9. Economics

This chapter evaluates socioeconomic and real estate conditions that will inform the land use policies and alternatives considered as part of the City of Livermore's (City's) planning process. This chapter uses the term "Livermore" to cover the City of Livermore together with the immediately surrounding area within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI). See the Introduction for more information on these boundaries. Specifically, the findings will inform inter-related General Plan issues, including:

- Economic Development: What economic sectors have the strongest growth potential in the city and how can the General Plan help promote expansion in these sectors?
- Real Estate Development: What are the market prospects for various real estate development and investment projects in the city and how can the General Plan encourage desired forms of growth?

This chapter is based on a review of publicly available data from a variety of sources. The information provided characterizes historic growth patterns and is not a deterministic perspective on future land use opportunities. Future development patterns will be influenced by a variety of factors, including the local land use policies contained in the General Plan as well as external factors.

This chapter has been prepared as the nation and world seek to address the COVID-19 pandemic, an unprecedented public health crisis. The economic effect of the pandemic is ongoing and not yet fully understood, though some effects of the pandemic have been considered here, as far as recent data allow. Given that the length and severity of the coronavirus pandemic is still unknown, the economic implications will depend fundamentally on how the crisis unfolds. The current consensus is that economic impacts will continue to dissipate over time, but longer-term ramifications of the coronavirus crisis are still unclear.

The chapter focuses on data metrics for the City of Livermore, along with other geographic areas that provide context and comparisons. In particular, EPS considers the larger cities of the Tri-Valley area: Dublin, Pleasanton, and San Ramon. The Tri-Valley is interconnected economically, and the jurisdictions collaborate on economic development activities such as the Visit Tri-Valley Tourism Business Improvement District (TBID). The Tri-Valley economic and market activity directly impacts Livermore, and as a region is defined based on shared geographic mobility considerations that shape regional economic activity. Most prominent among these features are Bay Area Rapid Transit (BART), Interstate (I-) 580 and I-680, and the Altamont Corridor Express (ACE) train, which all serve to connect the Tri-Valley to the inner Bay Area and Silicon Valley. Importantly, I-580 also provides a critical connection between the Bay Area and the Central Valley.

¹ While the Tri Valley also includes the Town of Danville and unincorporated communities of Alamo, Blackhawk, and Diablo, this chapter relies on the larger, incorporated cities in the region to provide demographic and economic comparisons and context for analysis of Livermore trends and existing conditions.

9.1 KEY FINDINGS

9.1.1 POPULATION AND ECONOMY

The City of Livermore has added over 9,000 residents in the past decade, an increase of 11 percent, while the Tri-Valley overall grew by about 17 percent during the same time period. With over 91,000 residents, Livermore is the most populous city in the Tri-Valley region. While the 1990s was a period of robust growth in which Livermore added nearly 15,600 residents, population growth has slowed in recent years. Since 2000, other Tri-Valley cities have grown more rapidly than Livermore. In the most recent decade, the population of Livermore grew by about 13 percent, accounting for roughly 20 percent of total population growth in the Tri-Valley. Meanwhile, the rate of population growth in Livermore continues to exceed countywide growth. Across the Tri-Valley and county more broadly, the 2010s started out with robust growth, but population increases have subsided somewhat over the past five years.

Livermore is well known for the Lawrence Livermore National Laboratory and the Sandia National Laboratory and accordingly the city's most significant industry is "Professional Scientific and Technical Services," but Livermore's economy also supports thousands of jobs in construction, manufacturing, and trade, which together account for over 40 percent of jobs in the city.² Livermore hosts a diverse economy that includes highly skilled jobs such as those found at the labs and local professional services firms, but also is home to a wide variety of wholesale and retail trade, construction, and manufacturing jobs. In addition, a concentration of food service and hotel operations in the city supports significant employment in the hospitality industry. Employment in Livermore has grown by nearly 30 percent since a cyclical low seen in 2010, with new jobs in Livermore attributable largely to new retail stores in the city, growth in manufacturing operations, and increased regional demand for all types of construction. Other notable growth sectors include hospitality and arts, entertainment, and recreation. Furthermore, along with the greater Bay Area, technology jobs in Livermore have increased, with "Information" sector jobs exhibiting the greatest percentage growth of any industry between 2002 and 2018. The city's employment backbone in "professional, scientific, and technical services" remains by far the largest single employment sector, but has been less dynamic, adding just over 100 jobs during the same period.

Regional growth projections for Livermore indicate the city could grow to accommodate roughly 34 percent more residents and 7 percent more workers by 2040, but these forecasts do not reflect the robust growth that occurred in the city over the past decade. The Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) adopted Plan Bay Area in 2013 and updated it in 2017. This long-range transportation and community growth strategy San Francisco Bay Area identifies strategies for transportation and land-use to accommodate the region's expected expansion. Forecasts for Livermore indicate that the city's population might grow to 114,000, resulting from 16 percent growth between 2020 and 2030 and 15 percent growth between 2030 and 2040. ABAG/MTC project that employment in the city will grow to 46,000, about 7 percent (total) over the two decades between 2020 and 2040. However, current population and employment is greater than had been anticipated by these forecasts, and employment in Livermore likely already has exceeded the 2040 projection. Applying ABAG/MTC growth rates to updated population and employment counts suggests Livermore could potentially expand to 120,000 residents and 57,000 jobs. Although Plan Bay Area 2050

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² Employment categories defined by the North American Industrial Classification System (NAICS).

has been adopted, city-level projections have not been published yet. It is possible that future ABAG/MTC projections may better account for the robust growth seen in the Tri-Valley between 2010 and 2020.

9.1.2 REAL ESTATE PERSPECTIVES

Housing in Livermore is predominantly for-sale single-family homes, though there are new and varied examples of successful multifamily residential development projects (apartment and condominium complexes) that reveal potential for an ongoing evolution of the City's housing stock. Traditional suburban detached single-family homes comprise about 68 percent of the housing stock in Livermore, as compared with about 52 percent of the housing in Alameda County overall. Residential permitting data reveal that from 1981 through 2020, three out of four (75 percent) housing unit permits in Livermore have been for single-family units. However, during the 1980s as well as the past decade (2011-2020), over one third of new home permits were for new housing in multifamily structures. Recent investments in multifamily housing located downtown and elsewhere in the city illustrate the market potential that exists for denser housing types. These housing developments come at a critical time, as Livermore and the rest of the Bay Area grapple with challenges posed by a short supply of housing.

The market price of typical for-sale home in Livermore has more than doubled since 2012, making the city increasingly unaffordable. By increasing supply and offering housing at lower price points than detached single family housing, development of new multifamily rental housing has the potential to mitigate to some degree the impacts of rising housing costs in the region. In addition, small-lot single family housing and compact townhome development continues be attractive to developers in Livermore, and these projects also provide needed housing supply through relatively efficient use of land. Though new market rate housing often targets relatively affluent consumers, research from the State of California's Legislate Analyst's Office (LAO) finds that like most industries, the housing sector is subject to economic conditions of supply and demand, and that increases in housing supply help make housing more affordable.³

There has been minimal new office development in Livermore and the Tri-Valley more broadly since the early 2000s, but future Valley Link train service in Livermore and the possible rise of "hub-and-spoke" office strategies could create new market opportunities. While the Tri-Valley has evolved into a highly desirable office market which benefits from its accessibility, relative affordability, and educated labor force, Livermore has not attracted the office campus development seen in nearby cities. In Pleasanton and San Ramon, for example, master-planned office park projects dating back to the 1980s created new workplace clusters along I-580 and I-680. Growth in these office campuses surged with the internet boom in the late 1990s and Class A office development spilled into Dublin during the early 2000s. However, that wave of large-format office development ended abruptly with the recession in 2001 and minimal office construction has occurred in the Tri-Valley since then. More recently, office development has been led by local companies building to suit their own needs (e.g., Workday in Pleasanton), as opposed to speculative, developer-built projects. Livermore has seen some office development, including a number of smaller scale-office projects in the early 2000s, and Downtown Livermore offices have become quite desirable, exhibiting low vacancy and strong lease rates. Looking forward, a planned rail connection between the Tri-Valley and the Central Valley ("Valley Link") has the potential to boost demand for office space,

³ Perspectives on Helping Low-Income Californians Afford Housing, An LAO Brief, State of California Legislative Analyst's Office (2016).

particularly within station areas. Lastly, as companies respond to COVID-19, new hub-and-spoke strategies that locate satellite offices closer to where workers live may increase demand for suburban office space, though the evolution and permanence of hybrid working arrangements is highly uncertain.

Livermore is the most significant industrial real estate market in the Tri-Valley, with roughly 16 million square feet of space, 3.2 million square feet of which has been built since 2015. Recent industrial construction in Livermore included a mix of build-to-suit and speculative development, with new space supporting manufacturing (e.g., the GILLIG bus facility on Discovery Way), warehousing/logistics (e.g., FedEx on Greenville Road), and other specialized uses. The driving factors behind the success of Livermore's industrial market include scale and access. Large industrially zoned areas such as the Oaks Business Park in western Livermore and the Pacific Corporate Center in East Livermore have both proven to be highly competitive industrial development locations. The city is less than 35 miles from the Port of Oakland, within 50 miles of the region's three major airports, and closer to the Bay Area than Central Valley locations, while still drawing workers from the Central Valley labor force. Furthermore, rents for industrial space in Livermore have remained relatively low, even with high occupancy levels. Within this competitive landscape and given increasing e-commerce and manufacturing in the region, it seems likely that modern industrial and "flex" space will remain in strong demand in Livermore for the foreseeable future.

Retailing in Livermore increased dramatically when the Premium Outlets opened in 2012, and development of adjacent areas for retail use have increased the retail footprint in western Livermore by leveraging the consumer draw achieved by the outlet center. In 2012, news reports indicated the Livermore's new outlet center had created 2,000 jobs and generated \$2 million in annual sales tax revenue for the city. The center initially consisted of about 500,000 square feet, then expanded by another 200,000 square feet. Since then, additional retail has been developed on adjacent and nearby sites, and two new hotels opened just to the east during 2020. The center and adjacent development now constitute a significant new regional destination in the city. Livermore also has seen a variety of smaller-scale retail projects in recent years, including stand-alone restaurant/retail spaces and retail/service commercial spaces. Even with new retail development and challenges created by the COVID-19 pandemic, citywide retail vacancy remains at a healthy 5 percent. Overall, the city is well served by its current retail, but new local offerings may be appropriate to serve new and growing neighborhoods.

Livermore currently has nearly 1,600 hotel rooms spread across 20 hotel properties, and with almost 700 rooms currently in the development pipeline the city is poised to offer the largest hospitality inventory in the Tri-Valley. With stable occupancy rates and steadily increasing room rates over the past decade, Livermore has established itself as a strong hotel market in the region, particularly in the mid-market price segment. Much of the hotel demand likely is business related, including travel attributable to the National Lab. In addition, as noted above, the San Francisco Premium Outlets have increased Livermore's draw as a regional retail destination and recent hotel projects adjacent to the outlets suggest market demand for overnight retail tourism. With seven new hotel projects in the development pipeline (two of which are currently under construction), investors clearly see opportunities to build on the hospitality market existing in Livermore, by capture business and leisure demand. While the majority of these projects are located along the I-580 corridor, downtown and outlying areas have attracted boutique hotels. Whether there is sufficient market demand to absorb the significant increase in hotel inventory remains to be seen over the next few years, but it appears that Livermore will continue to thrive as a hospitality hub in the Tri-Valley.

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9.2 POPULATION AND ECONOMY

EPS has assessed underlying economic and market conditions for the Livermore General Plan Update. This technical analysis covers key demographic, economic, and real estate factors affecting the city and its role in the Tri-Valley and the broader region. The goal of this assessment is to identify local population trends, strengths in the local economy, and real estate development factors, to inform urban planning challenges and opportunities related to sustainable long-term growth that may be addressed by the General Plan Update.

EPS analyzed demographic and economic trends that inform and highlight land use opportunities and constraints in Livermore. The primary purpose of the work is to offer context for community and stakeholder outreach discussions, to provide data for the visioning and planning process, and to support the land use alternatives and economic development policies for the General Plan. Relying on publicly available data (e.g., US Census Bureau, California Department of Finance, California Employment Development Department) as well as proprietary, third-party data sources, EPS assembled and evaluated trends on population, demographics, housing, and employment. The analysis reviews data from the last ten to fifteen years and considers Livermore and nearby Tri-Valley jurisdictions of Dublin, Pleasanton, and San Ramon, plus Alameda County as a whole.

9.3 DEMOGRAPHIC TRENDS

With over 91,000 residents, Livermore is the most populous city in the Tri-Valley region. Since 2010, Livermore's population has continued to grow, slightly outpacing growth in Alameda County. However, Livermore has lagged behind other Tri-Valley cities in growth such as Dublin and San Ramon. The population in these nearby cities grew by approximately 41 percent and 16 percent since 2010, respectively, compared to 13 percent in Livermore, as shown in **Figure 9-1**. Dublin and San Ramon's planning for new housing and proximity to the employment centers positioned these cities for residential growth. In Livermore, population growth did pick up following the 2008 recession, and while recent planning efforts such as the Isabel Neighborhood Specific Plan provide potential for significant new development, it is yet to be fully realized.

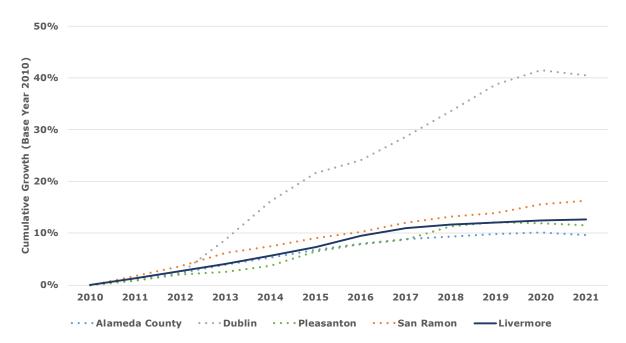
Across the Tri-Valley and County, population growth slowed in the second half of the last decade. In Livermore, population increased at an average annual rate of 1.6 percent from 2011 to 2016 but remained nearly flat at 0.6 percent from 2016 to 2021. In Alameda County, the rate population growth also slowed beginning in 2016. **Table 9-1** presents population trends in Livermore and other Tri-Valley cities between 2000 and 2020.

TABLE 9-1 POPULATION TRENDS, 2011-2021

				201	1-2016	2016-2021	
Population	2011	2016	2021	Change	Annual Growth Rate	Change	Annual Growth Rate
Livermore	81,975	88,635	91,216	6,660	1.6%	2,581	0.6%
Dublin	46,412	57,124	64,695	10,712	4.2%	7,571	2.5%
Pleasanton	70,879	75,813	78,371	4,934	1.4%	2,558	0.7%
San Ramon	73,373	79,559	83,863	6,186	1.6%	4,304	1.1%
Tri-Valley	272,639	301,131	318,145	28,495	2.0%	17,014	1.1%
Alameda County	1,525,761	1,631,230	1,656,591	105,469	1.3%	25,361	0.3%

Source: 2021 DOF E-5

Figure 9-1 Cumulative Population Growth, 2010-2021



Source: State of California Department of Finance E-5 by Geography

Household income data show that the Tri-Valley is an affluent region of the East Bay, and that household income in Livermore is healthy and growing. From 2016 to 2019, incomes in Livermore had the highest annual average rate of growth among Tri-Valley cities (**Table 9-2**). Relative to Alameda County overall, Livermore has a high median household income, but it is about \$26,000 lower than in the Tri-Valley cities overall.

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TABLE 9-2 MEDIAN HOUSEHOLD INCOME (2019\$), 2010-2021

				201	.1-2016	2016-2019		
Median Household Income (2019\$)	2011	2016	2019	Change	Annual Growth Rate	Change	Annual Growth Rate	
Livermore	\$96,322	\$104,223	\$127,452	\$7,901	1.6%	\$23,229	6.9%	
Dublin	\$111,481	\$128,403	\$150,299	\$16,922	2.9%	\$21,896	5.4%	
Pleasanton	\$118,713	\$130,170	\$156,400	\$11,457	1.9%	\$26,230	6.3%	
San Ramon	\$124,014	\$134,188	\$160,783	\$10,174	1.6%	\$26,595	6.2%	
Tri-Valley	\$115,097	\$129,287	\$153,350	\$14,190	2.4%	\$24,063	5.9%	
Alameda County	\$70,821	\$79,831	\$99,406	\$9,010	2.4%	\$19,575	7.6%	

Source: US Census ACS 5-Year Estimate 2011, 2016, 2019.

The population in Livermore remains predominantly white (62 percent) and is somewhat less diverse than the County and other cities in the region. In Alameda County, only 31 percent of residents are white, as shown in **Table 9-3**. However, Livermore has a greater portion of Hispanic/Latino residents than other Tri-Valley cities, at nearly 20 percent of the city's population, which is similar to Alameda County overall. Over the past decade, there has been a modest shift towards increasing diversity in Livermore's population, with data showing increases in the share of Black, Asian, and multi-racial population since 2010.

TABLE 9-3 RACE AND ETHNICITY TRENDS: LIVERMORE AND ALAMEDA COUNTY, 2010-2019

Racial and Ethnic Group	Liver	more	Alameda County		
	2010	2019	2010	2019	
White	64.7%	62.0%	34.1%	31.0%	
Black	1.9%	1.8%	12.2%	10.0%	
American Indian and Alaska Native	0.3%	0.1%	0.3%	0.3%	
Asian or Pacific Islander	8.5%	12.0%	26.6%	31.0%	
Other and Two or more ethnicities	3.6%	5.0%	4.3%	5.0%	
Hispanic or Latino (of any race)	20.9%	20.0%	22.5%	22.0%	
Total	100.0%	100.0%	100.0%	100.0%	

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B03002. ABAG Data Packet, 2021

Nearly one third of households in Livermore include children under 18, and age data reveal that many are families with young children. Approximately 13 percent of Livermore's population is under the age of 14, a greater share than in the County overall. About 7 percent of the population is under 5 years old. There also is a notable concentration of middle-aged adults (ages 45 to 64) in Livermore. However, there are fewer young working-age adult residents (20-to-44-years) as compared with the County overall. **Table 9-4** presents the age distribution of Livermore residents in comparison to Alameda County.

TABLE 9-4 AGE DISTRIBUTION: LIVERMORE AND ALAMEDA COUNTY, 2010–2020

			Livermore			Alameda County						
Age Group	2010		2020		2010– 2020	201	0	202	2020			
	Number	Share	Number	Share	Percent Change	Number	Share	Number	Share	Percent Change		
Under 5	5,360	6.6%	6,424	7.2%	1.9%	97,546	6.6%	96,849	5.8%	-0.1%		
5-14	11,519	14.2%	11,663	13.0%	0.1%%	183,269	12.4%	192,050	11.6%	0.5%		
15-24	9,933	12.3%	8,667	9.7%	-1.2%	202,483	13.7%	195,193	11.8%	-0.4%		
25–34	9,972	12.3%	12,276	13.7%	2.3%	224,161	15.2%	276,019	16.7%	2.3%		
35–44	12,558	15.5%	11,992	13.4%	-0.4%	229,087	15.5%	248,230	15.0%	0.8%		
45–54	14,347	17.7%	13,949	15.5%	-0.3%	218,249	14.8%	223,026	13.5%	0.2%		
55–64	8,937	11.1%	12,712	14.2%	4.2%	162,086	10.9%	201,361	12.2%	2.4%		
65–74	4,704	5.8%	6,944	7.7%	4.7%	84,245	5.7%	131,979	7.9%	5.7%		
75–84	2,563	3.2%	3,633	4.0%	4.2%	53,207	3.6%	63,249	3.8%	1.9%		
85+	1,075	1.3%	1,509	1.6%	4.0%	23,647	1.6%	28,798	1.7%	2.2%		
Total	80,968	100.0%	89,699	100.0%	1.1%	1,477,980	100.0%	1,656,754	100.0%	1.2%		

Source: U.S. Census Table S0101 2010 & 2019 5-Year Estimates. ABAG Data Packet, 2021.

The median age in Livermore is 39.8 years in 2019, which is higher than Alameda County's (38.4), but lower than Pleasanton's (42.4) or San Ramon's (40.2). Similar to broader demographic trends, the median age has been increasing. In the Tri-Valley and elsewhere, the data reveal an aging population. Livermore's median age, however, has not trended up as sharply as other Tri-Valley cities or the countywide, as shown in **Table 9-5**.

TABLE 9-5 MEDIAN AGE TRENDS, 2011-2019

Median Age	2011	2016	2019
Livermore	39.0	39.4	39.8
Dublin	34.7	36.8	36.7
Pleasanton	38.7	42.0	42.4
San Ramon	36.7	38.3	40.2
Alameda County	36.4	37.4	38.4

Source: US Census ACS 5-Year Estimates 2011, 2016, 2019

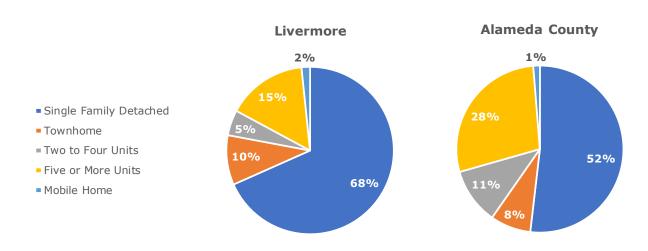
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9.4 HOUSING

Livermore has a higher percentage of single-family detached houses than Alameda County, approximately 68 percent compared to 52 percent in the county in 2021. While the county has a higher percentage of structures with two or more units, the difference is largest for structures with five or more units, which represent only 15 percent of dwelling units in Livermore compared to 28 percent countywide. Compared to other Tri-Valley cities, Livermore has the highest share of single-family detached homes, as well as the highest by count (see **Figure 9-2**).

Between 2011 and 2021, much of the Tri-Valley's housing expansion occurred in Dublin, where new housing development complemented population growth in the past decade. Transit-oriented development has encouraged multifamily projects near the Dublin/Pleasanton and West Dublin BART stations. In the Isabel Neighborhood in Livermore, similar urban planning may support higher density housing development in the future. However, from 2011 to 2021 Livermore added approximately 1,600 single-family homes as compared to 911 multifamily homes. Single-family detached homes are likely to remain the prevalent housing type in Livermore but increasing demand and development of townhomes and 5+ unit multifamily housing, which rose 24 percent and 19 percent over the past decade, respectively, suggest a shifting housing market and evolving development opportunities. For example, townhome development growth in Livermore outpaced the county, which increased townhome stock by only 9 percent. This reveals the growing popularity and market acceptance of this product type in Livermore, as shown in Figure 9-3.

Figure 9-2 Livermore and Alameda County Housing Type Comparison, 2021



Source: E-5 Population and Housing Estimates

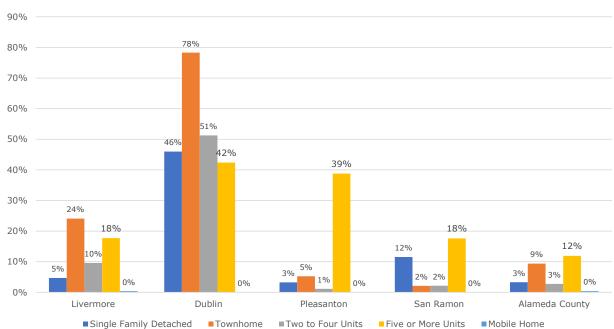


Figure 9-3 Change in Housing Types, 2011-2021

Consistent with the housing stock described previously, Livermore's single-family homes tend to be owner-occupied and accordingly Livermore has a relatively high percentage of owner-occupied units. Over two thirds (70 percent) of Livermore homes are ownership units, compared to 51 percent overall in Alameda County. As shown in **Table 9-6** and **Figure 9-4**, Livermore offers the lowest shares of rental housing as a percentage of total housing units compared to Alameda County. Vacancy in Livermore remains below the county average at 3 percent, suggesting that local housing demand remains strong and that the market is not significantly influenced by vacation homes or short-term rentals.

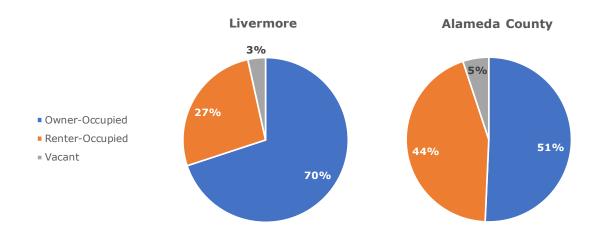


Figure 9-4 Housing Tenure, 2019

Source: U.S. Census, American Community Survey 5-Year Estimate, 2019

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TABLE 9-6 Housing Tenure, 2019

Geography	Owner O	ccupied	Renter O	ccupied	Total	Ratio of Owner vs Renter Occupied
Livermore	22,995	72.4%	8,752	27.6%	31,747	2.63
Alameda County	308,891	53.5%	268,286	46.5%	577,177	1.15
Bay Area	1,531,955	56.1%	1,199,479	43.9%	2,731,434	1.28

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B25003. ABAG Data Packet, 2021.

9.5 **EMPLOYMENT TRENDS**

Employment in Livermore has grown overall since 2002, exhibiting a 1.5 percent annual rate of growth between 2002 and 2018. As shown in Figure 9-5, job growth in Livermore outpaced growth in the county as well as in Pleasanton, which grew at an annual rate of 1.0 percent and 0.2 percent, respectively, over that time period. While employment in Livermore dipped in the years following the 2008 recession, job creation has trended steadily upward since 2013. A major driver of this upward trend likely is the opening of the Premium Outlets in 2012, which now contains over 745,000 square feet of retail and is significant employment center in the city and regionally. The relocation of GILLIG (bus manufacturing) to Livermore also added notably to the city's jobs total.

In 2018, employment in Livermore was 27 percent greater than in 2002. Despite a relatively healthy growth rate, employment growth rates in Livermore have lagged behind Dublin and San Ramon, which grew by annual rate of 2.4 percent and 2.8 percent since 2002, respectively.

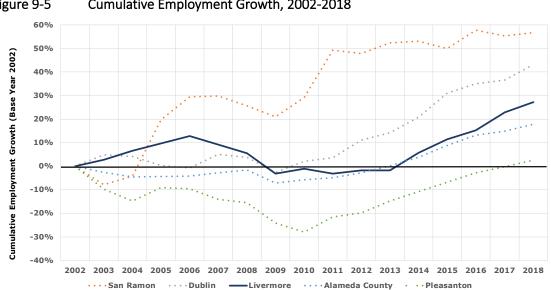


Figure 9-5 Cumulative Employment Growth, 2002-2018

Source: LEHD; Economic & Planning Systems

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TABLE 9-7 REGIONAL EMPLOYMENT COUNTS, 2002-2018

				2002-2011 2011-2018				2002-2011			
Total Jobs	2002	2006	2011	2016	2018	Total Change	Average Annual Change	Annual % Change	Total Change	Average Annual Change	Annual % Change
Livermore	41,929	47,331	40,581	48,347	53,338	-1,348	-150	-0.4%	12,757	1,822	4.0%
Dublin	14,534	14,436	15,062	19,631	20,805	528	59	0.4%	5,743	820	4.7%
Pleasanton	68,270	61,782	53,501	66,410	70,070	-14,769	-1,641	-2.7%	16,569	2,367	3.9%
San Ramon	27,723	35,907	41,373	43,732	43,430	13,650	1,517	4.5%	2,057	294	0.7%
Alameda County	690,603	661,799	656,385	782,101	813,406	-34,218	-3,802	-0.6%	157,021	22,432	3.1%

Source: LEHD; Economic & Planning Systems

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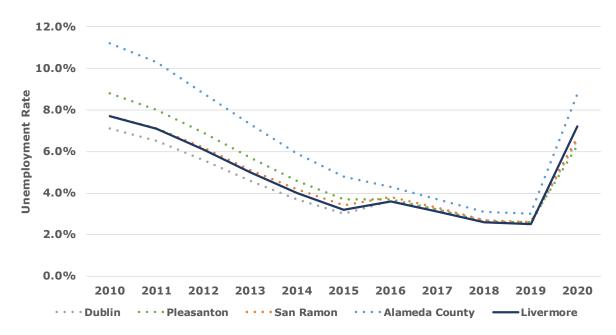
Unemployment rates in Livermore and the Tri have consistently remained below the county's and have generally tracked with other Tri-Valley cities' rates, evidence of a skilled and employable labor force in the region. In the past decade, unemployment in Livermore was highest in 2011 and 2020, following national economic recessions. Unemployment reached its lowest level, 2.5 percent, in 2019. In 2020, the pandemic nearly tripled the city's unemployment rate over 2019, as illustrated in **Table 9-8** and **Figure 9-6**.

TABLE 9-8 REGIONAL UNEMPLOYMENT RATE, 2010-2020

						2010-2020		
Unemployment Rate	2011	2016	2018	2019	2020	Total Change	Average Annual Change	Annual % Change
Livermore	7.1%	3.6%	2.6%	2.5%	7.2%	-0.5%	-0.1%	-0.7%
Dublin	6.5%	3.6%	2.7%	2.5%	6.6%	-0.5%	0.0%	-0.7%
Pleasanton	8.0%	3.7%	2.6%	2.6%	6.3%	-2.5%	-0.3%	-3.3%
San Ramon	7.1%	3.8%	2.7%	2.6%	6.7%	-1.0%	-0.1%	-1.4%
Alameda County	10.3%	4.3%	3.1%	3.0%	8.8%	-2.4%	-0.2%	-2.4%

Source: EDD; Economic & Planning Systems

Figure 9-6 Regional Unemployment Trends, 2010-2020



Source: EDD; Economic & Planning Systems

The "Professional, Scientific, and Technical Services" industry (Professional Services) is the most significant employment sector in Livermore, accounting for over one in five jobs (approximately 22 percent of all jobs), as shown in **Figure 9-7**. The high number of professional services jobs is partially a result of Lawrence Livermore National Laboratory and Sandia National Laboratory, which employ roughly 8,400 and 1,400 workers, respectively (**Table 9-10**). However, Professional Services has dropped as a percentage of total employment from 27 percent in 2002 to 22 percent in 2018. Professional Services added only about 110 jobs during this time period, while other employment sectors saw more significant employment increases. See **Table 9-11** on specifics for employment sector growth.

While Professional Services remains the largest employment sector, Retail Trade has expanded the most since 2002, adding 1,928 jobs. Other high-growth sectors include Manufacturing (1,845 jobs); Accommodations and Food Services (1,670 jobs); Construction (1,242 jobs); and Information (1,129 jobs), as shown in **Table 9-9**. Robust growth in the Retail Trade and Accommodations & Food sectors over this time period is largely a result of the new Premium Outlets shopping center, and retail employment growth is likely to slow in the future.

Manufacturing and Wholesale Trade has grown with the development of new industrial facilities in the city. A significant amount of the industrial space being built in Livermore is developed to advanced manufacturing specifications, which has supported economic growth. For example, GILLIG, a leading manufacturer of heavy-duty transit buses, moved into 600,000 square feet of advanced manufacturing flex space in 2017, adding over 900 jobs. Also in 2017, Tesla opened a warehouse in Livermore in the Oaks Logistic Center, contributing an additional 700+ jobs to date and becoming one of the leading employers in the city (Table 9-10).

TABLE 9-9 LIVERMORE EMPLOYMENT BY SECTOR, 2002-2018

							2002-2018		
Employment Sector	2002	2005	2010	2015	2017	2018	Total Change	Average Annual Change	Annual % Change
Accommodations & Food	1,881	2,324	2,439	2,862	3,063	3,551	1,670	104	4.1%
Admin Waste Mgmt	2,649	2,287	1,737	2,715	3,515	3,475	826	52	1.7%
Ag., Forestry, Hunting	41	30	5	65	94	73	32	2	3.7%
Arts, Entertain., & Rec.	598	543	947	1,255	1,460	1,477	879	55	5.8%
Construction	5,656	7,021	3,895	5,808	6,434	6,898	1,242	78	1.2%
Education	2,269	2,029	2,232	2,601	2,475	2,436	167	10	0.4%
Finance & Insurance	544	832	476	830	887	1,018	474	30	4.0%
Health Care	2,410	2,719	3,234	2,919	2,713	2,695	285	18	0.7%
Information	278	934	2,822	1,252	1,366	1,407	1,129	71	10.7%
Manufacturing	4,001	4,076	3,766	3,835	5,500	5,846	1,845	115	2.4%
Mgmt of Companies	673	941	652	311	261	272	-401	-25	-5.5%
Mining & Extraction	0	9	2	0	1	0	0	0	
Other	1,039	1,387	1,049	948	982	1,045	6	0	0.0%

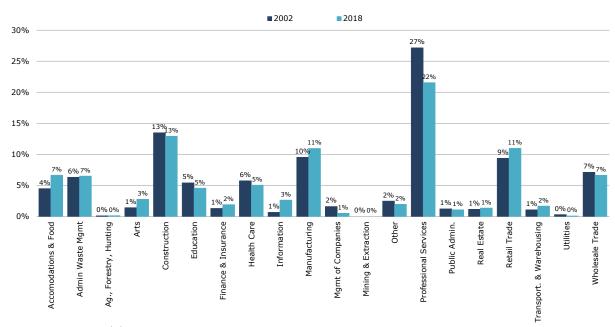
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TABLE 9-9 LIVERMORE EMPLOYMENT BY SECTOR, 2002-2018

						į	2002-2018		
Employment Sector	2002	2005	2010	2015	2017	2018	Total Change	Average Annual Change	Annual % Change
Professional Services	11,397	12,015	9,794	10,315	11,046	11,507	110	7	0.1%
Public Admin.	511	563	768	619	552	571	60	4	0.7%
Real Estate	486	557	442	636	716	723	237	15	2.5%
Retail Trade	3,932	3,914	3,215	4,731	5,602	5,860	1,928	121	2.5%
Transport. & Warehousing	449	419	854	1,165	934	893	444	28	4.45
Utilities	126	132	144	67	48	43	-83	-5	-6.5%
Wholesale Trade	2,989	3,232	2,986	3,813	3,884	3,548	559	35	1.1%
Total	41,929	45,964	41,459	46,747	51,533	53,338	9,604	600	1.5%

Source: LEHD; Economic & Planning Systems

Figure 9-7 Livermore Employment Distribution by Sector, 2002 and 2018



Source LEHD; Economic and Planning Systems

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TABLE 9-10 LIVERMORE TOP EMPLOYERS, 2020

Employer	Use	Employees
Lawrence Livermore National Laboratory	Government R&D	8,364
Livermore Valley Joint USD	Public School System	1,422
Sandia National Laboratories	Government R&D	1,375
Lam Research	R&D, Manufacturing	1,003
Gillig	Manufacturing	921
Tesla	R&D, Manufacturing	705
FormFactor	Manufacturing	618
City of Livermore	Government	511
Las Positas College	Community College System	493
DHL Supply Chain	Logistics and Distribution	467

Source: Comprehensive Annual Financial Report (CAFR) FY 2019-2020, City of Livermore; LEHD; EPS.

TABLE 9-11 LIVERMORE EMPLOYMENT SECTOR GROWTH, RANKED BY TOTAL CHANGE, 2002-2018

Employment Sector	Rank	Total Change	Annual Average Change	Annual % Change
Retail Trade	1	1,928	121	2.5%
Manufacturing	2	1,845	115	2.4%
Accommodations & Food	3	1,670	104	4.1%
Construction	4	1,242	78	1.2%
Information	5	1,129	71	10.7%
Arts, Entertain. & Rec.	6	879	55	5.8%
Admin Waste Mgmt	7	826	52	1.7%
Wholesale Trade	8	559	35	1.1%
Finance & Insurance	9	474	30	4.0%
Transport. & Warehousing	10	444	28	4.4%
Health Care	11	285	18	0.7%
Real Estate	12	237	15	2.5%
Education	13	167	10	0.4%
Professional Services	14	110	7	0.1%
Public Admin.	15	60	4	0.7%
Ag., Forestry, Hunting	16	32	2	3.7%
Other	17	6	0	0.0%
Mining & Extraction	18	0	0	
Utilities	19	-83	-5	-6.5%
Mgmt of Companies	20	-401	-25	5.5%

Source: Economic & Planning Services

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Livermore serves as a workplace destination for workers further east in areas including San Joaquin County, Stanislaus County, and Sacramento County, but also as a source of labor for Silicon Valley and other Bay Area employment destinations like Oakland and San Jose. Approximately eight out of ten (78 percent) workers that live in Livermore commute out of the city for work. Available data indicate that a slightly greater percentage of the workers commuting out of Livermore earn more than \$40,000 per year as compared with workers commuting to Livermore. Livermore workers commuting out of town are primarily traveling to locations in the Bay Area, with jobs concentrated in the East Bay and South Bay/Silicon Valley. Approximately 52 percent of workers that live in Livermore work in Alameda County, followed by 14 percent in Santa Clara County, 10 percent in Contra Costa County, and 6 percent in San Francisco County, as shown in Table 9-12. Between BART, I-580 and I-680, and the Altamont Corridor Express (ACE) train, there are several commute options between Livermore and the job centers in the East Bay and Silicon Valley.

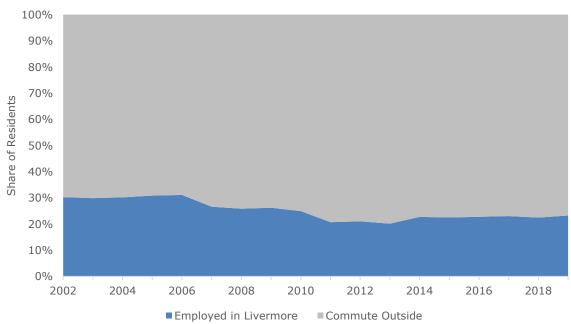
Of workers that are employed in Livermore, approximately 20 percent also live there, while the remaining 80 percent commute in from outside of the city. Approximately 39 percent of Livermore workers live in Alameda County, followed by 16 percent in San Joaquin County, 13 percent in Contra Costa County, and 6 percent in Santa Clara County, as shown in **Table 9-12**. Livermore's proximity to a deep pool of labor residing in relatively affordable San Joaquin County is often cited as one of Livermore's economic advantages. **Figure 9-8** shows that among Livermore residents, the share of workers who work and live in Livermore has declined from a peak of 31 percent in 2006, but has remained steady around 22 percent since 2014.

TABLE 9-12 LIVERMORE COMMUTE PATTERNS, 2018

	Work Destination of Workers that Live in Livermore			Home Destination of Workers Employed in Livermore		
Rank	County	Amount	% Total	County	Amount	% Total
1	Alameda County, CA	25,136	52%	Alameda County, CA	20,778	39%
2	Santa Clara County, CA	6,799	14%	San Joaquin County, CA	8,418	16%
3	Contra Costa County, CA	4,577	10%	Contra Costa County, CA	7,091	13%
4	San Francisco County, CA	3,092	6%	Santa Clara County, CA	3,139	6%
5	San Mateo County, CA	2,106	4%	Stanislaus County, CA	2,705	5%
6	San Joaquin County, CA	1,166	2%	Sacramento County, CA	1,400	3%
7	Los Angeles County, CA	826	2%	Solano County, CA	886	2%
8	Sacramento County, CA	700	1%	San Mateo County, CA	862	2%
9	Orange County, CA	467	1%	Los Angeles County, CA	717	1%
10	San Diego County, CA	297	1%	San Francisco County, CA	651	1%
	All Other Locations	2,898	<u>6%</u>	All Other Locations	6,691	<u>13%</u>
	Total	48,064	100%	Total	53,338	100%

Source: LEHD; Economic & Planning Systems





Source: LEHD; Economic & Planning Systems

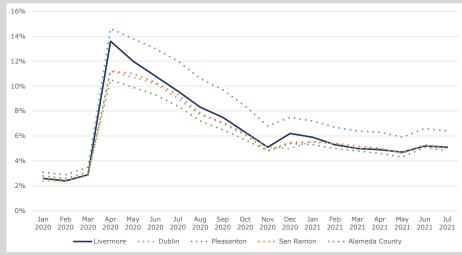
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COVID-19 and the Economy

The ongoing COVID-19 pandemic has significantly affected many aspects of life, including economic conditions in Livermore. As restrictive public health policies came into effect, businesses were forced to close or reduce operations with retail, restaurant, hospitality, and recreation sectors most dramatically affected. The impact of the pandemic on these and other industries led to altered spending patterns and a rapid rise in unemployment.

At the start of the pandemic and economic slowdown, Livermore's labor force faced higher rates of unemployment in the Tri-Valley, but unemployment remained below Alameda County as a whole. As shown below, unemployment rates have yet to return to pre-pandemic levels, although they have declined dramatically from a peak in April 2020.

COVID-19 Unemployment Rate Snapshot, 2020-2021



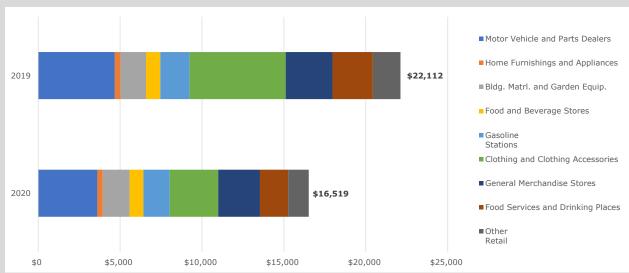
Source: California EDD, 2020-2021

Among Tri-Valley cities, Livermore experienced the highest unemployment spike in April 2020, plus a second smaller spike in December. Because the pandemic is still ongoing, the full effect on the economy is yet unknown. Economic recovery from the pandemic-induced recession is a new challenge Livermore will continue to face going forward.

Data on taxable retail and food services in Livermore reveals nuances of how the pandemic affected Livermore. Retail sales in the Clothing, Food Service, and Motor Vehicle Dealership categories dropped, leading to a per-capita taxable sales decline from over \$22,000 in 2019 to \$16,500 in 2020, a 25 percent drop. With lockdown orders and business closures, discretionary spending at brick-and-mortar retail establishments fell dramatically.

In terms of spending declines, Livermore fared 3rd worst among all cities in Alameda County during the first year of the pandemic – only Berkeley and Emeryville experienced more significant reductions in taxable spending. Spending declines in Livermore are illustrated in the graph below. While taxable spending declines were a common throughout the state and the nation, Livermore was particularly hard hit.

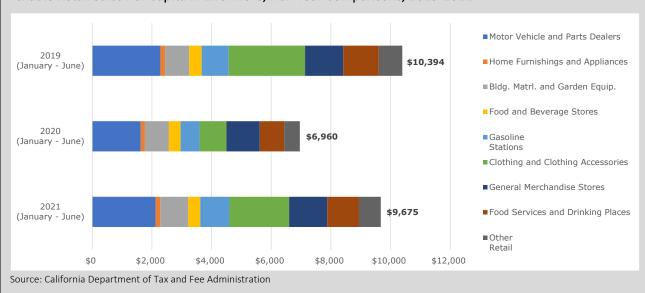
Livermore Taxable Retail Sales Per Capita by Category, 2019-2020



Source: California Department of Tax and Fee Administration

Many cities saw their spending bolstered by online retail, benefitting from the signing of AB-147, the state's legal framework for collecting sales tax revenue from online and out-of-state retailers. However, shifts from in-person to online retail did not help bolster spending allocated to Livermore as much as in cities with point-of-sale reporting assigned to retail fulfillment centers.

Taxable Retail Sales Per Capita in Livermore, Half-Year Comparisons, 2019-2021



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Business activity is rebounding in 2021. Per-capita taxable retail spending was up 39 percent through the first half of 2021 compared to the same period in 2020. Spending in Livermore is 93 percent recovered to pre-COVID, 2019 levels as of June of this year. Some spending categories have fully recovered. Spending levels at Home Furnishings and Appliance, Building/Garden Equipment, General Merchandise, and Gas Station establishments are at or above where they were in 2019.

Taxable Retail Sales Per Capita in Livermore, Recovery, 2019-2021

Retail and Food Services Businesses	2019 (January - June)	2021 (January - June)	Percent Recovered to 2019 levels
Motor Vehicle and Parts Dealers	\$2,286	\$2,124	93%
Home Furnishings and Appliances	\$157	\$160	102%
Bldg. Material and Garden Equip.	\$810	\$935	116%
Food and Beverage Stores	\$418	\$402	96%
Gasoline Stations	\$905	\$980	108%
Clothing and Clothing Accessories	\$2,562	\$2,002	78%
General Merchandise Stores	\$1,280	\$1,276	100%
Food Services and Drinking Places	\$1,193	\$1,067	89%
Other Retail	\$784	\$730	93%
Total Retail and Food Services	\$10,394	\$9,675	93%

Source: California Department of Tax and Fee Administration

9.6 PLAN BAY AREA PROJECTIONS

To provide a perspective on potential future growth in Livermore, EPS reviewed projections from Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), including published projections and preliminary data releases. While ABAG/MTC has been revising projections based on new transportation modeling, the forecasts for Livermore have not changed notably. Both published and updated information indicates Livermore could grow to accommodate roughly 114,000 residents and 46,000 workers by 2040, with population growth of 34 percent and employment growth of 7 percent between 2020 and 2040. However, these projections do not fully account for recent growth in the city, and the rates of growth are calculated from low population and employment base figures. For example, LED-LEHD data reveal that Livermore already had over 53,000 jobs by 2018.

ABAG/MTC developed the data in PBA 2040 Projections using statistical modeling, with technical direction provided by advisory committee and guidance from ABAG's and MTC's policy making boards. The technical work reflects a regional economic model with related modules estimating the future total population, households, and jobs for the region, as well as a land use model which distributes employment and population to local areas. The projections reflect data from wide ranging sources and a number of assumptions about the economy, markets, and consumer preferences over a 30-year period. According to ABAG/MTC "the projections offer an answer to the question of what the future might look like: Given assumptions and data available, they provide stylized facts about possible futures, thereby enabling conversations based on a shared set of numbers."

Given the disconnect between the projections for Livermore and recent data counts from California's Department of Finance and the US Census Bureau, EPS adjusted ABAG/MTC projection totals to capture updated existing conditions data (i.e., recent population and employment counts). Applying ABAG/MTC forecasted growth rates to updated population and employment counts suggests Livermore could potentially expand to 120,000 residents and 57,000 jobs. Although Plan Bay Area 2050 has been adopted, city-level projections have not been published yet. It is possible that future ABAG/MTC projections may better account for the robust growth seen in the Tri-Valley between 2010 and 2020.

9.7 REAL ESTATE MARKET PERSPECTIVES

In an effort to establish and document real estate development market potential in Livermore, EPS considers broad market trends as well as detailed information concerning new local projects that are indicative of those trends. This section provides an overview of the market trends for major land use types (i.e., residential, office, industrial, retail, hotel), but is not an exhaustive census of all potentially relevant market data or recent projects. This section offers a high-level assessment of real estate market conditions in Livermore to inform the General Plan Update process.

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⁴ Plan Bay Area Projections 2040, A Companion to Plan Bay Area 2040 November 2018 and MTC "open data."

⁵ Real estate market data presented in this section relies on building classifications assigned by CoStar Group.

To effectively describe the existing conditions and recent trends in Livermore, this Real Estate Market Perspectives section relies, in part, on metrics and associated terminology commonly used in real estate market analysis. The data considered in this analysis include inventory, absorption, and vacancy rate.

- Inventory- The total building supply. For residential properties, inventory is often calculated in "units", whereas in commercial (office, retail, industrial, flex) inventory is often calculated in "square footage." For hotels, data sources track inventory reported by "rooms."
- **Absorption** The gross inventory (e.g., square footage or units) that is newly occupied, including new leases, or sales in the case of housing, over a period of time.
- Net Absorption The inventory newly occupied (sold in the case of ownership housing) less the total space vacated over a period of time, providing a measure of incremental increases/decreases in occupied space (or homes).
- Vacancy Rate The percentage share of square feet or properties that are not currently occupied.

As is illustrated in a number of figures (see Figures 9-11, 9-15, 9-19, 9-23, 9-30, and 9-33), which capture development trends by use type, the metrics described previously are all interrelated. For instance, as new inventory is added to the market, vacancy will increase until that new inventory is absorbed (occupied). Similarly, net absorption occurs when space is occupied at a faster rate than new inventory is added to the market, in which case the vacancy rate will fall. Or, alternatively, when negative net absorption occurs (without demolitions that reduce inventory) vacancy increases. For example, in the aftermath of the 2001 Dot-Com bubble and the 2008 recession, many cities including Livermore experienced significant net negative absorption and rising vacancy rates across a range of commercial use types.

9.8 RESIDENTIAL LAND USES

Residential real estate market factors considered here include single-family and multifamily real estate development in Livermore, with comparisons to other cities in the Tri-Valley as well as across Alameda County. This assessment covers historical residential permitting trends, presents home sales data and lease rate trends, and identifies recently constructed residential projects to evaluate their physical forms and market performance. The assessment seeks to inform current and future market potential for housing development in Livermore.

9.8.1 RESIDENTIAL PERMITTING

Over the last four decades the number of residential permits issued in Livermore has decreased from an average of 491 permits per year from 1981 to 1990 to an average of 223 permits per year from 2011 to 2020, as shown in **Table 9-13** and **Figure 9-9**. Permitting began to decrease beginning in the 2000s and reached a low during the 2008 recession. In the second half of the 2010s, Livermore began to see rising permitting levels before a slowdown occurred in 2019 and 2020, with the impacts of the COVID-19 pandemic significantly reducing new permits in recent months.

Multifamily permits as a percentage of total residential permitting have fluctuated significantly over the past 40 years. After multifamily permitting reached its peak in 1989 (both in number of permits and as the first year where multifamily permitting exceeded single family permitting), Livermore saw a precipitous drop between 1991 and 2000 in which permitting for multifamily housing only accounted for 9 percent of total permits issued, compared to 35 percent in the previous decade. Between 2001 and 2010, multifamily permits increased to 28 percent of all permits issued, and this upward trend continued between 2011 and 2020, during which time multifamily permits made up 34 percent of all permits issued. In 2018, multifamily permitting made up a greater share of total permitting for the first time since 1989. While over the past four decades, 75 percent of permits have been for single family structures and 25 percent of units have been for multifamily units, recent trends suggest that the share of multifamily permitting going forward may be higher than it has been over the past two decades.

TABLE 9-13 LIVERMORE RESIDENTIAL CONSTRUCTION TRENDS, 1981-2020

		All Years			
Description	1981-1990	1991-2000	2001-2010	2011-2020	1981-2020
All Permits					
Total	4,906	4,975	3,287	2,234	15,402
Annual Average	491	498	329	223	298
Multifamily					
Total	1,730	437	925	753	3,881
Annual Average	173	44	93	75	100
% Multifamily	35%	9%	28%	34%	25%
Single Family					
Total	3,176	4,538	2,362	1,481	11,632
Annual Average	318	454	236	148	199
% Single Family	65%	91%	72%	66%	76%

Source: SOCDS Permit Database; Economic & Planning Systems

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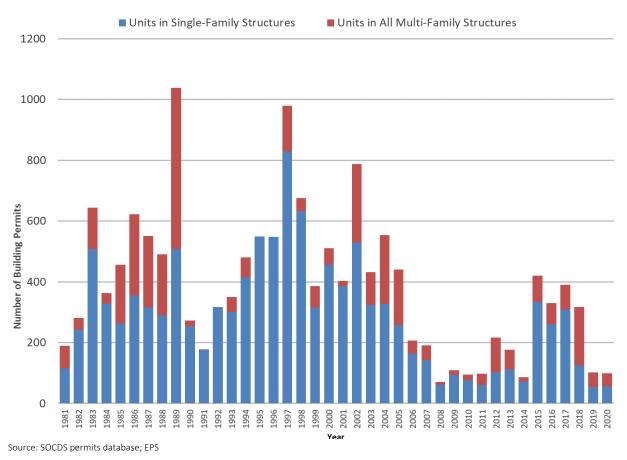


Figure 9-9 Housing Unit Building Permits for Livermore, 1980-2020

9.8.2 RESIDENTIAL SALES DATA AND LEASE RATES

Livermore has largely mirrored Tri-Valley cities and Alameda County in home sale price trends and multifamily apartment lease rate trends. The following sections provide data on housing values and apartment rent trends in the city and region.

9.8.3 MULTIFAMILY RESIDENTIAL

While dipping briefly during the 2008 recession, multifamily rents in Livermore have steadily increased since 2000. During this time period, rents grew from \$1.64 per square foot per month to nearly \$3.00 per square foot per month (e.g., \$3,000 per month for a 1,000 square foot apartment). Rents in Livermore have grown faster than other cities in the Tri-Valley area and, based on recent market activity, the city currently has the highest average per square foot asking rent, as shown in **Figure 9-10**.

Low vacancy and increasing rents relative to other cities in the Tr-Valley suggests strong demand for multifamily units in the Livermore market. Prior to 2019, Livermore had only added four new multifamily rental buildings and a total of 210 units since 2000. In 2019, two new projects (the Ageno and Chestnut Square) contributed 243 new multifamily units to the City's housing stock. Currently under construction,

the Legacy at Livermore project in downtown Livermore is another notable multifamily project, adding 221 units to the multifamily housing supply. After a brief spike in multifamily rental vacancy attributable to the delivery of these new units in Livermore, strong leasing activity during 2020 and 2021 has resulted in a tight local market with a vacancy rate below 4 percent.

With the exception of a brief spike in vacancy rates in 2019, as the Ageno and Chestnut Square projects opened, Livermore's highest vacancy rates were seen in 2002, in the wake of the Dot-Com bust and early 2000s recession. Between 2002 and 2019, vacancy rates decreased even as rents increased, as shown in **Figure 9-11**. The market absorption of new units completed in 2019 was rapid and vacancy rates have since decreased to about 3.6 percent in 2021. **Figure 9-12** shows examples of recent multifamily projects in Livermore.

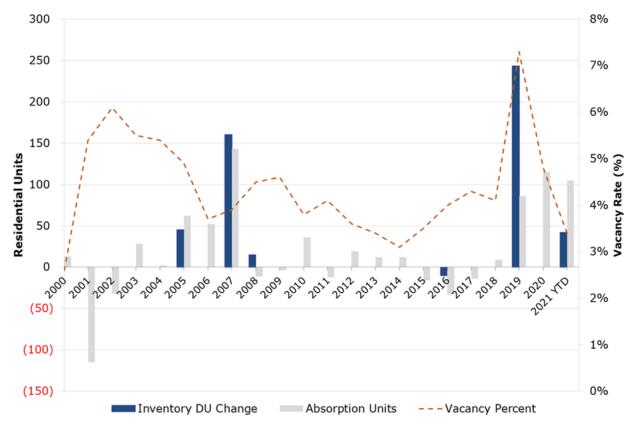
\$3.00 \$2.75 Foot \$2.50 Square \$2.25 Rent per \$2.00 \$1.75 \$1.50 2000 2005 2010 2020 2015 •••• Pleasanton •••• San Ramon •••• Alameda County Livermore

Figure 9-10 Regional Multifamily Rent Comparison, 2000-2021 YTD

Source: CoStar Group

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Figure 9-11 Livermore Multifamily Development Trends, 2000-2021 YTD



Source: CoStar Group

Figure 9-12 **Livermore Recent Multifamily Projects**

Ageno Apartments | Livermore, CA



Source: Costar

Description

• Year Built: 2019

• Type: Garden Apartments

• Market: All

• Rent Type: Market + Affordable

• Units: 171 • **Sq. Ft.:** 144,505 • Stories: 3

• **Beds**: 1 – 3

• **Unit Size:** 683 – 1,267 sq. ft.

• Avg. Rent: \$2,621

Chestnut Square (Family) | Livermore, CA



Source: Costar; EPS.

Description

• Year Built: 2021

• Type: Low-rise Apartments

• Market: All

• Rent Type: Affordable

• Units: 42

• **Sq. Ft.**: 116,000

• Stories: 3 • **Beds**: 1 − 3

Description • Year Built: 2019

• **Unit Size:** 590 – 1,120 sq. ft.

• Type: Low-rise Apartments

• Avg. Rent: \$1,574

Chestnut Square (Senior) | Livermore, CA



• Rent Type: Affordable

• Market: Senior

• Units: 72

• **Sq. Ft.**: 160,000 • Stories: 2

• **Beds**: 1 − 2

• Unit Size: 430 - 540 sq. ft.

• Avg. Rent: \$618

Source: Costar; EPS.

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9.8.4 FOR-SALE RESIDENTIAL

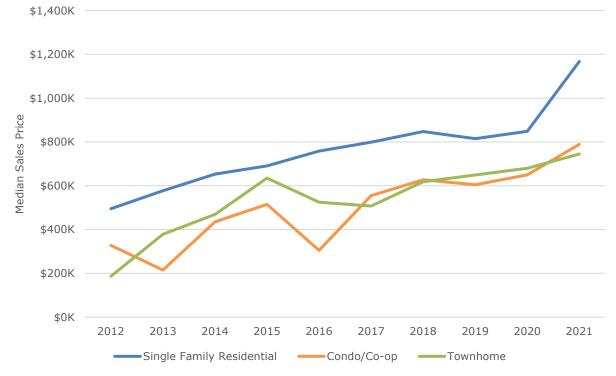
For-sale home prices in Livermore have more than doubled since 2012, with annual growth rates of around 9 percent. As shown in **Table 9-14**, median sale prices for Livermore homes are now above \$1 million. While the city's growth in sales prices aligns with other nearby cities, the Tri-Valley has been outpaced in this measure by Alameda County overall. **Figure 9-13** shows that in the past decade, the median sales prices of single-family residences have been consistently higher than for condominiums or townhomes. The prices for all housing types have been steadily increasing over time, with a sharper increase for single-family homes amid the pandemic in 2020.

TABLE 9-14 LIVERMORE FOR-SALE PRICES, 2012-2021, ALL HOUSING TYPES

				2012-2021	
Median Sale Price	2012	2021	Total Change	Average Annual Change	Annual % Change
Livermore	\$476,500	\$1,060,000	\$583,500	\$64,833	9.3%
Dublin	\$523,500	\$1,170,000	\$646,500	\$71,833	9.3%
Pleasanton	\$710,000	\$1,600,000	\$890,000	\$98,889	9.4%
San Ramon	\$622,500	\$1,400,000	\$777,500	\$86,389	9.4%
Alameda County	\$415,000	\$1,115,000	\$700,000	\$77,778	11.6%

Source: Redfin; Economic & Planning Systems

Figure 9-13 Livermore For-Sale Prices by Housing Type, 2012-2021



Source: Redfin; Economic & Planning Systems

As illustrated in a summary of the residential development pipeline in Livermore in **Table 9-15**, traditional single-family residential townhouses are currently the dominant housing typologies for residential developers. However, given the increase in multifamily permitting as a share of total residential permitting over the past few years and a significant number of apartment units in the development pipeline, multifamily housing does appear to have become more attractive for investors in recent years.

TABLE 9-15 NOTABLE RESIDENTIAL DEVELOPMENT PROJECTS IN PIPELINE

Project Name/Applicant		Number of Units	Туре
Under Construction			
Hartwood Townhomes		44	Townhouses
Arpad Nagy Bethany Homes		33	Residential Care Facility
Legacy Mixed Use		221	Apartments
Auburn Grove		101	Townhouses
MidPen Housing		44	Apartments
Si	ubtotal	443	
Approved			
Gunkel Architecture		24	BMR
Adam Tenant WestGate Ventures		193	Townhouses
Central Crossing Stephen Miller Signature Homes		49	SFR
Sci	ubtotal	266	
Under Review			
Central Crossing Stephen Miller Signature Homes		176	SFR
Arroyo Vista Neighborhood Project Summerhill Homes		437	Mixed Unit Types
Leah Beniston The True Life Companies		91	Townhomes
Si	ubtotal	704	
Total Notable Projects in Pipeline		1,413	

Source: City of Livermore

9.8.5 OFFICE LAND USES

Compared to Pleasanton and San Ramon, the Livermore office market is relatively small, as shown in **Figure 9-14**, and is primarily Class B buildings. While the Tri-Valley has evolved into a highly desirable office market, which benefits from its accessibility, relative affordability, and educated labor force, Livermore has not attracted the office campus development seen in nearby cities. While new train service and evolving workplace strategies may affect this pattern (see "Hybrid Work" spotlight that follows), Livermore's geographic position at the far eastern edge of the Bay Area has historically had a dampening effect on demand for major new office development projects.

Office rents in Livermore have lagged behind other cities in the Tri-Valley region as well as Alameda County, as shown in **Figure 9-15**. After experiencing a steady decline in lease rates since 2000, when they peaked at about \$26 per square foot per year, Livermore office lease rates rebounded in 2021. For the first time in two decades, lease rates exceeded year 2000 levels, reaching almost \$27. Nonetheless, lease rates in Livermore remain below other Tri-Valley cities, likely due to the lack of newer office spaces and the absence of an office cluster or office park in the city, like Bishop Ranch in San Ramon and Hacienda in Pleasanton.

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Office vacancy rates in Livermore are among the lowest in the region and have generally trended downward since the highs hit during the early 2000s, as shown in **Figure 9-16**. Despite the positive trend, in 2021, office vacancy in Livermore is reported at 14.3 percent, an indication of market weakness or uncompetitive building stock (a healthy market typically has a vacancy rate in the single digits). Furthermore, lease rates have not increased enough to support meaningful new office development in recent years. Since 2000, the city has added approximately 880,000 square feet to its office inventory, but much of this growth took place from 2001 to 2003, when developers added approximately 670,000 square feet. In comparison, over the next 15 years, developers only delivered 142,000 square feet, as shown in **Figure 9-16**.

There has been relatively little office development in the Tri-Valley area more broadly. While growth in the office market surged at large Tri-Valley office parks during the internet boom in the late 1990s, and Class A office development spilled into Dublin during the early 2000s, that wave of large-format office development ended abruptly with the recession in 2001. Since then, very little Tri-Valley office construction has occurred. In recent years, regional office demand has been focused on Silicon Valley and San Francisco. One notable exception is the new Workday headquarters building at the West Dublin/Pleasanton BART station, which is shown in **Figure 9-17**.

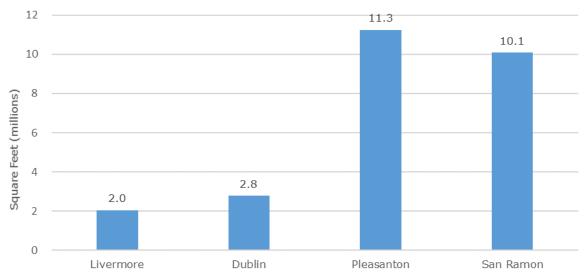
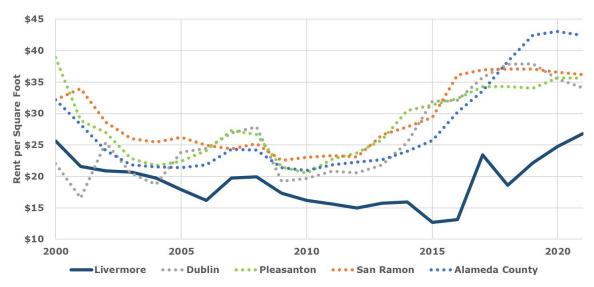


Figure 9-14 Tri-Valley Office Inventory by Square Footage, 2021 YTD

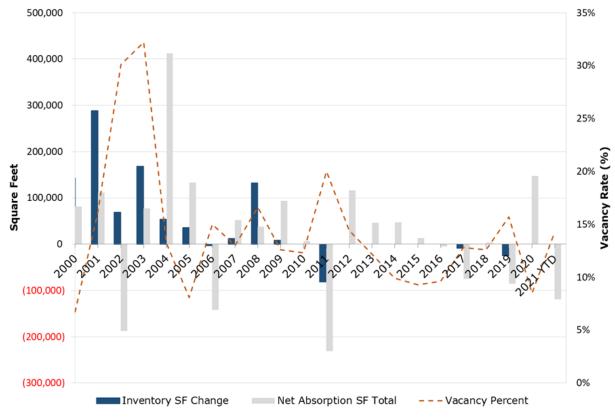
Source: CoStar Group

Figure 9-15 Regional Office Rent Comparison, 2000-2020



Source: CoStar Group

Figure 9-16 Livermore Office Development Trends, 2000-2021 YTD



Source: CoStar Group

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9.8.6 RECENT PROJECTS

There has been no office development in Livermore since 2009. Development of Class A, large format office in the Tri-Valley slowed significantly since the early 2000s after the Dot-Com bust. The most noticeable exceptions, and a sign of potential tech-driven and/or other owner-occupied interest in office development in the Tri-Valley, are the Workday Campus and an expansion within the existing office campus for Roche Molecular Systems, Inc. (see **Figure 9-17**). The Workday project was company-developed (built to suit) and consists of approximately 410,000 square feet of Class A office. At Roche Molecular Systems, Inc. project at 4300 Hacienda Drive also built to suit, designed specifically for the biotechnology firm.

Figure 9-17 Recent Office Projects in Tri-Valley

Workday | Pleasanton, CA



Description

Year Built: 2019
Type: Class A Office
Tenancy: Single
Sq. Ft.: 409,998

• Stories: 6

Roche Molecular Systems | Pleasanton, CA



Description

Year Built: 2017
Type: Class A Office
Tenancy: Single
Sq. Ft.: 70,700

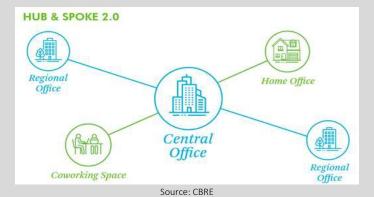
• **Sq. Ft.:** 70,700 • **Stories:** 3

• Rent: \$25.33/SqFt

Source: CoStar Group

Hybrid Work – The Hub and Spoke Model

The COVID-19 pandemic has revealed that traditional full-time in-person work is not essential for productivity in many sectors. In fact, recent research shows that remote working doubled during the pandemic, with one in four employees working entirely from home (Gallop 2020). The pandemic-induced shift to remote work has given rise to increased interest in "hybrid work" that balances employee time in various locations. The "hub-and-spoke" model supports worker productivity across a headquarters office, satellite office, and home office. In this approach to hybrid work, employees might use the headquarters office to meet and collaborate face-to-face, while focused work is accomplished at regional offices and at home.



The hub-and-spoke model is not new but has been popularized recently as both employers and employees rebound from strict work from home conditions during mid-2020. The benefits of the hub-and-spoke workspace model include:

- Real Estate Value Allows employers to leverage expensive hub offices in key cities to foster firm culture and to host clients, events, and meetings.
- **Productivity** Creates a more sustainable employee work-life balance by providing regional offices close to where workers live, reducing commute times and offering a location for focused task work.
- Labor Attraction The range of workspace options fosters flexible work arrangements that appeal to top job candidates, and dispersed office locations broaden the geographic reach of the firm to a greater labor pool.
- **Environment** Reduced commuting reduces carbon emissions attributable to daily work routines.

A wide range of companies are reconsidering their workspace plans in the wake of the pandemic. The hub-and-spoke model will appeal to firms that have successfully navigated the abrupt transition to remote work, see a range of benefits from maintaining hybrid work model going forward, and want to offer employees a middle ground between the center city office and their home office. An increase in the hub-and-spoke model could result in increasing office demand in the Tri-Valley. With sufficient proximity to center city offices in San Francisco, San Jose, and Oakland, and given the deep and talented labor pool in the area, the Tri-Valley satisfies the key requirements to support new satellite offices and the growth of hub-and-spoke workspace networks serving the Bay Area.

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There may be opportunities for office development in Livermore in the future, perhaps led by local companies already in Livermore or the Tri-Valley, similar to the Workday project. However, apart from projects that support growth in previously established Tri-Valley enterprises, the market currently is not providing evidence of rising interest in speculative office development. As shown in **Table 9-16**, only about 21,000 square feet of office space is in the City's development pipeline, and none of that currently is under construction.

TABLE 9-16 NOTABLE OFFICE DEVELOPMENT PROJECTS IN PIPELINE

Project Name/ Applicant	Square Footage		
Approved	15,000		
John Godkin	15,000		
Under Review	F 704		
Aqua Gunite Office	<u>5,704</u>		
Total Notable Projects in Pipeline	20,704		

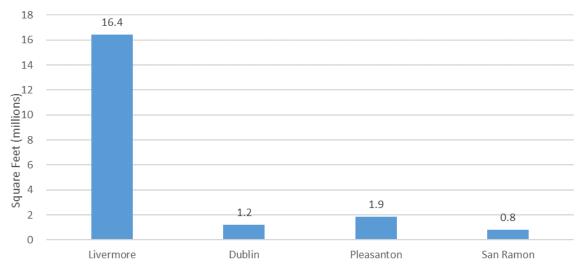
Source: City of Livermore

9.8.7 INDUSTRIAL LAND USES

With nearly 16.5 million square feet of industrial space built, Livermore is the most significant industrial market in the Tri-Valley, as illustrated by **Figure 9-18**. Industrial uses have also been actively under development in recent years, with new projects adding 4.9 million square feet of inventory to the city since 2000, including 3.1 million square feet since 2016, as shown in **Figure 9-20**. Key factors for this increase include large scale development potential at the Oak Business Park and the Pacific Corporate Center, along with the access to I-580 offered in by these development areas.

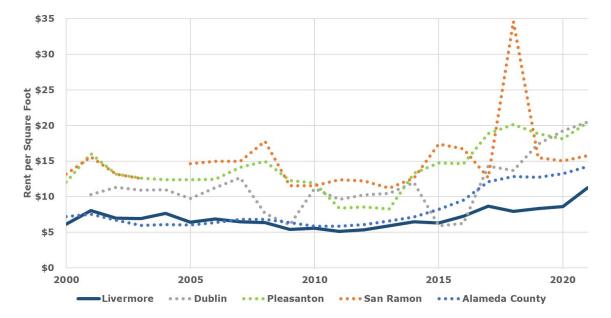
Despite the high quality of new industrial construction, industrial rents in Livermore have lagged behind rents in other Tri-Valley cities as well as Alameda County as a whole, as shown in **Figure 9-19**. Industrial rents in the city are currently just under \$12 per square foot per year, compared to approximately \$21 per square foot in Dublin, \$20 per square foot in Pleasanton, \$16 per square foot in San Ramon, and \$14 per square foot countywide. Lower rental rates in Livermore likely reflects the large format buildings, which typically have lower rents on a per square foot basis.

Figure 9-18 Tri-Valley Industrial Inventory by Square Footage, 2021 YTD



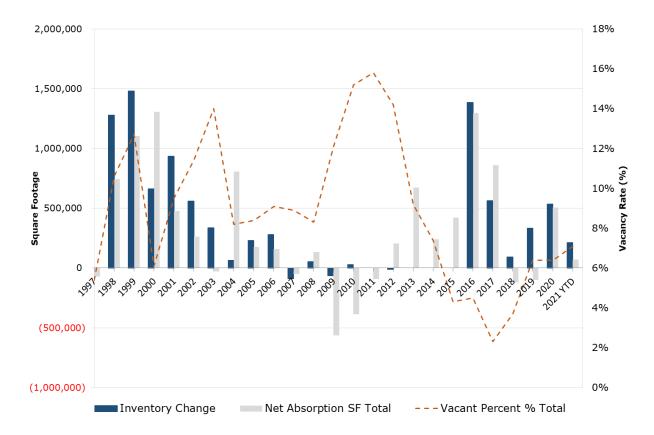
Source: CoStar Group

Figure 9-19 Regional Industrial Rent Comparison, 2000-2020



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In addition to a number of new large-format industrial warehouse developments in recent years, Livermore has also seen the introduction of advanced manufacturing in Class A industrial products. GILLIG, a leading manufacturer of heavy-duty transit buses, moved into 600,000 square feet of such space in 2017, adding over 900 jobs. However, the majority of industrial users remain in the logistics/warehouse/distribution sectors, as opposed to advanced manufacturing, which generates higher lease rates. More detailed information about a few recent industrial projects, including the GILLIG manufacturing site, is presented in **Figure 9-21**, and **Table 9-17** lists notable industrial projects currently in the pipeline.

Figure 9-21 Livermore Recent Industrial Projects

7090 Contractors PI - Building 2 | Livermore, CA



Description

• Year Built: 2021

• Type: 3-star ind. warehouse

Tenancy: SingleSq. Ft.: 22,269Land Acres: 1.26

• Stories: 1

Ceiling Height: 18'Parking: surface

• Rent: N/A

7600 Hawthorne | Livermore, CA



Description

• Year Built: 2019

• Type: 4-star ind. warehouse

Tenancy: MultiSq. Ft.: 241,591Land Acres: 12.75

• Stories: 1

Parking: 190 surface
Rent: \$10.56 (Ind. Gross)
Percent Leased: 68.8%

Gillig Bus Manufacturing Facility | Livermore, CA



Description

• Year Built: 2017

• Type: Manufacturing

Tenancy: SingleSq. Ft.: 556,556Land Acres: 39.99

• Stories: 1

• Loading Docks: 40 external

• Rent: N/A

• Percent Leased: Single user

Source: Costar

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TABLE 9-17 NOTABLE INDUSTRIAL DEVELOPMENT PROJECTS IN PIPELINE

Project Name/ Applicant	Square Footage	
Under Construction		
Teresa Goodwin HPA Architecture	50,100	
Sylvester Ramirez Devcon Construction	44,355	
Subtotal	94,455	
Approved John Godkin	15,000	
Total Notable Projects in Pipeline	203,910	

Source: City of Livermore

9.8.8 "FLEX" LAND USES

Flex space combines office, research and development, and light industrial uses, often for versatile "incubator," manufacturing, or business service uses. At 3.8 million square feet, Livermore has more flex space built than other Tri-Valley cities, as shown in **Figure 9-22**. However, very little flex square footage has been added to the Tri-Valley since the 2008 recession, in Livermore and across the Tri-Valley. A few recent projects have been built in nearby Tri-Valley cities, including the 209,000 square foot Zeiss Innovation Center built in Dublin in 2021 and the 19,000 square foot PG&E Training Center built in Livermore in 2019.

Flex rents in Livermore generally lagged behind other Tri-Valley cities as well as Alameda County as a whole, as shown in **Figure 9-23**. Flex rents in the city are currently around \$13.50 per square pre year foot compared to approximately \$23 per square foot in Dublin, \$21 per square foot in Pleasanton, and \$21 per square foot countywide. Livermore recently surpassed San Ramon in terms of flex rents, with 2021 YTD data indicating that San Ramon averages \$10 per square foot. As with industrial, the lower rents in Livermore are likely reflective of larger format spaces, which typically have lower rents on a per square foot basis, as well as the cities outlying geographic orientation.

Vacancy rates in for Livermore flex space have been very low since 2013 as shown in **Figure 9-24**. Despite low vacancy rates, rents have remained low, suggesting there is limited demand for a significant additional flex development in the city at this time. See **Figure 9-25** for recent flex projects in the Tri-Valley area.

Figure 9-22 Flex Inventory by Square Footage, 2021 YTD

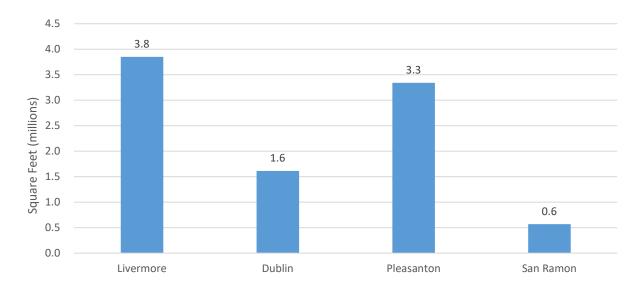
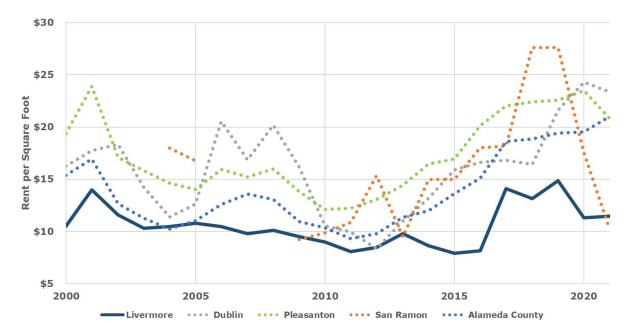
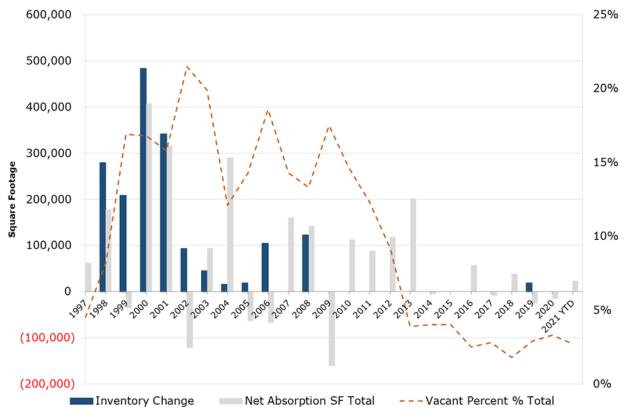


Figure 9-23 Regional Flex Rent Comparison, 2000-2020



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Figure 9-24 Livermore Flex Development Trends, 2000-2021 YTD



Source: CoStar Group

Figure 9-25 Recent Flex Projects in Tri-Valley

The Zeiss Innovation Center | Dublin, CA



Description

• Year Built: 2021

• Type: Class A Flex R&D

Tenancy: SingleSq. Ft.: 208,650

• Stories: 3

• Typical Floor: 69,550 Sq. Ft.

10X Genomics Headquarters | Pleasanton, CA



Description

• Year Built: 2023

• Type: Class A Flex R&D

• **Tenancy:** Single • **Sq. Ft.:** 381,000

• **Stories:** 3-4

• Typical Floor: 33,000 Sq. Ft.

PG&E Training Facility | Livermore, CA



Description

Year Built: 2019
Type: Class B Flex
Tenancy: Single
Sq. Ft.: 19,000
Stories: 3

• Parking: Surface

Source: Costar

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9.8.9 RETAIL LAND USES

The Tri-Valley is a notable destination for retail in the East Bay, with retail establishments spread across outlet malls, power centers, traditional malls, and strip retail.

9.8.9.1 TAXABLE RETAIL SALES

To examine Livermore's retail performance, this analysis considers taxable retail sales from the California Department of Tax and Fee Administration. The 2019 taxable sales data were used to characterize retail sales conditions because 2020 retail conditions were deeply affected by the COVID-19 pandemic. Although the exact nature of retail recovery is unclear, EPS believes that 2019 data provide a good snapshot of normalized conditions.

The main drivers of retail activity in the City of Livermore are Clothing and Clothing Accessories (26 percent) and Motor Vehicle and Parts Dealers (21 percent), as depicted in **Figure 9-26**. In 2019, more than one-quarter of taxable retail and food services spending in Livermore come from clothing sales. Much of the taxable spending in the city can be attributed to the San Francisco Premium Outlets, which draws visitors from throughout the Bay Area and beyond. Livermore's taxable clothing sales in 2019 totaled \$531.2 million, making up 28 percent of taxable clothing sales in Alameda County. By comparison, taxable spending at motor vehicle and parts dealers made up 9 percent of such expenditures countywide.

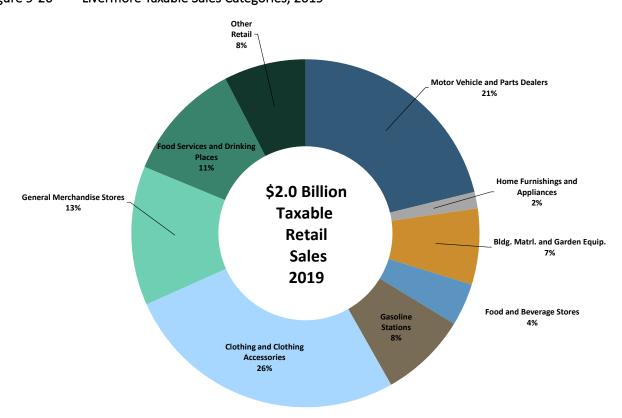


Figure 9-26 Livermore Taxable Sales Categories, 2019

Source: California Department of Tax and Fee Administration

On a per-capita basis, Livermore achieves higher taxable retail spending than Alameda County as a whole, as shown in **Figure 9-27**. While Dublin is the top retail sales destination in the Tri-Valley on a per capita basis, Livermore comes in close second (and is number one when automobile sales are excluded). Taxable sales per capita in Livermore's exceed the countywide figure by nearly \$9,000. To some degree, these high sales per capita is attributable to slower population growth in Livermore, where growth in taxable sales have far outpace population increases. When adjusted for inflation, per-capita Retail and Food Services spending in Livermore increased 4 percent from 2015 to 2019, while Danville, Dublin, and Pleasanton saw declines in part due to their growing populations (see **Figure 9-28**).

\$20,000 \$19,497 ■ Other Retail \$18,000 \$16,519 ■Food Services and \$16,000 **Drinking Places** ■General Merchandise \$14,000 \$13,156 Stores \$11,984 ■ Clothing and Clothing \$12,000 Accessories \$10,000 ■ Gasoline Stations \$8,000 Food and Beverage \$6,406 \$6,000 ■Bldg. Matrl. and Garden \$4,000 ■ Home Furnishings and **Appliances** \$2,000 ■ Motor Vehicle and Parts Dealers \$0 Pleasanton San Ramon Alameda County

Figure 9-27 Taxable Sales per Capita, 2020

Source: California Department of Tax and Fee Administration; Economic & Planning Systems

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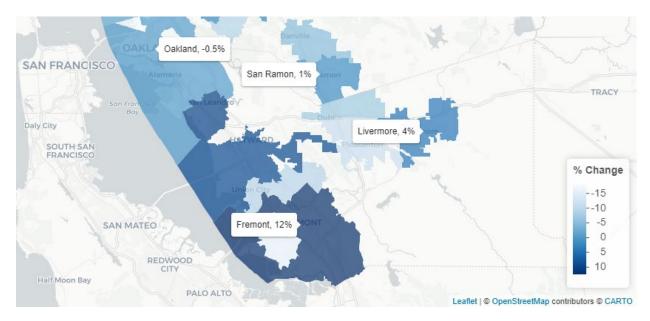


Figure 9-28 Inflation-Adjusted Taxable Sales Per Capita in East Bay, 2015-2019

9.8.9.2 RETAIL REAL ESTATE TRENDS

Livermore is home to over 5 million square feet of retail, as shown in **Figure 9-29**, with over a million square feet of which has been added since 2012. While retail rents in Livermore have traditionally been lower than other cities in the Tri-Valley region as well as Alameda County, in recent years, retail rents have become far more competitive, as shown in **Figure 9-30**. After hovering around \$20 per square foot between 2006 and 2013, Livermore retail rents began to climb in 2014, reaching a peak of nearly \$40 per square foot in 2019 before dropping in 2020 and 2021. The increased competitiveness in the Livermore retail market is primarily attributable to the introduction and success of the San Francisco Premium Outlets.

After a sharp increase in vacancy rates in the wake of the 2008 recession, vacancy rates in the Livermore retail market have remained quite low over the past decade and currently sit at approximately 4.5 percent, as shown in **Figure 9-31**.

The low vacancy rate and relatively strong rents suggest that the market might support some new retail development that builds on the success of the Outlets or serves new growth areas of the city. **Table 9-18** presents retail in the development pipeline. **Figure 9-32** describes a few recent retail projects that have been developed in recent years, including an expansion to the Premium Outlets as well as a neighborhood retail center on West Jack London Boulevard.

Figure 9-29 Retail Inventory by Square Footage, 2021 YTD

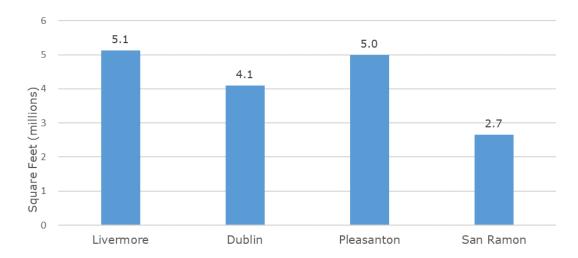
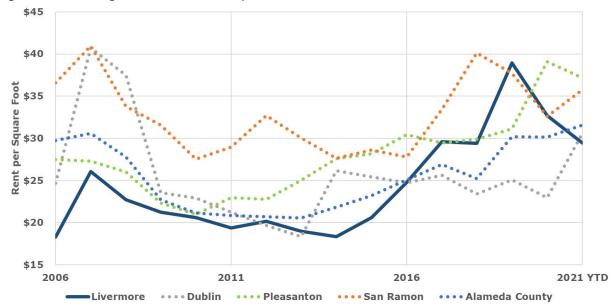


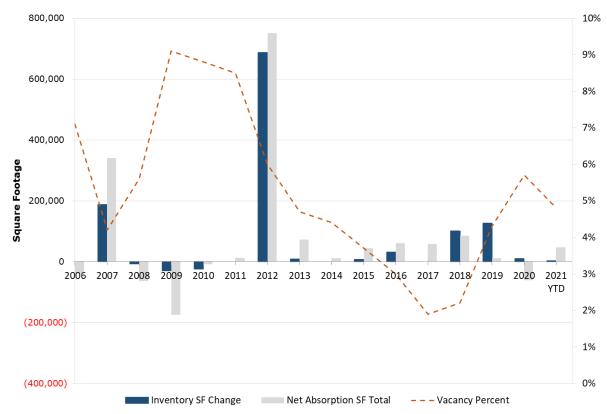
Figure 9-30 Regional Retail Rent Comparison, 2006-2016



Source: CoStar Group

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Figure 9-31 Livermore Retail Development Trends, 2000-2021 YTD



Source: CoStar Group

Figure 9-32 Livermore Recent Retail Projects

W Jack London Blvd | Livermore, CA



Description

• Year Built: 2018

• Type: Neighborhood Retail

• Tenancy: Multi • **Sq. Ft.**: 103,667 • Land Acres: 45.55

• Stories: 1 • Parking: Surface

• **Rent:** \$45-\$55/GSF (est.)

• Percent Leased: Approx. 75%

4705-4729 Livermore Outlets Dr. | Livermore, CA



Description

• Year Built: 2019 • Type: 5-star Retail • Tenancy: Multi • Sq. Ft.: 123,406 • Land Acres: 22

• Stories: 1

• Parking: Surface

• **Rent:** \$19-24/GSF (est.) • Percent Leased: 62%

Source: Costar

TABLE 9-18 NOTABLE RETAIL PROJECTS IN PIPELINE

Project Name/ Applicant		Square Footage	
Under Construction			
Crosswinds Commercial		244,152	
Burger King		Approx. 1,000	
	Subtotal	245,152	
Approved			
Greenville Plaza		11,825	
Under Review			
Starbucks		Approx. 1,000	
Chick-fil-A		<u>Approx. 1,000</u>	
	Subtotal	2,000	
Total Notable Projects in Pipeline		258,977	

Source: City of Livermore

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9.8.10 HOTEL LAND USES

Livermore currently features nearly 1,600 rooms spread across 20 hotel properties, second only to Pleasanton in the Tri-Valley, which has over 1,800 rooms as shown in Figure 9-33. Occupancy rates in Livermore have remained very stable over the past 10 years up until the spring of 2020 when the COVID-19 global pandemic began dramatically affecting hotel operations. Not surprisingly, Average Daily Rates (ADR) steadily increased over this pre-COVID period (see Figure 9-34). There have been three new hotel projects built in Livermore over the past decade, including a Home2 Suites by Hilton in 2017, a Residence Inn in 2020, and Homewood Suites by Hilton in 2020, adding a total of 324 rooms to the city's inventory. All three recent hotel projects are located proximate to the Premium Outlets, suggesting the attractiveness of that area of the city for accommodations uses. More detailed information on recent hotel projects can be found in Figure 9-35.

In addition, there are a number of hotel projects in the development pipeline, which would in total add an additional 684 rooms to the Livermore's hotel inventory, as summarized in **Table 9-19**. Pipeline projects such as the 176 room Hyatt and a 56-room boutique hotel are located along I-580 appear, taking advantage of highway visibility and convenience, and likely targeting business and leisure market segments.

Figure 9-33 Hotel Inventory, Number of Rooms, 2021 YTD

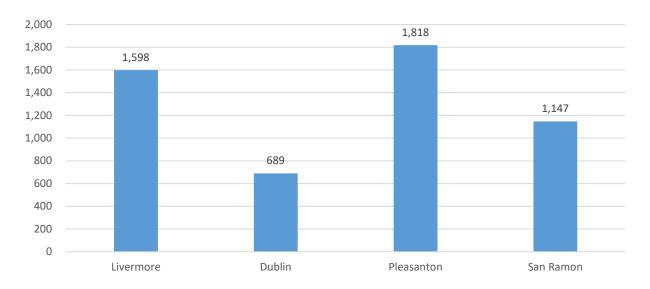
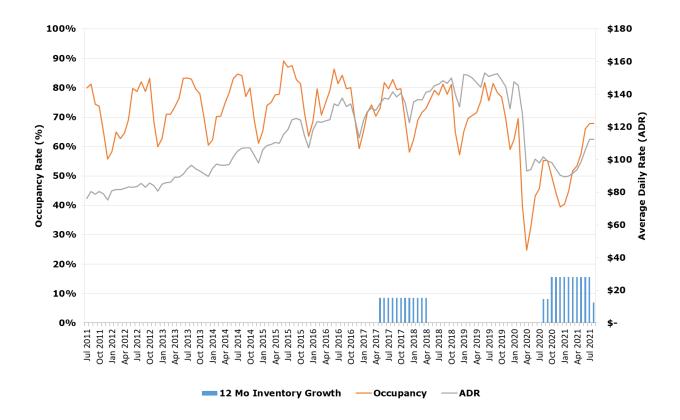


Figure 9-34 Livermore Hotel Development Trends, 2000-2021 YTD



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Figure 9-35 Livermore Recent Hotel Projects

Residence Inn | Livermore, CA



<u>Description</u>

Year Built: 2020Type: Franchise Hotel

• Rooms: 112 • Land Acres: 3.04

• Stories: 4

• Parking: Surface

Homewood Suites by Hilton | Livermore, CA



Description

Year Built: 2020Type: Franchise Hotel

Rooms: 104Land Acres: 3.03

• Stories: 3

• Parking: Surface

Home2 Suites by Hilton | Livermore, CA



Description

• Year Built: 2017

Year Renovated: 2020Type: Franchise HotelClass: Upper Midscale

• Rooms: 108 • Land Acres: 2.19

• Stories: 3

• Parking: Surface

Source: Costar

TABLE 9-19 NOTABLE HOTEL PROJECTS IN PIPELINE

Project Name/ Applicant		Number of Rooms	
Under Construction			
Fairfield Inn and Suites		111	
Homewood Suites		<u>104</u>	
	Subtotal	215	
Approved			
Holiday Inn Express		72	
Under Review			
Hyatt		176	
Wine Country Inn		<u>30</u>	
Rikesh Patel Presidio Companies		133	
Mission Boutique Hotel		58	
	Subtotal	397	
Total Project Pipeline		684	

Source: City of Livermore

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