

East Bay Economic **OUTLOOK** 2019-20





Coyote Hills main marsh. Source: Photo by Davor Desancic. Courtesy of East Bay Regional Park District.

EAST BAY ECONOMIC OUTLOOK 2019-20

CONTENTS

EXECUTIVE SUMMARY	3
EAST BAY EMPLOYMENT	4
Overview 4	Average Weekly Hours and Wages 7
Industry Employment 5	Employment by Occupation 7
Labor Force and Unemployment Rate 6	Commuting Patterns 9
EAST BAY BUSINESS ACTIVITY	11
Overview 11	Personal Income 14
Taxable Sales 12	International Trade 14
Air Travel 13	Interest Rates & Inflation 16
EAST BAY VENTURE CAPITAL	17
Overview 17	East Bay in Comparison 18
Venture Capital Investment 18	Regional Investment Trends 19
EAST BAY COMMERCIAL REAL ESTATE	22
Overview 22	Industrial 26
Year in Review 23	Hospitality 28
Office 23	Infrastructure 28
Retail 25	
EAST BAY RESIDENTIAL REAL ESTATE	29
Overview 29	Apartment Rents 32
Single Family Home Prices 30	Apartment Vacancy 32
Condominium Prices 30	Residential Permitting 33
Housing Affordability 31	Rent Burden 33
Defaults and Foreclosures 31	A Sacramento Solution to the Region's Lack of Affordable Housing? 34
Home Supply and Sales 32	
EAST BAY DEMOGRAPHICS	36
Overview 36	Poverty Decline 40
Population Growth and Composition 37	Health Coverage 40
Education and Income 38	Challenges of Commuting 40
Quality of Life 39	



ABOUT THIS REPORT

The **East Bay Economic Development Alliance** (East Bay EDA) is a cross-sector partnership with over 29 years of supporting strategic economic development in Alameda and Contra Costa counties. East Bay EDA convenes diverse stakeholders including local business, government and community leaders who recognize the extraordinary value of our region as a global leader and an unrivaled place to live and work.

One of East Bay EDA's core strategies is to provide valuable information about trends impacting the East Bay economy by providing information about the region through commissioned studies and research, and promote the assets of the East Bay region through educational business forums, comprehensive networking events, access to business resources and regional marketing. The 2019-20 East Bay Economic Outlook is a short-term forecast as well as a summary of key economic indicators for the East Bay as it compares to the Bay Area region and the state of California. The report is prepared by Beacon Economics and East Bay EDA.

ACKNOWLEDGEMENTS

Report Sponsors

Bank of America
Alameda County Social Services Agency
Alameda County Workforce Development Board
Contra Costa County Workforce Development Board

Beacon Economics

Christopher Thornberg, Ph.D., *Founding Partner*
Adam J. Fowler, *Director of Research*
Brian Vanderplas, *Senior Research Associate*
Joshua Baum, *Research Associate*
Mazen Bou Zeineddine, *Research Associate*
Ryan Martinez, *Research Associate*

East Bay EDA

Stephen Baiter, *Executive Director*
Robert Sakai, *Technology & Trade Director*
Jackie Keliiaa, *Regional Economic Development Director*
Carline Au, *Senior Economic Development Analyst*
Xian Ballesteros, *Senior Economic Development Analyst*
Michael Northam, *Economic Development Analyst*
Maribel Puri icacion, *Administrative Associate*

Special Acknowledgements

CBRE | Cushman & Wakefield | Jones Lang LaSalle | TRI Commercial

Reproduction of this document or any portion therein is prohibited without the express written permission of East Bay Economic Development Alliance and Beacon Economics LLC.

Copyright ©2019 by the East Bay Economic Development Alliance.

To learn more about East Bay EDA, please visit: www.EastBayEDA.org



East Bay Economic Development Alliance

1221 Oak Street, Suite 555, Oakland CA 94612

(510) 272-6746 | info@EastBayEDA.org

IN 2018, THE U.S. ECONOMY concluded another solid year, as the nation's real output grew by 2.9% year-over-year, marking the greatest percentage growth since 2015. Strong contributions from government and business investment helped fuel the nation's GDP growth, and, despite all the concerns over trade, exports increased over the past year.

The East Bay—which consists of Alameda and Contra Costa counties—wrapped up 2018 with a number of positive takeaways for the economy. The unemployment rate remained at record low levels throughout the year, which has pushed wages up slightly. Beacon Economics expects these employment gains to continue and for the unemployment rate to remain at low levels in the near future. However, employment growth is likely to remain sluggish considering the tightening labor market in the region.

The 2019-2020 Outlook report analyzes the health of the East Bay economy by examining recent trends in employment, business activity, venture capital, commercial and residential real estate and demographics.

Key highlights from this report include:

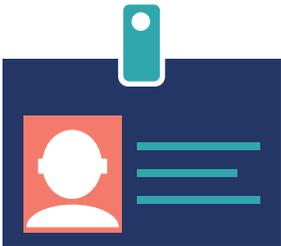
- East Bay employment remains positive despite a slowdown over the last year. Total nonfarm employment growth in the East Bay expanded by nearly 18,000 jobs between March 2018 and March 2019 (1.5%). Employment growth in the East Bay performed slightly better than California (1.4%), but trailed behind San Francisco and San Mateo Counties (3.7%), and San Benito and Santa Clara Counties (2.6%).
- The East Bay's population has reached 2.8 million in 2018, an increase of 0.9% from 2017. Roughly 22% of workers in the region experience an hour or more commuting from home, up from 18 percent since 2014.
- The share of employed residents who commute outside the East Bay for work has increased from 30% to 34% between 2012 and 2017. Over half of East Bay outbound commuters travel to San Francisco and Santa Clara counties for work.
- The East Bay's taxable sales increased considerably over 2018 to \$53.2 billion, an annual increase of 7.3%. Growth in the East Bay outpaced both San Francisco (4.1%) and San Mateo (4.0%) counties.
- The East Bay broke its record for highest amount of venture capital in 2018, with \$5.1 billion invested in East Bay companies—double the amount collected in 2017. This is spurred by investments in the Clean Tech, Software, Biotech, and Medical Devices and Supplies industries.
- Nonresidential real estate valuations have increased significantly, totaling \$671.6 million in 2018. In particular, the value of industrial permits has increased by \$282 million, which can be attributed to high demand for modern spaces in the East Bay and its infrastructure supporting goods movement.
- The residential real estate market has experienced overall increases in permits driven by substantial growth in multi-family permits. Nonetheless, home prices and rents have increased considerably—with growth of 4.5% in median home values and 4.1% in cost of rent. However, rising construction costs and persistent labor shortages are major challenges for development.
- Net migration reached roughly 6,700 in 2018, with total net foreign immigration contributing the most with 17,570 people. Total net migration has dropped compared to a decade ago, when net migration was 9,000.

The major economic indicators point towards steady growth for the East Bay in the short term. With employment and wages on the rise, consumer confidence is expected to drive up further business activity. While there was a slowdown in the pace of growth, total nonfarm employment and the labor force still increased at a moderate pace, and the region has consistently experienced low levels of unemployment. However, there are significant factors that affect economic growth, including the region's ongoing labor shortages and the lack of housing supply. Home and rent valuations have been on the rise as a result of constrained supply—and with increases in population, this problem will linger unless the rate of supply is changed. The East Bay will continue to grow in the near future due in part to ongoing in-migration and a growing labor market, but eventually the issues of labor scarcity and housing supply will need to be resolved in order to keep the region's economy growing at a healthy pace.



Concreteworks in Alameda. Source: Courtesy of City of Alameda. Photo by Maurice Ramirez.

EAST BAY EMPLOYMENT



OVERVIEW

EAST BAY EMPLOYMENT GROWTH remains positive despite a slowdown over the last year. According to March 2019 preliminary estimates from the California Employment

Development Department, nonfarm employment¹ reached 1.19 million in the East Bay, an increase of 1.5% from March 2018. This represents a slowing of the growth rate as compared to the 2% growth over the same period between 2017 and 2018. By comparison, employment growth in the East Bay performed slightly better than California (1.4%), but trailed behind San Francisco and San Mateo

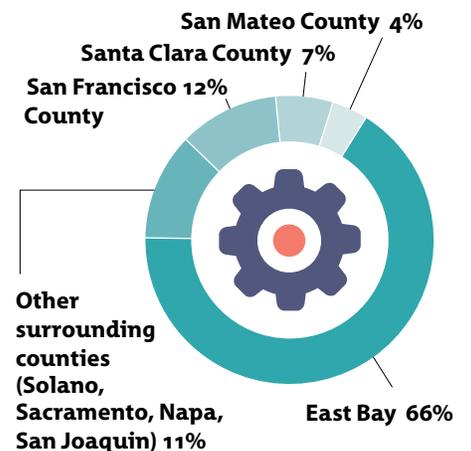
Fastest-growing sectors:

- Transportation, Warehousing & Utilities (4.4%)
- Professional & Business Services (4.3%)
- Health Care & Social Assistance (3.0%)

Employment grew by 1.5% (17,900 jobs)

This represents a slowdown from the 2% growth between 2017-2018.

Place of work for East Bay Residents



Unemployment rate of 3.4%

The East Bay's unemployment rate fares better than the state (4.7%).

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.

counties (3.7%), and San Benito and Santa Clara counties (2.6%). Despite the slowdown in nonfarm employment growth, the East Bay's labor force has continued to grow at a healthy pace.

From March 2018 to March 2019, the East Bay's labor force grew by 1.4%, which outpaced the 1% increase in the state but lagged behind San Francisco County (2.9%), San Mateo County (2.8%), and Santa Clara County (2.1%). Still, the East Bay and broader Bay Area will face labor force constraints over the next year as skilled workers become scarce. Skilled workers are defined as workers who have a college degree or are licensed in a certain profession. More important for long-term growth, new housing stock will be necessary to grow and retain residents and workers.

The East Bay's unemployment rate edged up from the historic lows witnessed in recent months to 3.4% in March 2019, which is slightly above the previous year's 3.2%. Unemployment rates for the East Bay were below the statewide average of 4.3%, although these rates remained higher than the unemployment rates in San Francisco County (2.6%), San Mateo County (2.6%) and Santa Clara County (2.9%).

A relative lack of skilled workers in the region has put upward pressure on wages over the last year. Through the first three quarters of 2018, the average annual wage in the East Bay was \$73,077—a 2.9% increase over the same period of 2017, according to data from the U.S. Bureau of

Labor Statistics. Even with a near 3% increase, reported wage growth was more robust in California (4.3%), San Francisco County (8.3%), San Mateo County (11.0%) and Santa Clara County (7.1%). Going forward, Beacon Economics expects the East Bay to continue to experience wage gains as the labor market increasingly tightens and employers boost wages to attract workers.

INDUSTRY EMPLOYMENT

Over the last year employment growth across industries has been somewhat mixed in the East Bay. Leading in percentage terms were Transportation, Warehousing & Utilities (4.4%), followed by Professional & Business Services (4.3%), and Health Care and Social Assistance (3%).

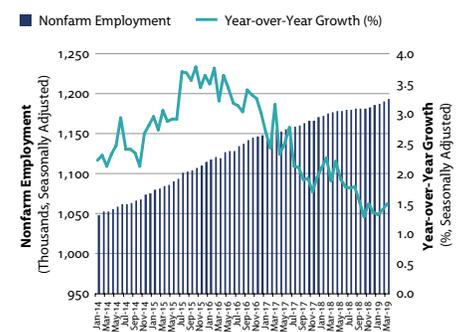
Leisure and Hospitality also posted significant job gains, adding about 2,300 jobs since March 2018. An uptick in construction activity also contributed to job gains in the Construction sector, increasing payrolls by 2.8%. Despite these gains, the Construction sector struggles to recruit skilled laborers to keep up with demand across the Bay Area². As the region's population continues to grow, demand for occupations in these industries should increase steadily.

A handful of industries experienced employment declines over the last year. Both the Information and



Peridot precision manufacturing in Pleasanton. Source: Courtesy of City of Pleasanton.

Figure 1.1: East Bay Nonfarm Employment 2014-2019



Source: California Employment Development Department (EDD); Analysis by Beacon Economics

² Baldassari, Erin and Kendall, Marisa. "Hidden Cost of Housing: How a Shortage of Construction Workers Is Making Our Crisis Worse." East Bay Times. February 26, 2018. Accessed April 12, 2019. <https://www.eastbaytimes.com/2018/02/25/hidden-cost-of-housing-how-a-shortage-of-construction-workers-is-making-our-crisis-worse/>.

EAST BAY EMPLOYMENT



QB3 East Bay Innovation Center (QB3-EBIC) at Wareham Development's Aquatic Park Center in Berkeley. Source: Courtesy of City of Berkeley.

Table 1.1: East Bay Employment by Industry (March 2019)

	March 2019 Employment*	One-Year % Change
Total Nonfarm	1,190,900	1.5
Total Private	1,012,400	1.7
By Industry		
Transportation, Warehousing & Utilities	42,800	4.4
Professional & Business Services	194,300	4.3
Health Care and Social Assistance	176,100	3.0
Construction	75,800	2.8
Educational Services	24,700	2.1
Leisure & Hospitality	117,500	2.0
Government	178,500	0.6
Mining and Logging	200	-
Manufacturing	99,200	-0.1
Financial Activities	54,900	-0.2
Wholesale Trade	47,900	-0.2
Retail Trade	112,900	-0.7
Information	27,200	-0.7
Other Services	38,900	-4.2

*Data not seasonally adjusted. Based on March 2019 estimates.

Source: California Employment Development Department (EDD)

Figure 1.2: East Bay Annual Average Unemployment Rate 1990-2018



Source: California Employment Development Department (EDD); Analysis by Beacon Economics

Retail industries saw a year-over-year decrease of 0.7%. Wholesale Trade, Manufacturing, and Financial Activities also experienced minor job losses over the last year. Other Services, which includes jobs in religious and civic organizations, saw a notable decline of 4.2%.

Development Department. Even with this slight increase, the East Bay's unemployment rates were below the statewide average of 4.2%, but higher than the unemployment rates in neighboring San Francisco County (2.6%), San Mateo County (2.4%) and Santa Clara County (2.9%).

LABOR FORCE AND UNEMPLOYMENT RATE

Figure 1.2 shows the East Bay's annual average unemployment rates since 1990. In 2018, the East Bay dropped to 3.1%, which is below its 1999 low of 3.3%.

As of March 2019, the East Bay's unemployment rate stood at 3.4%, a slight uptick from the year prior, according to the latest available data from the California Employment

Despite the slowdown in nonfarm employment growth in the East Bay, the region's labor force³ has continued to grow at a healthy pace. From March 2018 to March 2019, the East Bay's labor force grew by 1.4%, outpacing the 1.0% increase recorded

³ The labor force includes persons employed and unemployed living in a defined area.

statewide, according to data from the California Employment Development Department. By comparison, the East Bay's labor force growth trailed San Francisco County (2.9%), San Mateo County (2.8%) and Santa Clara County (2.1%) over the same period.

AVERAGE WEEKLY HOURS AND WAGES

According to data from the U.S. Bureau of Labor Statistics, the average workweek in the East Bay was 34.9 hours in January 2019 on a seasonally-adjusted⁴ basis, an increase from 34.4 hours in January 2018 as indicated in Figure 1.3. In addition, the number of workers employed part time for economic reasons steadily declined statewide over the last year, falling 5.6% from January 2018 to January 2019.⁵ This is significant because it means more workers are finding full time work and are also working longer hours, yielding higher weekly wages and as a result, having higher spending power.

Wages grew across the East Bay in 2018, as indicated in Table 1.2. Through the first three quarters of 2018 the average annual wage in the East Bay was \$73,077, a nearly 3% increase over the same period in 2017. Within the East Bay, the average annual wage in Alameda County was \$75,411, a 2% increase over the same period from the previous year, while wage growth was more modest in Contra Costa County, increasing 2.7% to reach \$68,096. Comparatively, during the

first three quarters of 2018 the State experienced a more robust wage growth (4.3%, \$67,173), however both the East Bay and the State were eclipsed by wage gains in San Mateo County (11.0%, \$126,970), San Francisco County (8.3%, \$115,573) and Santa Clara County (7.1%, \$133,238). Still, with a shortage of skilled workers to meet businesses' demand, there looks to be an upward pressure on wages over the next year in the East Bay and in the Bay Area as a whole.

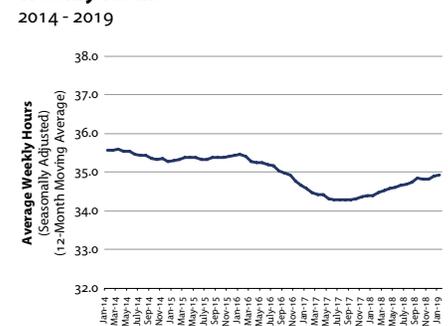
Over the last year, wage growth was distributed across almost all industries in the East Bay. From 2017 to 2018, the Administrative Support sector had the largest jump in percentage terms, 6.9%, to \$51,255, as indicated in Table 1.2. Among the higher-wage industries, annual average wages grew significantly in the Information (5.0%) and Professional, Scientific and Technical Services (3.9%) sectors. Among the lower-wage industries, annual average wages grew significantly in Leisure and Hospitality (4.5%) and Retail Trade (4.4%). The only major year-over-year declines in annual average wages were in sectors in which wages were above average for all industries, such as Management (-2.0%) and Wholesale Trade (-0.6%).

EMPLOYMENT BY OCCUPATION

According to data from the U.S. Bureau of Labor Statistics, employment levels have increased

With a shortage of skilled workers to meet businesses' demand, there looks to be an upward pressure on wages over the next year in the East Bay and in the Bay Area as a whole.

Figure 1.3: East Bay Average Weekly Hours



Source: U.S. Bureau of Labor Statistics; Analysis by Beacon Economics

⁴ Seasonal adjustment is a statistical technique that attempts to measure and remove the influences of predictable seasonal patterns to reveal changes from month to month.

⁵ California Employment Development Department (EDD), California Labor Market Review, January 2019.

EAST BAY EMPLOYMENT



Livermore Computing Center at Lawrence Livermore National Laboratory.
Source: Courtesy of City of Livermore.

Table 1.2: East Bay Average Annual Wage by Industry (2017-2018)

	2017	2018	One-Year Change (%)
East Bay	\$71,034	\$73,077	2.9
Alameda County	\$73,281	\$75,411	2.9
Contra Costa County	\$66,310	\$68,096	2.7
By Industry			
Information	\$151,268	\$158,895	5.0
Management	\$154,845	\$151,787	-2.0
Professional, Scientific and Technical Services	\$110,662	\$114,936	3.9
Finance and Insurance	\$111,997	\$114,573	2.3
Manufacturing	\$97,630	\$97,657	-
Wholesale Trade	\$83,825	\$83,352	-0.6
Natural Resources and Construction	\$77,570	\$81,187	4.7
Government	\$75,336	\$77,216	2.5
Real Estate	\$66,930	\$68,651	2.6
Transportation, Warehouse and Utilities	\$68,077	\$68,308	0.3
Health Care	\$61,391	\$62,833	2.3
Administrative Support	\$47,928	\$51,255	6.9
Other Services	\$42,633	\$44,201	3.7
Educational Services	\$41,754	\$43,069	3.1
Retail Trade	\$36,686	\$38,318	4.4
Leisure and Hospitality	\$28,248	\$29,527	4.5

Source: U.S. Bureau of Labor Statistics; Analysis by Beacon Economics

From 2012 to 2017, Personal Care & Service occupations had the largest increase in percentage terms, increasing positions by 143%.

across most occupations in the East Bay in recent years, as shown in Table 1.3. From 2016 to 2017, occupational employment expanded by 5%, or 53,900 jobs, reaching 1,138,240.⁶ Personal Care & Service occupations were responsible for nearly half of these gains, growing by 25,960, or 74% since 2016. Other occupations that increased employment levels by healthy margins in absolute terms were Transportation & Material Moving (4,590); Arts, Design, Entertainment, Sports & Media (3,100); Healthcare Practitioners & Technical (2,770) and Construction & Extraction (2,710).

Over the five-year period between 2012 to 2017, occupational employment levels expanded by 17% in the East Bay. Personal Care & Service occupations had the largest increase in percentage terms, increasing positions by 143%. Other occupations posting sizable gains over the period were Construction & Extraction (43%), Arts, Design, Entertainment, Sports & Media (42%), Production (31%) and Legal (22%).

⁶ Occupational Employment Statistics from the U.S. Bureau of Labor Statistics comes from a different sample than the monthly employment data reported earlier. As a result, there can be some variation between the figures and growth rates in each dataset.

Table 1.3: East Bay Employment, Change and Average Annual Wages by Occupation

Occupation	Employment 2017	One-Year Change (%)	One-Year Change (#)	Five-Year Change (%)	Five-Year Change (#)	Average Annual Wage, 2017
Office & Administrative Support	163,130	-	-70	2.0	3,180	\$45,580
Sales & Related	107,180	2.0	2,120	9.1	8,950	\$47,360
Food Preparation & Serving Related	95,220	2.9	2,640	20.0	15,890	\$29,660
Education, Training & Library	73,900	2.2	1,600	19.0	11,780	\$62,150
Management	72,200	3.1	2,140	17.8	10,930	\$140,340
Business & Financial Operations	69,560	3.8	2,550	16.7	9,960	\$89,530
Transportation & Material Moving	69,490	7.1	4,590	20.6	11,870	\$43,420
Production	64,530	3.2	1,980	30.6	15,120	\$43,270
Personal Care & Service	61,210	73.6	25,960	142.7	35,990	\$30,350
Healthcare Practitioners & Technical	59,430	4.9	2,770	11.3	6,050	\$103,110
Construction & Extraction	55,440	5.1	2,710	43.4	16,790	\$68,180
Computer & Mathematical	41,500	-2.6	-1,110	5.5	2,180	\$107,880
Installation, Maintenance & Repair	36,660	3.6	1,280	13.5	4,370	\$58,820
Building/Grounds Cleaning & Maintenance	30,430	-0.2	-60	14.3	3,810	\$37,630
Architecture & Engineering	28,210	0.1	20	-6.8	-2,050	\$98,960
Healthcare Support	26,070	3.3	840	1.9	490	\$39,600
Protective Service	20,220	-1.6	-320	3.4	660	\$63,460
Arts, Design, Entertainment, Sports & Media	19,660	18.7	3,100	42.2	5,830	\$56,470
Community & Social Service	17,660	10.4	1,660	16.0	2,440	\$57,870
Life, Physical & Social Science	17,660	-5.0	-930	11.6	1,840	\$90,370
Legal	8,240	4.3	340	22.4	1,510	\$122,450
Farming, Fishing & Forestry	650	16.1	90	-52.2	-710	\$33,130
Total	1,138,240	5.0	53,900	17.2	166,880	\$62,810

Source: U.S. Bureau of Labor Statistics; Analysis by Beacon Economics

COMMUTING PATTERNS

As the economic expansion continues in the East Bay, the share of residents who commute outside the East Bay for work has grown. In 2012, nearly 70% of East Bay residents lived and worked in Alameda or Contra Costa counties. In 2017, this share decreased to 66%, according to the latest available data from the U.S. Census' American Community Survey (Table 1.4). San Francisco

County (12.0%) and Santa Clara County (6.9%) were the top work destinations, accounting for over half of total outbound commuters (33.7%) in 2017. The share of East Bay residents commuting to other counties for work (including San Joaquin, Sacramento, Yolo, Santa Cruz, San Benito) have also increased from 7% to 9% between 2012 and 2017. This dynamic has increased congestion throughout the region and has contributed towards rising housing and transportation costs.

In 2012, nearly 70% of East Bay residents lived and worked in Alameda and Contra Costa counties. In 2017, this share decreased to 66%.

EAST BAY EMPLOYMENT



Manufacturer in Pittsburg.
Source: Courtesy of City of Pittsburg.

At the same time, heavy commuting into job centers in San Francisco, San Mateo, and Santa Clara counties, as well as real estate costs and workforce retention challenges, have driven some companies to move and expand their presence in the East Bay.

Table 1.4: Place of Work for East Bay Residents (2012 and 2017)

Place of Work	Employed Residents (2012)	Employed Residents (2017)	2012 Share (%)	2017 Share (%)
East Bay (Alameda and Contra Costa counties)	866,322	944,343	69.5	66.3
San Francisco County	136,982	170,894	11.0	12.0
Santa Clara County	89,177	98,250	7.2	6.9
San Mateo County	44,022	53,622	3.5	3.8
Marin County	11,542	15,056	0.9	1.1
Solano County	8,753	9,488	0.7	0.7
Sonoma County	2,337	2,175	0.2	0.2
Napa County	1,476	1,816	0.1	0.1
Other*	85,403	129,777	6.9	9.1
Total	1,246,014	1,425,421	100.0	100.0

*Includes counties of San Joaquin, Sacramento, Yolo, Santa Cruz, San Benito, and others.

Source: U.S. Census Bureau, American Community Survey; Analysis by Beacon Economics

Traffic congestion and housing costs are symptoms of a deeper problem in the Bay Area—the lack of sustained housing production. In the face of strong economic growth, this creates fierce competition for housing close to employment centers and pushes lower and moderate-income residents and workers to commute long distances.

At the same time, heavy commuting into job centers in San Francisco, San

Mateo, and Santa Clara counties, as well as real estate costs and workforce retention challenges, have driven some companies to move and expand their presence in the East Bay. East Bay leaders hope this trend will continue, reducing the outflow commute of East Bay residents and bring quality jobs to the East Bay.



Broadway Plaza shopping center in Downtown Walnut Creek. Source: Photo by Chris Gill.

EAST BAY BUSINESS ACTIVITY



OVERVIEW

THE EAST BAY HAS SEEN continued growth in business activity from 2017 to 2018. Increases in taxable sales across the East Bay have outpaced other parts of the

Bay Area. Tourism indicators continue to show substantial growth. Gains in per capita personal income in both Alameda and Contra Costa Counties indicate signs of economic health throughout the region. Although there has been worry over the direction of U.S. trade policy, the worst scenarios have not materialized, as both imports and exports increased over the last year. In addition, short-run trends, such as rising interest rates, do not amount to anything that could dramatically threaten the current expansion.

13.6 million
passengers traveled
through Oakland
International Airport

In 2019-2020, Oakland International Airport will revamp its F&B offerings by adding popular local businesses.

\$29.9 billion
in imports at the
Port of Oakland

This represents a 4.5% increase over 2017. Total exports reached \$19.8 billion, a near 1% increase.

Per Capita Personal Income

(Avg. total compensation per year)



\$53.2 billion in
taxable sales

This represents a 7.3% increase in spending over 2017—more growth than San Francisco, San Mateo, or Santa Clara counties.



Café goes at Farley's East in Downtown Oakland. Source: Photo by Greg Linhares.

TAXABLE SALES

With continued gains in business activity, the East Bay's economic expansion continued at a healthy pace in 2018. The East Bay had its ninth consecutive year of gains in taxable sales, reaching \$53.2 billion, a 7.3% increase from 2017. Gains were most pronounced in Alameda County, which grew by 7.8%, while Contra Costa County grew by 6.2%. Taxable sales grew more rapidly in the East Bay overall compared with its neighboring counties, including San Francisco (4.1%), San Mateo (4.0%), and Santa Clara (6.5%).

The City of Fremont had a significant impact on the East Bay's taxable sales growth. As shown in Table 2.1, taxable sales in Fremont increased 31% from 2017 to 2018, reaching \$6.1 billion, the most among East Bay cities and towns. This significant growth was due to Tesla's ramping up production of its Model 3, which sold over 145,000 units in 2018. Overall, Tesla sold over 244,000 vehicles in 2018—a 137% increase year-over-year. The City of Fremont captured these gains because many out-of-state residents chose delivery from the Tesla factory in Fremont.¹

Other cities with rapid growth in taxable sales over the last year were Oakley (13.8%), Hercules (12.9%), Dublin (11.1%) and Richmond (10%). The East Bay's larger cities' taxable sales also grew, with Oakland (3.7%), Concord (4.6%) and Hayward (3.9%) all experiencing steady gains in consumer and business spending.

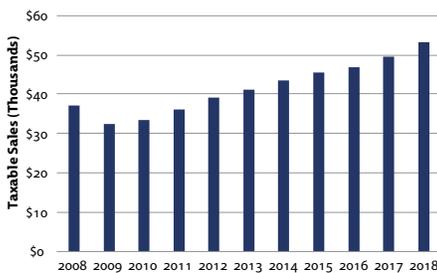
Table 2.1: East Bay Taxable Sales by City/Town

City/Town	2018 (Thousands)	Year-over-Year Change (%)
Alameda County		
Fremont	\$6,099,637	31.3
Dublin	\$1,965,680	11.1
Piedmont	\$17,236	8.6
Newark	\$1,162,909	7.8
Alameda	\$956,882	5.1
Hayward	\$3,006,548	3.9
Oakland	\$4,965,505	3.7
Berkeley	\$1,637,120	2.7
Union City	\$949,501	1.4
Livermore	\$2,879,205	1.3
Albany	\$235,136	1.2
Emeryville	\$777,190	-1.2
San Leandro	\$2,607,605	-2.2
Pleasanton	\$1,936,041	-6.6
Contra Costa County		
Oakley	\$166,911	13.8
Hercules	\$196,784	12.9
Richmond	\$1,591,557	10.0
Antioch	\$1,238,916	9.6
Walnut Creek	\$2,275,366	8.2
Pittsburg	\$812,898	7.5
Moraga	\$97,088	6.4
Concord	\$3,155,356	4.6
San Pablo	\$208,477	4.1
Brentwood	\$763,928	2.9
San Ramon	\$843,639	2.0
Pinole	\$339,470	1.2
Pleasant Hill	\$747,695	0.8
El Cerrito	\$264,607	0.4
Clayton	\$39,847	0.3
Lafayette	\$264,409	-0.1
Danville	\$488,824	-0.8
Orinda	\$90,083	-6.9
Martinez	\$389,651	-9.1

Note: Values for unincorporated areas are not shown.

Source: California Department of Tax and Fee Administration (CDTFA); Analysis by Beacon Economics

Figure 2.1: East Bay Taxable Sales 2008 - 2018



Source: California Department of Tax and Fee Administration; Analysis by Beacon Economics

¹ "Tesla Sells 33% More Cars In USA In Q4 2018 Than In All Of 2017! 367% YoY Growth!" CleanTechnica. January 03, 2019. Accessed March 14, 2019. <https://cleantechnica.com/2019/01/02/tesla-sells-33-more-cars-in-usa-in-q4-2018-than-in-all-of-2017-467-yoy-growth/>.

As indicated in Table 2.2, almost every spending category in the East Bay grew in 2018. As mentioned previously, Tesla in Fremont led the way for Autos and Transportation contributing to a 17.5% increase in the category from 2017 to 2018. This near \$14.6 million increase in sales tax receipts accounted for more than half of the overall increase in the East Bay for the year. An uptick in construction activity also stimulated gains in the region, with sales tax receipts for Building and Construction businesses increasing by 7.6% from 2017 to 2018. Fuel and Services Stations also posted significant gains of 6.9% over the same period. Rising fuel prices and gas tax increases were primarily responsible for the gain; although fuel prices are currently lower than 2018 levels, they remain volatile. Restaurants and Hotels (2.2%), Business and Industry (1.9%) and General Consumer Goods (1%) posted moderate gains. The Food and Drugs category posted minor losses, but remains virtually unchanged from the previous year.

Table 2.2: East Bay Sales Tax Receipts by Business Category

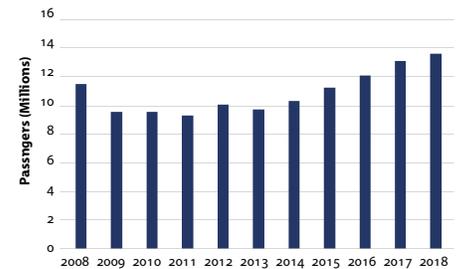
Category	2017 (\$)	2018 (\$)	Year-over-Year Change (\$)	Year-over-Year Change (%)
Autos and Transportation	83,507,009	98,087,168	14,580,159	17.5
Building and Construction	40,805,881	43,890,846	3,084,965	7.6
Fuel and Service Stations	34,630,963	37,034,708	2,403,745	6.9
Restaurants and Hotels	53,439,551	54,641,437	1,201,886	2.2
Business and Industry	72,886,384	74,251,268	1,364,884	1.9
General Consumer Goods	89,151,369	90,021,839	870,470	1.0
Food and Drugs	25,472,910	25,467,961	(4,949)	-
Total	474,035,266	502,729,913	28,694,648	6.1

Source: HdL Companies; Analysis by Beacon Economics

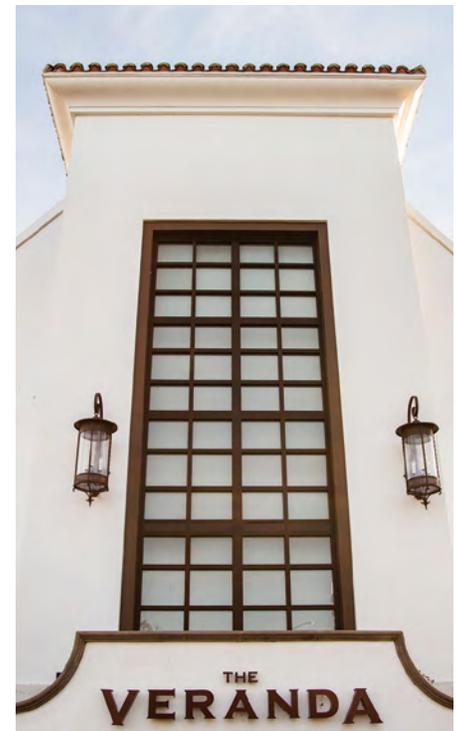
AIR TRAVEL

Another indicator of ongoing expansion in the East Bay is air travel. Passenger traffic at Oakland International Airport (OAK) grew steadily in 2018, reaching 13.6 million passengers, a 4% increase. According to Figure 2.2, 2018 marked the busiest year for passenger traffic at OAK since 2007, when the airport reached a record 14.6 million passengers. In 2019, the airport will undergo the most extensive changes in its food and beverage concessions in over a decade. Additionally, new routes brought OAK's roster to 67 nonstop destinations, a record number in the airport's 91-year history.² Moreover, Southwest Airlines had its first-ever service to the Hawaiian Islands from OAK. These new routes are expected to drive further increases in passenger traffic throughout 2019.

Figure 2.2: Oakland International Airport Passenger Traffic 2008 - 2018



Source: Oakland International Airport (OAK); Analysis by Beacon Economics



The Veranda retail center in Concord.

Source: Courtesy of City of Concord.

² "OAK Airport Handily Surpasses 2017 Passenger Activity; Begins Food & Beverage Concessions Makeover." Oakland International Airport. February 04, 2019. Accessed March 14, 2019. <https://www.oaklandairport.com/oak-airport-handily-surpasses-2017-passenger-activity-begins-food-beverage-concessions-makeover/>.



The Office coworking space in Downtown Berkeley. Source: Courtesy of City of Berkeley.

PERSONAL INCOME

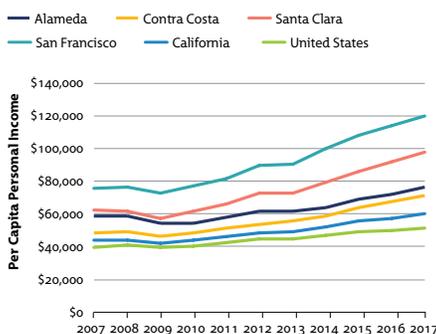
The most recent indicator (2017) of per capita personal income growth is another sign of economic health in the East Bay. Calculated as the total personal income of the residents of a given area divided by the resident population, the per capita personal income of the East Bay is outpacing the state and nation (Figure 2.3). The 2017 figure in California was \$59,800, a 4.0% increase from 2016. For the United States in general, per capita personal income was \$51,600, a 3.6% increase. Per capita personal income in Alameda County was \$71,300, and \$76,500 in Contra Costa County. Contra Costa County's per capita personal income was the fastest-growing in the East Bay, increasing 6.0% in 2017 while Alameda County grew at a slightly slower pace, at 5.8%. In comparison, San Francisco County and Santa Clara County increased by 5.2% and 6.4%, respectively. This increase was driven by higher-earning households and new minimum wage requirements in some East Bay cities.

Although personal income is on an upward trend in the East Bay, so is the cost of living. Costs of rent, homeownership, utilities, transportation, meals and entertainment are on the rise, but the East Bay still maintains a lower cost of living compared to San Francisco and Santa Clara counties.

INTERNATIONAL TRADE

Total exports at the Port of Oakland reached \$19.79 billion in 2018, a near 1.0% increase over 2017 values (Table 2.3). The top export commodities were fruits and nuts (\$5.51 billion), meat (\$4.57 billion) and industrial machinery (\$0.95 billion). Japan remained the top export country for the Port of Oakland, which received \$4.31 billion in exports in 2018, a 4.0% increase over 2017. This is followed by exports to China (\$2.38 billion), South Korea (\$1.75 billion), Taiwan (\$1.26 billion) and Hong Kong (\$0.83 billion).

Figure 2.3: Per Capita Personal Income 2007 to 2017



Source: U.S. Bureau of Economic Analysis; Analysis by Beacon Economics

Table 2.3: Port of Oakland Exports

	2017 (\$)	2018 (\$)	Year-over-Year Change (%)
Total Exports	19,619,499,704	19,793,106,051	0.9
Top 3 Exports by Commodity			
Fruit & Nuts	5,551,104,157	5,511,674,490	-0.7
Meat	3,363,525,485	3,570,697,415	6.2
Industrial Machinery	1,062,683,809	946,698,244	-10.9
Top 3 Exports by Partner Country			
Japan	4,148,416,495	4,312,152,331	4.0
China*	2,579,550,952	2,378,135,562	-7.8
South Korea	1,617,706,466	1,753,975,776	8.4

*Does not include Hong Kong and Taiwan

Source: Wisier Trade; Analysis by Beacon Economics

Total imports at the Port of Oakland reached \$29.94 billion in 2018, a 4.5% increase over 2017 values. The top import commodities for the port were Electric machinery (\$4.29 billion), Industrial machinery (\$4.1 billion) and Vehicles (\$2.4 billion). Table 2.4 identifies the top import country for the Port of Oakland as China, which exported \$13.2 billion in goods through the port in 2018, a 4.5% increase over 2017 levels. Imports from China were followed by imports from Japan (\$1.86 billion), Taiwan (\$1.77 billion) and South Korea (\$1.75 billion).

Although activity at the Port of Oakland increased in 2018, there has been worry over the direction of U.S. trade policy, but the worst scenarios have not materialized. Rather than unilaterally pulling out of NAFTA as threatened, the United States negotiated a new trade agreement, the United States-Mexico-Canada-Agreement (USMCA), with our largest trading partners that mostly mirrors the old trade agreement. However, its ratification remains to be seen.

As of early 2019, the U.S-China trade dispute is also ongoing. However, even a major trade war with China would not be sufficient to end the current economic expansion. The United States exports only 8% of the nation's exports to China. And what does get shipped out typically does not have a long supply chain. The greater threat is that the United States sources 20% of its manufactured imports from China. But the tariff-increased costs to U.S. importers have been largely offset by a 13% depreciation in the yuan relative to the U.S. dollar.

At the time of this writing, trade negotiations between the U.S. and the European Union remain tense, particularly around industrial goods and certain agricultural items.



21st Amendment Brewery & Tap Room in San Leandro. Source: Courtesy of City of San Leandro.

The top import country for the Port of Oakland was China, which exported \$13.2 billion in goods through the port in 2018.

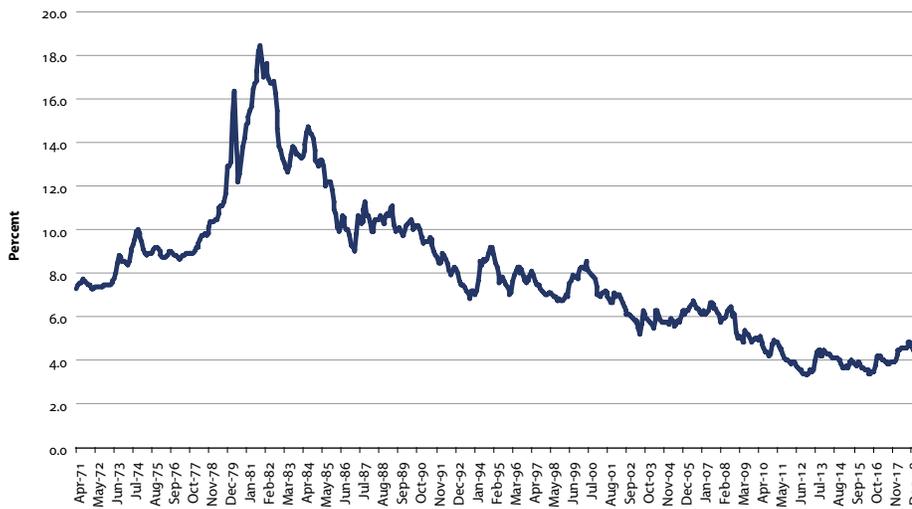
Table 2.4: Port of Oakland Imports

	2017 (\$)	2018 (\$)	Year-over-Year Change (%)
Total	28,644,431,840	29,936,395,733	4.5
Top 3 Imports by Commodity			
Electric Machinery	4,375,011,118	4,290,493,557	-1.9
Industrial Machinery	4,343,740,390	4,102,596,859	-5.6
Vehicles	2,314,310,395	2,403,003,526	3.8
Top 3 Imports by Partner Country			
China*	12,629,742,150	13,197,998,502	4.5
Japan	2,242,991,546	1,864,729,406	-16.9
Taiwan	1,641,653,750	1,773,778,605	8.1

*Does not include Hong Kong and Taiwan

Source: Wiser Trade; Analysis by Beacon Economics

Figure 2.4: 30-Year Mortgage Rate
1971 to 2019



Source: Freddie Mac; Analysis by Beacon Economics

Figure 2.5: Consumer Price Index
2009 to 2019



Source: U.S. Bureau of Labor Statistics; Analysis by Beacon Economics

INTEREST RATES & INFLATION

Short-run trends, such as rising interest rates, are not major concerns that would threaten the current expansion. Thirty-year mortgages are hovering just below 5%, up one percentage point from two years ago as indicated in Figure 2.4. Although this is a recent high, it is still lower than at any time between 1971 to 2008. Given a growing economy and sharp increases in federal borrowing, it is not surprising that rates have drifted up.

A rising interest rate is not necessarily caused by an increase in inflation. After years of inflation tracking below the Fed-targeted pace, price growth finally rose above the 2% mark as indicated in Figure 2.5. This should have boosted investor confidence because deflation became less of a risk. Instead, it created a panic about potential further increases. This worry was unfounded, as the most recent numbers show inflation back below the 2% range. Beacon Economics expects inflation to remain weak over the next few years. Moreover, the Federal Reserve seems to be taking the hint from the flattening yield curve and has been signaling a gentler path on short-run rates.

Beacon Economics expects inflation to remain weak over the next few years.



Peanut Robotics, startup of UC Berkeley's SkyDeck. Source: Courtesy of City of Berkeley.

EAST BAY VENTURE CAPITAL

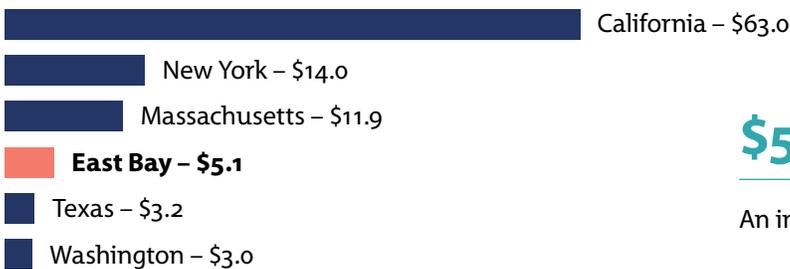


OVERVIEW

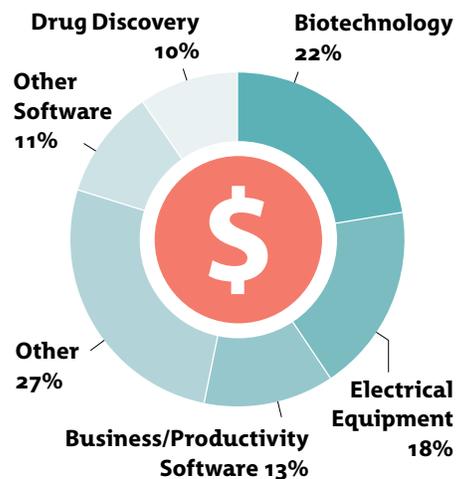
VENTURE CAPITAL REPRESENTS the commitment of funds to high-risk firms with strong ideas and high growth potential. The amount of venture capital invested in a region is one indicator of a regional economy shaped by innovative, potentially sector-disrupting advances. Often times, the companies receiving such funding spur increases in labor demand, real estate value, and substantial long-term gains for the local economy.

East Bay saw more Venture Capital flow than 47 of the U.S. states

Top 5 States for Venture Capital Funding (\$, Bil.)



Share of Venture Capital by Major Type in the East Bay



\$5.1 billion in VC funding

An increase of over 50% since 2017.



2019 East Bay Innovation Awards trophies.
Source: Photo by Ron Essex Photography.

VENTURE CAPITAL INVESTMENT

While the East Bay’s success in attracting 2018 venture investments was impressive—investments in sectors such as biotechnology, medical devices, clean tech and software amounted to more total dollars than all but three states—the amount invested in other parts of the Bay Area was even more dramatic. As a result, more businesses from other parts of the Bay Area have located or expanded into the relatively less expensive East Bay, while East Bay residents continue to find well-paying jobs in San Francisco and Silicon Valley.

In 2018, the nine-county Bay Area companies attracted over \$52.3 billion in venture capital, \$18.2 billion more than was raised in 2017. As shown in Table 3.1, familiar names topped the chart. Uber, Lyft, and JUUL each landed billion-dollar deals, while Instacart, construction technology developer Katerra, the East Bay’s

Farasis Energy and others attracted investments in the hundreds of millions.

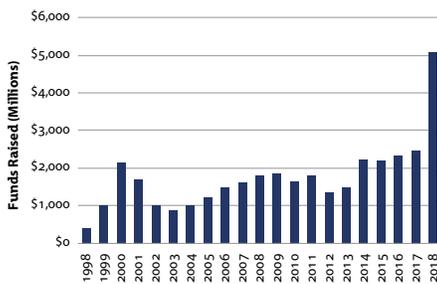
As seen in Figure 3.1, 2018 was the best year yet for East Bay venture capital. The record-breaking \$2.5 billion in capital invested in 2017 was less than half the \$5.1 billion invested in 2018. Although the number of deals decreased from 317 in 2017 to 309 in 2018, the trend has not deviated significantly.

EAST BAY IN COMPARISON

Multiple on Invested Capital, or MOIC, is one of the most fundamental performance measures for private fund investing. MOIC is calculated by dividing the startup exit value by the total amount of venture capital raised by that startup. For example, if you invest \$1 million and the return is \$10 million, the MOIC is 10.

Figure 3.1: Venture Capital Funding in the East Bay

1998 to 2018



Source: Pitchbook; Analysis by Beacon Economics

Table 3.1: Top 10 Venture Capital Deals in the Bay Area (2018)

Company Name	Deal Size (\$ Mil.)	Key Industry Vertical *	HQ Location
1. Lyft	1,700	Ridesharing	San Francisco
2. Uber	1,250	Ridesharing	San Francisco
3. JUUL	1,235	Electronics	San Francisco
4. Instacart	871	FoodTech	San Francisco
5. Katerra	865	Construction Technology	Menlo Park
6. Farasis Energy	790	CleanTech	Hayward
7. Opendoor	725	Real Estate Technology	San Francisco
8. Lyft	600	Ridesharing	San Francisco
9. DoorDash	535	FoodTech	San Francisco
10. Zoox	500	Artificial Intelligence	San Francisco

*An industry vertical can be defined as a highly specific field in which a company operates—with the field itself usually considered as being relatively new and innovative.

Source: PitchBook, Analysis by Beacon Economics

Stacked up against other states, the East Bay is still among the top. As Table 3.3 shows, the East Bay saw more venture capital flow into the region than seven of the top ten states to receive investments in 2018. The East Bay's median deal size of \$3.4

Table 3.2: Median Multiple on Invested Capital (MOIC)* by Metropolitan Statistical Area

MSA	MOIC
Chicago	8.5
Seattle	5.9
New York	4.8
Philadelphia	4.7
Los Angeles	4.7
San Francisco	4.6
Atlanta	4.4
San Jose	4.2
Denver	3.6
Boston	3.4

* Calculated by Pitchbook, refers to the value of Exit Value divided by Total Venture Capital.

Source: PitchBook

million for 2018 was larger than any of the top ten states receiving funding aside from California itself, while the \$18.0 million of capital invested per company was the largest of all the top ten states. Also, as far back as the year 2000, the East Bay has procured more venture capital funds than six of the top ten states.

REGIONAL INVESTMENT TRENDS

The East Bay's largest 2018 venture capital deal, and California's largest outside the San Francisco/Peninsula area, was raised by Hayward-based Farasis Energy, a developer and supplier of lithium ion batteries. The deal was valued at an astonishing \$790 million. The second-largest deal—and the second-largest deal in the East Bay on record—was the \$400 million raised by Zymergen, an Emeryville molecular technology



Boehringer Ingelheim ribbon cutting ceremony in Fremont. Source: Courtesy of City of Fremont.

Table 3.3: Top Ten States to Receive Venture Capital Funding (2018 and Since 2000)

State	Total Venture Capital Invested (\$, Mil.)	Median Deal Size (\$, Mil.)	Average Capital Invested Per Company (\$, Mil.)	Total Venture Capital Invested Since 2000 (\$, Mil.)
1. California	63,036.3	3.7	16.8	462,591.8
2. New York	14,021.7	2.3	10.5	80,245.9
3. Massachusetts	11,865.9	3.0	14.9	96,385.2
East Bay	5,095.9	3.4	18.0	36,113.5
4. Texas	3,180.9	1.3	5.0	38,779.3
5. Washington	3,066.9	1.5	7.2	26,854.8
6. Illinois	1,946.4	1.3	5.9	18,830.4
7. Florida	1,835.1	0.8	5.8	15,100.0
8. Colorado	1,750.7	1.1	5.1	18,747.6
9. Pennsylvania	1,560.8	0.5	4.7	18,221.1
10. Georgia	1,025.0	0.5	6.4	12,215.4

Source: Pitchbook; Analysis by Beacon Economics

As far back as the year 2000, the East Bay has procured more venture capital funds than six of the top ten states.



EmeryStation West, research and tech campus by Wareham Development. Source: Courtesy of Wareham Development.

developer. Deals for both Farasis Energy and Zymergen were worth more than Santa Clara County’s largest deal of the year, which was valued at \$300 million.

Table 3.4 lists the East Bay’s top ten venture capital deals of 2018 and provides an early look at what investors see as the next wave of cutting-edge technologies to boost the East Bay economy.

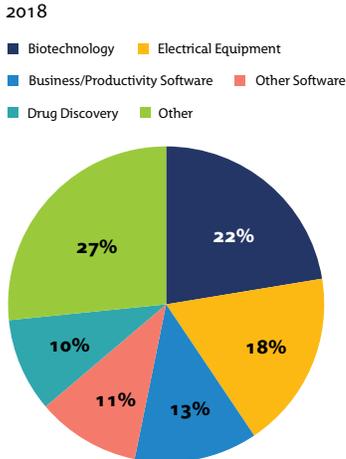
In 2018, 73% of total venture capital activity was represented in five categories. As shown in Figure 3.2, Biotechnology comprised the largest share of investment funds at 22%, followed by Electrical Equipment at 18%, Business/Productivity Software at 13%, Other Software at 11% and Drug Discovery at 10%, respectively.

Table 3.5 shows the East Bay’s ten largest venture capital deals since 2007. Four out of the top ten deals took place in 2018, reflecting the industry trend of amassing increasingly large venture funds and points to the historical magnitude of the 2018 investment in the East Bay. It also reflects sustained investor interest in the East Bay’s leadership in clean tech innovation.

As of March 2019, venture capital activity in the East Bay is off to a solid start (Table 3.6). Through February 2019, Pleasanton biotechnology firm 10x Genomics raised the largest amount, a deal valued at \$125 million.

The East Bay’s share of overall Bay Area venture capital funding has been gradually increasing over the last few years, driven partly by its proximity to Silicon Valley as well as

Figure 3.2: Share of Venture Capital by Major Industry in the East Bay 2018



Source: Pitchbook; Analysis by Beacon Economic

Table 3.4: Top 10 Venture Capital Deals in the East Bay (2018)

Company Name	Deal Size (\$ Mil.)	Primary Industry	Key Industry Vertical	HQ Location
1. Farasis Energy	790	Electrical Equipment	CleanTech	Hayward
2. Zymergen	400	Health Technology Systems	Artificial Intelligence	Emeryville
3. Tanium	200	Network Management Software	Cybersecurity	Emeryville
4. Tanium	175	Network Management Software	Cybersecurity	Emeryville
5. Bolt Threads	124	Synthetic Textiles	CleanTech	Emeryville
6. LendStreet	117	Consumer Finance	FinTech	Oakland
7. Pony.ai	112	Automotive	Artificial Intelligence	Fremont
8. Pony.ai	102	Automotive	Artificial Intelligence	Fremont
9. Re flexion Medical	100	Biotechnology	Life Sciences	Hayward
10. Berkeley Lights	95	Biotechnology	Life Sciences	Emeryville

Source: PitchBook, Analysis by Beacon Economics

1 Crunchbase. (2017, June 29). Retrieved March 28, 2019, from <https://news.crunchbase.com/news/east-bay-cities-raking-venture-capital/>

availability of lower-cost real estate.¹ As shown in Figure 3.3, the East Bay’s share of total venture capital in major Bay Area counties has reached 10% in 2018. By comparison, Santa Clara and San Francisco counties

are experiencing a downward trend, although they still account for the overwhelming majority of total venture capital. San Mateo County’s share remains relatively stable (Figure 3.3).

Table 3.5: Top 10 Venture Capital Deals on Record in the East Bay (2007-2018)

Company Name	Deal Size (\$ Mil.)	Year	Primary Industry	HQ Location
1. Farasis Energy	790	2018	Electrical Equipment	CleanTech
2. Zymergen	400	2018	Health Technology Systems	Artificial Intelligence
3. Solyndra	286	2009	Alternative Energy Equipment	CleanTech
4. NEOS (Energy Exploration)	248	2016	Electrical Equipment	Industrials
5. Solar Mosaic	220	2016	Consumer Finance	FinTech
6. BrightSource Energy	203	2011	Energy Production	CleanTech
7. Tanium	200	2018	Network Management Software	Cybersecurity
8. BrightSource Energy	175	2010	Energy Production	CleanTech
9. Tanium	175	2018	Network Management Software	Cybersecurity
10. Solyndra	154	2007	Alternative Energy Equipment	CleanTech

Source: PitchBook, Analysis by Beacon Economics

Table 3.6: Top 5 Venture Capital Deals in the East Bay (2019 Year-to-Date*)

Company Name	Deal Size (\$ Mil.)	Month	Primary Industry	Key Industry Vertical	HQ Location
10x Genomics	125.0	Jan	Biotechnology	Life Sciences	Pleasanton
Kinestral	100.0	Jan	Building Products	CleanTech	Hayward
Aeye	40.2	Jan	Electrical Equipment	A.I.	Pleasanton
Perfect Day	34.8	Feb	Beverages	LOHAS & Wellness	Berkeley
BioAge	23.0	Jan	Drug Discovery	Life Sciences	Richmond

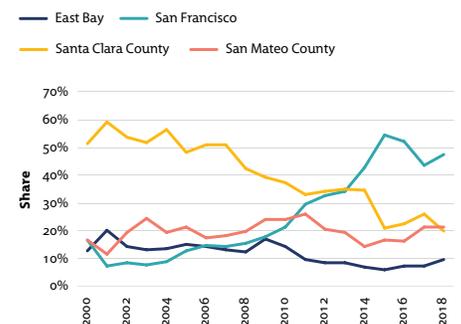
*Through March 1, 2019

Source: PitchBook, Analysis by Beacon Economics



NDCX-II Accelerator. © 2010 The Regents of the University of California, through the Lawrence Berkeley National Laboratory. Source: Courtesy of City of Berkeley.

Figure 3.3: Share of Bay Area Venture Capital in Major Bay Area* Counties 2000 to 2018



Source: Pitchbook; Analysis by Beacon Economics
*Not shown: Marin, Napa, Solano, and Sonoma Counties



The San Leandro Tech Campus. Source: Courtesy of City of San Leandro.

EAST BAY COMMERCIAL REAL ESTATE

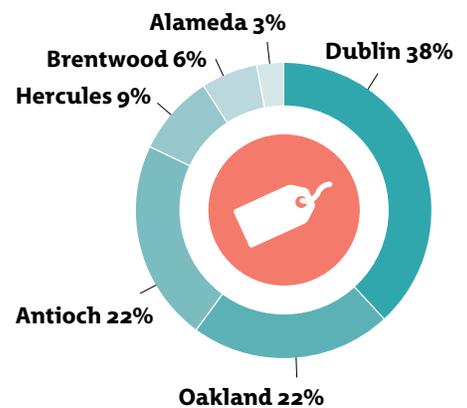


OVERVIEW

THE COMMERCIAL REAL ESTATE¹ MARKET in the East Bay has continued to perform remarkably well during this post-recession recovery. Demand has increased across all property types, fueling enormous building activity of commercial space. The East Bay's affordability relative to Santa Clara and San Francisco counties is beginning to pay off, and should continue to perform well in the short term.

In particular, the industrial market, which includes warehouse, distribution, and flex/R&D spaces, continues to benefit from robust demand and commands a premium for the multi-modal locational advantages that the East Bay provides. Several speculative industrial projects are underway.

2.3 million square feet of retail planned in 2018



Lowest Industrial Vacancy Rates (Q1 2019)

- Newark: 2.3%
- Dublin: 2.3%
- Hayward: 2.7%
- East Bay Overall: 4%

\$86.6 million in hotel construction permits

In 2018, the East Bay's hotel occupancy rate stood at 80% compared to the national average of 66%.

East Bay's average daily room rates also grew to \$172, a nearly 5% increase from 2017.

¹ Commercial real estate is the umbrella designation for all non-residential, income-generating property.

YEAR IN REVIEW

As the East Bay moves past the 10-year mark from the Great Recession, the nominal commercial real estate permit value in 2018 of \$671.6 million surpassed the \$614.7 million of during the 2000-2001 dot-com boom. The East Bay has historically lagged behind San Francisco and Santa Clara counties in terms of economic activity, but current developments indicate the East Bay emerging as a powerhouse in its own right. Last year, Facebook leased hundreds of thousands of square feet in the East Bay² and more recently the City of Oakland landed deals with health plan provider Blue Shield and financial technology firms Square and Credit Karma.³ Several BART stations in the East Bay will undergo transformation into higher-density developments with housing and commercial uses being added around transit stations⁴. The Tri-Valley continues to attract professional services and technology firms. The East Bay is also attracting more visitors. Between 2017 and 2018, arriving passengers at Oakland International Airport increased nearly 4%⁵, slightly outpacing San Francisco International Airport's growth of 3.6%⁶. Movement in hotel permitting activity and development reflects increasing demand for the East Bay as a destination for visitors and business travelers.

2 Lee, W. (2018, June 15). San Francisco Chronicle. Retrieved March 4, 2019 from <https://www.sfchronicle.com/business/article/Facebook-leases-more-space-in-Fremont-12995606.php>

3 Avalos, G. (2018, April 10). Mercury News. Retrieved April 18, 2019 from <https://www.mercurynews.com/2019/04/10/credit-karma-expand-downtown-oakland-keep-hq-sf-technology-fintech-tech/>

4 BART. "Upcoming TOD Projects." <https://www.bart.gov/about/business/tod/upcoming>

5 Oakland International Airport. (2019, January). Retrieved March 4, 2019, from <https://www.oaklandairport.com/wp-content/uploads/Mktg-Stat-Dec18.pdf>

6 San Francisco International Airport, Comparative Traffic Report. (2019, December). Retrieved March 4, 2019 from <http://media.flysfo.com.s3.amazonaws.com/media/sfo/media/air-traffic/as201812.pdf>

OFFICE

MARKET OVERVIEW

Demand for office space in the East Bay has grown considerably in the last year, driven by positive job growth and its relative affordability compared to the other major office locations of the Bay Area. Between the first quarters of 2018 and 2019, vacancy rates increased slightly, but are expected to quickly rebound. Significant leasing activity from Blue Shield, as well as financial technology companies Square and Credit Karma in Downtown Oakland have the potential to spur interest among other major office tenants to relocate or expand in the East Bay. Emeryville continues to grow its footprint in the building of research and technology offices with the recent completion and fully-leased EmeryStation West.

Table 4.1: Office Market Overview

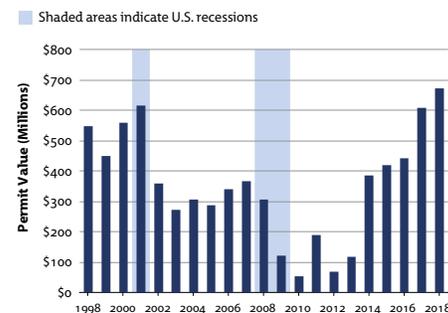
	2018-Q1	2019-Q1	% Change
I-80/880 Corridor			
Overall Vacancy	8.4%	9.5%	1.1*
Overall Net Absorption (sq. ft.)	-73,000	-4,000	-95.0
Under Construction (sq. ft.)	2,100,000	1,700,000	-19.0
Average Monthly Asking Rent (Full Service)	\$3.38	\$3.68	9.0
North I-680 Corridor			
Overall Vacancy	16.1%	16.6%	0.5*
Overall Net Absorption (sq. ft.)	-124,000	-82,000	-34.0
Under Construction (sq. ft.)	-	-	-
Average Monthly Asking Rent (Full Service)	\$2.90	\$3.07	6.0

*Percentage point increase.

Source: Cushman and Wakefield, Q1 2019

Figure 4.1: Commercial Permit Valuations

1998 to 2018



Source: CIRB; Analysis by Beacon Economics

EAST BAY COMMERCIAL REAL ESTATE



Aerial of the City of Emeryville, 2018.
Source: Courtesy of City of Emeryville

The East Bay issued the largest value of office construction permits (\$166 million) within the last 20 years.

SUBMARKETS

Office vacancy rates varied across the East Bay, with the I-80/880 Corridor experiencing lower overall vacancy rates compared to the Northern I-680 Corridor. West Berkeley recorded the lowest vacancy rate at 3.6% and the highest was in Concord at nearly 17%. In terms of average asking rents, the Oakland CBD had the highest at \$4.80 per square foot, followed by Berkeley CBD at \$3.96 per square foot, and Emeryville at \$3.86 per square foot. Within the Northern I-680 corridor, Lamorinda (the area that makes up Lafayette, Moraga and Orinda) reported the highest monthly average asking rent at \$3.63 per square foot, followed by Walnut Creek at \$3.56 per square foot.

CONSTRUCTION PERMITS

Permitting activity was strong in the East Bay for 2018. In fact, the East Bay issued the largest value of office construction permits within the last

20 years. The \$166 million in permit value for 2018 was \$37.1 million more than what was permitted in 2017.

Unincorporated areas of Contra Costa County saw the greatest amount of permitting for office development in 2018. The \$69.1 million worth of office permitting outperformed Oakland (\$63.9 million) by \$5.2 million. The City of Alameda also saw a sizeable increase, permitting \$10.1 million in 2018—considerably more than the \$331,800 permitted in 2017. The City of Pinole, a municipality with sporadic office permitting activity, posted its largest year of the last decade, permitting \$3.5 million of office development in 2018 after two years of nonexistent activity.

Currently, approximately 4.1 million square feet of office property is planned for the East Bay, primarily in the City of Alameda (40% of total planned space), City of Oakland (24%), and City of Fremont (23%).

Table 4.2: Office Submarket Snapshot (First Quarter 2019)

Submarket	Inventory (sq. ft.)	Overall Vacancy Rate (%)	Monthly Asking Rent* (\$)
I-80/880 Corridor	30,444,200	9.5	3.68
Oakland CBD	12,094,000	8.5	4.80
Emeryville	4,372,300	11.7	3.86
Alameda	3,698,600	14.3	2.95
Richmond	2,684,600	13.1	2.21
Berkeley CBD	2,517,100	6.8	3.96
Oakland Coliseum	2,055,900	6.9	1.85
Jack London Square	1,738,400	6.8	3.38
West Berkeley	1,283,300	3.6	3.50
Northern I-680 Corridor	13,835,000	16.6	3.07
Walnut Creek	7,641,900	16.8	3.56
Concord	4,518,300	17.0	2.71
Lamorinda	1,121,200	7.1	3.63
Pleasant Hill	553,600	8.4	2.96

*Full service for all office class types.

Source: Cushman and Wakefield, Q1 2019

RETAIL

MARKET OVERVIEW

As population and incomes continue to grow in the East Bay, the retail market remains healthy. At the end of 2018, the average asking rent hovered around \$22.68 per square foot on a triple net annual basis, and the vacancy rate stood at 4.2%, according to Cushman and Wakefield. However, the East Bay’s overall retail rent growth has started to slow down. Between the fourth quarters of 2017 and 2018, the overall East Bay retail asking rent decreased by 5%. This can be attributed to new retail supply which has stabilized rent growth, as well as increasing competition from e-commerce. On the other hand, experience-focused retailers, restaurants, personal services, medical, fitness, and discount retailers have proven to be e-commerce resistant and continue to grow. A new 350,000 square foot lifestyle center opened in San Ramon’s Bishop Ranch in 2018, which brought a strong tenant mix of entertainment, eating and drinking, traditional retailers, and fitness spaces.

SUBMARKETS

As shown in Table 4.4, the I-880 Corridor has the greatest amount of retail inventory with nearly 15.8

million square feet. Vacancy rates also varied across the East Bay, with the 680 Corridor recording the lowest vacancy rate at 3.6% and the highest in Oakland at nearly 11.6%. Oakland also had the lowest asking rents at \$13.17 per square foot on a triple net annual basis, while the South I-80 Corridor reported the highest asking rent at \$51.66 per square foot.

CONSTRUCTION PERMITS

In 2018, the value of East Bay retail construction permits reached its highest level within the last twenty years. The \$277.3 million in permit value for 2018 was \$65.5 million more than 2017.

In 2018, Fremont led the East Bay in retail permit value at \$104.2 million. Following Fremont was Oakland at \$49.4 million and Hayward at \$48.3 million. Sizable gains occurred in the unincorporated areas of Contra Costa County where retail permitting activity was virtually nonexistent in 2017 and now worth \$18.2 million in 2018. Other municipalities whose permitting activity exhibited considerable contrast from 2017 were Pleasant Hill (\$3.7 million), Antioch (\$2.3 million), Newark (\$2 million), and Oakley (\$276,900).

Overall, 2.3 million square feet of retail property is currently planned for the East Bay, led by Dublin



Bernal Corporate Park in Pleasanton.
Source: Courtesy of City of Pleasanton

Experience-focused retailers, restaurants, personal services, medical, fitness and discount retailers have proven to be e-commerce resistant and continue to grow.

Table 4.3: Retail Market Overview

	2017-Q4	2018-Q4	% Change
Overall Vacancy	5.4%	4.2%	1.2*
Net Absorption (Sq. Ft.)	198,000	530,000	168.0
Under Construction (Sq. Ft.)	587,000	68,000	-88.0
Average Annual Asking Rent Per Sq. Ft. (NNN)	\$23.78	\$22.68	-5.0

*Percentage point increase.

Source: Cushman and Wakefield, Q4 2018



The T-Mobile corporate offices located in Concord. Source: Courtesy of City of Concord.

With rising demand from e-commerce and logistics tenants seeking modern product, developers have responded with 4.9 million square feet of speculative construction in the I-80/880 Corridor—nearly 70% for warehousing.

Table 4.4: Retail Submarket Snapshot (Fourth Quarter 2018)

Submarket	Inventory (sq. ft.)	Vacancy Rate (%)	Average Asking Rent* (\$)
I-880 Corridor	15,771,400	3.8	32.48
I-680 Corridor	10,785,900	3.6	27.88
Highway 4	8,878,200	4.1	19.66
I-580 Corridor	8,732,400	3.7	26.61
El Cerrito/Richmond/Hercules	3,917,300	4.9	25.80
Berkeley/Emeryville/Albany	2,304,500	5.0	51.66
Oakland	1,641,700	11.6	13.17
Total	52,031,300	4.2	22.68

*Triple net rent for all retail center types (tenant is responsible for taxes, insurance, and maintenance).

Source: Cushman and Wakefield, Q4 2018

(885,600 sq. ft.), Oakland (507,000 sq. ft.) and Antioch (498,000 sq. ft.). Significant retail space is also planned in Hercules (213,300 sq. ft.), Brentwood (150,000 sq. ft.) and Alameda (58,800 sq. ft.).

INDUSTRIAL

MARKET OVERVIEW

The East Bay's multimodal transportation network, including its highways, freight lines, and direct access to the ports of Oakland and Richmond, is critical to the Bay Area's goods movement system. Therefore, the East Bay continues to experience robust demand for modern, high-quality industrial space. However, leasing activity seems to have slowed in the first quarter of 2019, due mainly to the ongoing shortage of large available blocks of high-quality space in existing product as well as major returns of space to the market. However, with rising demand from e-commerce

and logistics tenants seeking modern product, developers have responded with 4.9 million square feet of speculative construction in the I-80/880 Corridor—nearly 70% for warehousing. The Tri-Valley industrial market has historically benefitted from the spillover demand from the I-80/880 market, but this has seemed to cool as new space in that market comes online and rents flatten.

SUBMARKETS

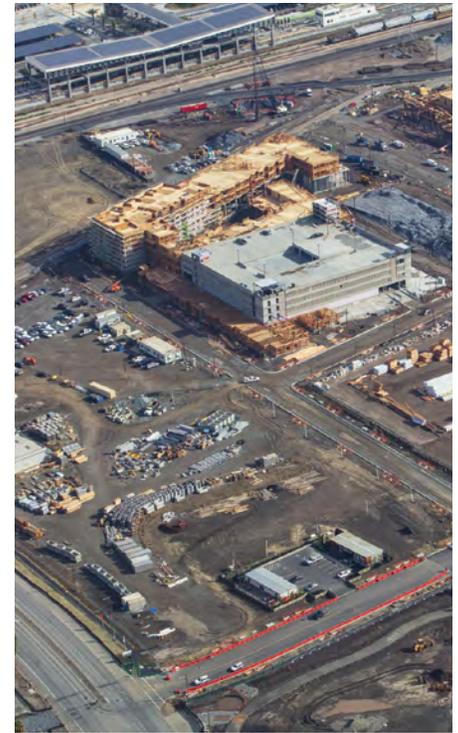
At the beginning of 2019, industrial vacancy rates varied across the East Bay, with the I-80/880 Corridor experiencing an overall lower vacancy rate (4%) compared to the Tri-Valley (10.4%). Dublin and Newark both reported 2.3%, the lowest vacancy rate across the East Bay. The highest vacancy rates were found in Pleasanton (19.4%), but this was attributed to one major move out in a relatively small industrial market. In terms of monthly average asking rents, the Berkeley and Emeryville submarkets reported the highest rents at \$1.74 and \$1.54, respectively. The

lowest average asking rent was found in Richmond at \$0.47 per square foot.

PLANNED CONSTRUCTION

In 2018, Alameda County led the Bay Area in industrial permits, at \$253.8 million, while Contra Costa County totaled \$56.1 million, according to

the Construction Industry Research Board. Approximately 65% of the East Bay's industrial permit value was generated in Fremont (\$202 million), followed by 15% (\$45.3 million) in Richmond, and 11% (\$34.8 million) in Newark.



Construction of Lennar's mixed-use development near the Warm Springs BART Station in Fremont. Source: Courtesy of City of Fremont.

Table 4.5: Industrial Market Overview

	2018-Q1	2019-Q1	% Change
I-80/880 Corridor			
Overall Vacancy	2.7%	4.0%	1.3*
Net Absorption (Sq. Ft.)	-151,000	-248,000	64.0
Under Construction (Sq. Ft.)	2,500,000	4,900,000	96.0
Average Asking Rent Per Sq. Ft. (NNN)	\$0.89	\$0.97	9.0
Tri-Valley			
Overall Vacancy	4.1%	10.4%	6.3*
Net Absorption (Sq. Ft.)	-290,000	-976,000	237.0
Under Construction (Sq. Ft.)	370,000	-	-
Average Annual Asking Rent Per Sq. Ft. (NNN)	\$0.96	\$0.95	-1.0

*Percentage point increase.

Source: Cushman and Wakefield, Q1 2019

Table 4.6: Industrial Submarkets (First Quarter of 2019)

Submarket	Inventory (sq. ft.)	Vacancy Rate (%)	Average Asking Rent* (\$)
I-80/880 Corridor	170,006,200	4.0	0.97
Hayward	39,131,100	2.7	0.85
Oakland	37,736,800	3.0	1.20
San Leandro	27,969,500	4.9	0.84
Fremont	20,907,500	4.3	1.41
Union City	13,639,800	3.0	1.20
Richmond	12,889,100	10.4	0.47
Newark	8,732,700	2.3	1.41
Berkeley	6,383,700	3.3	1.74
Emeryville	2,616,000	3.9	1.54
Tri-Valley	21,461,900	10.4	0.95
Livermore	17,063,400	9.9	0.91
Pleasanton	2,639,700	19.4	1.29
Dublin	1,758,800	2.3	1.29

*Triple net rent for all retail center types (tenant is responsible for taxes, insurance, and maintenance).

Source: Cushman and Wakefield, Q1 2019

Approximately 65% of the East Bay's industrial permit value was generated in Fremont (\$202 million).

HOSPITALITY

MARKET OVERVIEW

Increased tourism and business activity in the region has been a boon for local hotels. According to hotel market data from CBRE, average daily room rates grew to \$171.77 in 2018, a 4.7% increase as indicated in Table 4.7. Although hotel occupancy rates experienced a slight decline in the last year, 79.1% is well above the national average of 66%. The East Bay hotel market's revenue per available room (RevPAR), a performance metric used in the hotel industry, rose 3.5% from 2017 to 2018.

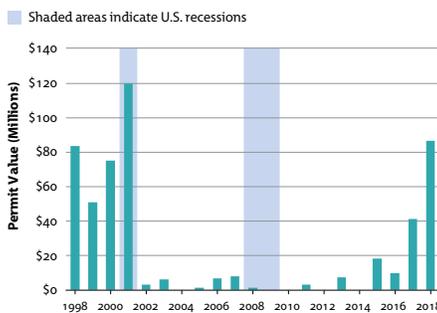
Table 4.7: East Bay Hotel Market
2014-2018

Year	Average Daily Room Rate (\$)	Occupancy Rate (%)	Revenue Per Available Room* (\$)
2014	122.78	79.7	97.80
2015	138.20	81.2	112.17
2016	151.28	80.0	121.07
2017	164.03	80.0	131.16
2018	171.77	79.1	135.81

*Total room revenue divided by the total number of available rooms.

Source: CBRE Hotels; Analysis by Beacon Economics

Figure 4.2: Hotel Permits
1998-2018



Source: CIRB; Analysis by Beacon Economics

road rehabilitation, congestion relief, trade corridor improvements, and improved transit throughout the state. According to Rebuilding CA, the combined 10-year SB 1 funding for Alameda and Contra Costa counties amounts to \$1.2 billion—more than Santa Clara County (\$894.1 million) and San Francisco (\$382.9 million). Several projects are underway to improve the East Bay's goods movement infrastructure, which will support and sustain population and economic growth, improve road and pedestrian safety, address traffic congestion relief and increase the quality of life in the East Bay.

In November 2018, several municipalities passed local funding for infrastructure. For example, the City of Alameda approved Measure F, a 0.5% add-on tax for repairing and maintaining streets, as well as funding other projects. Similarly, Antioch voters approved Measure W, a 1.0% add-on tax aimed at repairing streets and other projects. Berkeley voters approved Measure R, which directs the mayor to work with residents to develop and implement a 30-year infrastructure plan.

With the most populated section of the East Bay lying close to the Hayward Fault and in close proximity to the San Andreas Fault, infrastructure remains a serious concern in the region. As a crucial contributor to the world's economy, it is important for the Bay Area region to have structurally sound infrastructure in the event of a major earthquake. Deficiencies in infrastructure could have severe consequences for workers and residents.

PLANNED CONSTRUCTION

There is tremendous demand for new hotels and conference centers in the East Bay. Although hotel permitting was off to a slow start following the recovery from the Great Recession, it has finally caught on in the last couple of years (Figure 4.2). In 2018, the East Bay permitted \$86.6 million worth of hotel construction—more than double the 2017 value—and outperformed San Francisco (\$5.1 million), but trailed the South Bay (\$278.5 million). About 48% (\$42 million) was generated in Fremont, 23% (\$20 million) in Livermore, 21% (\$18.4 million) in Berkeley and 7% (\$6.0 million) in Alameda.

INFRASTRUCTURE

California enacted the California Road Repair and Accountability Act of 2017 (Senate Bill 1), which invests \$54 billion over the next decade to meet the critical needs for



Children playing at a park in Dublin. Source: Courtesy of City of Dublin.

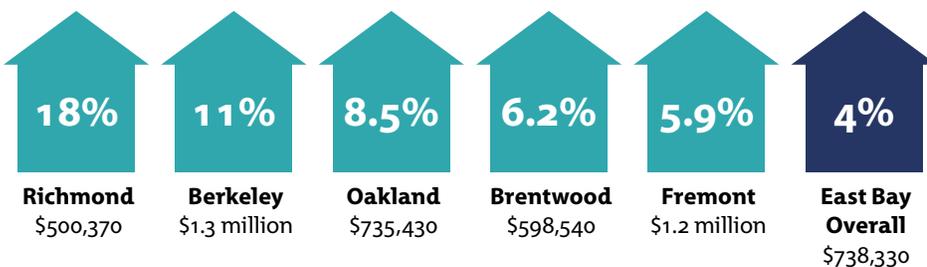
EAST BAY RESIDENTIAL REAL ESTATE



OVERVIEW

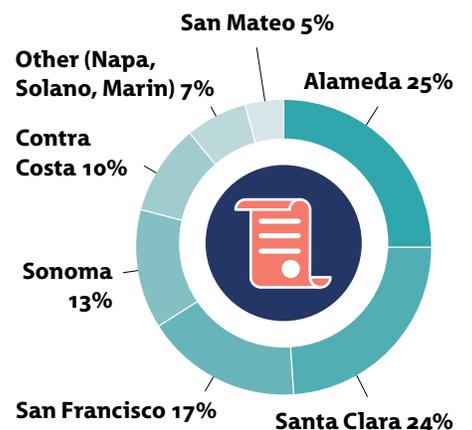
THE EAST BAY'S PERSISTENT undersupply of housing development continues to drive up home prices and apartment rents in a job- and amenity-rich region. Although residential permitting has increased for seven straight years, the Bay Area's failure to meet growing demand for diverse housing types for decades means that the shortage endures despite current construction activity. The residential real estate market remains a seller's market. Despite being in a low interest rate environment and prolonged economic recovery, strong homebuyer demand, fierce competition from high-income households, and low inventory has pushed homeownership out of reach for many households in the East Bay.

Highest Single-Family Home Price Growth (1-Year)



Median Single-Family Home Prices

2018 Residential Permitting by County



4.1% increase in rents

Rent growth in the East Bay outpaced San Francisco (3.8%) but trailed Santa Clara County (5.2%)



Prosserville Park ribbon-cutting ceremony in Antioch. Source: Courtesy of City of Antioch.

SINGLE FAMILY HOME PRICES

Single family homes comprise the vast majority of all housing units in the East Bay—60% in Alameda County and 74% in Contra Costa County. As of the fourth quarter of 2018, the median price for single-family homes in Alameda County stood at \$862,000 and \$615,000 in Contra Costa County, compared to \$480,000 statewide, according to DataQuick.

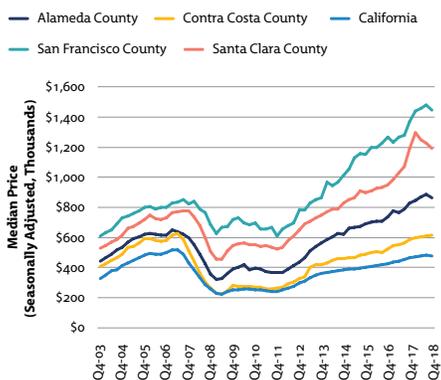
As shown in Figure 5.1, price appreciation is starting to cool down in the Bay Area and statewide. Between the fourth quarters of 2017 and 2018, price appreciation fell to the single-digits in Alameda County (3.6%) and Contra Costa County (4.6%), rather than in the double-digits (about 13% in both counties) between 2016 and 2017. Many Bay Area counties (Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma) also experienced similar slowdowns in price growth.

Table 5.1 shows the median single-family home prices and price growth in select East Bay cities. Richmond, one of East Bay's more affordable cities with a median single-family home price of \$500,370, led with 18% price growth between the fourth quarters of 2017 and 2018, and more than doubled in the five-year period between 2013 and 2018. Cities with major job concentrations (and access to other regional job centers) continue to experience modest price appreciation, such as Berkeley (10.6%), Oakland (8.5%), and Fremont (5.9%).

CONDOMINIUM PRICES

With single-family homes being out of reach for many households, demand for condominiums has increased. As of the fourth quarter of 2018, the median price for condominium homes in Alameda County was \$625,000 and \$454,000 in Contra Costa

Figure 5.1: Median Home Price of Existing Single-Family Homes



Source: DataQuick; Analysis by Beacon Economics

Table 5.1: Single-Family Median Home Prices in Select Cities in the East Bay

City	2018-Q4 (\$)	Change (%)		
		2017-18	2016-17	2013-18
Richmond	500,370	18.0	12.6	125.2
Berkeley	1,296,554	10.6	6.7	58.5
Oakland	735,426	8.5	9.1	70.5
Brentwood	598,540	6.2	13.5	50.1
Fremont	1,197,581	5.9	22.5	66.5
Concord	606,283	4.9	12.3	45.2
Hayward	668,626	4.7	16.0	64.8
Alameda	1,022,576	4.3	2.9	39.0
Antioch	439,933	3.6	14.0	54.3

Note: Fourth quarter values for each year are shown and are seasonally adjusted to control for influences.

Source: DataQuick

County, compared to the statewide median of \$468,000. According to Figure 5.2, price gains for existing condominiums in Alameda County and Contra Costa County reflect increases of 6.2% and 4.9%, respectively. These gains are slightly higher than single-family homes.

HOUSING AFFORDABILITY

The average household submitting a 20% down payment in Alameda County would have to spend \$40,692, or 42% of their income each year to afford just the mortgage payment for the median priced (\$862,000) home. Contra Costa County is a bit more affordable as the average household would have to spend \$29,028 or 30% of their income to afford the mortgage on the median priced (\$615,000) home.¹

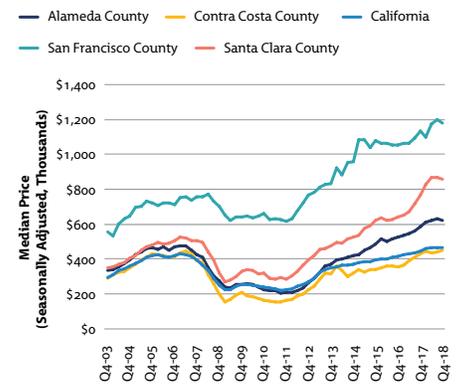
While the region remains by no means affordable—as the average household buying a home in either county would still be considered mortgage-burdened (spending greater than 30% of their income on housing costs)—the East Bay remains more affordable than San Francisco and Santa Clara counties and that promises to push prices up even higher as more homebuyers look further away from their jobs to find housing in more affordable communities.

DEFAULTS AND FORECLOSURES

The alarming rate of defaults and foreclosed homes during the Great Recession that caused prices to freefall 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 significant decline in the number of predatory loans and the decrease in households who qualify for pre-approved mortgages. With a total of 276 and 316 defaults in Alameda County and Contra Costa County, respectively, few distressed properties will be on the market in the months ahead.

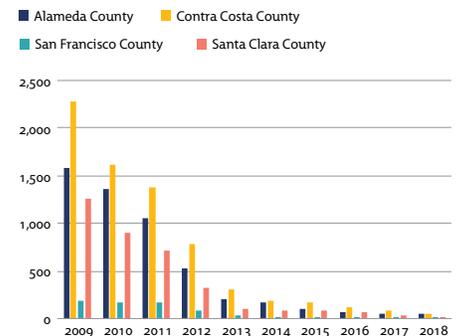
Figure 5.3 shows that foreclosures fell dramatically since 2009. However, within Alameda County, Fremont saw a doubling of the number of foreclosed properties between the fourth quarters of 2017 and 2018, and there was a nearly 60% increase in Oakland. Overall, Alameda County (-3%) and Contra County (-32%) experienced declines in foreclosures during the same period, while Marin (52%), Napa, (314%), San Francisco (3%) Solano (10%), and Sonoma (28%) counties all experienced increased levels of foreclosures. This suggests a potential slowdown in housing prices and that prices are close to peaking.

Figure 5.2: Median Price of Existing Condominiums
2003 to 2018



Source: DataQuick; Analysis by Beacon Economics

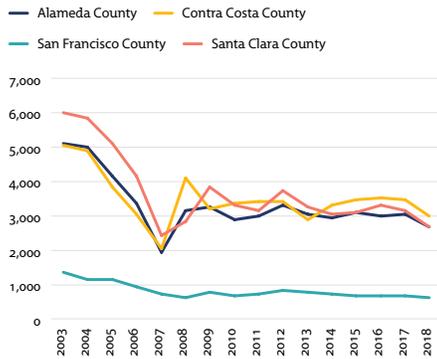
Figure 5.3: Foreclosed Properties
2009 to 2018



Note: Fourth quarter values for each year are shown and are seasonally adjusted to control for influences.
Source: DataQuick.

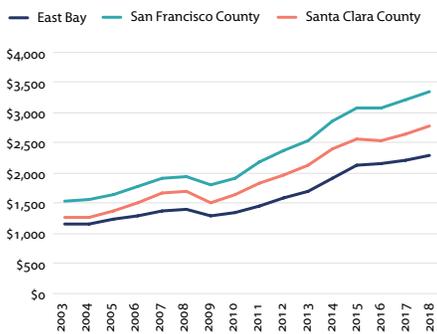
¹ Assumes a 20% down payment is made with a 30-year fixed 4.25% interest rate loan where no private mortgage insurance is needed, based on household income data from the 2017 American Community Survey.

Figure 5.4: Single-Family Home Sales
2003 to 2018



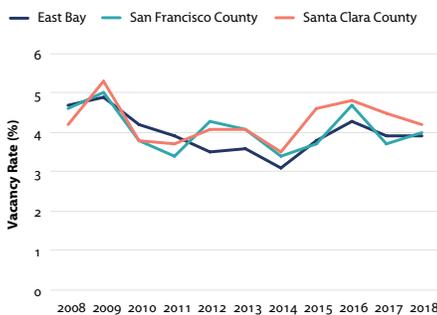
Note: Fourth quarter values for each year are shown and are adjusted to control for seasonal influences.
Source: DataQuick.

Figure 5.5: Apartment Effective Rents
2003 to 2018



Note: Fourth quarter values for each year are shown and are adjusted to control for seasonal influences.
Source: DataQuick.

Figure 5.6: Apartment Vacancy Rates
2008 to 2018



Note: Fourth quarter values for each year are shown and are adjusted to control for seasonal influences.
Source: DataQuick.

HOME SUPPLY AND SALES

The increasing costs of single-family homes have not motivated more people to sell, but the homes that are for sale are being sold quickly. According to the Bay East Association of Realtors, the median number of days to sell a single-family home in Alameda County and Contra Costa County was 13 and 14 days, respectively.

In relation, sales in the fourth quarter of 2018 declined 14% in Alameda County and 15% in Contra Costa County from fourth quarter of 2017, according to DataQuick. Santa Clara (-15%), San Mateo (-12%) and San Francisco (-2.5%) counties also sustained sales declines in the period, as seen in Figure 5.4.

APARTMENT RENTS

The increasingly expensive homebuyer's market has continued to push many potential homeowners into the East Bay rental market, with effective rents, which is the cost of asking rent minus any rent specials or offers, rising 4.1% year-over-year to reach \$2,301 in the fourth quarter of 2018 (Figure 5.5). Rent growth in the East Bay slightly outpaced that of San Francisco County (3.8%), but was surpassed by Santa Clara County (5.2%).

It is worth noting that the effective rent in the largest and most expensive submarket in the East Bay, the Oakland/Berkeley submarket, increased 2.5% to reach \$2,794. That is down from a 4% increase from the

previous year and is potentially a sign that the high levels of construction activity in recent years are having a moderating effect on rents.

APARTMENT VACANCY

As shown in Figure 5.6, vacancy rates remain stubbornly low given that the East Bay has added 158,481 residents but only 15,137 new housing units since 2013. As of the fourth quarter of 2018, the vacancy rate in the East Bay sat at 3.9%. San Francisco and Santa Clara counties' apartment vacancy rates stood at 4% and 4.2%, respectively. While the vacancy rate in the East Bay remained unchanged year-over-year, San Francisco County's slightly increased by a 0.3 percentage point and San Jose County's slightly decreased by a 0.3 percentage point.

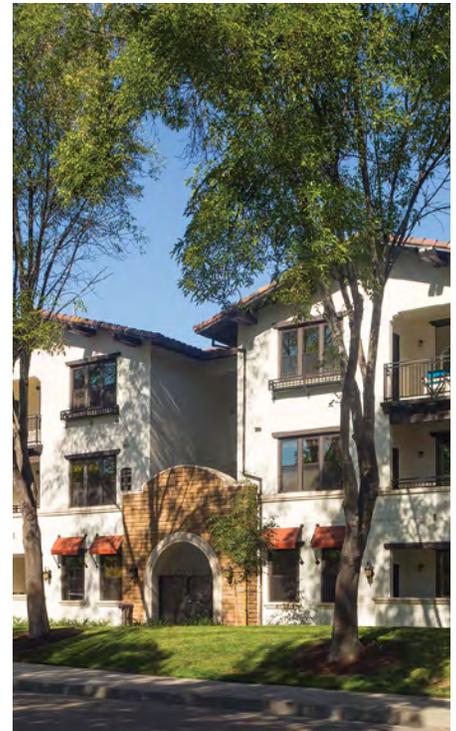
While the overall vacancy rate did not change for the East Bay region, the areas with the highest vacancy rates did experience some movement over the past year, as shown in Table 5.2. In particular, the increasingly attractive Tri-Valley region, with its relatively affordable residential and commercial real estate, experienced some opposing changes in the last year. The Livermore/Pleasanton submarket had the largest decline in vacancy rates (-0.5 percentage point), while the San Ramon/Dublin submarket saw the largest gain in its vacancy rate (0.4 percentage point). The largest submarket in the East Bay, the Oakland/Berkeley submarket experienced a slight decline from the previous year (-0.2%) despite levels of construction not seen since before the Great Recession.

Table 5.2: East Bay Apartment Vacancies by Submarket

Submarket	Vacancy Rate (%)	Year-over-Year Percentage Point Change	
		2017-18	2016-17
Alameda County			
San Ramon/Dublin	4.7	0.4	-0.5
Livermore/Pleasanton	4.5	-0.5	-0.3
Oakland/Berkeley	4.1	-0.2	-0.1
Fremont	3.7	0.2	-0.9
Hayward/San Leandro/Union City	3.1	-	-0.3
Contra Costa County			
Walnut Creek/Lafayette	4.3	-0.3	-0.3
Northeast Contra Costa County	4.0	0.1	-0.2
Northwest Contra Costa County	3.5	-0.3	-0.1
Concord/Martinez	3.5	-0.2	0.3

Note: Fourth quarter values for each year are shown and are adjusted to control for seasonal influences.

Source: Axiometrics; Analysis by Beacon Economics



Anton Hacienda Apartments in Pleasanton.

Source: Courtesy of City of Pleasanton.

RESIDENTIAL PERMITTING

In 2018, a total of 10,945 residential permits were issued by cities and counties in the East Bay, according to data from the Construction Industry Research Board (CIRB) as shown in Figure 5.7. This represented a 7% growth compared to 2017 and marks the seventh consecutive year of increases in the number of total permits issued. Nearly 70% (7,581) were for multi-family units. Given the scarcity of developable low-density residential-zoned land in the East Bay, single-family permitting declined 21% from 2017 to the lowest level since 2014 and is far below the levels reached before the Great Recession.

Alameda County had the greatest number of permitted units of any county in the nine-county Bay Area in 2018 with 7,818 permits, or nearly one-quarter of the total nine-county

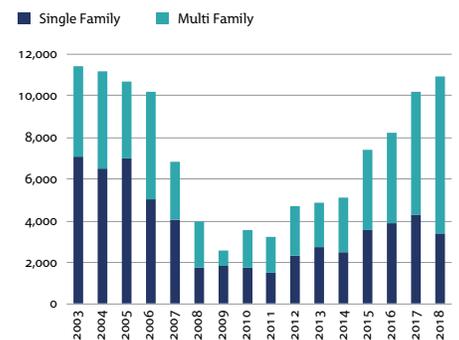
Bay Area (Table 5.3). Contra Costa County issued 3,127 permits, or nearly ten percent of the regions total, with its number of permits growing by nearly 64% over a one-year period. Within the East Bay, the top five cities in terms of total residential permits issued were Oakland (3,736), Fremont (1,843), Dublin (730), Richmond (551), and Walnut Creek (408).

It is worth noting though that the high level of single-family permitting in Sonoma County was mainly due to the rebuilding of the housing stock that was destroyed during the October 2017 Northern California Wildfires.

RENT BURDEN

Despite the rise in apartment rents, the percentage of East Bay households that are rent burdened (paying more

Figure 5.7: Residential Permitting by Type
2003 to 2018



Source: Construction Industry Research Board. Analysis by Beacon Economics



Children playing at Hap Magee Ranch Park in the Town of Danville. Source: Courtesy of Town of Danville.

Table 5.3: 2018 Residential Permitting by County

County	Total Permitted Units	Share of Bay Area (%)	Change (%)	
			2017-18	2013-18
Alameda	7,818	24.6	-5.7	164.0
Santa Clara	7,668	24.1	-23.4	-0.1
San Francisco	5,264	16.5	11.1	-0.2
Sonoma	4,119	12.9	370.2	301.5
Contra Costa	3,127	9.8	63.7	65.0
San Mateo	1,540	4.8	-12.5	31.1
Napa	1,073	3.4	486.3	339.8
Solano	1,010	3.2	33.1	25.3
Marin	222	0.7	113.5	-24.7
Total 9-County Bay Area	31,841	100.0	11.2	49.1

Source: Construction Industry Research Board; Analysis by Beacon Economics

than 30% of household income on rent) fell from 2012 to 2017, according to estimates from the 1-Year American Community Survey. As of 2017, 30% of households in Alameda County and 32% of households in Contra Costa County were considered rent burdened. Those numbers were down by 1.6 and 1.0 percentage points, respectively, from five years ago. San Francisco (24%), San Mateo (30%) and Santa Clara (29%) counties all had lower shares of rent-burdened households as of 2017. It is noteworthy that San Francisco had a 5.2-percentage-point drop in rent-burdened households despite the largest effective rent increases in the Bay Area. This may indicate a significant change in the household composition of renters.² It is also possible that San Francisco's strong rent control ordinance played a role.

A SACRAMENTO SOLUTION TO THE REGION'S LACK OF AFFORDABLE HOUSING?

While some cities in the East Bay have been somewhat successful in recent years in finding ways to allow for more housing near major transit hubs and increasing affordable housing production, much more is needed to address the severity of the affordability crisis and supply shortage. Most recently, a panel of Bay Area leaders across various sectors convened by MTC/ABAG, known as CASA (the Committee to House the Bay Area), approved the CASA Compact. The compact provides a set of policy recommendations to both state and local officials designed to help solve the Bay Area's longstanding housing crisis by encouraging the production

² Hansen, L. (2019, February 18). "Rising Bay Area rents hit communities of color hardest". The Mercury News. Retrieved from <https://www.mercurynews.com/2019/02/18/rising-bay-area-rents-hit-communities-of-color-hardest/>

of more housing for people at all income levels, preserving existing affordable housing and protecting current residents from displacement in rapidly changing neighborhoods.³

Specific policy recommendations include a regional just-cause eviction policy, an emergency rent cap, legal assistance for tenants, removal of regulatory barriers to build accessory dwelling units (ADUs), minimum zoning near transit, reforms to housing-approval processes, increased incentives for affordable housing developers and the use of public land for the development of affordable housing. The Compact is controversial and in its early stages of public outreach and any final details will require consensus-building and mutually agreeable policy actions that all Bay Area communities can act upon.

The housing affordability and shortage is a concern statewide.

Hundreds of bills have been introduced in the 2019 California Legislature with several Bay Area legislators taking the lead. Several bills focused on accessory dwelling units are popular this session, including AB 68 and AB 69, which seeks to reduce the approval timeline for ADUs, prohibits restrictive local requirements pertaining to lot size and parking and make construction of ADUs more cost-effective and safe. There are also housing bills with a transportation nexus, including the controversial SB 50 bill, which would direct localities to allow for more housing development to be built near major transit hubs and job-rich areas. SB 211, AB 1486 and AB 1226 all relate to unlocking public land for affordable housing. It remains to be seen if these proposals can build a wide enough coalition throughout the state to pass given that issues of housing and local control over land use can be at odds.



Old Oakland's Farmers' Market.
Source: Photo by Greg Linhares.

The housing affordability and shortage is a concern statewide. Hundreds of bills have been introduced in the 2019 California Legislature with several Bay Area legislators taking the lead.

³ Metropolitan Transportation Commission. January 2019. "News Release: Housing Policy Leaders Endorse Strategy to Ease Bay Area's Housing Affordability Crisis"



Soccer player at Rumrill Sports Complex in San Pablo. Source: Photo by Bud Glick.

EAST BAY DEMOGRAPHICS

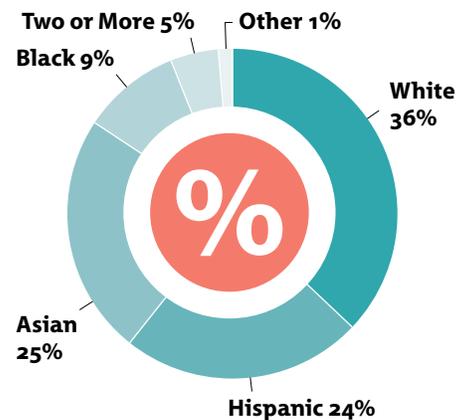


OVERVIEW

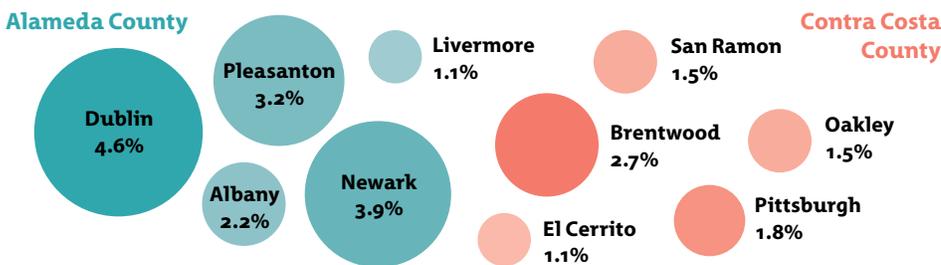
THE POPULATION OF THE EAST BAY has increased considerably over the past few years though it slowed somewhat last year. According to 2018 data from the California Department of Finance, the counties of Alameda and Contra Costa make up 1.7 and 1.1 million individuals, respectively—a total increase of almost 300,000 in the last decade. Comparatively, San Francisco County added 89,000 to its population, while Santa Clara County’s population increased by 209,000.

Much of the increase in population has been attributed to foreign (overseas) migration into the region, fueled by growth in employment opportunities amidst

2016 East Bay Racial/Ethnic Composition



Fastest Growing Cities (2017-18)



6,700 in net migration

A decrease from 8,000 in 2017, driven by a decline in domestic migration. Net foreign migration has been consistent at around 17,500.

a tightening labor market. Net migration since 2008 has totaled 141,000 for the East Bay—71,900 from Alameda County and 69,100 from Contra Costa County.

The economic conditions of individuals and households have been improving in the East Bay. Due to the high demand for skilled labor in the region, the East Bay’s rates of educational attainment have increased. As such, earnings by level of educational attainment have been on the rise for most categories of education.

POPULATION GROWTH AND COMPOSITION

In 2018, the East Bay crossed a threshold as its population increased beyond 2.8 million (Figure 6.1). From 2017 to 2018, however, the population grew by 0.9%—the smallest increase since 2010. The East Bay’s population growth outpaced California (0.8%), but lagged behind San Francisco (1.1%) and Santa Clara (1.0%) counties. Population growth due to natural increase (the difference between births and deaths occurring in a year) continues to decline for the fourth straight year, dropping to approximately 12,400 in 2018.

Net migration also decreased from 8,000 in 2017 to 6,700 in 2018, following the trend of recent years. In fact, the East Bay’s total net migration in 2018 was the lowest since 2010, driven by a decline in total

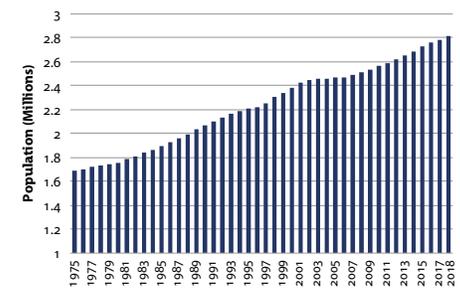
domestic migration. Comparatively, net foreign immigration has been consistent around 17,500 annually. Nonetheless, the East Bay remains a more attractive option for migrants than San Francisco and Santa Clara counties, where total net migration totaled 2,900 and 3,800, respectively. Similarly, both those counties have experienced declining net migration levels in the past few years.

Immigration and population count have recently been a concern in regard to the upcoming 2020 Census, in which a new question regarding citizenship can result in an undercount. The fear is that it might prevent immigrants—who make up roughly 7% of the population—from participating in the 2020 Census. The Supreme Court will make a final decision by the end of June 2019, prior to when the census forms are to be printed.¹ The East Bay is planning for the anticipated impacts of this given the large number of immigrants and people of color living in the region, who frequently are undercounted during the decennial census process.

The relationship between the rate of natural increase and net migration in the East Bay is worth noting. In California, the ratio of natural increase to net migration is 7 to 1, meaning that for every person added through net migration, seven are added through natural increase. Comparatively, the East Bay’s ratio is just 1.2 to 1, a result of continuing net in-migration and declining rates of natural increase over the past few years. The East Bay’s natural population increase fell more than 30% from 2008 to

Figure 6.1: Population Growth in the East Bay

1975 - 2018



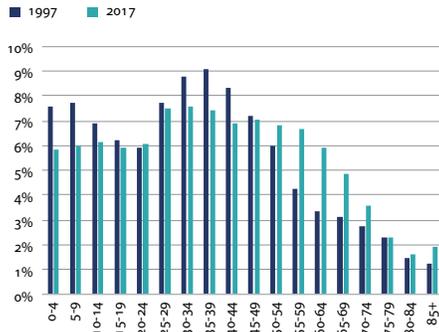
Source: California Department of Finance; Analysis by Beacon Economics

The East Bay’s natural population increase fell more than 30% from 2008 to 2018. The declining birth rate is not unique to the East Bay; it is occurring throughout the state, but at a lesser rate.

¹ Brown, N. (2019, March 20). “2020 Census: The decennial population count explained”. AM New York. <https://www.amny.com/news/2020-census-1.28738571>

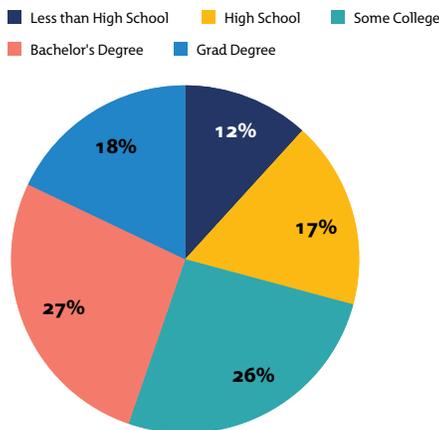
EAST BAY DEMOGRAPHICS

Figure 6.2 East Bay Population by Age Range 1997 & 2017



Source: National Center for Health Statistics (NCHS); Analysis by Beacon Economics

Figure 6.3. Share of Population by Educational Attainment 2017



Source: 2017 1-Year American Community Survey

Table 6.2: Share of Population Aged 25 and Over by Household Income (2014-2017)

Household Income	Alameda County		Contra Costa County	
	2017 Share (%)	3-Year Change (%)	2017 Share (%)	3-Year Change (%)
Less than \$25,000	13	-3.4	17	-2.6
\$25,000 to \$49,999	14	-3.3	17	-2.0
\$50,000 to \$99,999	25	-2.2	27	-2.9
\$100,000 to \$149,999	18	0.3	18	0.2
\$150,000 or More	30	8.6	21	7.3
Total	100	1.8	100	1.1

Source: 2017 1-Year American Community Survey; Analysis by Beacon Economics

2018. The declining birth rate is not unique to the East Bay; it is occurring throughout the state, but at a lesser rate.

The declining birth rates and changes in migration patterns have altered the ethnic and racial composition of the East Bay. In the ten-year period between 2007 and 2017, the percentage of Non-Hispanic whites fell from 43% to 36%. The Asian population had the largest change, growing from 20% in 2007 to 25% in 2017—an addition of nearly 200,000 people. The Black population in the East Bay dropped by almost 19,000 during this period. Hispanics increased by almost 130,000 between 2007 to 2017, growing to approximately 24% of the total population.

Over the last two decades, the East Bay's population has shifted towards older age groups, a trend experienced throughout California, as reflected in Figure 6.2. The percentage of the population aged 60 and above grew from 14% of the population in 1997 to 16% in 2017.

EDUCATION AND INCOME

Over the past decade, the East Bay has experienced greater improvements in income, earnings and educational attainment. In 2017, almost 18% of the population aged 25 and older had a graduate degree, up from 17% in 2014. Similarly, the percentage of the population with a bachelor's degree rose from 25% to 27%. The percentage with less than a high school degree fell slightly from 12.3% in 2014 to 11.8% in 2017. Figure 6.3 shows the share of East Bay's population by educational attainment in 2017.

Household income recently surged in Alameda and Contra Costa counties. From 2012 to 2017, Alameda County's median household income (nominal) increased by 37% and Contra Costa County income rose nearly 29%, both surpassing California's growth of 23%, as shown in Figure 6.4. In 2017, the median household income in Alameda County was \$96,300 and \$95,300 in Contra Costa County. Both counties far surpassed the statewide figure of \$71,800. Higher household incomes are attributed to the large increase in residents in the top income categories. From 2014 to 2017, the percentage of households making \$150,000 and more increased from 21% to 30%—an appreciable increase of 81,000 households.

Despite the income gains, the income inequality measure of the East Bay has been consistent over the past 10 years. The most recent GINI coefficient, which measures the income distribution within an economy with zero representing

Table 6.3: Median Earnings by Educational Attainment
(Population 25 and Over)

Education	Alameda County		San Francisco County	San Mateo County	California
	Alameda County	Contra Costa County			
Less than High School	\$26,824	\$26,270	\$21,977	\$26,619	\$22,648
High School Graduate	\$37,144	\$35,235	\$30,473	\$34,052	\$30,918
Some College	\$46,310	\$41,982	\$40,902	\$42,788	\$38,296
Bachelor's Degree	\$71,203	\$74,637	\$81,683	\$75,675	\$60,940
Graduate Degree	\$97,388	\$95,745	\$102,424	\$108,560	\$85,555

Source: 2017 1-Year American Community Survey; Analysis by Beacon Economics

perfect equality and 1 as perfect inequality, placed Alameda County at 0.46 and Contra Costa County at 0.47. The United States' GINI coefficient is 0.48, meaning the East Bay is on par to the nation's overall inequality measure.

QUALITY OF LIFE

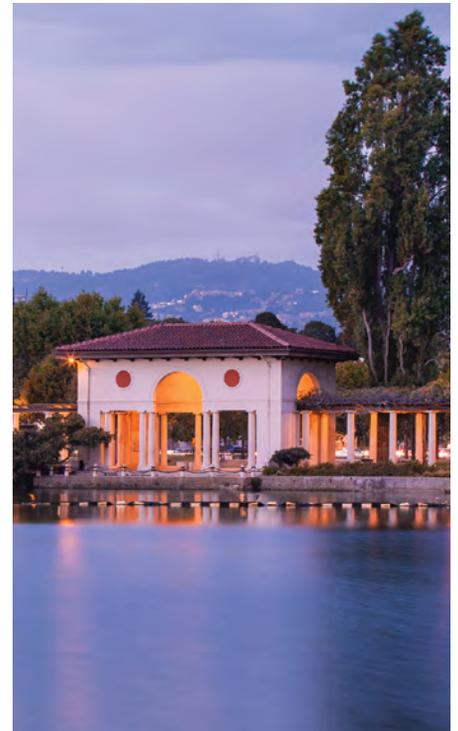
The East Bay's art and music venues, outdoor recreation spaces and culinary scene are some of the features that have made its quality of life an attraction for residents, workers and visitors. Increasingly, the East Bay is being recognized as a popular destination for arts and culture, entertainment, food and outdoor recreational activities. One reason is the East Bay Regional Park District, the nation's largest urban regional park district, spanning over 120,000 acres with 1,250 miles of trails.

Another reason is that the East Bay's multicultural diversity is celebrated throughout the year. For instance,

Fremont's Festival of India is the largest Indian festival in the U.S. In Oakland, the Fruitvale Día de Los Muertos Festival honors the deceased and celebrates Chicano and Latino heritage. The Oakland Chinatown StreetFest, which celebrates arts, food and traditions that Oakland's Chinatown continues to preserve. In the City of Berkeley, the annual Himalayan Fair honors Tibetan and Nepalese culture and dance. Pleasanton's Scottish Highland Gathering and Games celebrates Scottish culture, cuisine and competition each year.

Popular museums include the Oakland Museum of California, the Berkeley Art Museum and Pacific Film Archive and the Chabot Space and Science Center. Long recognized as a hub for arts and culture, art lovers have been visiting open studios and theater groups throughout the East Bay.

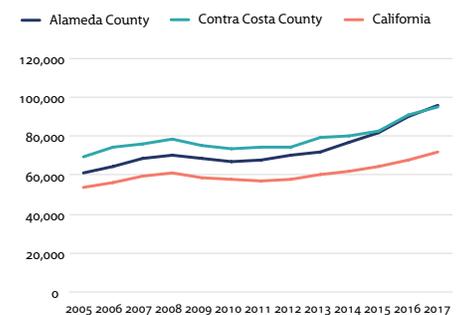
In its "Best Trips for 2019" issue, the National Geographic Magazine selected Oakland in the Culture category, acclaimed for its diversity,



Lake Merritt Pergola in Oakland.

Source: Photo by Greg Linhares.

Figure 6.4. Median Household Income 2005-2017 (Nominal \$)



Source: American Community Survey; Analysis by Beacon Economics



Children playing at the Antioch Water Park.
Source: Courtesy of City of Antioch.

The percentage of East Bay workers who spend an hour or more commuting increased from 18% in 2014 to 22% in 2017.

art, food scene and nightlife. In 2019, SmartAsset named several East Bay cities, including San Ramon, Pleasanton, Hayward, Union City, Fremont and Livermore—as the best places to raise a family on the West Coast.

POVERTY DECLINE

Poverty in the East Bay has been on the decline over the past few years. The share of East Bay’s population living below the poverty level dropped from 12% in 2012 to 9% in 2017. However, the East Bay’s Black population has the highest levels of poverty with more than 1 in 5 living below the poverty level. While incomes have risen overall, there are mounting concerns around displacement and homelessness, with some moving out of the region. These trends have contributed to the decline in the East Bay’s poverty rates.

HEALTH COVERAGE

An important measure of access to health care services is the level of health insurance coverage among residents. Health insurance coverage in the East Bay remained strong as of the most recent data. In 2017, 95% of the population in both Alameda and Contra Costa counties were insured compared to the statewide share of 93%. Furthermore, the East Bay ranks higher in percentage of insured population by all age brackets compared to the state.

CHALLENGES OF COMMUTING

Challenges to the East Bay’s quality of life have come from the region’s growing congestion and commute times. An expanding regional economy has increased travel times to work throughout the Bay Area. The percentage of East Bay workers who spend an hour or more commuting increased from 18% in 2014 to 22% in 2017 (Table 6.4). This compares to 13% of workers statewide. The percentage spending less than 30 minutes in traffic dropped from 48% in 2014 to 44% in 2017. Overall, almost 45,750 workers were added to the category of an hour-or-longer commute in this period.

A planned expansion of the Bay Area Rapid Transit (BART) connecting the East Bay to Silicon Valley could relieve some of the pressure on roadways and better connect residents and workers between these regions. Improving the Bay Area’s transit system will not only provide increased access to jobs, housing and education, but will also create opportunities for continued investment and job growth.

Table 6.4: Commute Time

Commute Time	Share (%)	Year-over-Year Percentage-Point Change (2014-2017)
Less than 30 Minutes	44	-3.9
30 to 59 Minutes	34	-
60 Minutes or More	22	3.9

Source: 2017 1-Year American Community Survey; Analysis by Beacon Economics

2 Silva, Derek. (2019, Mar 21). “The Best Places to Raise a Family on the West Coast”. *SmartAsset*. <https://smartasset.com/checking-account/best-places-to-raise-a-family-west-coast-2019>



This report was supported and prepared in partnership with



1221 Oak Street, Suite 555, Oakland, CA 94612
www.EastBayEDA.org