another solid year for the commercial real estate market in the East Bay.

Commercial real estate in the East Bay remains relatively affordable. As the economic expansion in the overall Bay Area economy continues, the East Bay has greatly benefited from its own internal growth, as well as from the growth happening in the tech-heavy centers in San Francisco and the South Bay.

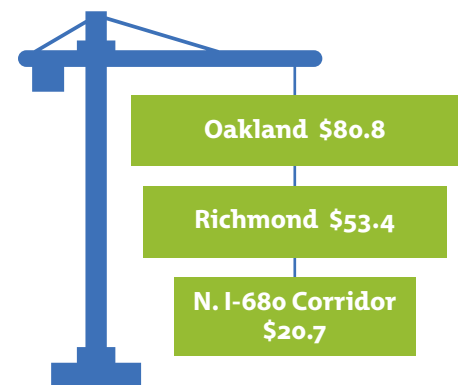
14.1% office vacancy rate

Vacancy rates for office space are up 0.5 percentage points from the fourth quarter of 2016.

\$211.8 million in retail construction permits

Although a 0.3% decrease over 2016 values, it still remained near new post-recession high.

Highest Retail Permit Valuation (in millions)



\$128.9 million in office construction permits

Up from \$117.4 million in 2016 – permitting levels have now surpassed the pre-recession peak of \$123.2 million in 2008.

Rent Discounts in the East Bay Relative to San Francisco and the South Bay

Property Type	Property Class	East Bay Avg. Rent in Q4-2017 (\$ per sq. ft. per year)	Discount from San Francisco (%)	Discount from the South Bay (%)
Office	Total	32.49	45.8	24.8
Office	A	36.26	45.3	25.6
Office	BC	28.27	42.7	25.2
Retail	Total	31.08	15.2	13.9
Warehouse/Distribution	Total	6.45	36.2	21.6
Flex/R&D	Total	11.10	32.7	34.2

Source: REIS

Rents are lower across the board relative to the South Bay and San Francisco, providing a significant incentive for existing companies to relocate. This affordability advantage, along with the East Bay's access to a highly skilled workforce, are often compelling reasons for new companies to locate to the East Bay. This has led to an uptick in demand for commercial space in the region, and developers are beginning to take notice. The previous calendar year, 2017, was another strong year for nonresidential permitting activity.

OFFICE MARKET OVERVIEW

The market for office space remained stable in 2017. New office space is coming online and rents are rising, which are both signs of a strong market in the region. With the economic expansion in the East Bay continuing, along with its relative affordability compared to San Francisco and the South Bay, 2018 should also shape up to be another solid year for the office market.

According to commercial real estate firm REIS, vacancy rates for office

space came in at 14.1% in the fourth quarter of 2017, up 0.5 percentage points from the fourth quarter of 2016. Despite this modest increase, vacancy rates are still down a full 2 percentage points relative to the fourth quarter of 2015.

Rents for East Bay office space have increased steadily this past year. From the fourth quarter of 2016 to the fourth quarter of 2017, office rents increased by 3.1%, a slow-down from the robust 9.5% pace from the fourth quarter of 2015 to the fourth quarter of 2016. With new office space online and the labor market tightening, office rents should continue to grow at a modest rate.

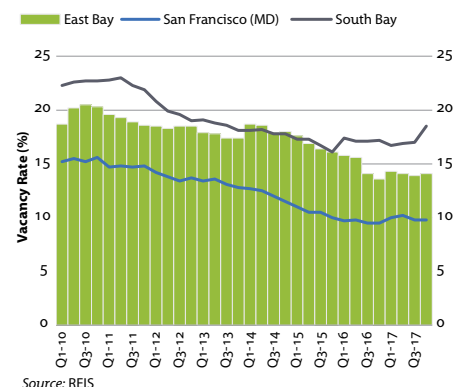
The East Bay office market has also been relatively affordable, even after the strong performance in 2017. As of the fourth quarter of 2017, the rent per square foot in the East Bay was 24.8% lower than the South Bay, and 45.8% lower than San Francisco.

OFFICE SUBMARKETS

Much like the previous year, the polarization in the East Bay office market is still readily apparent.

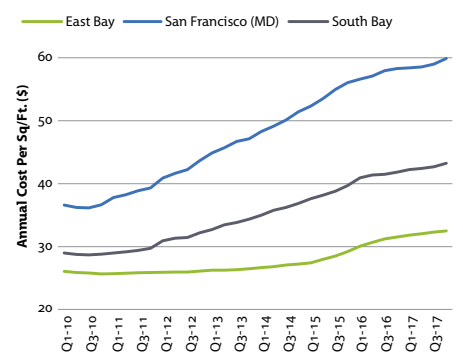
As of the fourth quarter of 2017, the rent per square foot in the East Bay was 24.8% lower than the South Bay, and 45.8% lower than San Francisco.

Office Vacancy Rates Q1-10 to Q4-17



Source: REIS

Office Rent Costs Q1-10 to Q4-17



Source: REIS



Aquatic Park Center contains offices and research facilities in Berkeley.

Photo by: City of Berkeley

Office Submarket Snapshot: Q4-17

Submarket	Rent (\$ per sq. ft. per year)	Vacancy Rate (%)	Vacant Square Feet (000s)
North Alameda County	33.28	7.7	414
Central Business District	45.04	11.4	1,210
North Contra Costa County	31.83	13.8	1,551
South I-680	28.31	15.5	1,278
North I-680	29.37	15.8	1,442
Airport/San Leandro/Hayward	24.33	16.8	716
West Contra Costa County	31.04	17.3	334
Fremont/Newark	23.17	20.7	657

Source: REIS

Vacancy rates for North Alameda County, which includes the cities of Alameda, Albany, Berkeley, Emeryville and Piedmont, and Central Business District submarkets, consisting primarily of Oakland and parts of the City of Alameda, continued to be among the lowest in the region. The vacancy rate in the North Alameda County submarket was 7.7% as of the fourth quarter of 2017, and the Central Business District vacancy rate was 11.4%. In contrast, the overall East Bay average vacancy rate was 14.1% in the fourth quarter of 2017.

Contra Costa County and cities to the south and southeast of Oakland maintained more elevated vacancy rates, which is not surprising given the greater distance from the faster growing Central Business District submarket.

Similarly, rent growth has been concentrated in the Central Business District and North Alameda County submarkets. In the Central Business District, the rent per square foot was \$45.04 in the fourth quarter of 2017, up 5.0% from the same time a year prior.

OFFICE CONSTRUCTION PERMITS

With rising demand for office properties throughout the Bay Area, construction activity for office properties in the East Bay has grown steadily in recent years. The total value of construction permits for new office structures in the East Bay came in at \$128.9 million in 2017, according to the Construction Industry Research Board, up from \$117.4 million in 2016 – and significantly higher than the \$37.9 million in 2015. Moreover, permitting levels have now surpassed the pre-recession peak of \$123.2 million in 2008.

The strongest permitting activity took place in the City of Oakland, where permit values for new office structures totaled \$124.0 million in 2017, 306.2% higher compared to the prior year. Many of these structures are located near Oakland's downtown BART stations, bus stops, and freeways. One such structure will house Blue Shield of California's (Blue Shield) relocated headquarters, which will be occupied by 1,200

employees. Blue Shield will be moving to Oakland from San Francisco and will be leasing 200,000 square feet, or about a third of the building, while anticipating that this move will save them significant costs from San Francisco rent rates.¹ Another new office structure also located near downtown Oakland will result in the tallest office building in the East Bay at 34 stories, and will include ground floor retail and housing units.²

Office Construction Permits by Submarket

City/Submarket	2017 Office Permit Values (\$)	Change from 2016 (%)
Oakland	124,067,008	306.2
East Contra Costa	592,298	85.0
Tri-Valley	1,108,037	-93.2
Alameda	331,767	-94.6
Other	63,643	-99.1
East Bay Total	128,926,399	9.8

Source: Construction Industry Research Board

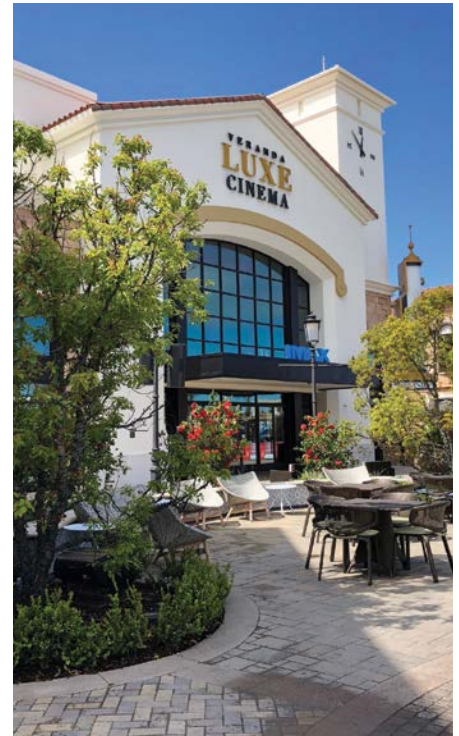
RETAIL MARKET OVERVIEW

The retail market in the East Bay continued to strengthen over the past year. Vacancy rates have held steady at near post-recession lows and rents still continue to rise, indicating a strong demand for retail properties. As of the fourth quarter of 2017, the vacancy rate stood at 6.6%, unchanged from the fourth quarter of 2016. Over the same time period, rents increased by 4.8% from the fourth quarter of 2016 to the fourth quarter of 2017, up from the 1.0%

increase from the fourth quarter of 2015 to the fourth quarter of 2016.

As the local economy has maintained an upward trajectory and affordability has drawn more residents and workers to the region, the retail sector has greatly benefited. More residents and workers mean more local spending, which is precisely what happened during 2017.

It is important to note that while retail shopping centers continue to be challenged by the health of their anchor tenants and online purchases, retail activity continues to be strong in the East Bay. A new shopping center, CenterCal Properties' The Veranda, a 375,000 square foot mixed-use development, opened in Concord in October 2017, offering shopping, dining and entertainment venues. The San Francisco Premium Outlets in Livermore continues to attract robust local and international shopping activity, which helped boost taxable sales in the city by 8.4% from 2016 to 2017.



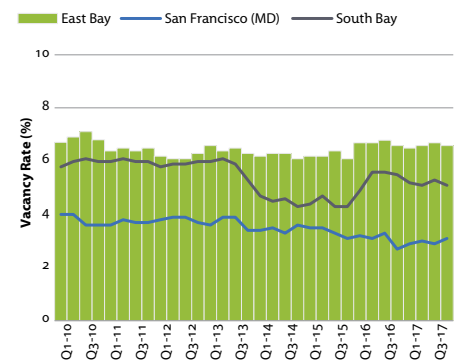
CenterCal Properties' "The Veranda" located in Concord. Photo by: The City of Concord.

RETAIL SUBMARKETS

Continued gains in consumer spending throughout the East Bay has driven increased demand for retail space in the region. From the fourth quarter of 2016 to the fourth quarter of 2017, taxable sales growth for Alameda and Contra Costa counties came in at 7.9% and 7.4%, respectively, surpassing the previous year's modest gain.

The higher spending has translated into lower vacancy rates and rising

Retail Vacancy Rates Q1-10 to Q4-17



Source: REIS

¹ <https://media.blueshieldca.com/2017/05/08/headquarters-move-to-oakland/>

² <https://www.mercurynews.com/2017/10/27/downtown-oakland-tower-would-be-east-bays-tallest-building/>



INC 82 Brewing. Photo by: City of Dublin.

rents for much of the retail space in the East Bay. West Contra Costa County, which includes Richmond, Hercules, San Pablo, El Cerrito and Pinole, boasted the lowest vacancy rate at 5.2%, the lowest rate in the entire East Bay region. In the central part of Contra Costa County, encompassing the northern section of I-680 and including San Ramon, Lafayette, Walnut Creek and Concord, vacancy rates were 5.3% as of the fourth quarter of 2017. Only East Contra Costa County, which includes Pittsburg, Oakley, Antioch and Brentwood, has lagged behind as the vacancy rate came in at 8.4% in the fourth quarter, the highest in Contra Costa County. However, the vacancy rate in East Contra Costa County has improved over the past few years as the current 8.4% rate is well below the 11.3% vacancy rate during the third quarter of 2013. The East Alameda submarket had the highest rent growth. From the fourth quarter of 2016 to the fourth quarter of 2017, the cost of rent increased by 7.3%, substantially more than all other submarkets.

Retail Submarket Snapshot: Q4-17

Submarket	Rent (\$ per sq. ft. per year)	Vacancy Rate (%)	Vacant Square Feet (000s)
West Contra Costa County	35.15	5.2	122
Central Contra Costa County	34.57	5.3	412
South Alameda County	25.82	6.1	286
Central/North Alameda County	32.74	6.8	409
East Contra Costa County	24.79	8.4	258
East Alameda County	30.46	8.6	412

Source: REIS

RETAIL CONSTRUCTION PERMITS

Construction activity for retail properties in the East Bay has held steady over the last year. Although the total value of retail construction permits totaled \$211.8 million in 2017, a 0.3% decrease over 2016 values, it still remained near a new post-recession high. Additionally, the solid year of permitting activity comes on top of several strong years of retail permitting.

Retail permit levels were highest in the City of Oakland and the City of Richmond, with retail permit activity totaling \$80.8 million and \$53.4 million in 2017 respectively, both substantial increases over 2016 levels. The City of Berkeley registered the largest percentage change in value of retail permits.

Retail Construction Permits by Submarket

City/Submarket	2017 Retail Permit Values (\$)	Change from 2016 (%)
Berkeley	18,053,838	8,106.3
Oakland	80,824,377	1,298.3
Richmond	53,355,012	120.0
Emeryville	8,878,805	115.8
Other	6,441,938	-19.6
North I-680	20,734,000	-56.0
Tri-Valley	15,974,918	-70.7
I-80/I-880	4,848,007	-81.8
East Contra Costa	400,000	-87.9
Alameda	500,000	-92.0
East Bay Total	211,775,152	-0.3

Source: Construction Industry Research Board

WAREHOUSE MARKET OVERVIEW

The market for Warehouse properties in the East Bay continues to grow steadily. As of the fourth quarter of 2017, the vacancy rate in the East Bay stood at 6.7%, down 0.4 percentage points from the fourth quarter of 2016. Not only was this a new post-recession low, but it is a significant improvement from the end of 2015, when vacancy rates stood at 8.6%.

Rents have similarly improved and have achieved new post-recession highs. As of the fourth quarter of 2017, the average rent per square foot was \$6.45, a 7.7% increase over the same time a year prior. This was in-line with year-over-year rent growth from last year when rents increased 7.9% in the fourth quarter of 2016. More importantly, average rent per square foot for warehouse space in the East Bay remains significantly more affordable than in the San Francisco (MD) (\$10.11) and the South Bay (\$8.23). And while rents have grown more rapidly in percentage terms in the East Bay (7.7%) relative to the San Francisco (MD) (5.0%) and the South Bay (5.9%), the average rent per square foot has increased

similarly in absolute terms. The East Bay increased (\$0.46), San Francisco (MD) (\$0.48), and the South Bay (\$0.46).

The improvement in vacancy rates and rents signals strong demand in a healthy warehouse property market. This is even more apparent when taking other indicators into consideration. Employment in the Transportation, Warehousing and Utilities sectors increased by 4.5% from March 2017 to March 2018, indicating the additional space being utilized is translating to hundreds of jobs in the East Bay.

WAREHOUSE SUBMARKETS

The Pleasanton/Livermore submarket has seen the most improvement over the last year, boasting the fastest declining vacancy rate. As of the fourth quarter of 2017, the vacancy rate for this submarket stood at 7.9%, down 1.4 percentage points from the fourth quarter of 2016. Warehouse rents in the Pleasanton/Livermore submarket have similarly outperformed other parts of the East Bay, confirming the strong demand



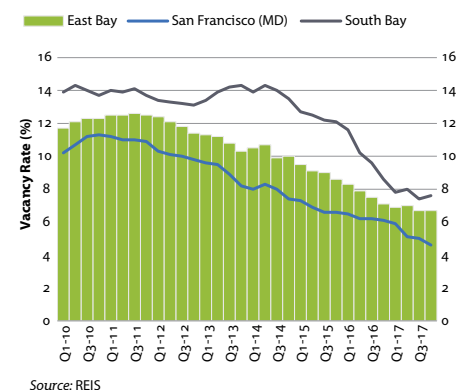
Concreteworks, Alameda. Photo by: Maurice Ramirez

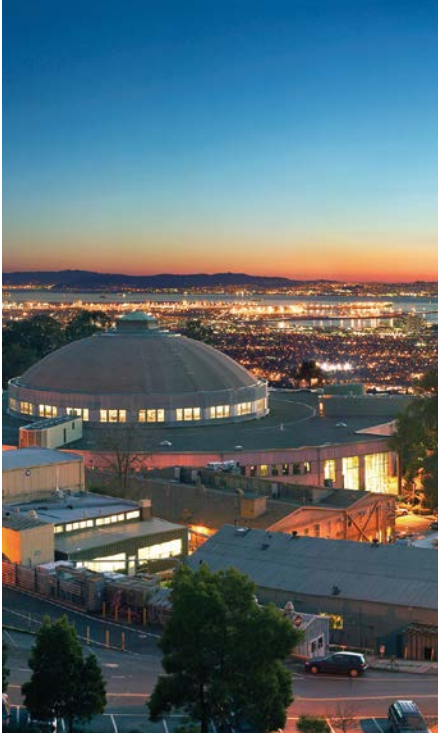
Warehouse Submarket Snapshot: Q4-17

Submarket	Rent (\$ per sq. ft. per year)	Vacancy Rate (%)	Vacant Square Feet (000s)
Newark/Fremont	6.89	4.6	1,021
Union City	6.17	5.6	854
Oakland/San Leandro	5.85	6.2	1,720
North Alameda/West Contra Costa	6.76	7.5	1,300
Pleasanton/Livermore	6.89	7.9	1,126
Hayward	6.90	8.0	1,624
Concord/Pittsburg	5.54	8.2	841

Source: REIS

Warehouse Vacancy Rates Q1-10 to Q4-17





Lawrence Berkeley National Laboratory.
Photo by: Lawrence Berkeley National Laboratory. © 2010 The Regents of the University of California, through the Lawrence Berkeley National Laboratory.

implied in the falling vacancy rate. From the fourth quarter of 2016 to the fourth quarter of 2017, the average rent for warehouse properties increased by 7.8%.

The Oakland/ San Leandro submarket also saw significant growth in Warehouse rents over the last year. From the fourth quarter of 2016 to the fourth quarter of 2017, the average rent increased by 8.3%. While rent growth was positive, vacancy rates for warehouse properties in the Oakland/San Leandro submarket edged up over the past year. From the fourth quarter of 2016 to the fourth quarter of 2017, vacancy rate increased from 6.0% to 6.2%.

year-over-year 1.3 percentage point decline seen in the fourth quarter of 2016.

Rent growth and declining vacancy rates point to the increasing demand in the area. From the fourth quarter of 2016 to the fourth quarter of 2017, the rent per square foot increased by 7.7%, faster than the year-over-year growth of 7.4% from the fourth quarter of 2015 to the fourth quarter of 2016.

Perhaps more importantly, with manufacturing employment in the East Bay rising by a sizeable 3.4% from March 2017 to March 2018, the demand for Flex/R&D properties in the East Bay should continue to rise over the next year.

FLEX/R&D MARKET OVERVIEW

Flex/R&D properties are categorized as industrial buildings consisting of either Warehouse/Distribution and/or specialty industrial space such as Research & Development. Not only is the market for this space strong, last year's performance was an improvement over 2016.

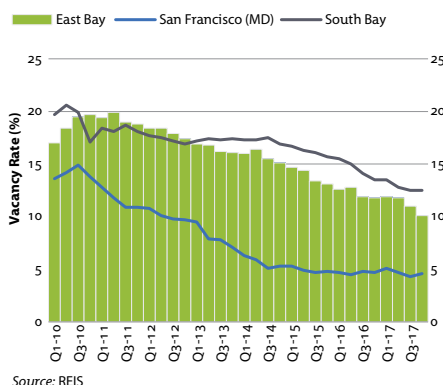
The Flex/R&D property market in the East Bay has fared well this past year, thanks to research hubs such as the University of California, Berkeley, the three National Laboratories, the business incubation and acceleration activity spread throughout the region, as well as the growing tech sectors gaining traction in Oakland and the Tri-Valley. As of the fourth quarter of 2017, the vacancy rate stood at 10.1%, down 1.7 percentage points from the fourth quarter of 2016, eclipsing the

FLEX/R&D SUBMARKETS

Flex/R&D properties in the Oakland/San Leandro submarket are particularly hot. This is due in large part to its proximity to University of California, Berkeley, the up-and-coming tech center in the Central Business District office submarket, and reasonable rents. This submarket boasts the lowest vacancy rate, 2.4% as of the fourth quarter of 2017, which is well below the 10.1% average for the East Bay overall. Rents are in the middle of the pack, coming in at \$11.27 per square foot in the fourth quarter of 2017. This is substantially lower than the Berkeley/Richmond/Martinez submarket where rents are \$19.93 per square foot.

The Newark/Fremont submarket also had a strong year. As of the fourth quarter of 2017, the vacancy rate for

Flex/R&D Vacancy Rates
Q1-10 to Q4-17



Source: REIS

Flex/R&D Submarket Snapshot: Q4-17

Submarket	Rent (\$ per sq. ft. per year)	Vacancy Rate (%)	Vacant Square Feet (000s)
Oakland/San Leandro	11.27	2.4	55
Union City	7.37	3.2	31
Pleasanton/Livermore	12.08	7.5	288
Concord/Pittsburg	11.51	8.0	176
Hayward	10.29	8.0	327
Newark/Fremont	10.22	13.9	1,472
North Alameda/West Contra Costa	19.93	14.9	190

Source: REIS

this submarket stood at 13.9%, down 1.8 percentage points from the fourth quarter of 2016. Along with the falling vacancy rates in the submarket, average rents also increased to \$10.22 per square foot in the fourth quarter of 2017, up 8.6% from the same period a year earlier.

INDUSTRIAL CONSTRUCTION PERMITS

Rising demand for Warehouse space and for Flex/R&D properties has also sparked an uptick in industrial permitting activity. The total value of industrial construction permits totaled \$27.4 million in 2017, a 41.3% increase over 2016 values. However, industrial permitting activity is still well below the peak levels seen in 2015. The demand for industrial land has been largely due to just-in-time delivery, which has increased demand for warehousing in dense urban centers as well as in areas located further away from the urban core.³

Industrial permitting was spread across the East Bay in 2017. At \$8.5 million, Fremont was responsible for the most industrial permit values. This was followed by \$5.5 million in industrial permit values in the I-80/I-880 corridor, \$5.0 million in Richmond, and \$4.6 million in the Tri-Valley area. With the growth of e-commerce and the growing manufacturing base in the East Bay, industrial permitting activity should remain a bright spot for the region in the coming years.



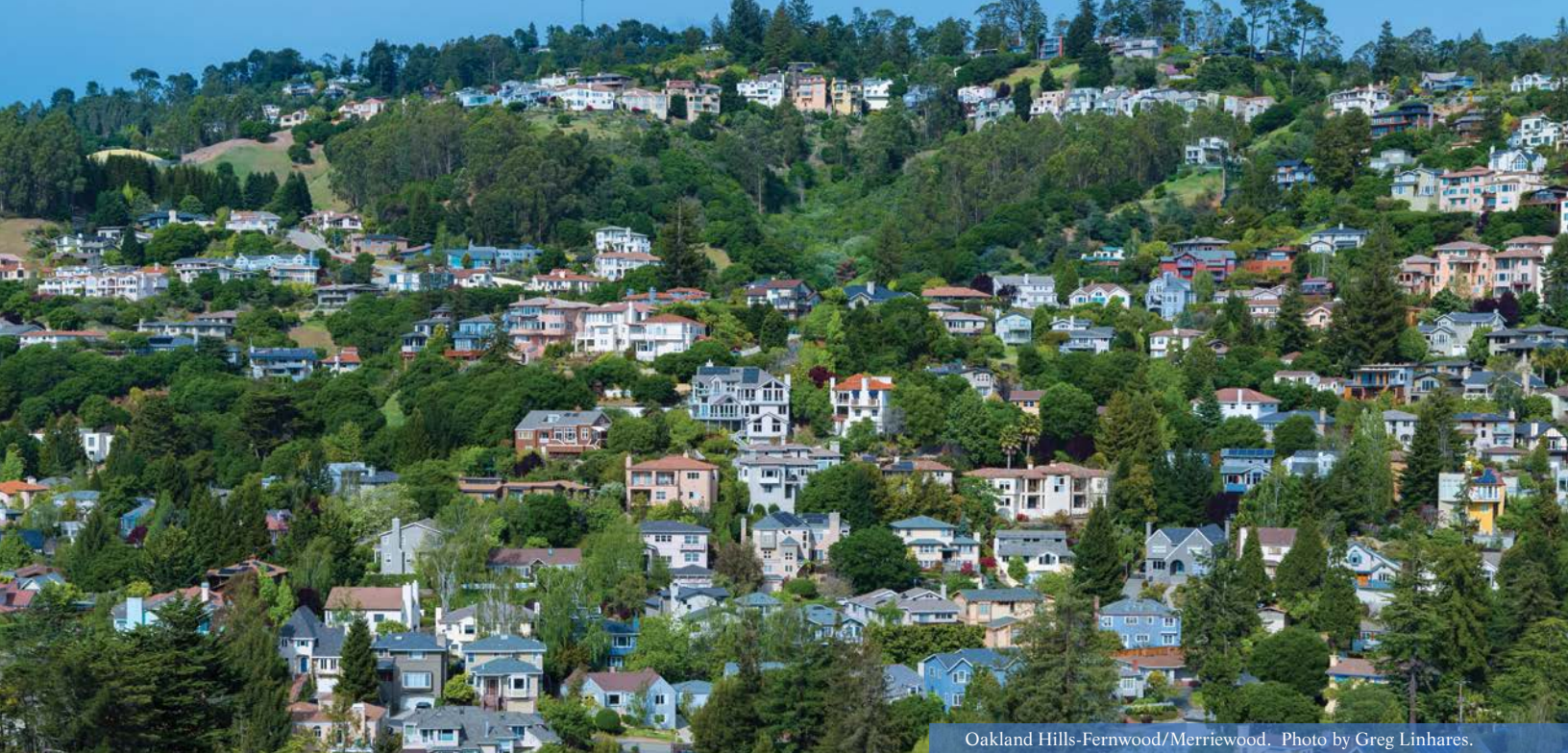
GoMentum Station autonomous vehicle testing. Photo by: Contra Costa Transportation Authority (CCTA).

Industrial Construction Permits by Submarket

City/Submarket	2017 Industrial Permit Values (\$)	Change from 2016 (%)
Other	2,682,431	4,073.0
North I-680	245,000	0.0
Richmond	5,043,000	-43.5
I-80/I-880	5,546,206	-45.4
Fremont	8,539,333	N/A
Tri-Valley	4,630,392	N/A
East Bay Total	27,424,653	41.3

Source: Construction Industry Research Board

³ Chapple, Karen, Evelyn St.-Louis, Sarah Ritter, Angel Ross, Elizabeth Mattiuzzi, Mitchell Crispell, Erin Lapeyrolerie, Rebecca Coleman, and Abigail Cochran. "Final Report: Industrial Land and Jobs Study for the San Francisco Bay Area," *Center for Community Innovation*. 2017.



Oakland Hills-Fernwood/Merriewood. Photo by Greg Linhares.

EAST BAY RESIDENTIAL REAL ESTATE



OVERVIEW

THE SUPPLY CONSTRAINTS that have hindered the East Bay housing market in recent years are continuing to drive double-digit price appreciation in the East Bay. Though overall residential permitting activity picked up over the last year, new housing permitting

remains well below the level of demand and has done little to curb the low inventory of homes for sale in the East Bay. The combination of strong homebuyer demand fueled by a population of homebuyers with greater spending capacity coming from high-cost counties elsewhere in the Bay Area, limited inventory, and a recovery defined by years of subpar construction activity has pushed the dream of homeownership out of reach for many East Bay households. While developers are looking at a variety of housing models to appeal to the East Bay's diverse population, a sustained and dramatic increase in construction activity and

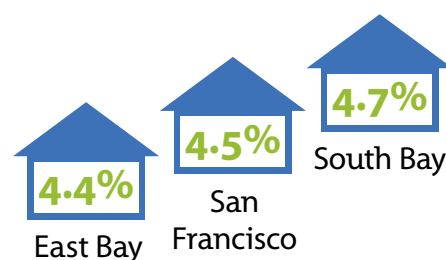
\$699k median home price

\$698, 918 was the median home price in the East Bay Region in 2017

1.9% increase in rents

Rent growth in the East Bay trailed San Francisco (2.9%) and San Jose (3.3%) (2016-17)

Apartment Vacancy Rate (2016-17)



Home prices appreciated 13.1% in Alameda County & 12.6% in Contra Costa County (2016-17)

San Francisco and Santa Clara home prices appreciated 8.3% and 25.7%, respectively.

diverse housing models is needed in the region to house the workforce and maintain the pace of economic growth in the region. Moreover, Alameda County and Contra Costa County offer remarkable cost savings relative to other parts of the Bay Area, making the housing market in the region poised for continued growth in the coming years.

HOME PRICES

With a small pool of houses coming on the market in 2017, coupled with the relative affordability of housing in the East Bay, price appreciation in the region continued at a double-digit pace over last year. Price appreciation in Alameda County (13.1%) and Contra Costa County (12.6%) outpaced growth in San Francisco County (8.3%) from the fourth quarter of 2016 to the fourth quarter of 2017. Prices appreciated by a sizeable 25.7% in Santa Clara County from the fourth quarter of 2016 to the fourth quarter of 2017.

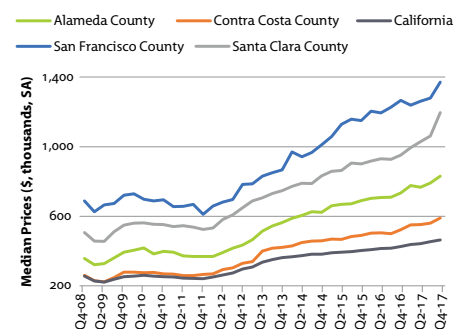
There was significant price appreciation throughout the East

Bay in 2017, with significant growth in many of the East Bay's more affordable markets. While home prices in these more affordable markets remain below the overall median in the East Bay, median prices in Hayward (16.0%), Antioch (14.1%), Brentwood (13.4%), Concord (12.3%), and Richmond (12.1%) all climbed by considerable margins from the fourth quarter of 2016 to the fourth quarter of 2017. Price appreciation was not only confined to the East Bay's affordable markets either, with price appreciation at 22.5% in Fremont over the same period. With this gain, the median price for a single-family home in Fremont is now just over \$1.1 million.

CONDOMINIUM PRICES

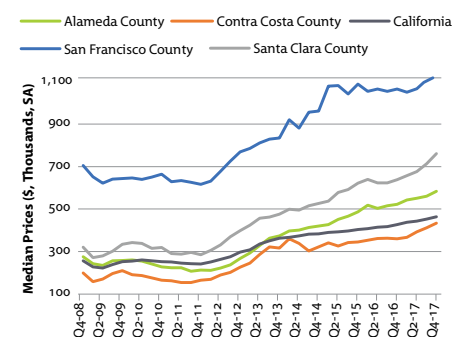
With single-family home prices moving out of reach for many East Bay households and more buyers priced out of nearby San Francisco and Santa Clara counties, the demand for condominiums in the East Bay has been steadily rising. At

Existing Single-Family Home Prices
Q4-08 to Q4-17



Source: DataQuick
Note: SA stands for Seasonally Adjusted

Existing Condominium Prices
Q4-08 to Q4-17



Source: DataQuick
Note: SA stands for Seasonally Adjusted

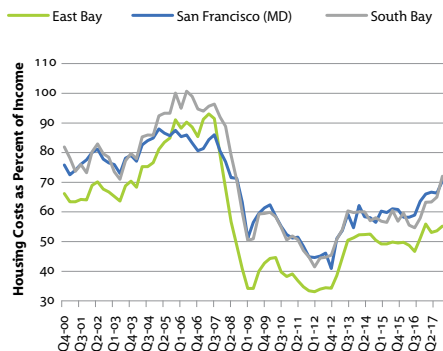
Single-Family Median Home Prices in Select Cities in the East Bay

Defaults	Q4-2016 (\$)	Q4-2017 (\$)	Q4-2016 to Q4-2017 Change (%)
Fremont	921,467	1,128,337	22.5
Hayward	549,724	637,478	16.0
Antioch	373,279	425,889	14.1
Brentwood	494,044	560,023	13.4
Concord	516,388	579,957	12.3
Richmond	374,590	419,979	12.1
Oakland	622,239	680,235	9.3
Berkeley	1,091,105	1,163,392	6.6
Alameda	951,436	976,929	2.7

Source: DataQuick

Home Affordability Index

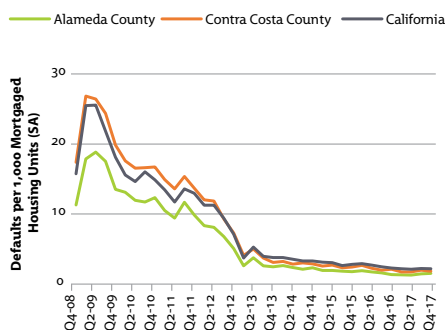
Q4 -00 to Q4 -17



Sources: U.S. Federal Reserve, DataQuick, BEA

Defaults on Mortgages

Q4 -08 to Q4 -17



Source: DataQuick
Note: SA stands for Seasonally Adjusted

20.8% price appreciation over the year, Contra Costa County logged the fastest growth in condominium prices among Bay Area regions and outpaced the state overall. However, condo prices in Contra Costa County remain the most affordable in the overall Bay Area. Existing condo prices in Alameda County grew at a more modest 11.6% between the fourth quarter of 2016 and the fourth quarter of 2017, outpacing San Francisco County (7.4%) and trailing Santa Clara County (19.3%).

HOUSING AFFORDABILITY

East Bay home prices remain considerably more affordable than prices in neighboring communities in San Francisco and Santa Clara counties. However, persistently low inventories of homes for sale across the Bay Area have resulted in fierce competition among buyers for the limited number of homes on the market. As a result of this long-term supply constraint, the average household in the East Bay would have to spend \$39,739, or 55.2% of their income, each year to afford the mortgage payment for the median-priced (\$698,918) home in the region. Despite continued price appreciation pushing more buyers out of the market, affordability remains significantly better than the years before the Great Recession, when it took the average household 76.4% of its income to afford the mortgage payment for the median-priced home during the average year between 2001 and 2007. The continued affordability advantage offered in the East Bay

makes the housing market in the region poised for continued growth in the coming years.

DEFAULTS AND FORECLOSURES

The surge in defaults and foreclosures that plagued the region during the Great Recession is starting to become a distant memory for the East Bay. Stricter eligibility requirements, increased government regulations, and modified lending products from banks contributed to the decline in the number of predatory loans and the decline in households who qualify for pre-approved mortgages. Sustained increases in local incomes in recent years have improved household finances in the East Bay, which has further reduced the number of default notices in Alameda and Contra Costa counties in 2017. With 1.5 and 1.8 defaults per 1,000 mortgaged housing units in Alameda County and Contra Costa County, respectively, few distressed properties will be on the market in the months ahead. Moreover, there are fewer distressed properties in the East Bay relative to the state overall, where there are 2.2 defaults per 1,000 mortgaged housing units in California.

Mirroring the downward trend in defaults, foreclosures fell throughout the East Bay in 2017. After years of significant declines from ultra-high levels during the Great Recession, foreclosures in Fremont, Oakland, Richmond, Antioch, Concord and other area cities have fallen below the pre-recession average.

Foreclosures in Select Cities in the East Bay

City	1998-2006 Average	Q4 2016	Q4 2017	Change (%)	
				Q4-2016 to Q4-2017	1998-2006 Average to Q4-2017
Fremont	6	4	0	-100.0	-100.0
Oakland	37	25	18	-28.0	-51.4
Richmond	12	15	7	-53.3	-41.7
Antioch	15	25	11	-56.0	-26.7
Concord	9	8	7	-12.5	-22.2
Hayward	10	11	9	-18.2	-10.0
Brentwood	3	6	4	-33.3	33.3
Alameda	1	2	2	0.0	100.0
Berkeley	2	2	7	250.0	250.0

Source: DataQuick

SUPPLY

A modest increase in new housing construction over the last three years has increased vacancy rates in the East Bay from 2015. Still, the demand for housing in the region continues to dwarf the supply, as the latest data available shows only 4.7% of housing units in the East Bay were vacant in 2016, well below the statewide average of 7.9%.

Years of price appreciation have started to slow the pace of households

Housing Vacancy Rate (%)

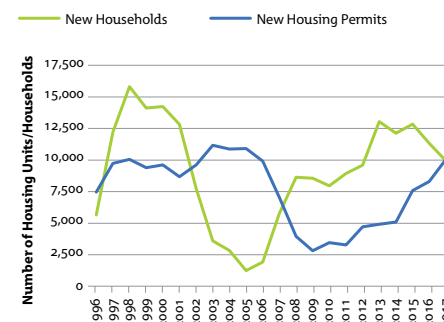
Year	Alameda	Contra Costa	East Bay	CA
2007	8.0	6.7	7.4	8.3
2008	8.6	7.0	7.9	9.1
2009	8.7	8.1	8.5	9.1
2010	7.8	8.1	7.9	9.3
2011	6.7	6.2	6.5	9.1
2012	6.1	5.2	5.7	8.4
2013	5.4	5.4	5.4	8.3
2014	4.9	4.6	4.8	8.2
2015	4.0	4.1	4.1	7.8
2016	4.6	4.8	4.7	7.9

Source: U.S. Census American Community Survey

entering the East Bay, as a growing number of households are priced out of even the Bay Area's most affordable locales. In 2017, 9,936 new households entered the East Bay, well below the average of 12,330 during the previous four years. Although the pace of housing construction permits has begun to match household formation in the East Bay, the region still has significant ground to make up. Roughly 153,100 new households have entered the East Bay since 2000, compared to 132,000 new housing units permitted for construction during that same time period. This gap has become more severe in recent years, with nearly twice as many households moving into the East Bay since 2010 (85,753) than housing units permitted for construction during that time period (47,423). This lingering gap between household formation and housing construction will continue to constrain the supply of housing in the East Bay, barring a sustained uptick in construction activity. The limited supply of housing, coupled with high housing costs, has led to issues such as housing insecurity, overcrowding and homelessness.

Roughly 153,100 new households have entered the East Bay since 2000, compared to 132,000 new housing units permitted for construction during that same time period. This gap has become more severe in recent years, with nearly twice as many households moving into the East Bay since 2010 (85,753) than housing units permitted for construction during that time period (47,423).

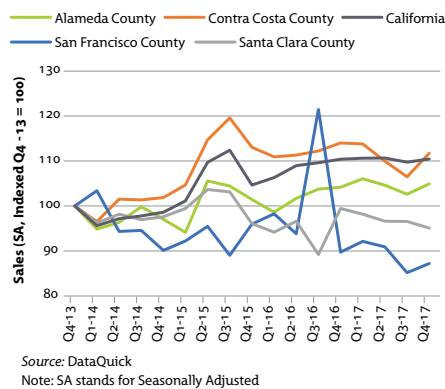
Housing Permits and New Households 1996 to 2017, East Bay



Sources: CIRB, U.S. Census Bureau
Note: The number of new households is based on 1 household = 2.9 persons.

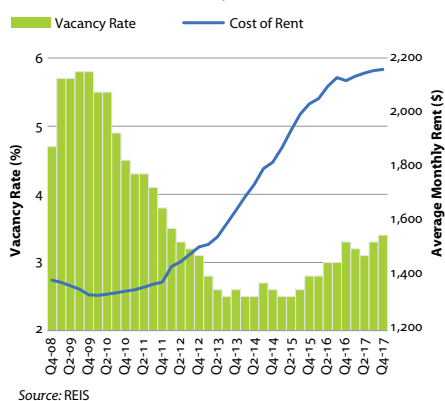
HOME AND CONDOMINIUM SALES

Single-Family and Condominium Sales
Q4 - 13 to Q4 - 17



Sales volume has started to decline throughout much of the Bay Area, with current housing prices deterring potential homebuyers from entering the market. Home and condominium sales grew by just 0.6% in Alameda County and fell by 2.0% in Contra Costa County from the fourth quarter of 2016 to the fourth quarter of 2017. However, even this lackluster sales activity in the East Bay is better than declining sales in San Francisco (-2.8%) and Santa Clara Counties (-4.4%). The East Bay's affordability advantage made the region's housing market relatively more resilient to the significant supply concerns deeply rooted in the broader Bay Area. However, additional residential construction activity will be needed to sustain the economic growth the region has experienced in recent years.

Apt. Vacancy Rates and Average Rents
Q4 - 08 to Q4 - 17, East Bay



APARTMENT VACANCIES AND RENTS

Trends in the Bay Area homebuyers' market have continued to push many potential homeowners into the East Bay rental market, with rents rising at a steady 1.9% from the fourth quarter of 2016 to the fourth quarter of 2017. Rent growth in the East Bay trailed San Francisco's (2.9%) and San Jose's (3.3%) during this period. The apartment vacancy rate in the East

Bay has started to increase slightly. However, at 3.4%, it is lower than the vacancy rates in San Francisco (MD) (4.5%) and the South Bay (4.7%). The small increase in vacancies was driven by 1,498 new units coming online during the year, resulting in an overall 1.0% increase in inventory in the region. Overall, there were 5,134 vacant units in the East Bay in the fourth quarter of 2017. Still, persistent demand for rentals has kept conditions in the market at ultra-tight levels and it will take a sizable increase in residential construction activity to remedy the structural issues in the homebuyer market that have spilled over into the rental market. As of April 2018, the median asking rent in Alameda County is \$2,533/month, and \$2,250/month in Contra Costa County.^{1,2} Renters in both Alameda and Contra Costa Counties would have to earn nearly four times the state minimum wage to afford the median monthly asking rent.

RESIDENTIAL CONSTRUCTION PERMITS

With supply concerns mounting in much of the state, permitting activity picked up significantly in the East Bay in 2017. Over 10,060 new residential housing units have been permitted in the East Bay since the fourth quarter of 2016, compared to 6,360 units in San Francisco and 10,380 in the South Bay. One major factor underpinning the resurgence of construction permitting has been

1 "Alameda County's Housing Emergency and Proposed Solutions." April 2018. California Housing Partnership.

2 "Contra Costa's Housing Emergency and Proposed Solutions." April 2018. California Housing Partnership.

an increase in activity in the City of Oakland, where more than 3,560 units were permitted in 2017.

An increase in both single-family and multi-family permitting drove the surge in residential permitting activity in the East Bay for 2017. The number of single-family permits issued in the East Bay grew 10.5% to 4,360 units in 2017, while multi-family permits grew by a sizeable 30.7% to 5,700 units over the period. Taken together, the increase in single-family and multi-family permits amounts to a 21.1% increase in residential permitting activity from 2016 to 2017.

Single-family permitting activity has occurred throughout the East Bay. In Alameda County, there were 1,644 units permitted since 2015 in Dublin and 1,072 units permitted in Hayward over the same period. In Contra Costa County, a significant amount of single-family permitting over the last three years has occurred in Brentwood (1,566), Oakley (698) and Pittsburg (536), where a relatively large amount of developable land remains.

Cities in the East Bay Permitting the Most Single-Family Units Relative to their Current Single-Family Housing Stock

City	Permits 2015 to 2017	Permits as a Share of Housing Stock (%)
Dublin	1,644	15.8
Brentwood	1,566	9.6
Oakley	698	6.8
Hayward	1,072	3.8
Livermore	880	3.6
Pittsburg	536	3.4
Newark	332	2.9

Source: Construction Industry Research Board

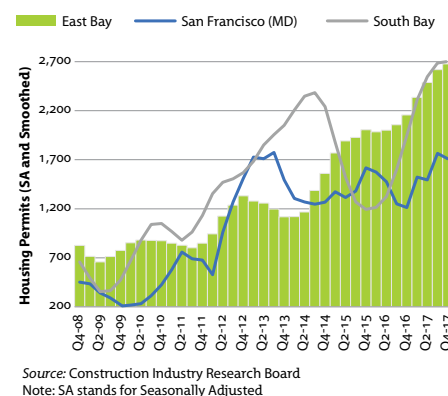
Oakland and Fremont also contributed significantly to the overall increase in multi-family permitting activity in recent years, with a total of 5,567 units permitted in Oakland and 2,021 units permitted in Fremont from 2015 to 2017. In the Tri-Valley, the neighboring cities of Pleasanton and Dublin are poised to become major multi-family housing hubs in the East Bay, with 2,182 units permitted since 2015. These projects will significantly boost the multi-family housing stock in these areas and will help alleviate the region's housing shortage. However, these new housing units and the associated increase in population density remain a challenge for cities in their efforts to provide services proportional to the number of new residents moving in.

Cities in the East Bay Permitting the Most Multi-Family Units Relative to their Current Multi-Family Housing Stock

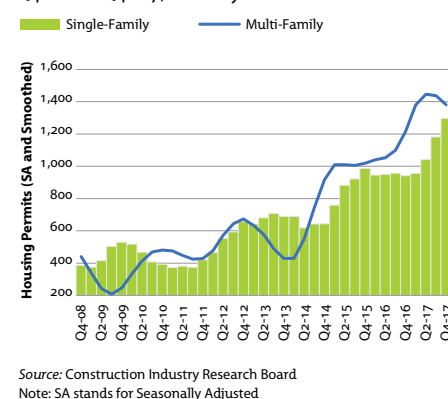
City	Permits 2015 to 2017	Permits as a Share of Housing Stock (%)
Pleasanton	1,197	19.4
Dublin	985	16.4
Oakley	75	11.7
Fremont	2,021	10.4
Livermore	488	8.1
Pittsburg	300	6.6
Oakland	5,567	6.2
Lafayette	89	5.6

Source: Construction Industry Research Board

Residential Construction Permits Q4 -08 to Q4 -17

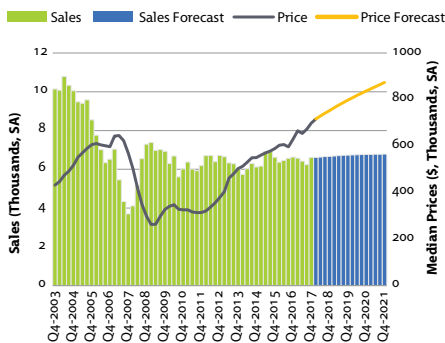


Housing Construction Permits Q4 -08 to Q4 -17, East Bay



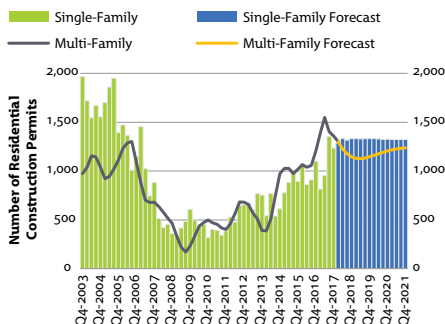
Beacon Economics estimates that prices will continue to increase at a steady pace, with year-over-year growth coming in at 7.8% in the fourth quarter of 2018.

Median Home Price and Sales Forecast
Q4-03 to Q4-21, East Bay



Forecasts by Beacon Economics
Note: SA stands for Seasonally Adjusted

Res. Construction Permits Forecast
Q4-03 to Q4-21, East Bay



Forecasts by Beacon Economics
Note: SA stands for Seasonally Adjusted

FORECAST OF EXISTING SINGLE-FAMILY HOME PRICES AND SALES

The effects of the regional housing shortage will continue to dictate trends in the East Bay housing market in the year ahead. Beacon Economics estimates that prices will continue to increase at a steady pace, with year-over-year growth coming in at 7.8% in the fourth quarter of 2018. Despite the strains on the East Bay's housing market from persistently low inventories, with permitting activity beginning to keep pace with the number of new households, prices will cool into the 4% to 6% range for the duration of the forecast in 2021. Meanwhile, Beacon Economics anticipates the volume of home sales to remain stable in the coming years, with inventories remaining fairly tight and sales volume remaining near their average over the last five years, or roughly 5,000 to 7,000 units sold per year.

While the effects of the housing shortage are anticipated to linger, increased housing construction in the East Bay will mitigate some of the more severe effects of the housing shortage that have been observed elsewhere in the Bay Area and will play a major role in protecting the region's affordability advantage. Nonetheless, supply constraints in the East Bay will linger and will influence residential real estate trends in the year ahead.

FORECAST OF RESIDENTIAL PERMITTING ACTIVITY

Beacon Economics expects residential construction permits to pull back slightly in the year ahead as single-family housing permitting continues at its pace in the latter half of 2017 and multi-family permitting is reined in a bit. Looking further out, overall residential permitting activity is expected to return to its current pace, with construction activity balanced between single-family and multi-family permits.



Children playing soccer. Photo by: City of Concord.

EAST BAY DEMOGRAPHICS



OVERVIEW

THE EAST BAY'S RAPID POPULATION GROWTH of previous years has slowed, as high housing costs have caused many local residents to consider moving.¹ Between Q1 2016 and Q2 2017, the East Bay's population grew by only .8%, in line with growth rates in the state (.8%) and neighboring San Francisco (.9%), San Mateo (.6%), and Santa Clara Counties (.7%). Across California, but especially in high-cost coastal communities, population growth has been slowing due to the increasing unavailability of affordable housing. The East Bay's .8% population growth in 2017 was a .3% decline from its growth rate in 2016 (1.1%). Additionally, recent population growth has not been nearly as high as previous years when growth rates hovered around 1.4% during the peak of the tech boom in 2013 and 2014.

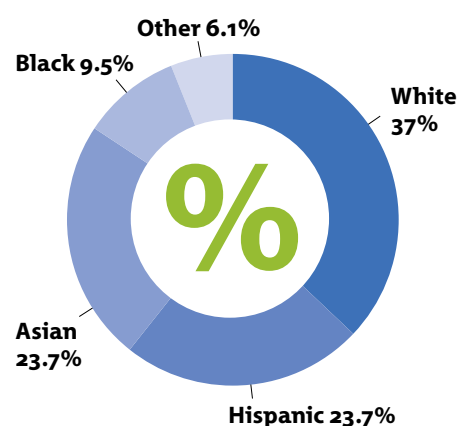
15% more millenials

Between 2011 and 2016, there was a 14.6% increase in residents aged 25-34 years old.

12% increase in total population

Between 2007 and 2017, the East Bay's total population increased by 11.6%.

2016 East Bay Racial/ Ethnic Composition



33% increase in older "Boomers"

The population between the ages of 65-74 increased by 32.7% between 2011 and 2016.

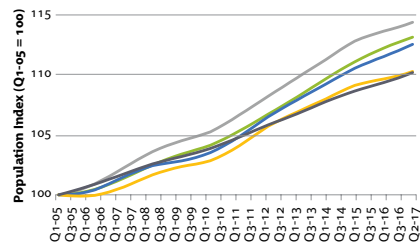
¹ <https://www.mercurynews.com/2018/04/04/bay-area-trend-low-earners-move-out-high-earners-move-in/>

POPULATION GROWTH

Population Growth

Bay Area & California, Q1-05 to Q2-17

East Bay San Francisco County San Mateo County
Santa Clara County California

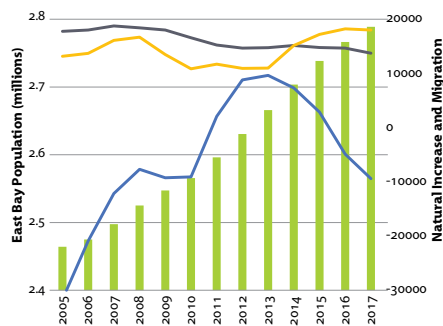


Source: California Department of Finance

East Bay Population

2005 to 2017

Total Population Natural Increase
Foreign Immigration Domestic Migration



Over the past decade, the East Bay population has grown significantly. The East Bay added approximately 22,300 new residents in 2017, leading the Bay Area in terms of absolute population change. Between 2007 and 2017, the area's total population increased by 11.6% as the economy recovered from the Great Recession. Over the same time period, other counties in the Bay Area also saw their populations grow, such as San Francisco (8.3%), San Mateo (9.6%), and Santa Clara (11.9%) counties.

The East Bay's modest population growth over the past year has been largely due to declining natural increases and domestic migration. The natural increase, which measures the net change in population from an area's births and deaths, has fallen to 13,700 in 2017 from a high of 18,800 in 2007. Years of steadily declining natural increases reflect broader demographic trends driven by a diminishing number of baby boomers, declining birth rates, and the financial challenges of raising children in the Bay Area.²

Net migration in the Bay Area also declined from 13,300 in 2016 to 8,600 in 2017. This marked the East Bay's lowest level of net migration since 2010. Foreign migration into the East Bay continues to be positive, but has declined slightly from last year's 10-year high. The Federal government's policies toward immigration, as evidenced by the

recent Immigration and Customs Enforcement (ICE) raids in Alameda and Contra Costa counties and greater scrutiny for H1-B visas, could further discourage immigration to the East Bay and potentially impact the East Bay workforce, particularly in tech. According to a report using 2016 census data, roughly half of the tech workers in the San Francisco-Oakland-Hayward MSA are foreign born.³

Driving the decline in net migration has been domestic migration. In 2016, outbound migration from the East Bay to other parts of the country totaled 9,400, which is double the number of people migrating out of the East Bay one year ago. News reports indicate the Bay Area's high housing costs have caused an exodus of residents, even from the East Bay. The real estate site Redfin noted in its migration report for Q4 2017 that the San Francisco Bay Area was the top metropolitan area for net residential outflow. For outbound migrants, the top destination was Sacramento and the top out-of-state destination was Seattle.⁴ Tech centers such as Seattle, Austin and Denver have emerged as alternatives to the Bay Area, offering similar employment opportunities but with lower costs of living.⁵

Though the East Bay's net migration has been negative overall, net migration from within California remains positive. Within the Bay Area, large numbers of residents continue to move to the East Bay from San Francisco (+31,400 in net migration), San Mateo (+9,100)

2 <http://www.sacbee.com/news/politics-government/politics-columns-blogs/dan-walters/article123894519.html>

3 <https://www.mercurynews.com/2018/01/17/h-1b-foreign-citizens-make-up-nearly-three-quarters-of-silicon-valley-tech-workforce-report-says/>

4 <https://www.redfin.com/blog/2018/02/q4-migration-report.html>

5 <https://www.citylab.com/life/2017/06/wheres-the-real-next-silicon-valley/530352/>

East Bay Inbound and Outbound Migration Patterns (2011-2016)

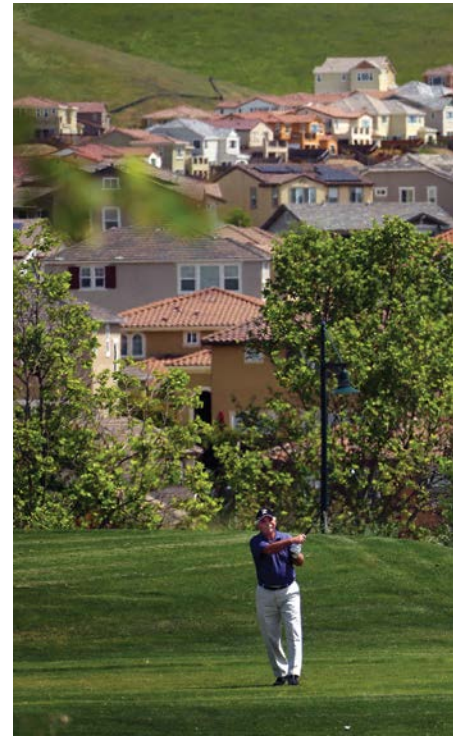
County	Inbound	Inbound Share	Outbound	Outbound Share	Net Migration
Marin	6,288	2%	6,764	3%	-476
Other California	138,008	48%	135,748	58%	2,260
San Francisco	66,785	23%	35,373	15%	31,412
San Mateo	28,874	10%	19,789	8%	9,085
Santa Clara	49,074	17%	37,947	16%	11,127
Total	289,029		235,621		53,408

Source: American Community Survey 1-Year Estimates

and Santa Clara counties (+11,100). Among reasons given by those migrating into the East Bay are the social and recreational offerings, better opportunities for families, and cost savings for the young and old who want to stay in the Bay Area. But, as previously mentioned, the rising housing costs in the East Bay have caused other local residents to leave the Bay Area and/or California entirely. Going forward, it will be interesting to see how the evolving dynamic between earning potential and rising housing costs affects the East Bay's population pyramid.

POPULATION COMPOSITION (AGE AND RACE)

Ongoing displacement and migration has affected the East Bay's age and race composition. The influx of urban professionals into the East Bay has resulted in a 14.6% population increase between 2011 and 2016 for residents aged 25 to 34 years. Attracted by the East Bay's growing tech sector and cheaper rents, millennials have migrated to the East Bay. Overall, this age cohort



A golfer enjoying a round of golf in Dublin.
Photo by: City of Dublin.

East Bay Population Distribution by Age

Age	2011	2016	2011-2016 Change (%)
Under 5 Years	165,008	163,816	-0.7
5 to 9 Years	166,873	171,235	2.6
10 to 14 Years	166,820	170,394	2.1
15 to 19 Years	169,707	166,984	-1.6
20 to 24 Years	172,241	172,050	-0.1
25 to 34 Years	364,037	417,300	14.6
35 to 44 Years	375,829	394,755	5.0
45 to 54 Years	387,640	392,002	1.1
55 to 59 Years	168,075	185,427	10.3
60 to 64 Years	147,656	163,610	10.8
65 to 74 Years	170,687	226,580	32.7
75 to 84 Years	91,969	107,333	16.7
85 Years and Older	49,429	51,345	3.9
Total	2,595,971	2,782,831	7.2

Source: American Community Survey 1-Year Estimates



Jazz Blues & Funk Festival in Pittsburg.
Photo by: City of Pittsburg.

constitutes 15% of the East Bay's total population.

Additionally, the East Bay's population composition has felt the impact of the aging baby boomer generation. The large number and improved longevity of the baby boomer generation has resulted in a corresponding elderly population boom, with the population of 65 – 74 year olds expanding by 32.7% in the East Bay between 2011 and 2016. This matches a similar 16.7% increase in residents who are between 75-84 years old.

The East Bay's growing elderly population mirrors demographic changes occurring at the national level and in other parts of the Bay Area. For the United States, the fastest growing age demographic was 65-74 year olds, which increased by 27.5% between 2011 and 2016. San Francisco and Santa Clara counties also have a growing number of older populations, albeit less so than in the East Bay. Between 2011 and 2016 Santa Clara County's population between 65 to 74 years old grew by 24.8% while San Francisco County's population between 65 to 74 years old grew by 26.8%. Overall, baby boomers appear to be aging in place in the Bay Area, with slightly

more staying in the East Bay than in San Francisco and Santa Clara counties. High housing costs and Proposition 13, which ties property taxes to the house purchase price, have incentivized the region's baby boomers to age in place.⁶

Conversely, the area's youngest population groups have experienced stagnant population growth. Between 2011 and 2016, all age categories under 25 years old have grown slower than the overall population. The Bay Area's housing costs have made raising families difficult, as evidenced by a 0.7% decrease for people under 5 years old in the East Bay. Additionally, rising housing costs have especially burdened the East Bay's student and young adult population, who also face high levels of student debt. Between 2011 and 2016, the number of residents between 15 to 19 years old fell by 1.6%.

Overall, the largest racial group in the East Bay are Whites (37.0%), followed by Asian and Hispanic (both 23.7%), and then Black (9.5%). Racially, the East Bay's Asian population continues to grow, while the population share for Whites and Blacks have declined. Between 2011 and 2016, Asians rose from 21.2% to 23.7% of the East Bay's population.

East Bay Ethnic Composition

Race/Ethnicity	Share 2011 (%)	Share 2016 (%)	2011-2016 Change (%)
Asian	21.2	23.7	2.5
Other	5.1	6.1	1.0
Hispanic	23.6	23.7	0.1
Black	10.7	9.5	-1.2
White	39.2	37.0	-2.3

Source: American Community Survey 1-Year Survey

⁶ <https://www.sfchronicle.com/business/networth/article/Could-a-tax-incentive-pry-empty-nesters-from-12795189.php#photo-15316783>

During this time, the East Bay's Black population share fell 1.2% and the White population share fell 2.3%. The displacement of long-term residents has been especially hard on the East Bay's historically African-American communities in Oakland and Richmond.

INCOME AND EDUCATION

The East Bay's economic transformation has been the most noticeable in the changing income composition of its population. From 2011 to 2016, the share of households

earning less than \$75,000 decreased from 52.7% to 42.3%, a 10.4% drop. Population shares for households earning between \$75,000 and \$150,000 increased slightly by 1.4%.

The most significant growth has been in the highest earning households. From 2011 to 2016, the share of households earning between \$150,000 and \$200,000 grew by 2.5%. Even greater was for households earning \$200,000 or more, which rose by 6.5% between 2011 and 2016. These changes have been driven by an influx of high-income earners into the East Bay, supported by the Bay Area's booming economy.



San Lorenzo Library designed by Group 4 Architecture. Photo by: Technical Imagery Studio.

East Bay Income Distribution

Income Category	Share 2011 (%)	Share 2016 (%)	2011-2016 Change (%)
Less than \$10,000	5.3%	4.2%	-1.1%
\$10,000 to \$14,999	4.4%	3.5%	-0.9%
\$15,000 to \$24,999	8.6%	5.7%	-2.9%
\$25,000 to \$34,999	7.8%	6.0%	-1.8%
\$35,000 to \$49,999	10.5%	8.7%	-1.8%
\$50,000 to \$74,999	16.1%	14.2%	-1.9%
\$75,000 to \$99,999	11.7%	12.2%	0.5%
\$100,000 to \$149,999	17.4%	18.3%	0.9%
\$150,000 to \$199,999	8.7%	11.2%	2.5%
\$200,000 or More	9.5%	16.0%	6.5%

Source: American Community Survey 1-Year Estimates

Annual Earning Rates by Educational Attainment, 2016 (\$)

Educational Attainment	California	East Bay	San Francisco	San Mateo	Santa Clara
Less than High School	\$21,558	\$24,525	\$23,129	\$26,812	\$25,238
High School Diploma	\$30,231	\$34,153	\$30,349	\$33,492	\$33,794
Some College or Associate's Degree	\$36,985	\$44,797	\$41,057	\$44,728	\$43,316
Bachelor's Degree	\$60,121	\$69,640	\$76,065	\$69,856	\$81,539
Graduate/Professional Degree	\$82,271	\$92,979	\$100,774	\$107,863	\$115,610

Source: American Community Survey 1-Year Estimates



An entrepreneur working at Skydeck, UC Berkeley's startup accelerator.
Photo by: City of Berkeley.

Population Shares by Educational Attainment, 2016 (%)

Educational Attainment	California	East Bay	San Francisco	San Mateo	Santa Clara
Less than High School	17.6%	11.6%	12.1%	10.9%	12.8%
High School Diploma	20.5%	17.4%	12.3%	15.3%	15.0%
Some College or Associate's Degree	29.0%	27.2%	18.4%	23.4%	21.3%
Bachelor's Degree	20.6%	26.1%	34.1%	29.3%	28.1%
Graduate/Professional Degree	12.3%	17.7%	23.2%	21.1%	22.9%

Source: American Community Survey 1-Year Estimates

Household earnings in the East Bay are largely dictated by educational attainment. In 2016, residents in the East Bay with less than a high school degree earned an average of \$24,500. With a high school degree, average earnings rose to nearly \$34,200. The largest wage premiums were found for residents who had a Bachelor's degree or greater. The average earnings for East Bay residents with a Bachelor's degree was \$69,600. For residents with a Graduate degree, earnings were almost \$20,000 higher than for those with a Bachelor's degree, averaging around \$93,000. Compared to other parts of the Bay Area, incomes for residents with a college or graduate degree were lower in the East Bay. In San Francisco, San Mateo, and Santa Clara counties, residents with a graduate degree on average earned over \$100,000.

The East Bay's educational attainment levels have risen along with incomes. Higher educational attainment levels correspond to the region's changing economy that has become more reliant on knowledge-based industries such as technology and professional services. From 2011 to 2016, the share of residents with a Bachelor's Degree was 26.1%, an increase of 2%. Similarly, the share of residents with a Graduate/Professional Degree

was 17.7%, an increase of 1.6%. The East Bay's high level of educational attainment reflects the presence of the area's higher education institutions such as UC Berkeley, Mills College, and California State University East Bay, as well as the region's ability to retain its talented workforce.



Hikers in the Little Yosemite Area of Sunol Regional Wilderness. Photo by: by Hillary Van Austen.

EAST BAY QUALITY OF LIFE



OVERVIEW

THE EAST BAY'S CULTURAL DIVERSITY, outdoor recreation spaces, and culinary scene are some of the features that have made its quality of life an attraction for residents and visitors. The region's ongoing tech boom has transformed the East Bay, bringing in new

residents and businesses. Increasingly, the East Bay is being recognized as a popular destination for arts and culture, entertainment, food and outdoor recreational activities in the nation's largest urban regional park district. Long recognized as a hub for arts and culture, art lovers have been visiting open studios throughout the East Bay for over 40 years. In the Tri-Valley, the

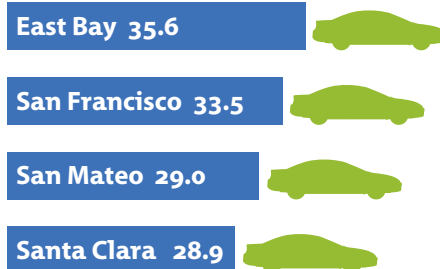
82.6 years overall life expectancy

For 2015, the overall life expectancy for an East Bay resident was 82.6 years, while the U.S. nationwide life expectancy was 78.7 years.

74% of East Bay commuters travel to work by car, truck, or van

13.2% commuters take public transport

Bay Area Average Commute Times (min.)



73 parks, 121,390 acres open space, and 1,250 miles of trails

East Bay Regional Park District generates nearly \$200 million a year in economic benefit.



Youth playing at the REACH Ashland Youth Center. Photo by: Alameda County Community Development Agency Economic and Civic Development Department.

Harvest Wine Festival pairs art with wine tasting at thirty or more of the region's wineries. Fremont's Festival of the Arts draws almost 400,000 people annually. In 2016, the *New York Times* included the East Bay as one of its top 52 travel destinations for the year.¹ Additional accolades and awards bestowed upon the East Bay include Redfin naming Oakland the 9th "Most Walkable City" in 2017, WalletHub ranking Fremont as the "Happiest Place to Live in America" for 2018,² Realtor.com listing Oakland among the Top 10 "Cities where Downtown is Making a Comeback,"³ and NerdWallet identifying San Ramon as #1 on their list for "Best Places for Young Families in Northern California."⁴

DIVERSITY

Cultural and ethnic diversity is a key feature of the East Bay's quality of life. The region boasts one of the most diverse populations in the Bay Area. The plurality of residents in the East Bay are White (37.0%), followed by Asian and Hispanic (both 23.7%), Black (9.5%), and Other/Mixed Race (6.1%). The East Bay's racial and ethnic diversity contributes to the rich cultural and community events that occur in the East Bay and that make the East Bay unique. For instance, Fremont's Festival of India is the largest Indian festival in the U.S. and attracts over 100,000 visitors.⁵ In

Oakland, the Fruitvale Día de Los Muertos Festival celebrates the city's Chicano and Latino heritage. The City of Berkeley hosts the Himalayan Fair, which is an annual outdoor celebration honoring Tibetan and Nepalese culture since 1983.⁶

PARKS AND NATURAL AMENITIES

East Bay residents benefit from easy access to hiking trails and public parks administered by the East Bay Regional Park District. The system includes 73 regional parks, over 121,390 acres of open space, and 1,250 miles of trails. The East Bay's parks are a popular destination for residents and attract 25 million visits a year. Studies estimate that the East Bay Regional Park District generates almost \$200 million a year in economic benefits to the East Bay's local economy.⁷ These economic impacts are in addition to the quality of life benefits for East Bay residents who enjoy widespread access to open space and outdoor recreation.

POVERTY

As the East Bay's economy continues to grow, poverty rates have declined. Between 2011 and 2016, the poverty rate in Alameda County fell from

1 <https://www.nytimes.com/interactive/2016/01/07/travel/places-to-visit.html?smid=fb-nytimes&smtyp=cur>

2 <https://wallethub.com/edu/happiest-places-to-live/32619/>

3 https://res.cloudinary.com/simpleview/image/upload/v1/clients/oakland/VO_2017_annual_report_EB_r6_FNL_web_2a28a070-0586-41b5-bdee-6a4d54c3bf26.pdf

4 <https://www.nerdwallet.com/blog/credit-cards/best-places-for-young-families-california/>

5 <https://www.eastbaytimes.com/2017/08/09/fremont-festival-of-india-and-parade-returns-this-weekend/>

6 http://www.himalayanfair.net/main/page_about_the_fair_the_fair.html

7 <http://www.ebparks.org/economics.htm>

Bay Area Poverty Rates

Place	Poverty Rate	Poverty Rate (Employed)	Poverty Rate (Unemployed)
California	14.3%	6.7%	28.0%
East Bay	9.7%	4.7%	20.7%
San Francisco	10.1%	4.2%	26.0%
San Mateo	6.5%	3.2%	16.2%
Santa Clara	9.4%	4.4%	21.5%

Source: American Community Survey 1-Year Estimates

13.1% to 10.7%, and in Contra Costa County, it fell from 12.0% to 8.6%. The East Bay and the rest of the Bay Area have considerably lower rates of poverty than the rest of the state. In 2016, the poverty rate for the East Bay was 9.7% while the state's poverty rate was 14.3%. This gap was similar to other areas of the Bay Area such as San Francisco County (10.1%) and Santa Clara County (9.4%). While incomes have risen, low-income residents are also facing displacement, and these two trends have contributed to the decline in the East Bay's poverty rates.

HEALTH

An important measure of access to health care services is the level of health insurance coverage among residents. In 2016, 95% of East Bay

residents had some form of health insurance, which was higher than the health insurance coverage for the state (93%). However, the East Bay's rate of health insurance coverage was lower than other parts of the Bay Area such as San Francisco County (97%), San Mateo County (96%), and Santa Clara County (96%). The East Bay's marginally lower rate of health insurance coverage can be attributed to the region's economic diversity compared to other parts of the Bay Area that have experienced greater levels of displacement of low-income residents. Additionally, from 2011 to 2016, the uninsured rate in the East Bay fell by 8% from 13% to 5%. Leading this drop was a 6% increase in residents receiving their health insurance through public programs like Medicare and Medi-Cal. Significant increases in rates of public health insurance coverage in part reflects the impact of the Affordable



Thursday night farmers' market in Concord.
Photo by: City of Concord.

Bay Area Health Insurance Coverage

Place	Insured	Insured (Private)	Insured (Public)	Uninsured
California	93%	63%	39%	7%
East Bay	95%	74%	32%	5%
San Francisco	97%	77%	29%	3%
San Mateo	96%	78%	29%	4%
Santa Clara	96%	75%	29%	4%

Source: American Community Survey 1-Year Estimates



New, state-of-the-art train for the BART to Antioch extension. Photo by: City of Antioch.

Care Act's expansion of Medicaid eligibility.

Additionally, East Bay residents have experienced improved life expectancy outcomes. Since 1960, life expectancy has risen for all ethnic groups in Alameda County. Asians have the highest life expectancy, followed by Hispanic/Latinos, Whites (which have similar life expectancy to the All-Race average), and then African Americans. For 2015, the overall life expectancy for the East Bay was 82.6 years and for Asians it was over 85 years, while the U.S. nationwide life expectancy was 78.7 years.⁸ According to health status benchmarks established by the U.S. Department of Health and Human Services for its Healthy People 2020 program, Alameda County meets or outperforms most indicators.⁹ Compared to other California Counties, Alameda County has the 11th best all-cause mortality rate, in addition to being in the top quartile for coronary heart disease, suicide, and drug induced deaths.

TRANSPORTATION

Challenges to the East Bay's quality of life have come from the region's growing congestion and commute times. A growing economy has increased travel times to work throughout the Bay Area. In the East Bay, the average travel time to work rose from 30.5 minutes in 2011 to 35.2 minutes in 2016. Similarly, travel times increased from 29.6 minutes to 33.5 minutes in San Francisco County, and 24.7 minutes to 28.9

Bay Area Average Commute Times (Minutes)

Place	2011	2016
East Bay	30.5	35.2
San Francisco	29.6	33.5
San Mateo	25.1	29.0
Santa Clara	24.7	28.9

Source: American Community Survey 1-Year Estimates

minutes in Santa Clara County. The addition of more jobs and more commuters to the Bay Area has strained the region's infrastructure leading to congestion and increased commute times. For the East Bay, the increase in commute times has been due to a growing number of long-distance commuters. Between 2011 and 2016, the share of East Bay residents travelling 60 minutes or more for work grew by 6.5%, from 13.5% to 20%. A growing share of long-distance commuters reflects the lack of housing options for the region's workers as well as workers who are priced out of Silicon Valley and San Francisco.

East Bay Resident Commute Distribution

Commute Length (minutes)	2011	2016
Less than 10	8.8%	6.7%
10 to 14	11.7%	10.1%
15 to 19	13.8%	12.4%
20 to 24	12.1%	11.0%
25 to 29	5.2%	4.9%
30 to 34	14.6%	13.1%
35 to 44	8.5%	8.5%
45 to 59	11.9%	13.2%
60 or more	13.5%	20.0%

Source: American Community Survey 1-Year Estimates

⁸ <http://www.acphd.org/media/482811/mofm.pdf>

⁹ http://www.acphd.org/media/458830/ac_chsp.pdf

East Bay Commuting Patterns

Means of Commute	2011	2016
Bicycle	1.5%	1.7%
Car, Truck, or Van	78.2%	74.0%
Public Transport	10.7%	13.2%
Taxi & Other	1.3%	1.6%
Walk	2.7%	2.8%
Work at Home	5.7%	6.8%

Source: American Community Survey 1-Year Estimates

Along with longer travel times, commute patterns have shifted in the East Bay. A growing percentage of commuters are choosing to forego their cars for public transportation. From 2011 to 2016, the share of commuters travelling to work by car fell from 78.2% to 74.0%. Conversely, the share of East Bay residents commuting to work on public transportation grew from 10.7% to 13.2%. The East Bay benefits from widespread access to the BART system, which will have even more ridership once it extends further into Silicon Valley within the next year and eventually to San Jose by 2026. The increasing number of residents without cars underscores the importance of a robust, regional public transportation infrastructure system.

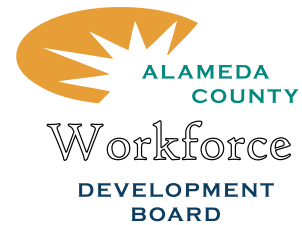


Brentwood Concert in the Park.
Photo by: City of Brentwood.





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