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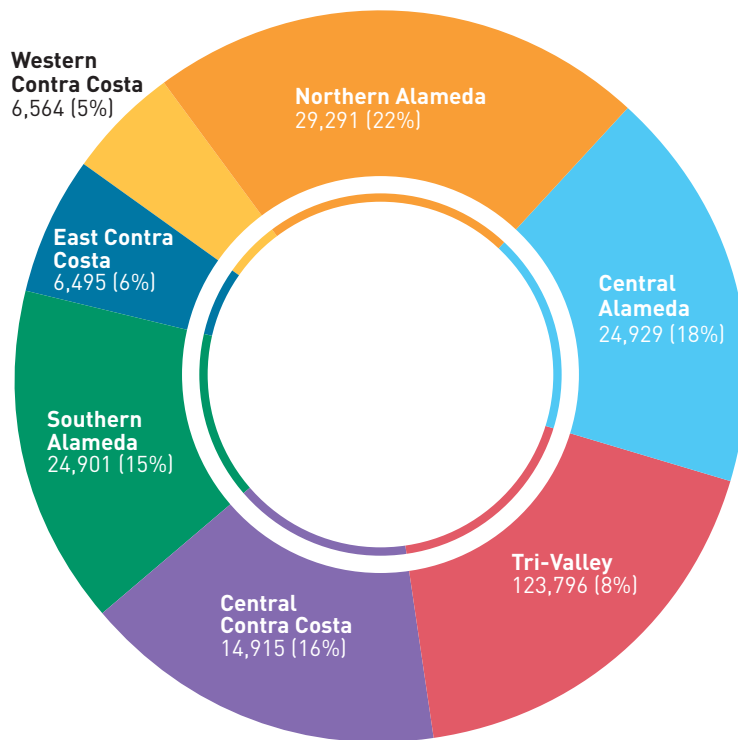
ECONOMIC PROFILES OF EAST BAY SUBAREAS

The East Bay consists of seven distinct subareas. This section provides an economic snapshot of each subarea.



EmeryStation West, an innovation & life sciences hub. Courtesy of Wareham Development.

Distribution of East Bay Jobs by Subarea, 2019



Source: Pitchbook, 2021; Strategic Economics, 2021.

The following profiles describe each of the seven subareas in the East Bay. For each subarea, the overall population and jobs trends are provided, as well as primary places (major cities and unincorporated communities) and key transportation access features. The profiles also include detailed discussion of each subarea's sectoral employment composition, as well as key defining attributes for each subarea. While each subarea was impacted by the pandemic in different ways, this section focuses on the characteristics of the subarea before the pandemic began. The figures show the distribution of jobs by subarea in 2019 and the change in jobs by subarea between 2014 and 2019.

NORTHERN ALAMEDA

Primary Places: Most of Oakland (excluding portions of East Oakland), Berkeley, Emeryville, Albany, Alameda, Piedmont

Access: BART (all six lines); Interstate 80, Interstate 580, Interstate 880, Highway 24, Capital Corridor; San Francisco Bay Area Ferry System (WETA)

Sectoral Composition:

- Northern Alameda is the economic engine of the East Bay. It has a diverse and growing employment base and has the largest share of jobs among the subareas.
- After the Public Administration sector (17 percent of jobs), the largest sectors are: "Health Care and Social Assistance" (13 percent, or 38,000 jobs); and Professional Services (12 percent, or 34,000 jobs).
- Many Professional Services jobs are in "Architecture and Engineering," Computer Systems Design, and other technical services sectors.
- Employment in the Information sector grew 52 percent in Northern Alameda from 2014 to 2019, adding nearly 4,000 jobs. Large employers including Pixar and Marqeta are located here.
- Northern Alameda has strong concentrations of firms involved in biomedical, computer tech, and other scientific research and development activities that cut across different sectors.
- There are over 11,000 manufacturing jobs in Northern Alameda. Nearly 3,000 are associated with Food and Beverage Manufacturing, and 2,800 are in the "Medical Equipment and Supplies Manufacturing" sector, which is part of Biomedical.
- Twenty-six percent of jobs in Northern Alameda are associated with "in-person sectors," which include: "Food Services and Accommodation" (9 percent), Retail Trade (7 percent); Other Services (6 percent), and "Arts, Entertainment and Recreation" (3 percent).

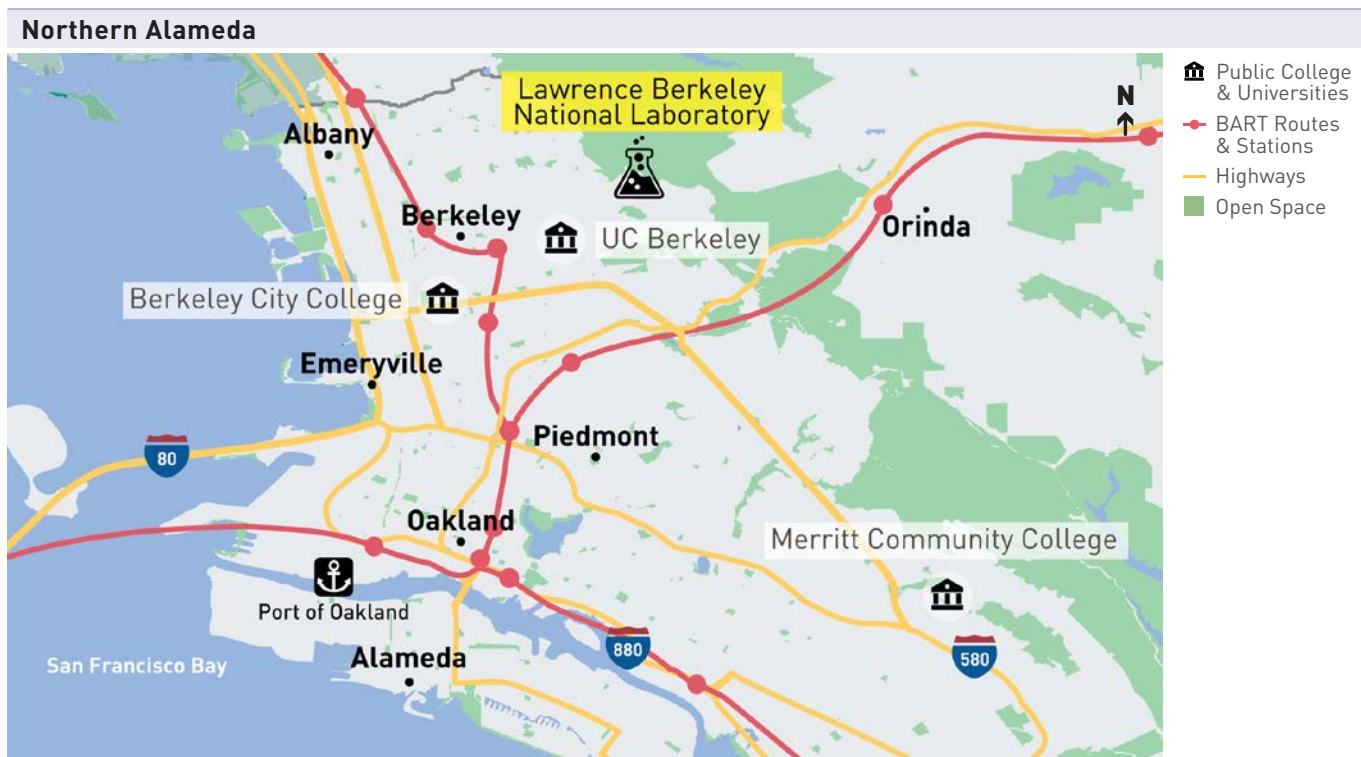
» Northern Alameda has a large share of East Bay's jobs in the arts, with 37 percent of East Bay jobs in the "Arts, Entertainment, and Recreation" sector located here.

Defining Attributes:

- Downtown Oakland is located at the center of the BART system, which is a strategic advantage for the subarea. Northern Alameda residents have excellent access to regional job centers, and workers can easily commute to Northern Alameda from across the Bay Area via BART.
- UC Berkeley and the Lawrence Berkeley National Laboratory are key fixed assets for Northern Alameda. Both foster an environment that supports the subarea's diverse, innovative activities. For example, many biomedical startups in Emeryville and Berkeley are linked to projects that start at these institutions. UC Berkeley also draws highly talented students to the East Bay, who eventually become part of the East Bay's workforce.
- Firms in Northern Alameda attracted \$3 billion in venture capital investments in 2020, half of total venture capital investment in the East Bay. The categories that received the most investment were: Biomedical (\$868 million); Computer Tech (\$640 million); Food Innovation (\$550 million); and CleanTech (\$366 million).

Northern Alameda

Jobs	294,000
Job Share	22%
Job Growth	11%
Population	442,500
Population Share	16%
Population Growth	2%



The largest awards went to the following firms: Zymergen (bio-manufacturing); Perfect Day (plant-based dairy); Marqeta (payment processing platform); Astra (space rocket equipment manufacturer); Fivetran (data integration platform); Pivot Bio (microbial nitrogen fertilizer developer); and Good Eggs (sustainable grocery delivery platform).

- The Port of Oakland seaport is located within Northern Alameda and is a critical foundation of the East Bay's goods movement ecosystem.
- Northern Alameda is distinct in that it contains many of the East Bay's pedestrian-oriented commercial districts. Some of these are Bay Area destinations for shopping, dining, culture, and nightlife. Many "in-person" jobs in Northern Alameda are located in these types of areas.

- The housing crisis is most acute in Northern Alameda. Neighborhoods in Northern Alameda, especially those near BART stations and job centers, have the strongest housing demand in the East Bay.
- Long-time residents in historic communities of color in Berkeley and Oakland have faced the most intense displacement pressures within the East Bay as these communities gentrify. Low-income renters have been most vulnerable. Some of these communities, including West Oakland and parts of East Oakland, have higher shares of adults with lower levels of educational attainment.

SOUTHERN ALAMEDA

Primary Places: Fremont, Union City, and Newark

Access: BART (Berryessa to Richmond, Berryessa to Daly City); Interstate 880, Interstate 680, Highway 84, Highway 238, Capital Corridor

Sectoral Description:

- The number of jobs in Southern Alameda grew faster than other subareas from 2014 to 2019, adding 24,000 jobs. Half of this growth was driven by employment in Manufacturing industry sectors.
- Manufacturing accounts for 23 percent of jobs, or 44,000 jobs, while Professional Services accounts for 13 percent of jobs (25,000).
- Health Care accounts for only 9 percent of jobs (17,000 jobs) which is smaller share than other subareas.
- In Southern Alameda, the share of “in-person” sectors—which include Accommodation and Food Services, Retail Trade, Other Services, and Arts, Entertainment, and Recreation—is the smallest among the subareas.
- The subarea has the highest share of East Bay’s manufacturing jobs and has a significant share of these jobs compared to the entire Bay Area (LQ of 2.9). While 8,000 of these jobs were associated with Tesla opening in the former NUMMI space in Fremont, there was also strong growth in Electronic Product manufacturing, Metal/Machinery Manufacturing, and Biomedical Manufacturing.
- The subarea also serves as a center for logistics, especially Wholesale Trade (LQ of 2.4 compared to the Bay Area). There are over 12,000 jobs in Wholesale Trade in Southern Alameda, one of the largest concentrations of wholesale trade jobs in the East Bay.

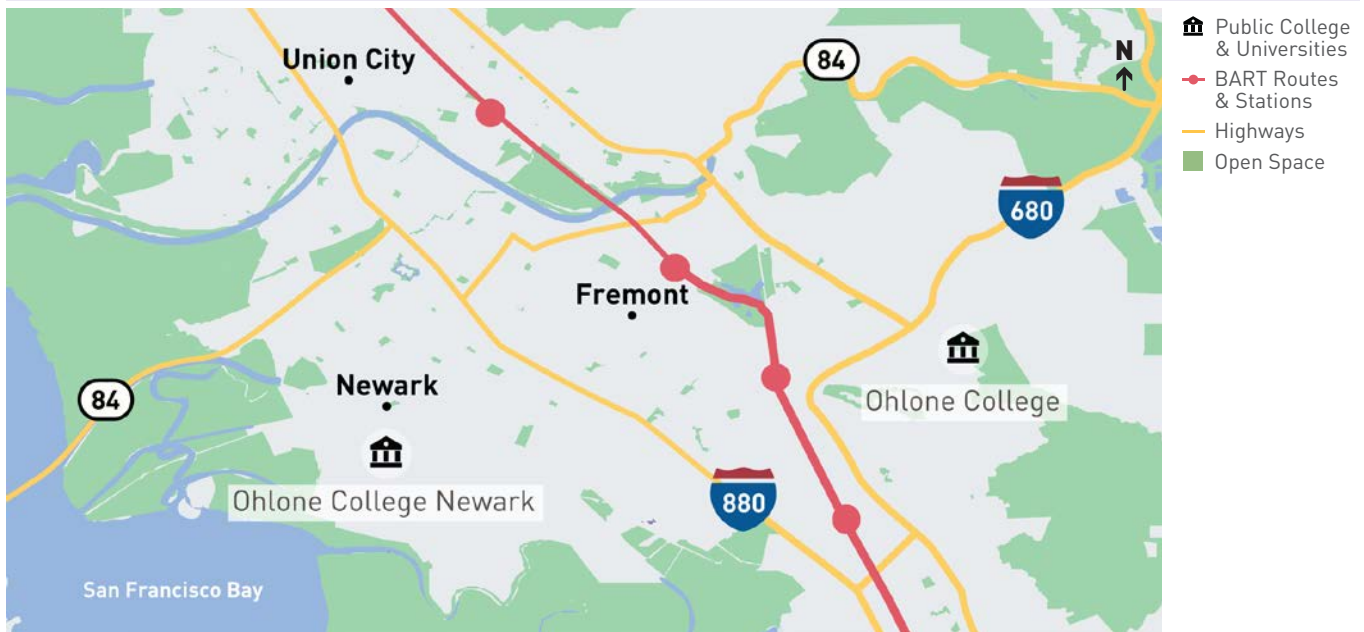
Defining Attributes:

- Southern Alameda is a primary epicenter of scientific research and development activity in the East Bay, including in advanced manufacturing and CleanTech.
- The subarea, especially Fremont, plays a large role in the Bay Area’s biomedical ecosystem, providing “scale-up” manufacturing space for growing biomedical firms. The subarea also has a strong cluster of medical equipment manufacturing. This subregion also attracts a high share of the East Bay’s venture capital funding associated with computer technology.
- Southern Alameda features easy access to the Northern Alameda and San Jose job centers, as well as San Mateo County via the Dumbarton Bridge. The recently opened Berryessa BART station will reinforce this subregion’s connections to Silicon Valley, especially when the BART extension to San Jose and Santa Clara is completed.
- Southern Alameda is also easily accessible to a large share of the Bay Area workforce, including San Mateo County workers who have some of the highest levels of educational attainment in the Bay Area.
- The subarea’s proximity to Silicon Valley and large supply of lower-cost land relative to other parts of Silicon Valley is a competitive advantage, especially for advanced manufacturing firms.

Southern Alameda

Jobs	194,569
Job Share	15%
Job Growth	15%
Population	371,878
Population Share	13%
Population Growth	4%

Southern Alameda



- Many jobs in the subarea, particularly those in lower-density flex/industrial buildings, are difficult to access without a car. The area is highly dependent on Interstate 880, which experiences high levels of traffic congestion.
- In 2020, firms in the subarea attracted \$1.5 billion in venture capital awards, and over \$1 billion of this was associated with “Computer Tech” firms. There were also sizeable investments in Biotechnology firms. Notable firms include Pony.ai (autonomous vehicles), Rain Therapeutics (oncology therapy), Spin Memory (semiconductor manufacturing), and Raxium (holographic display technology).
- Union City has a higher share of people with low levels of educational attainment and lower incomes compared to surrounding communities, creating an opportunity to target workforce and economic development strategies to expand access to quality jobs paying living wages.
- High demand for housing, office, and R&D space is creating pressures to redevelop existing industrial buildings in portions of the subarea.

CENTRAL ALAMEDA

Primary Places: Hayward, San Leandro, Castro Valley, much of East Oakland, unincorporated areas including Castro Valley, San Lorenzo, Ashland, and Cherryland.

Access: Interstate 880, Highway 237, BART (Berryessa to Richmond line; Berryessa to Daly City line), Capitol Corridor

Sectoral Composition:

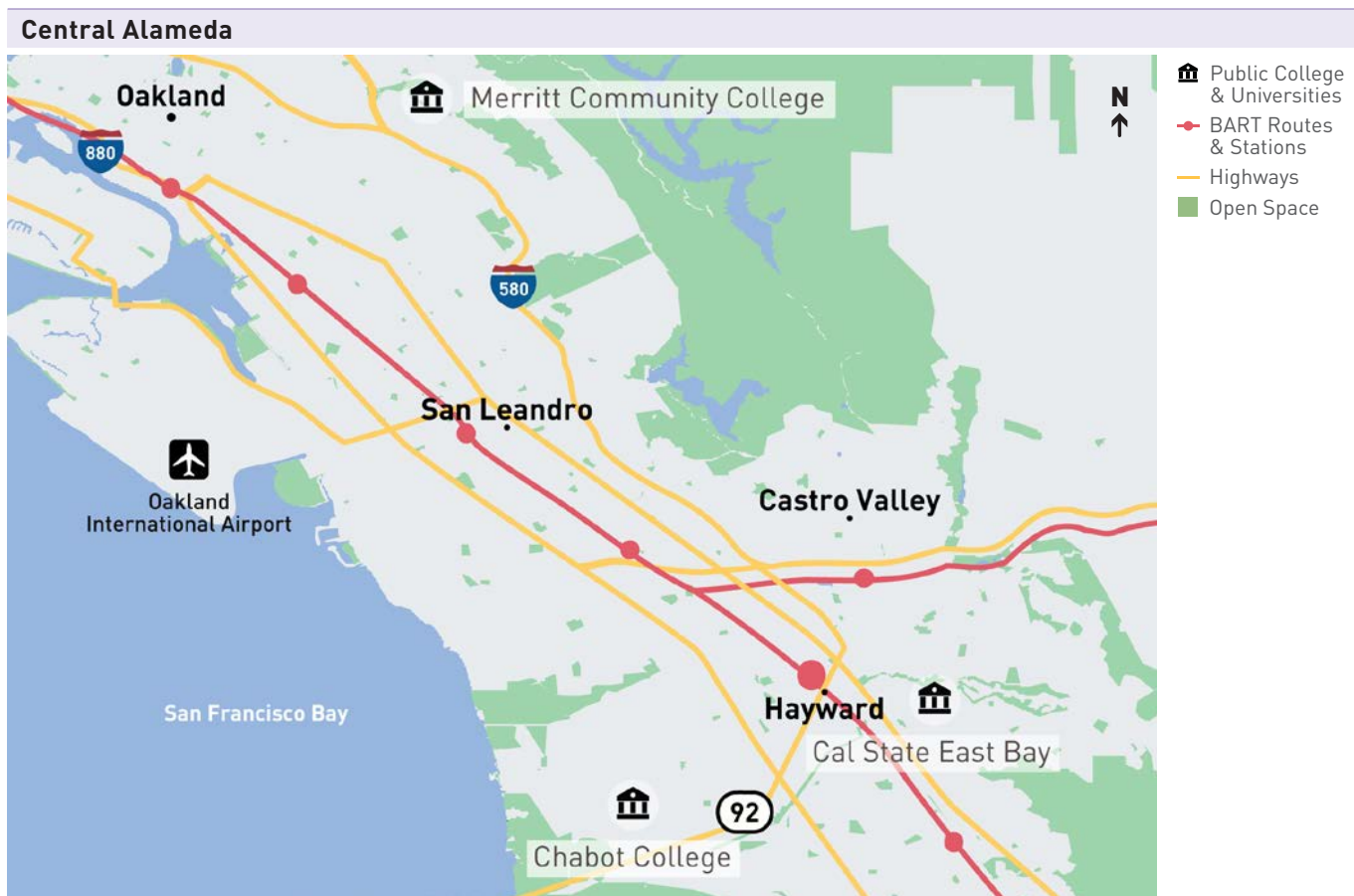
- “Health Care and Social Assistance” is the largest industry sector in Central Alameda, accounting for over 40,000 jobs (17 percent of jobs) in the subarea.
- Logistics activities define this subarea, which includes the Oakland Airport. Logistics employment in the subarea is highly concentrated compared to the Bay Area. The subarea’s Wholesale Trade industry has a jobs LQ of 2.0, and Transportation and Warehousing has an LQ of 2.8 (compared to the Bay Area).
- Central Alameda also has the second largest share of Manufacturing jobs in the East Bay, after Southern Alameda. The subarea had approximately 20,000 Manufacturing jobs as of 2019, which accounted for one-fifth of Manufacturing jobs in the East Bay, and eight percent of jobs in the subarea.
- In Central Alameda, traditional manufacturing sectors known for providing middle-wage positions with low barriers-to-entry provide the most jobs overall. Most of these sectors grew from 2014-2019. These include Food Manufacturing, Wood Product Manufacturing, Metal Product and Machinery Manufacturing, and Transportation and Equipment Manufacturing. There are many firms in these traditional sectors (like Upside Foods, a plant-based food manufacturer) that are producing innovative products, and others are constantly innovating their processes in ways that make them “advanced manufacturing”.

Defining Attributes

- Central Alameda has a large supply of industrial land, which is tied to all aspects of “PDR” (Production, Distribution, and Repair) activities, such as warehousing and other logistics uses that support the Oakland Airport, and manufacturing facilities that serve advanced manufacturing and food manufacturing subsectors.
- Central Alameda is the East Bay’s most populous subarea and is highly accessible to regional job centers. Housing is relatively more affordable than other parts of Alameda County, though certain areas, particularly those with strong access to BART, are experiencing displacement pressure.
- Central Alameda also has many electronic product manufacturing jobs, which is closely linked to Bay Area strengths. Hayward plays a similar, albeit smaller role to Fremont in providing “scaling-up” space for biomedical firms.
- Construction jobs are also highly concentrated in the subarea (LQ of 1.7, compared to Bay Area), with ties to the subarea’s large supply of PDR land.

Central Alameda

Jobs	240,500
Job Share	18%
Job Growth	11%
Population	619,500
Population Share	22%
Population Growth	2%



- Households in the subarea generally have lower incomes and lower levels of educational attainment compared to other parts of the East Bay. San Leandro and parts of East Oakland have high shares of people aged 25 and over with some college or lower educational attainment.
- Firms in Central Alameda were awarded nearly \$800 million in venture capital investments in 2020, which accounted for 13 percent of total funding in the East Bay that year. Biomedical firms receiving the largest awards were: Upside Foods (plant-based meat); RefleXion Medical (biology-guided radiotherapy); Geltor (bio-design); and Halio (smart-tinting glass).

TRI-VALLEY

Primary Places: Alameda: Dublin, Pleasanton, Livermore, Contra Costa: San Ramon, Danville

Access: Interstate 580, Interstate 680, BART (Dublin/Pleasanton to Daly City line)

Sectoral Composition:

- Professional Services is the Tri-Valley's largest industry sector, accounting for 12 percent of total jobs, or approximately 30,000 jobs. Many of these jobs are associated with scientific research and development, computer technology, and architecture and engineering.
- "Health Care and Social Assistance" and Retail Trade are the next largest sectors, with 11 percent and nine percent of total jobs respectively.
- The Tri-Valley has a large share of the East Bay's jobs in the Management of Companies and Enterprises sector. Nearly half of the jobs in this sector in the East Bay are in the Tri-Valley. Corporations have historically favored the Tri-Valley for corporate headquarters because the Tri-Valley is a suitable place for lower-density campus-style offices that can accommodate many workers (e.g., Safeway and Ross Stores).
- The Information sector is growing rapidly in the Tri-Valley. The sector grew 41 percent from 2014 to 2019, adding nearly 3,000 jobs. Most Information employers in the Tri-Valley are engaged in software publishing, data processing, and other high-tech activities. The software firm Workday recently opened new offices near BART in Pleasanton.

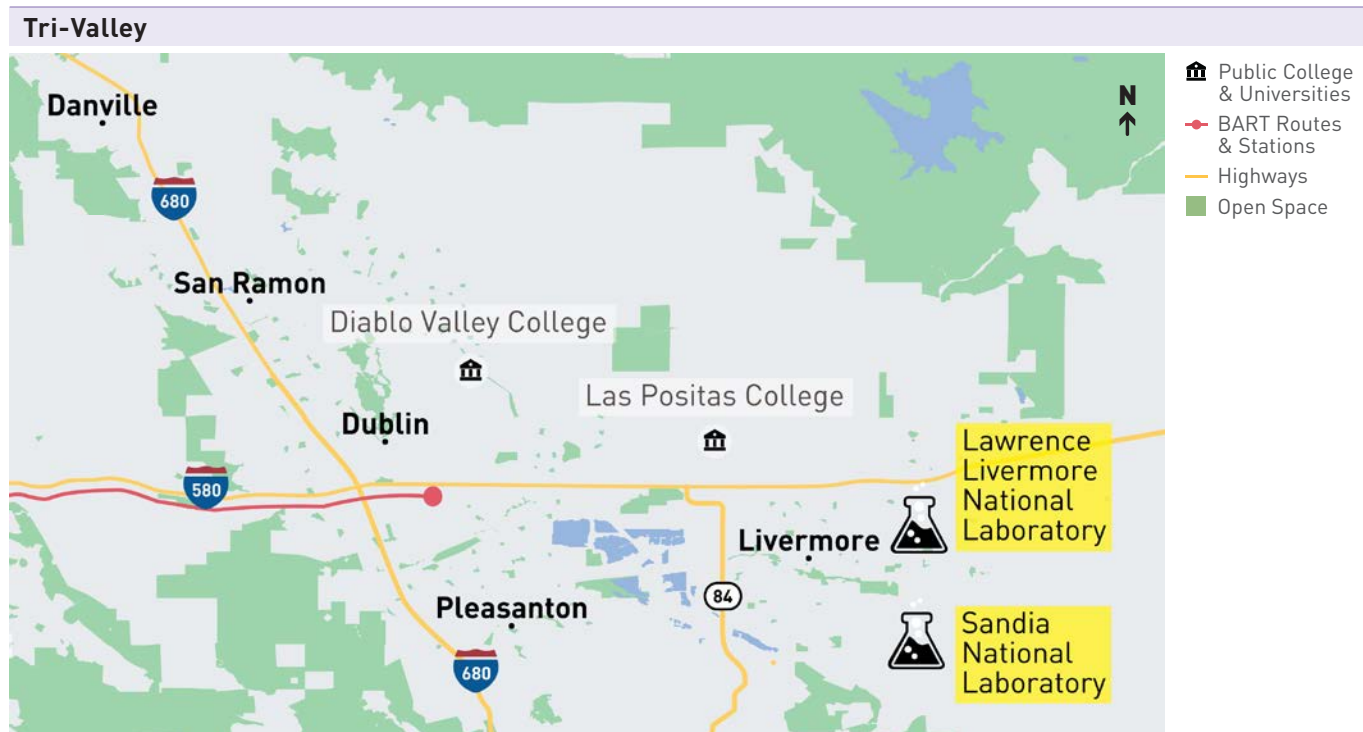
- The Tri-Valley is an increasingly attractive location for high-tech firms, especially those in computer technology, as well as some biomedical firms. Livermore's two national labs support these highly innovative activities.

Defining Attributes:

- The Tri-Valley has strong anchors in scientific R&D, healthcare, and software, which foster an environment of innovation, as well as a diversified and growing employment base.
- The Tri-Valley is one of the fastest-growing subareas, both in terms of population and employment growth. Job and population growth in the Tri-Valley both outpaced that of the East Bay.
- The Tri-Valley is strategically positioned between the Inner East Bay and the Central Valley. The planned Valley Link rail line will connect the Tri-Valley to Stockton, strengthening this relationship.
- The Tri-Valley benefits from hosting two national laboratories—Lawrence Livermore National Lab (LLNL) and Sandia National Lab. These labs engage in cutting edge scientific research, and LLNL is a national leader in computing research.

Tri-Valley

Jobs	234,000
Job Share	18%
Job Growth	12%
Population	393,000
Population Share	14%
Population Growth	8%



- Firms in the Tri-Valley were awarded approximately \$470 million in venture capital funds in 2020. Most of these funds were associated with “Computer Tech” firms. The largest awards went to Tekion (digital automobile retail platform); Degreed (digital education/skills development platform); and Air Protein (meat alternative technology).
- Planning, infrastructure, and development projects are shifting areas near the Tri-Valley’s BART stations become more walkable and transit-oriented.

EASTERN CONTRA COSTA

Primary Places: Antioch, Brentwood, Pittsburg, Oakley, Bay Point

Access: BART (Antioch to SFO), Highway 4, Highway 160

Sectoral Composition:

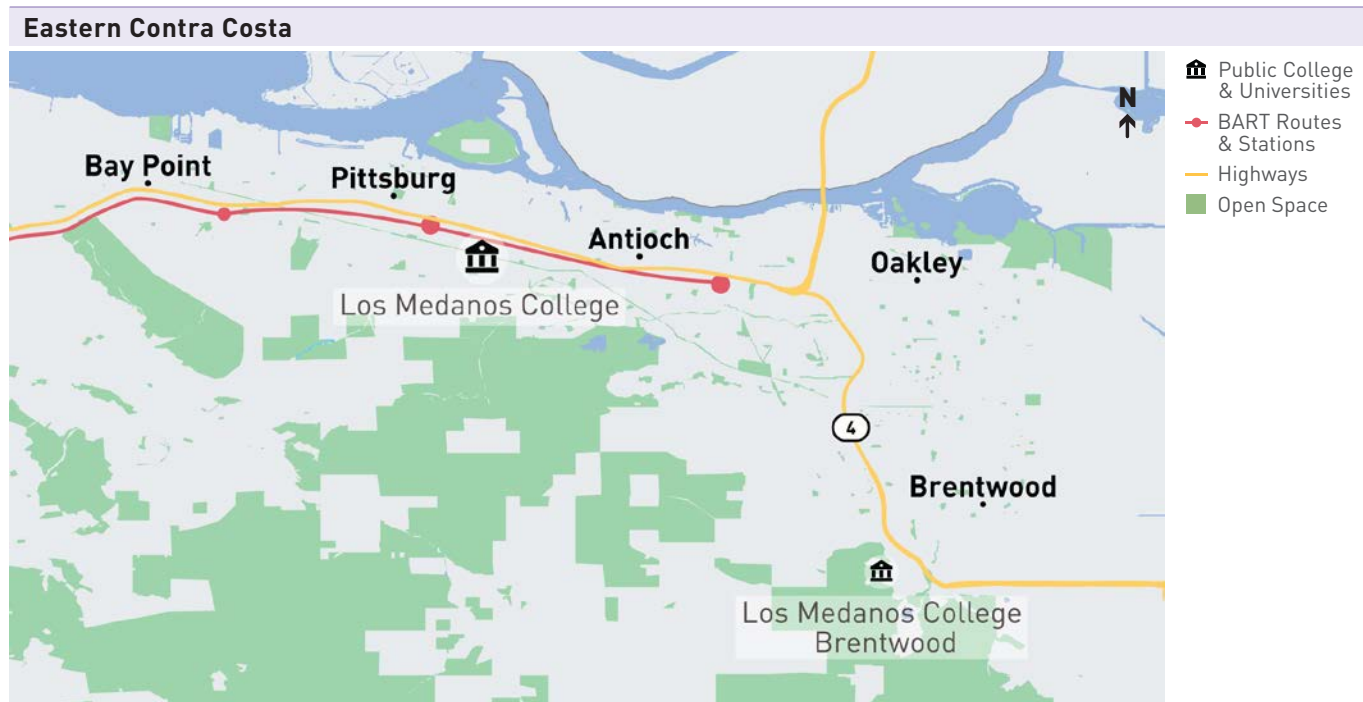
- Public Administration is the largest sector, which accounts for nearly one-in-five jobs, or approximately 15,000 jobs.
- Household-serving sectors also contribute large shares of jobs in Eastern Contra Costa. “Health Care and Social Assistance” accounts for 16 percent of jobs, or approximately 12,000 jobs. Other large sectors include Retail Trade (12 percent of jobs); Construction (11 percent) and “Accommodation and Food Services” (9 percent).
- Eastern Contra Costa also has a large share of the Bay Area’s jobs in the Utilities sector. Approximately one-third of the Bay Area’s Utilities jobs are located here. Most Utilities jobs in Eastern Contra Costa are related to power generation and water irrigation and treatment.

Defining Attributes:

- Eastern Contra Costa is one of the most rapidly growing subareas in terms of population, attracting growing numbers of Bay Area residents seeking lower housing costs.
- While Eastern Contra Costa provides relatively affordable housing, residents endure long commutes to access the Bay Area’s largest job centers.
- Areas near BART stations have attracted some smaller housing developments, but development activity is generally limited for denser, multifamily housing.
- While the subarea’s distance from the Bay Area’s largest population and jobs concentrations creates an obstacle to attracting employers, communities in Eastern Contra Costa are proactively working to attract more jobs and investment to the area to improve job access for residents. These efforts include identifying and seeking funding for infrastructure needs that improve access and opportunities to attract commercial development.

Eastern Contra Costa

Jobs	78,000
Job Share	6%
Job Growth	9%
Population	342,000
Population Share	12%
Population Growth	8%



- Many communities in Eastern Contra Costa are communities of color that have high shares of adults with lower educational attainment. Challenges exist in linking the local workforce to high-quality and accessible job opportunities throughout the region.
- Economic development efforts in the area include the Northern Waterfront Economic Development Initiative (see separate text box), and individual city and county efforts to attract development activity and employers—with many also seeking to attract growth of “green” jobs, such as Bombardier’s rail car assembly facility in Pittsburg.

WESTERN CONTRA COSTA

Primary Places: Richmond, El Cerrito, San Pablo, Pinole, Hercules

Access: Interstate 580, Interstate 80, BART (Richmond to SFO, Richmond to Berryessa), Capitol Corridor

Sectoral Composition:

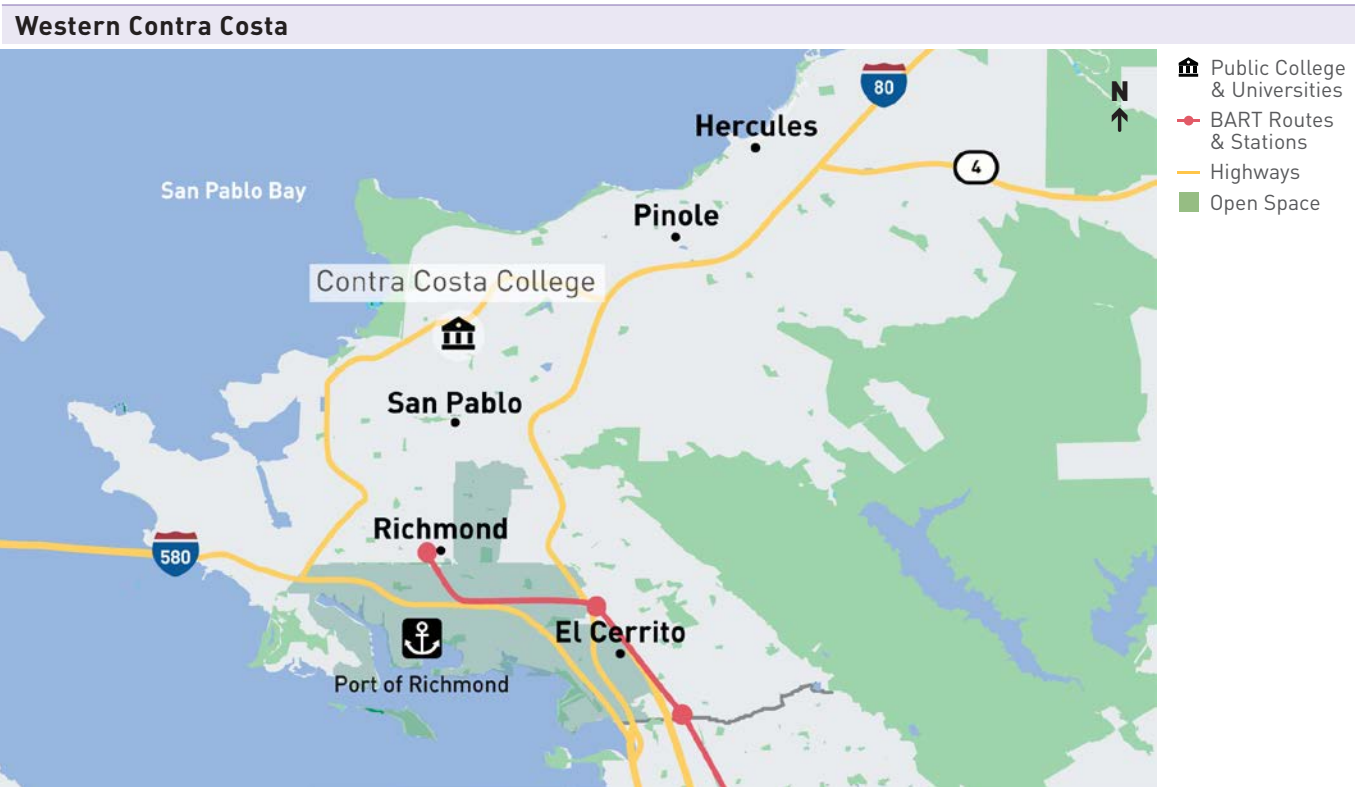
- Public Administration is the subarea's largest sector, which accounts for 15 percent of jobs, or over 11,000 jobs.
- The two largest sectors are both household-serving. "Health Care and Social Assistance" and Retail Trade each account for 12 percent of total jobs, or nearly 9,000 jobs each.
- Western Contra Costa also has over 8,000 jobs in Manufacturing, or 11 percent of its total jobs. Nearly 3,000 of these jobs are associated with oil refineries, including Chevron and Phillips 66. Food and Beverage Manufacturing and Metal/Machinery Manufacturing also account for a large share of Manufacturing jobs, with 1,500 and 900 jobs respectively.
- Nine percent of jobs in the subarea, or approximately 7,000 jobs, are associated with Logistics (both Wholesale Trade and Transportation and Warehousing). These jobs partly support activities at the Port of Richmond.

Defining Attributes:

- Chevron in Richmond and the Phillips 66 oil refineries in unincorporated Rodeo are two of the subarea's largest employers. While there is a tension between supporting these jobs and protecting the environment, some refineries have begun exploring strategies around a "just transition" to renewable fuels while preserving job opportunities. Phillips 66, for example, is in the early stages of a process to transition to producing renewable fuels, as a part of the "Rodeo Renewed" plan.
- Residents in Richmond and San Pablo, which are both communities of color, generally have lower levels of educational attainment and lower incomes. Residents in these communities often have less access to education/career advancement opportunities.
- Western Contra Costa has lower housing costs than nearby Northern Alameda, and locations in the subarea near BART are relatively accessible to Berkeley, Downtown Oakland, and San Francisco.
- Western Contra Costa is also accessible to Marin County via the Richmond-San Rafael bridge. A large share of workers in Marin County commute from Western Contra Costa.

Western Contra Costa

Jobs	78,000
Job Share	6%
Job Growth	9%
Population	342,000
Population Share	12%
Population Growth	8%



CENTRAL CONTRA COSTA

Primary Places: Walnut Creek, Lafayette, Concord, Martinez, Pleasant Hill

Access: BART (Antioch to SFO), Interstate 680, Highway 24, Highway 4, Capital Corridor

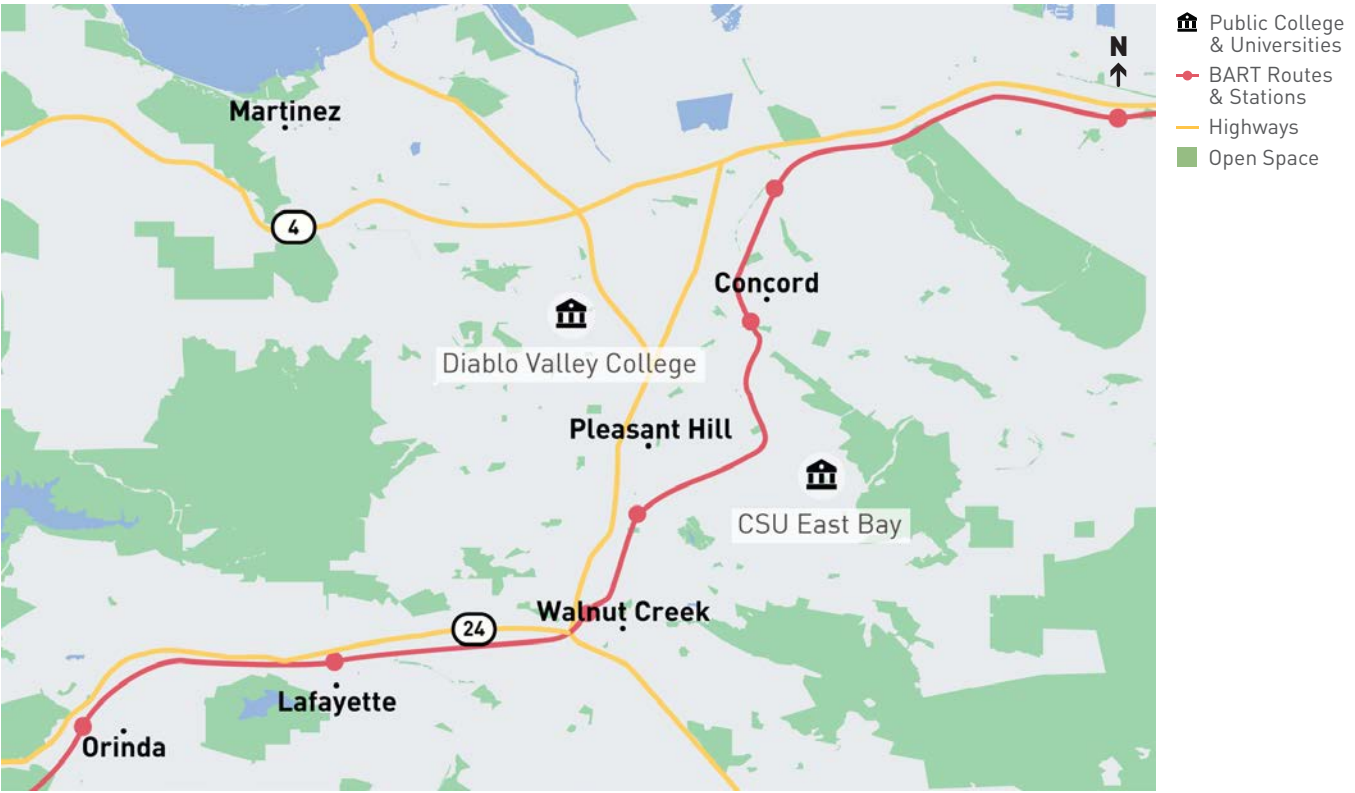
Sectoral Composition:

- “Health Care and Social Assistance” is the largest sector, accounting for 18 percent of total jobs, or 39,000 jobs.
- Retail Trade is the second-largest sector, with 10 percent of jobs, or 21,000 jobs, followed by Accommodation and Food Services which has nine percent of jobs (18,000 jobs).
- Most office jobs are in Professional Services (18,000 jobs), and “Finance and Insurance” (14,000 jobs)
- “Finance and Insurance” is particularly concentrated in Central Contra Costa. It has a location quotient of 2.0, compared to its concentration in the Bay Area. 34 percent of Finance and Insurance jobs in the East Bay are located here.
- 4,700 jobs in the Manufacturing sector are located in this subarea. Over one-third of these jobs are associated with oil refineries, such as Marathon, Tesoro Golden Eagle, and Shell.
- Other manufacturing activities include printing, medical equipment, and chemical manufacturing.

Defining Attributes:

- Central Contra Costa is the primary job center for Contra Costa County. Walnut Creek has the largest concentration of office jobs in the county.
- While Central Contra Costa provides the most jobs within Contra Costa County, the number of jobs has not increased as rapidly as other subareas. Most job growth occurred in household-serving sectors.
- Walnut Creek includes some of the East Bay’s best-performing regional shopping centers or malls, including Broadway Plaza.
- The oil refineries in Martinez are some of the subarea’s largest employers. There is a tension between supporting these jobs and protecting the environment. However, some refineries have begun exploring strategies around a “just transition.” Marathon is currently exploring strategies around transitioning to renewable energy production.
- Residents in Central Contra Costa are better positioned to access regional jobs via BART than Eastern Contra Costa, but workers still face relatively long commutes to major job centers besides Downtown Oakland.
- Martinez and other communities along the Northern Waterfront were historically oriented around legacy manufacturing activities, such as the oil refineries. These businesses are still important to the local economy today, but broader changes in manufacturing have de-emphasized the regional significance of these facilities compared to larger concentrations of manufacturing jobs elsewhere.

Central Contra Costa



Central Contra Costa	
Jobs	78,000
Job Share	6%
Job Growth	9%
Population	342,000
Population Share	12%
Population Growth	8%