2015 Performance Report

STATE OF THE TRANSPORTATION SYSTEM IN ALAMEDA COUNTY

FINAL MAY 2016

Alameda County Transportation Commission

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AlamedaCTC.org

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Purpose of the Performance Report

Each year, the Alameda County Transportation Commission (Alameda CTC) evaluates the state of transportation in Alameda County, tracks trends in a series of performance measures, and prepares a Performance Report based on these trends. Using quantitative metrics to track progress toward specific goals, the performance measures in the Alameda CTC Performance Report are designed to be evaluated using existing data sources and to align with the goals of the Alameda Countywide Transportation Plan (CTP) and the Congestion Management Program (CMP) statute.

Alameda CTC identifies transportation needs and guides investments through the CTP, CMP, and Comprehensive Investment Plan (CIP) documents prepared on regular cycles to identify short, medium, and long-term projects and programs. The Performance Report is critical to assessing the success of past transportation investments and provides information on transportation system performance that helps identify needs that may require future investments. The Performance Report—together with Alameda CTC's other monitoring and analysis activities—provides a performance-based evaluation of projects and programs in Alameda County and provides a framework for identification of projects and programs for inclusion in the CTP and CMP that can deliver benefits to all users.

Ultimately, the Performance Report is a component of Alameda CTC's legislatively mandated duties as the County's congestion management agency and is a vital part of

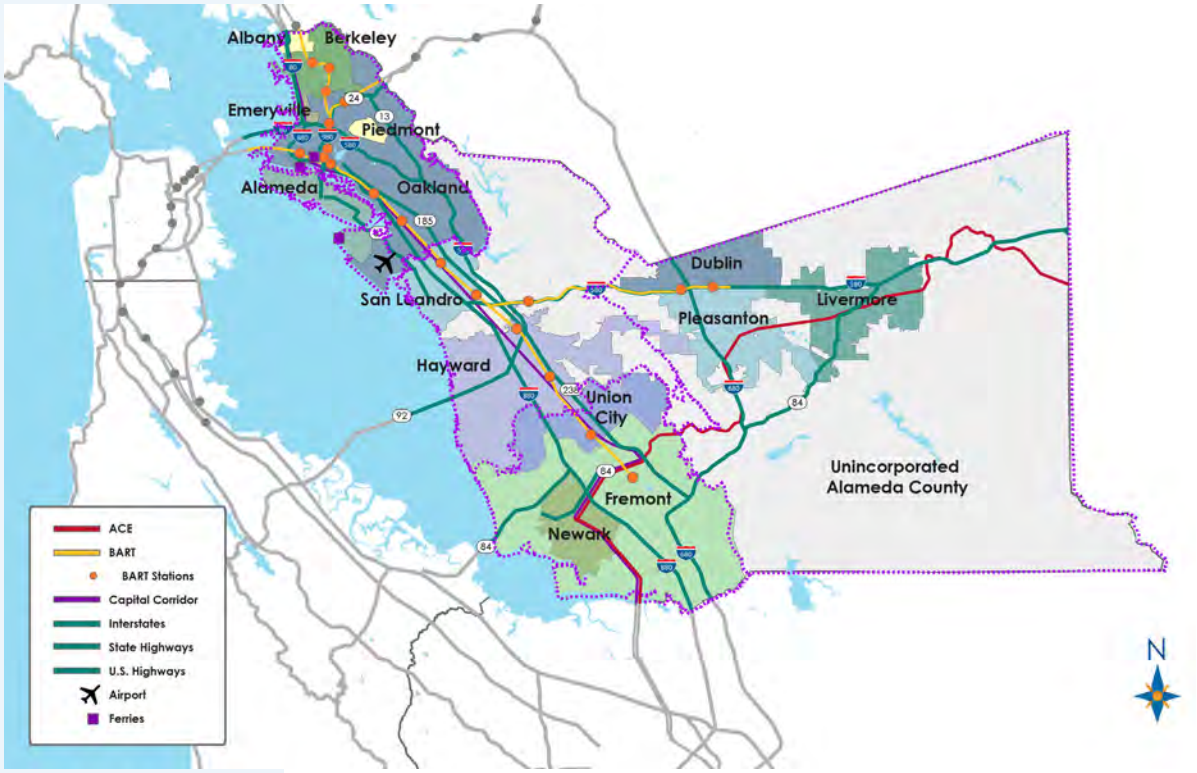
The Performance Report fulfills Alameda CTC's requirements as the congestion management agency for Alameda County pursuant to California Government Code Section 65089(B)(2). The Performance Report includes performance measures consistent with goals required by the CMP statute and articulated in Alameda CTC's adopted Countywide Transportation Plan. The Performance Report is designed to use either publically available data sources that have widespread use within the transportation planning industry or data sources that are readily available from local jurisdictions and agencies. Emphasis is placed on measures for which new data are available on an annual basis. The Performance Report is published in the spring following the most recently completed fiscal year. However, due to lags in availability of some data sources, data on several measures may be from before the stated year of the report. Appendix B provides detailed information regarding all data sources used in the Performance Report.

Purpose of the Performance Report

Alameda CTC's mission is to plan, fund and deliver transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County.

Alameda CTC's overall work to plan, fund, and deliver transportation projects and programs throughout Alameda County.

This Performance Report is intended to cover fiscal year 2014-2015 (FY2014-15). However, some data sources are reported based on calendar years, and some data sources lag preparation of this report. Therefore, this report uses the most current data available in the early-2016 time frame, when Alameda CTC prepared the 2015 Performance Report.



Note: Planning areas designated by purple dash lines.

Alameda County

Population: 1.5 million
Land Area: 739.02 sq. miles
No. of Jurisdictions: 15
No. of Highways: 6
No. of Transit Operators: 6
No of Road Miles: 3,600 (centerline miles)

Executive Summary

Alameda County's multimodal transportation network provides mobility and access for people and goods traveling within the County and beyond. Alameda CTC's 2015 Performance Report describes trends in a series of performance measures that track progress toward key goals across overall travel patterns, roadways, transit, paratransit, biking, walking, and livable communities.

Commute Patterns

Given its regional centrality, Alameda County plays a substantial role in accommodating the Bay Area's commute travel demand. Roughly 27 percent of regional commutes involve Alameda County in some way, either traveling within, to, from, or through Alameda County. As a point of comparison, Alameda County only has 21 percent of the region's population.

Alameda County residents commute to work using various transportation modes. In 2014, 63 percent of Alameda County residents drove alone to work, while 9 percent carpooled. More than a quarter of residents used a non-driving mode to work, with transit riders accounting for more than half of workers who do not drive.

In the last decade, Alameda County's commute-to-work mode share has become more multimodal. Driving-alone and

carpool mode shares to work have declined several years in a row and were at 63 percent and 9 percent in 2014, respectively. From 2000 to 2014, BART exhibited the largest commute mode share increase (3 percent), followed by work from home (2 percent), and bicycling (1 percent).

Alameda County residents' journey to work travel times also increased across all travel modes from 2005 to 2014; overall average travel time to work increased by about 3 minutes. During this time period, residents who commuted by bus saw the largest increase in average travel time (nearly 6 minutes). Alameda County workers commuting by BART experienced the longest average travel time; more than 40 percent of these workers experience commutes of longer than 1 hour.

The drivers' licensing rate of Alameda County residents has also decreased from 2005 to 2014; this trend is consistent with the national drivers' licensing rate trend. The greatest decrease in drivers' license rate is among drivers below age 35. From 2005 to 2013, the drivers' licenses per 100 people dropped from 49 to 39 for 16-19 year olds and from 96 to 80 for 20-34 year olds.

Roadways

A robust economy and regional employment growth have led to roadway traffic volume increases, particularly at freeways and bridges leading into Alameda County. From 2010 to 2015, average daily volumes at all gateways grew by at least 3 percent. The greatest growth in travel volumes was seen on I-680 southbound at Mission Boulevard (nearly 30 percent) followed by the San Mateo-Hayward Bridge westbound and the Dumbarton Bridge westbound (each around 20 percent). The pronounced growth at these particular gateways could be attributed to employment growth on the Peninsula and in the South Bay.

Overall average freeway speeds during the spring (typically the heaviest travel season) declined significantly in the PM peak from 2014 to 2016. PM peak hour speeds dropped 3.5 miles per hour on average from 2014, falling to 45.8 miles per hour. PM peak hour speeds are now 12 percent lower than in 2010.

A decline was also seen during weekend midday, though AM peak period speeds remained relatively unchanged from 2014.

Local street and road average pavement condition Index (PCI), a measure of pavement quality, has remained relatively constant in recent years as cities have been unable to reduce a considerable backlog of deferred maintenance due to available repaving funding levels. In 2014, the average local street and road PCI was 67. 21.5 percent of local street and road centerline mileage in Alameda County has a PCI of "poor" or "failed," and additional miles are "at risk," meaning they will deteriorate rapidly if preventive maintenance is not undertaken (down slightly from 22 percent in 2013).

Pavement condition on the state highway system is assessed using three levels of distress—poor ride only, minor pavement distress (pavement in poor condition with significant cracks), and major pavement distress (pavement in poor condition with extensive cracks). The most recent California Department of Transportation (Caltrans) evaluation shows that in 2014, 35 percent of Alameda County's state highway system lane miles were in these three levels of distress. Poor pavement quality affects road users of all types, and addressing outstanding maintenance needs will require significant future funding.

Collisions on Alameda County roadways declined from 2002 to 2011, but increased from 2011 to 2014 (the most recent year for which complete data is available). From 2011-2014, the number of fatalities increased 44 percent to 85, and the number of injury and fatal crashes increased by 10 percent to 6,833. These increases indicate that roadway safety requires continued attention through infrastructure, education, and enforcement interventions.

Transit

Transit plays a critical role in Alameda County by providing accessibility to individuals and businesses in the County. Transit ridership increased by 2.7 percent from FY2014 to FY2015, the fourth consecutive year of ridership growth. The growth brought

ridership to its highest level in more than five years (more than 99 million annual boardings), though ridership remains below historic levels. However, Alameda County's population growth has outpaced the transit ridership increase; in FY2007, Alameda County saw about 67 annual boardings per person, but saw only 61 annual boardings per person in FY2015.

BART ridership in Alameda County increased by about 3 million annual boardings in FY2015, after a year in which total annual boardings did not grow (which may reflect days in which service was not operated due to labor stoppages). BART's systemwide average daily boardings have grown by nearly 100,000 in just six years. Ferry and commuter rail also saw increases. Bus ridership declined marginally and remains below pre-Recession levels, though service levels have generally not been restored from major service cuts instituted during the recession.

Service utilization—the ratio of how many people ride transit to the amount of revenue service operated—is a more accurate measure of transit operator success than just ridership, as it accounts for efficiency. BART's boardings per revenue vehicle hour (RVH) have remained relatively flat after increasing significantly from FY2009 to FY2013, reflecting some additional service to offset crowding. AC Transit's boardings per RVH declined in FY2015, and AC Transit carried approximately four fewer passengers per hour of service operated in FY2015 than in FY2006. While precise reasons for AC Transit's decline in boardings are not known, explanations may include changes in employment locations over the last decade (in particular, growth in jobs in the Peninsula and San Francisco which are not amenable to local bus service) and growth of employer based shuttles and Transportation Networking Companies. AC Transit will implement a Service Expansion in 2016, which will also restructure many routes to better match service patterns to demand and improve frequencies on major corridors and during evenings and weekends.

Paratransit

The federal Americans with Disabilities Act (ADA) requires all public transit systems to be fully accessible to people who cannot ride regular buses and trains due to a disability. This accommodation is provided through complementary paratransit service. In Alameda County, there are four public transit operators required to operate ADA-mandated paratransit service: AC Transit, BART, LAVTA, and Union City Transit.

ADA-mandated paratransit delivered over 795,000 trips in FY2015, 91 percent of which were provided by East Bay Paratransit. Unlike fixed-route transit, ADA-mandated paratransit providers are not generally trying to grow ridership. Ideally, the more accessible fixed-route transit is (including path of travel to stops and stations) the less need there is for ADA-mandated paratransit. In FY2015 there were approximately 20,000 ADA-mandated paratransit registrants overall. Of these, 87 percent were registered with East Bay Paratransit, 7.9 percent with LAVTA, and 5.1 percent with Union City.

Trip distance and duration can vary greatly between ADA-mandated paratransit providers, but for all providers some of the most frequent destinations are dialysis centers, adult day care facilities (regional centers), and medical centers.

On-time performance for all ADA-mandated providers has been above 90 percent since FY2008. In 2015, the on-time performance of the largest ADA provider declined slightly, but consumer satisfaction remained high.

Cost efficiency continues to challenge ADA-mandated paratransit providers and overall, operator cost per trip continues to rise.

City-based, "non-ADA" paratransit programs play an important role in meeting the overall demand for transportation for seniors and people with disabilities, and provided over 136,000 trips in FY 2015. In Alameda County, ten cities have city-based paratransit programs designed to meet the needs of consumers in their local jurisdictions which provide a range of

services including pre-scheduled trips, same-day trips, wheelchair-accessible trips, travel training, and volunteer driver programs. Looking ahead to FY2016, approximately 90,000 additional city-based paratransit trips are planned, due to Measure BB sales tax funding.

Bicycling

Bicycling is a form of transportation that can be affordable for users, is linked to positive public health outcomes, and contributes to improved air quality and reduced greenhouse gas emissions. The percent of Alameda County residents commuting to work by bicycle has nearly doubled over the last decade and now exceeds 2 percent. Between 2005 and 2014, Alameda County saw more new bicycle commuters than solo driving commuters.

Collisions involving bicyclists resulting in an injury or fatality increased slightly in 2013 from 2012, but have generally remained flat over the last three years. The average number of injury or fatal collisions from 2011 to 2013 is about 30 percent higher than the average from 2004 to 2006, though this may in part represent an increase in number of people cycling. Yet, safety and perceived lack of safety remain barriers that prevent cycling from being a more prevalent activity.

During the last fiscal year, jurisdictions reported implementing over 37 miles of bikeways, including more than 25 miles of bike lanes. FY2015 saw Alameda County's first protected bikeway: the Shoreline Drive cycletrack in the City of Alameda.

At the conclusion of FY2015, ten of 15 jurisdictions had adopted local bicycle master plans within the last five years. Four of the remaining six have plan development or update work underway.

More than 4,500 Alameda County residents and workers participated in bike safety education classes in FY2015, an annual attendance record. Thousands more have participated in or seen Alameda CTC's iBike encouragement campaign, which includes Bike to Work Day.

Walking

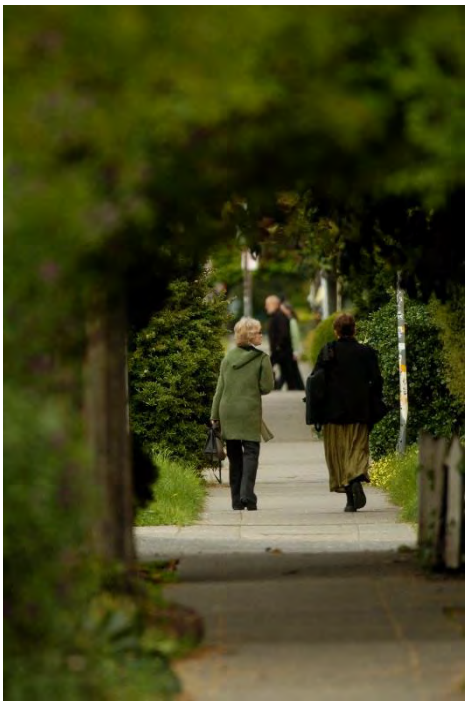
Walking is fundamental to all transportation modes—every trip begins and ends with walking. For many users of the Alameda County transportation system, walking is their sole mode of transportation. Walking has held steady as a commute mode used by between 3 percent and 4 percent of Alameda County workers for the past decade, though this statistic understates walking's role in the transportation system, as the vast majority of walking trips are made for non-work purposes. The most recent household travel survey with data on all types of travel found that walking accounts for 11 percent of all trips, and this statistic excludes walking's role as an access and egress mode for transit and driving trips.

Collisions involving pedestrians declined slightly in 2013; the longer-term trend does not appear to be either an increase or decline. Pedestrian safety remains an issue that requires education, enforcement, and infrastructure-based strategies, especially as increasing transit and active transportation mode usage results in greater levels of walking.

In FY2015, 13 jurisdictions reported completing a total of 60 major pedestrian capital projects. These projects span a wide variety of improvement types, ranging from closing gaps in the County's trail and sidewalk network, to major trail and pathway rehabilitation, to improvements to the safety and comfort of pedestrian facilities and pedestrian crossings.

At the conclusion of FY2015, seven of 15 jurisdictions had adopted local pedestrian master plans within the last five years. Six of the remaining eight have plan development or update work underway.

In addition, the Alameda County Safe Routes to School Program, which promotes the use of alternative modes to get to school, continued its rapid growth; the program was in 155 total schools during the 2014-15 school year, with more schools enrolled in a comprehensive program that features all of the core Safe Routes to Schools Events.



Livable Communities

Housing permitting is an important measure to track for regional affordability and as an indicator of future transportation demand and commuting patterns. In 2014, Alameda County issued 2,598 housing permits. As a point of comparison, the Regional Housing Needs Assessment for 2007-2014 was 44,937, which equates to a target of 5,617 permits per year. Alameda County was unable to meet its RHNA target during 2013 or 2014, either overall or within any particular affordability category. Most housing units permitted at the Very Low affordability level (0 to 50 percent of Area Median Income) were located within Priority Development Areas (PDAs), whereas about half of units permitted at the Above Moderate affordability level (120 percent or more of Area Median Income) were within PDAs. About half of units permitted in 2014 were within a typical walking distance of high frequency transit, including about 34 percent near BART, 5 percent near intercity rail or ferry service, and 39 percent near a high frequency bus stop.

Alameda County has seen an 8.5 percent decline in greenhouse gas emissions due to transportation since 2006. However, GHG emissions began to creep upwards in 2015 after nearly a decade of decline, and much of the drop over the last decade is due to blending of ethanol in gasoline which was steadily increased until 2010 but has remained at constant levels since.

1. Alameda County's Transportation System

Multimodal Transportation System

Alameda County has an extensive, multimodal transportation system that facilitates the safe and efficient movement of goods and people within the county and beyond. The physical transportation network includes freeways, highways, arterials, local roads, transit guideways and rolling stock, Class I railroad tracks, bicycling and walking lanes, paths, and sidewalks, and a major international airport and seaport.

Alameda County has 3,600 centerline miles of roadways. Six interstate freeways (I-80, I-238, I-580, I-680, I-880, and I-980) facilitate cross-county and regional accessibility, connecting residents with jobs and activity centers and providing businesses with access to a broad regional labor market and economy.

The freeway system provides vital goods movement connections, linking businesses throughout the region and state to world markets. Alameda County's freeway system also features an extensive network of carpool lanes and an emerging network of express lanes. Alameda County is linked to neighboring counties by three toll bridges (San Francisco-Oakland Bay Bridge, Hayward- San Mateo Bridge, and Dumbarton Bridge) as well as several other natural geographic gateways (the Caldecott Tunnel and Altamont Pass).

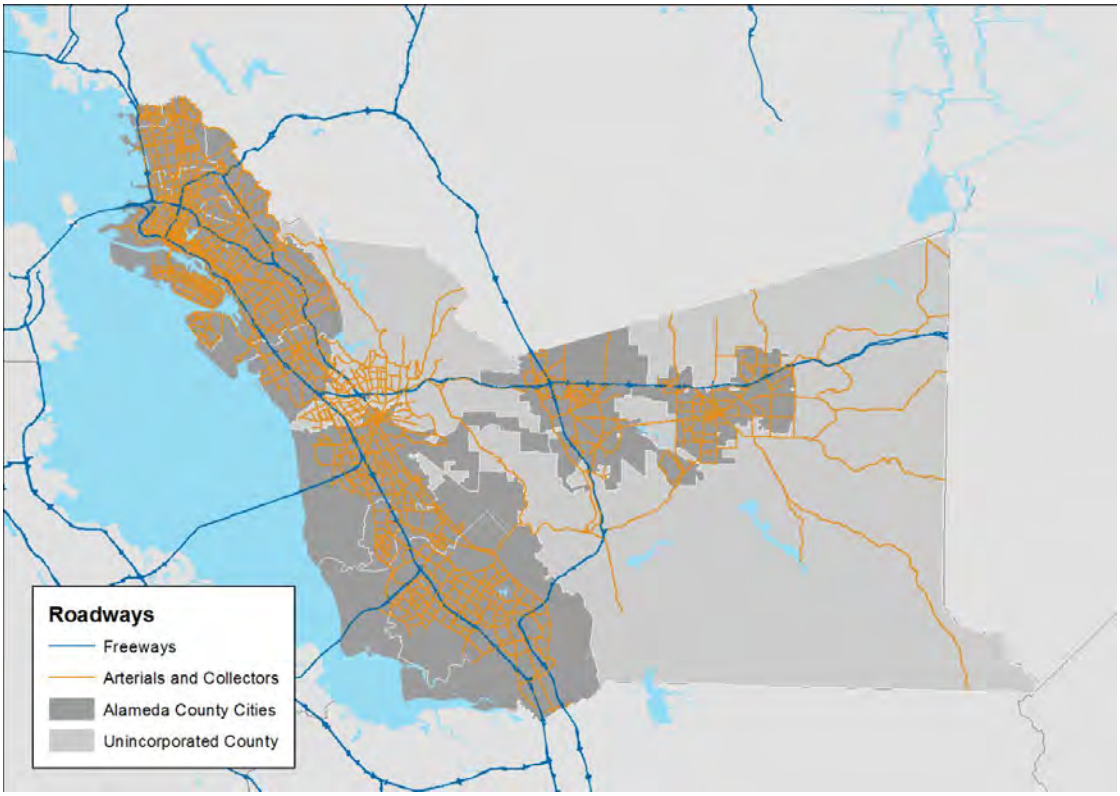
TRANSPORTATION HUB

Alameda County is a gateway to the world for goods movement. Its extensive transportation network of roads, rails, buses, trails, and pathways moves goods to and from the county and carries millions of people each day to jobs, education, services, and recreation — serving more than 1.6 million residents — and supporting the economic engine of California, the U.S., and beyond.

Beyond its freeway network, Alameda County has an extensive system of highways and local roads (Figure 1.1). Major arterial routes serve important county- and regional-level connectivity functions, but are also frequently multimodal corridors with transit service, bikeways, and pedestrian accommodations. Many of these major arterial routes are conventional highway state routes that traverse many jurisdictions and are currently maintained by Caltrans.

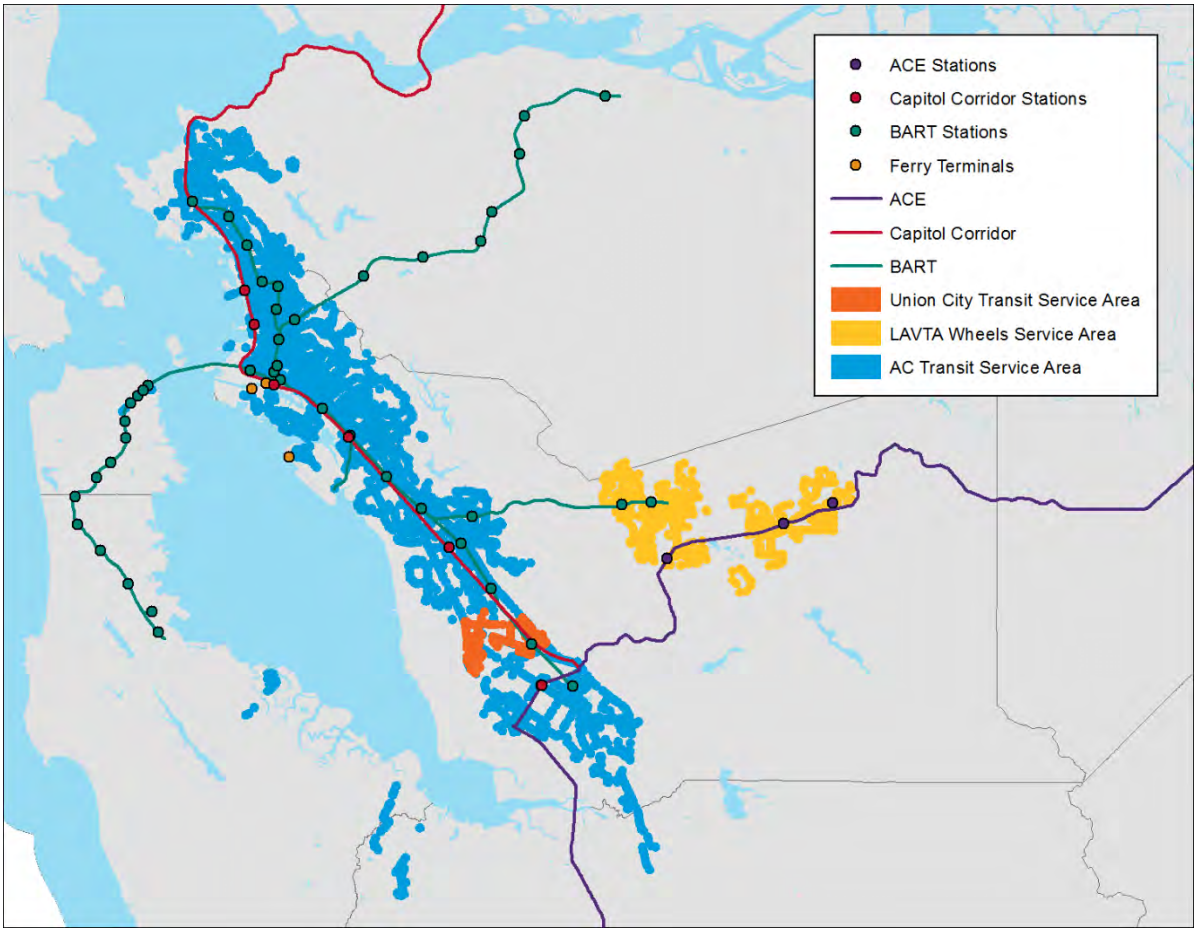
In many cases, arterial routes are also downtown main streets. The majority of Alameda County's roadway mileage is actually on local streets and roads, and roadways encompass not just the pavement but also curbs, gutters, sidewalks, signage, and traffic signals. On many roads, issues of delay, maintenance backlogs, and funding shortfalls affect driving trips as well as transit, bicycle, and pedestrian trips. The physical roadway infrastructure is supplemented by travel demand management (TDM) programs that seek to maximize limited capacity by shifting trips from single-driver vehicle trips to transit, carpooling, walking, or biking trips.

Figure 1.1 Alameda County Roadway System



Transit service in Alameda County includes rail, bus, ferry, and shuttle service provided by a number of public and private operators (see Figure 1.2). The major operators in the county are San Francisco Bay Area Rapid Transit District (BART) and Alameda-Contra Costa Transit District (AC Transit), which account for the majority of transit usage and provide mobility at both a regional and intra-county level. Other smaller operators including Altamont Corridor Express (ACE), Capitol Corridor, Livermore Amador Valley Transit Authority (LAVTA), San Francisco Bay Area Water Emergency Transportation Authority (WETA), and Union City Transit provide critical service to more specific travel markets (refer to Figure 1.2). Transit service entails significant public investment in both capital and operations but yields considerable public benefits including congestion reduction, air-quality benefits, efficient utilization of space in urban environments, and mobility essential from both economic vitality and social equity standpoints.

Figure 1.2 Alameda County Transit Operator Service Areas



Alameda County has extensive infrastructure to serve walking and biking and continues to invest in making these modes more safe and convenient options for users and trips of all types. The countywide bicycle network includes 394 miles of bikeways comprised of major interjurisdictional routes, trails, and other routes that provide key linkages to transit and regional activity centers. This network is supplemented by local bicycle networks that connect to countywide bikeways. Pedestrian infrastructure includes every local road as well as trails and dedicated pathways, and the county prioritizes making pedestrian infrastructure more safe, accessible, and comfortable in areas of countywide significance such as downtowns and transit hubs. In addition to dedicated infrastructure, bicyclists and pedestrians are supported by educational and outreach programs and planning.

Alameda County's transportation system moves freight in addition to people. The Port of Oakland's maritime operations make it the fifth busiest seaport in North America, and this deep-water port has the distinction of being a net exporter.

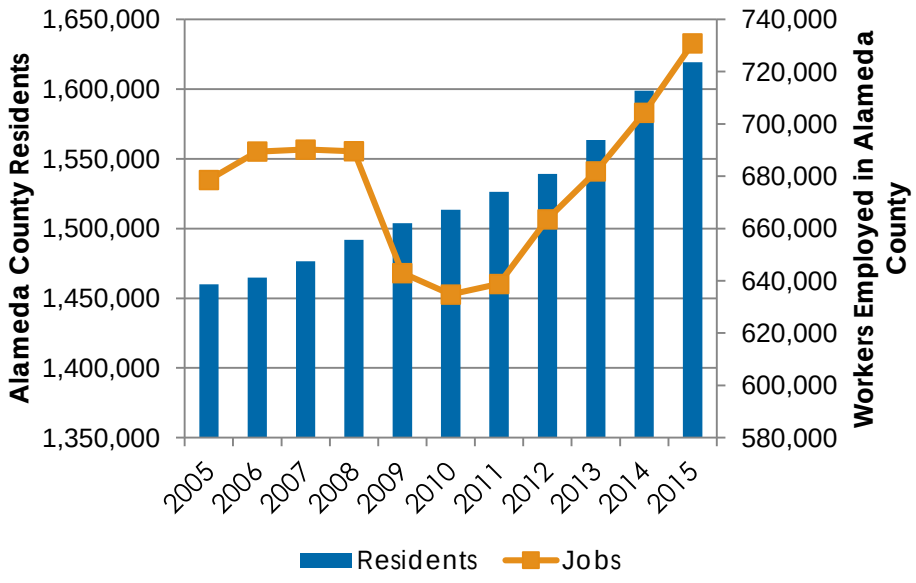
Figure 1.3 Alameda County Goods Movement Infrastructure

Meanwhile, the Oakland International Airport is the second busiest cargo airport in California and moves significant high-value goods. These goods movement hubs are connected to the region and mega-region by freeways and railroads. The major goods movement route connecting Central Valley agriculture to the Port of Oakland passes through Alameda County, and two major Class I railways connect Alameda County to the rest of the U.S.

Demand Factors

2015 was a year of strong population growth for Alameda County. Alameda County added just over 20,000 new residents, or a 1.3 percent increase from 2014 (see Figure 1.4). Alameda County was the second-fastest growing county in the region. Since 2010, Alameda County's population has increased by nearly 104,000 residents, trailing only Santa Clara County for the largest percentage increase within the Bay Area during this period.

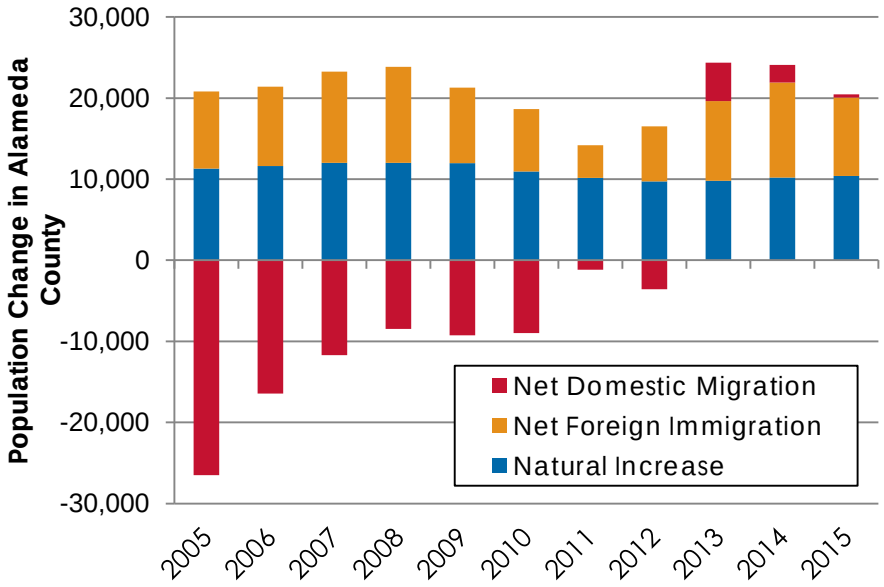
Figure 1.4 Alameda County Population and Job Trends



Source: Department of Finance E-2 Report and Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages for Alameda County.

Beginning in 2013, a long-term trend of net domestic migration reversed, and Alameda County has seen net positive population change from natural increase, foreign immigration, and domestic migration (see Figure 1.5).

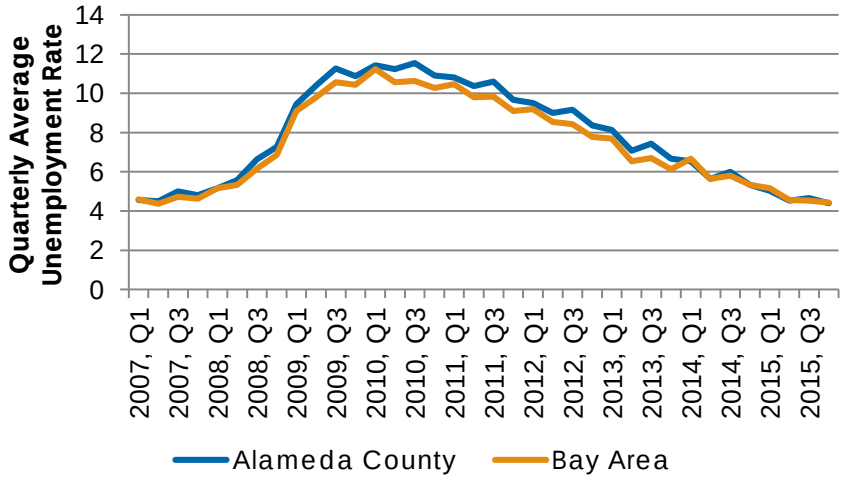
Figure 1.5 Alameda County Population Components of Change



Source: Department of Finance E-2 Report.

2015 also marked a year of strong job growth in Alameda County, as Alameda County employers added roughly 26,000 jobs. At the end of 2015, the fifth consecutive year of employment expansion, Alameda County employment topped its pre-recession levels seen from 2006-2008 (see Figure 1.4). As Figure 1.6 illustrates, a gap in unemployment rate between Alameda County and the region at large that has persisted since the start of the recession has narrowed, as Alameda County's unemployment rate at the end of FY2015 (4.4 percent) is the same as the regional rate (4.4 percent).

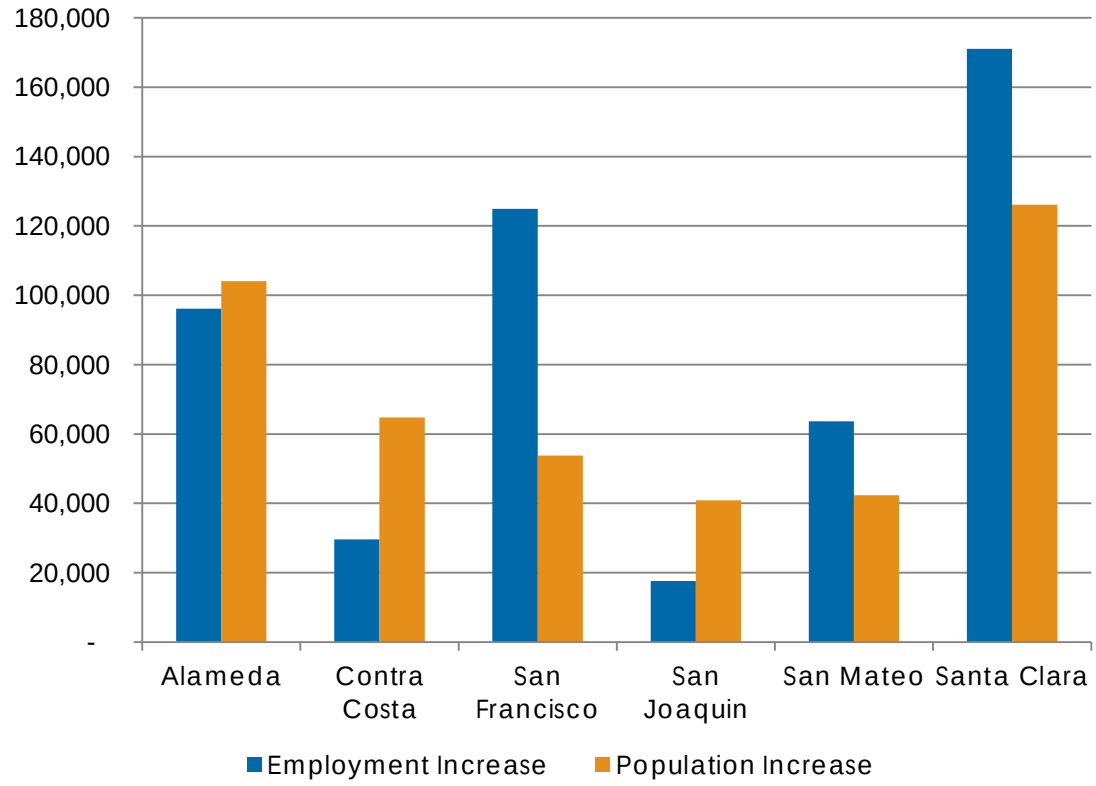
Figure 1.6 Alameda County and Regional Unemployment Rate



Source: BLS Local Area Unemployment Statistics for Alameda County and San Francisco-Oakland-San Jose Combined Statistical Area.

Employment levels in Alameda County have surpassed figures seen in the early 2000s, when the economy measured 710,000 jobs, just prior to the "dot com bust." However, Alameda County has generally not added as many jobs as San Francisco, San Mateo, and Santa Clara counties (relative to its population increase) since 2010 – a trend which has implications for regional commute patterns (see Figure 1.7).

Figure 1.7 Employment and Population Growth by County (2010 to 2015)



Source: Employment data from the U.S. Department of Labor, BLS; population data from the State of California, Department of Finance.

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2. Travel Patterns

Commute Flows (2014)[1]

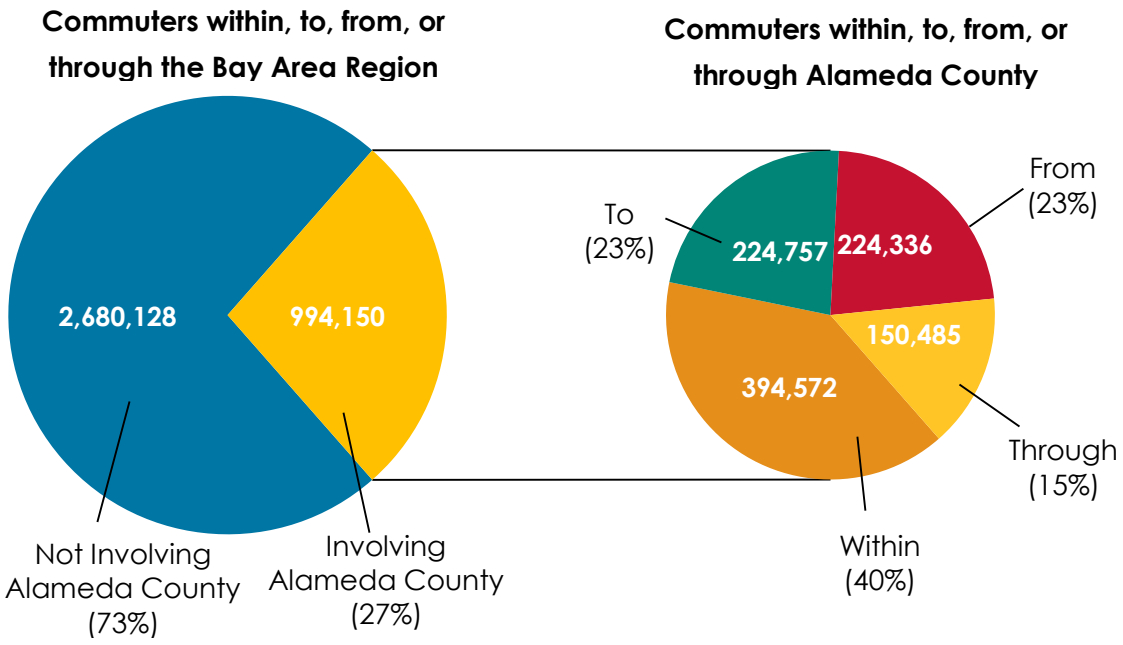
Alameda County workers and businesses participate in a large regional economy, which is reflected in commute origins and destinations.

- Given its regional centrality, Alameda County plays a substantial role in accommodating the Bay Area's commute travel demand. Roughly 27 percent of regional commutes involve Alameda County in some way, either traveling within, to, from, or through Alameda County. As a point of comparison, Alameda County only has 21 percent of the region's population.
- Roughly 40 percent of commuters with travel involving Alameda County begin and end their work trips in Alameda County.
- About the same number of workers commute from residences in Alameda County to jobs in other counties (23 percent) as commute from other counties to jobs in Alameda County (23 percent). In other words, Alameda County "imports" and "exports" a similar number of workers.
- A significant share (15 percent) of travel involving Alameda County is pass-through trips (refer to Figure 2.1).

Roughly 27 percent of regional commutes involve Alameda County in some way, either traveling within, to, from, or through Alameda County.

[1] 2014 data are most current available for this measure as of report publication.

Figure 2.1 Alameda County and Regional Commute Flows in 2014



Source: American Community Survey, 2014 Public Use Microdata Sample (PUMS) data.

Notes: "Through Alameda County" commute flow was computed by summing individual county origin-destination pairs that would require traveling through Alameda County. "Through Alameda County" and "Bay Area Regional" commuters include travel into and out of the mega-region, which includes counties adjacent to the 9-county San Francisco Bay Area.

Commute Pattern Data Sources

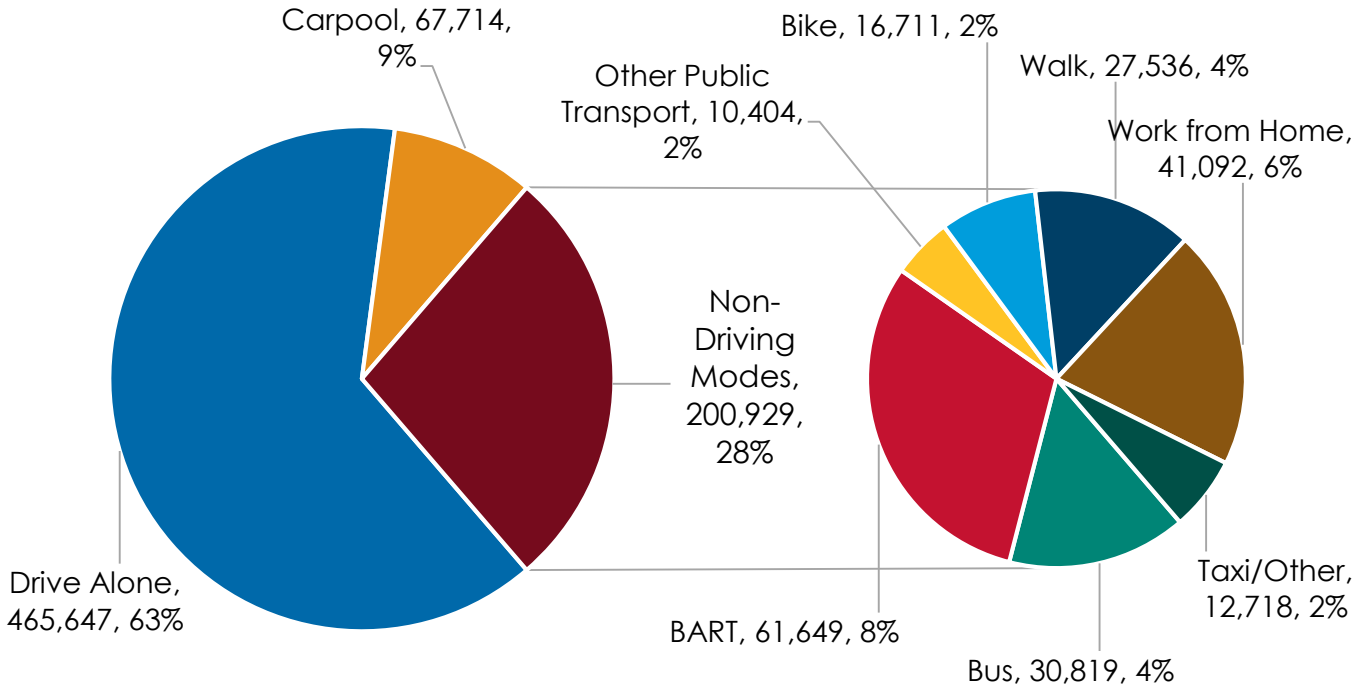
This report relies on national data sources including the U.S. Census Bureau's American Community Survey and Public Use Micro Survey data for information on commuting patterns. These data sources are publically available, frequently used within the transportation planning industry, and collected and reported on a consistent timeline, making them well-suited to performance monitoring activities. Because they are nationally collected, these data sources typically do not gather information on emerging modes of transportation particularly prominent in the Bay Area such as employer shuttles, transportation network companies, car sharing, or bike sharing. These data sources typically focus on work travel but to do not offer information on travel for other purposes such as school, shopping, or recreation. Regional Household Travel Surveys, conducted every 7-10 years, provide richer data on other travel modes and purposes, but are generally not well-suited to annual monitoring due to the infrequent availability of data.

Journey-to-Work Mode Share (2014)

Alameda County residents use a range of travel modes to commute to work (Figure 2.2):

- More than a third of Alameda County residents commute by some means other than driving alone (9 percent carpool plus 28 percent non-driving).
- Transit accounts for approximately half of non-driving commutes and 14 percent of overall commutes. Working from home is the next most prominent non-driving commute option.
- Walking and bicycling are modest but critical contributors to the Alameda County commute mode mix. Walking and biking are also important for accessing other modes of transportation, which is not captured in statistics presented below.

Figure 2.2 Alameda County Journey-to-Work Mode Share, 2014



Source: American Community Survey, Table B08006.

Long-Term Trends in Mode Share (2000 to 2014)

Over the last decade, commute mode share has generally become more multimodal in Alameda County. Table 2.1 and Figure 2.3 summarize changes in commute mode share between 2000 and 2014:

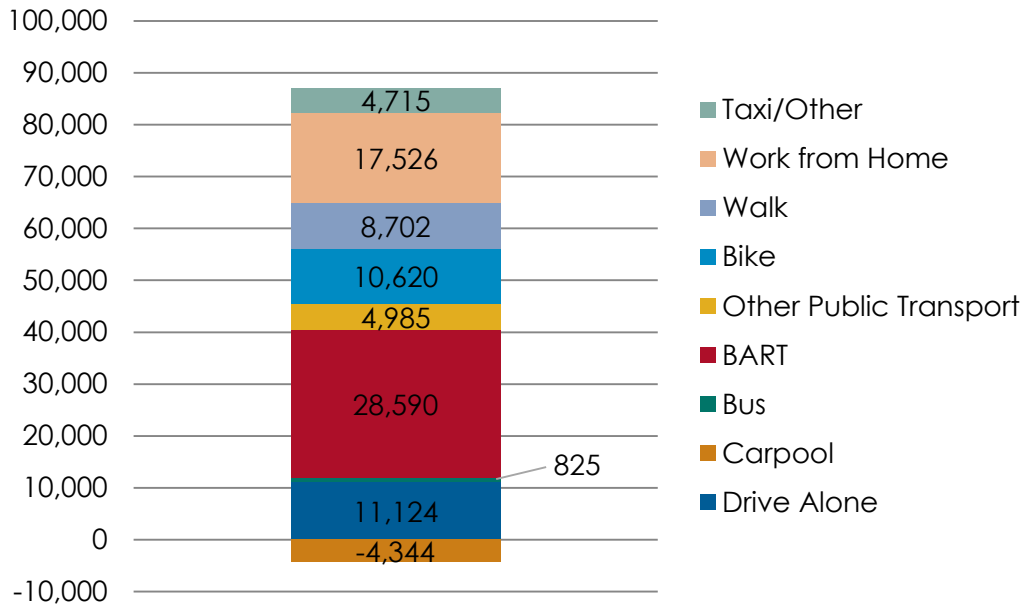
- Drive-alone mode share has decline by nearly 3 percent over the last decade, from 66 percent to 63 percent. However, growth in total number of commuters in Alameda County means there has been some growth in solo drivers, even as the share of the total has declined.
- Carpooling has seen the largest decline in mode share and has seen a decline in absolute numbers.
- The largest increase in mode share was exhibited by BART ridership, followed by working from home and bicycling. The growth in BART mode share primarily occurred between 2010 and 2014, whereas the growth in work-from-home mode share primarily increased between 2000 and 2010.
- Since 2005, Alameda County has seen nearly as many new bicycle commuters (10,600) as solo-driving commuters (11,100).

Table 2.1 Long-term Trends in Mode Share, Alameda County Residents

	Mode Share				Difference in Mode Share		Mode Share Margin of Error
	2000	2005	2010	2014	2014 v. 2010	2014 v. 2000	2014
Drive Alone	66.4%	69.8%	66.9%	63.4%	-3.5%	-2.9%	0.9%
Carpool	13.8%	11.1%	10.8%	9.2%	-1.6%	-4.6%	0.5%
Bus	4.5%	4.6%	3.7%	4.2%	0.5%	-0.3%	0.5%
BART	5.3%	5.1%	5.8%	8.4%	2.6%	3.1%	0.4%
Other Public Transport	0.8%	0.8%	1.3%	1.4%	0.2%	0.7%	0.2%
Bike	1.2%	0.9%	1.4%	2.3%	0.9%	1.0%	0.2%
Walk	3.2%	2.9%	3.2%	3.8%	0.5%	0.5%	0.4%
Work from Home	3.5%	3.6%	5.9%	5.6%	-0.3%	2.1%	0.4%
Taxi/Other	1.3%	1.2%	0.9%	1.7%	0.8%	0.4%	0.3%

Source: American Community Survey, Table B08006.

Figure 2.3 New Alameda County Commuters Since 2005



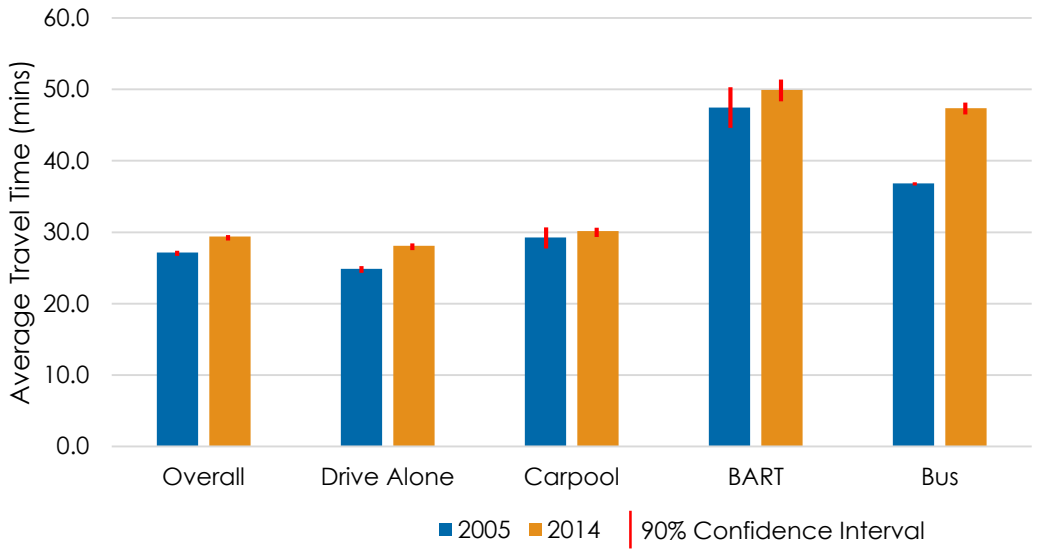
Source: American Community Survey, Table B08006.

Journey-to-Work Travel Time

Journey-to-work travel times of workers living in Alameda County have generally increased over the last decade, as illustrated in Figures 2.4 and 2.5:

- Average travel time increased by about 2 minutes, from 27 minutes to 29 minutes, between 2005 and 2014.
- The percentage of Alameda County residents with a commute travel time of more than 1 hour has nearly doubled since 2005, from 8 percent of workers in 2005 | to 15 percent of workers in 2014.
- Drivers generally have shorter commuters than transit riders in Alameda County. Average travel time for solo drivers and carpoolers is less than 30 minutes, whereas average travel times for both BART and bus riders are more than 45 minutes.

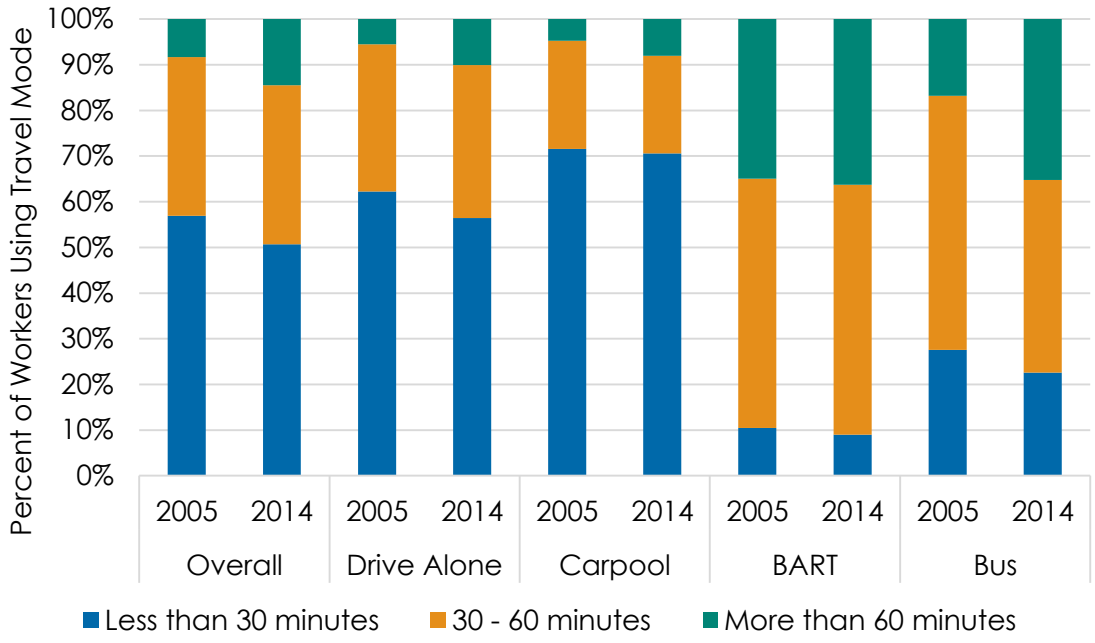
Figure 2.4 Average Journey-to-Work Travel Time, 2014 vs. 2005



Source: American Community Survey, Tables B08006 and B08136.

- Drivers and carpoolers are also much more likely to have very short commutes. More than half of solo drivers and carpoolers have a commute of less than a half hour; in contrast, only 10 percent of BART riders and about 20 percent of bus riders have commutes of under a half hour.
- Among Alameda County residents taking the bus to work, there was significant growth in longer commutes (more than 1 hour) and a corresponding decline in mid-length commutes (30 minutes to 1 hour). This may reflect growth in Transbay bus commuting as well as congestion, resulting in longer bus travel times.

Figure 2.5 Journey-to-Work Travel Time by Mode and Length, 2014 vs. 2005



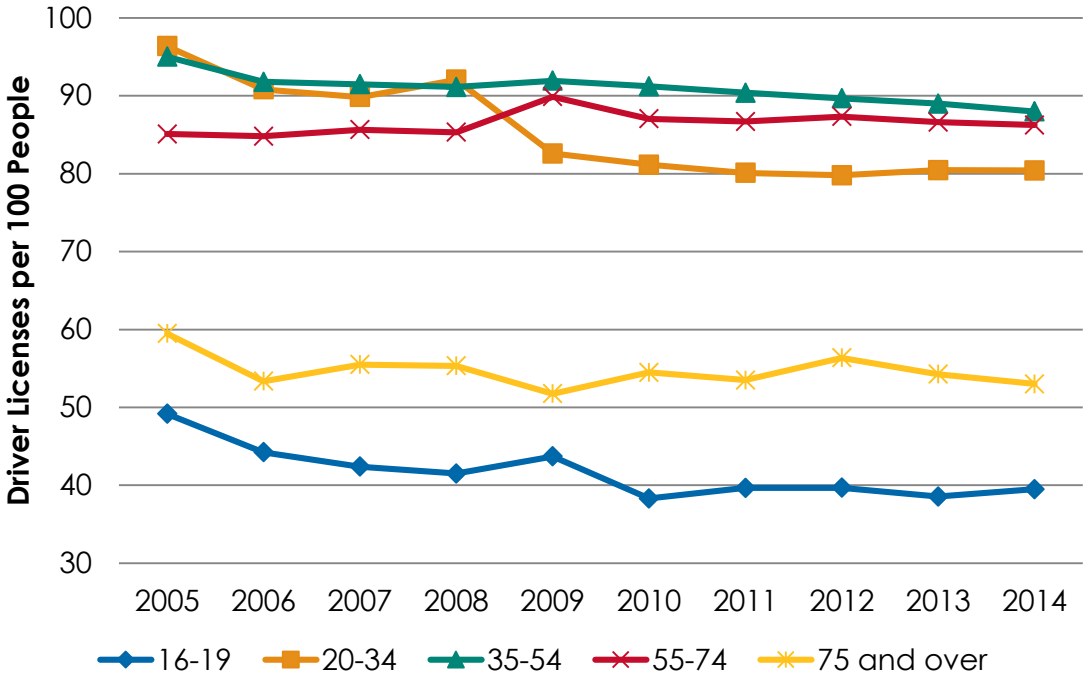
Source: American Community Survey, Table B08136.

Drivers' Licensing Rate

Since 2005, the driver's license rate (has declined from 88 licensed drivers per 100 people to 80 licensed drivers per 100 people, a trend that is consistent with national findings. Figure 2.6 illustrates changes in driver's license rate among different age cohorts:

- The sharpest drop in driver's license rate has been among 20-34 year olds, from 96 licenses per 100 persons in 2005 to just 80 licenses per 100 persons in 2014.
- Declines in driver's license rates were also seen for 16-19 year olds and 35-54 year olds. There were fewer licenses per 100 people held by individuals aged 75 and older in 2014 than in 2005; however, the rate has fluctuated greatly over the last decade.
- The only age range that saw an increase in driver's license rate was individuals age 55 to 74.
- Increases in population without a driver's license generally imply an increased need for multimodal transportation options.

Figure 2.6 Alameda County Resident Drivers Licenses per 100 People



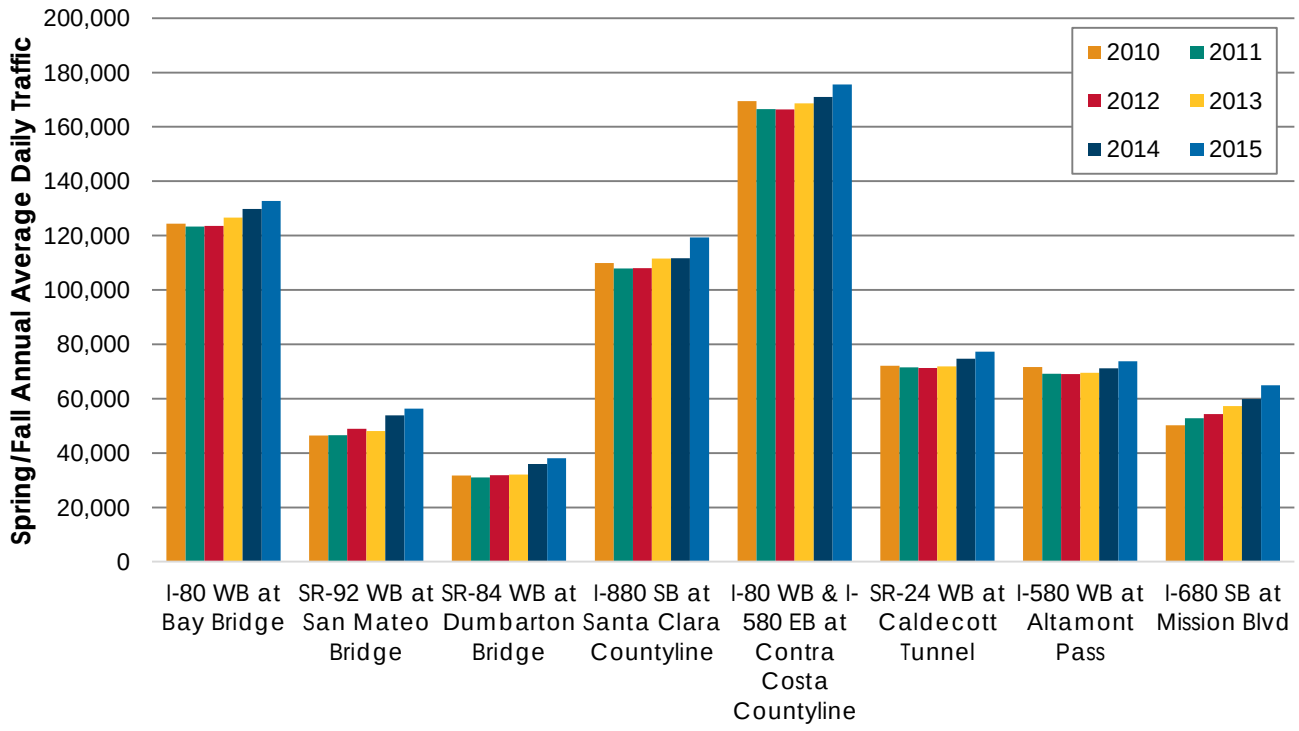
Sources: California Department of Motor Vehicles (DMV), American Community Survey, Table B01001.

3. Roadways

Gateway Traffic Volumes

Alameda County sees significant volumes of commuters crossing critical gateways every day, as indicated in Figure 3.1. Every Alameda County gateway has seen growth in traffic volumes since 2010.

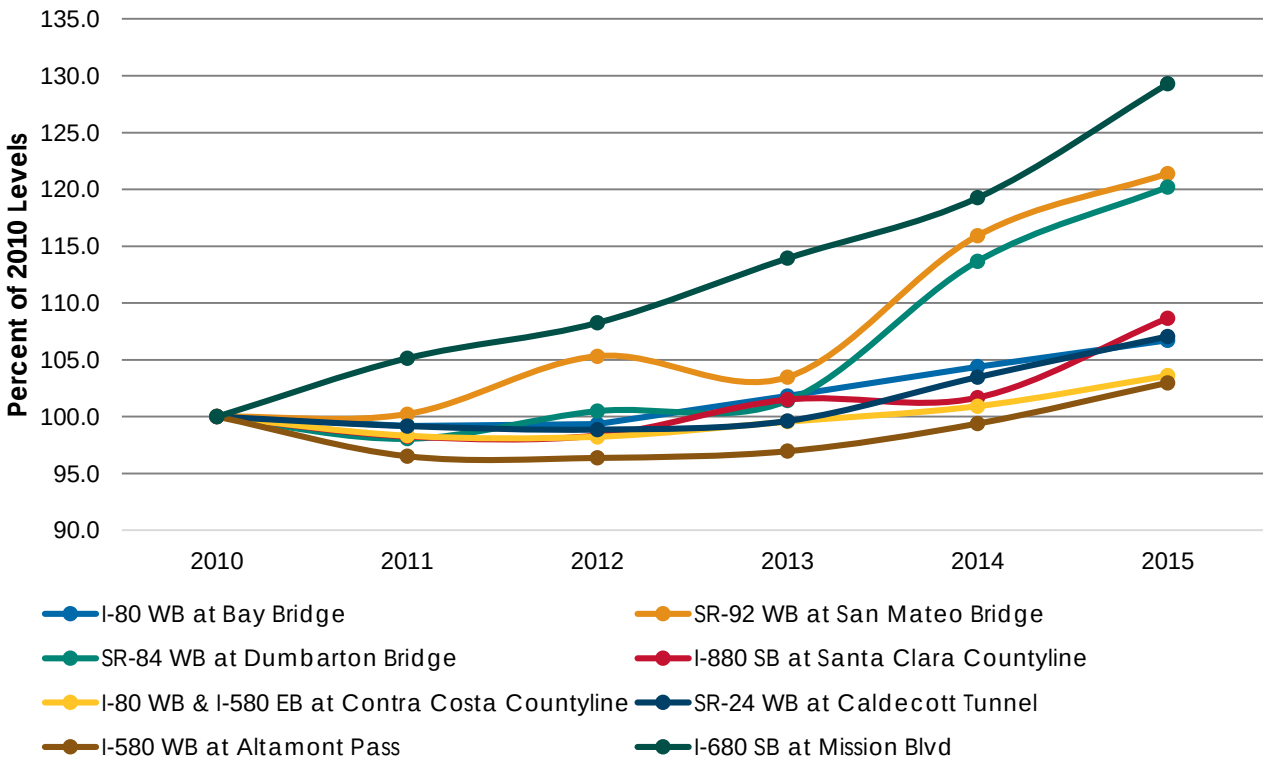
Figure 3.1 Alameda County Gateway Annual Average Daily Traffic



Sources: Bay Area Toll Authority, Sunol I-680 Express Lane Operations, PeMS.
Notes: Data are averages of Tuesday-Thursday from spring and fall months (intended to represent a "typical" travel day). I-680 volumes include express lane.

- The fastest growing gateway in Alameda County since 2010, in percentage terms, has been I-680 at Mission Boulevard, with just under 30 percent increase in volumes. Volumes over the San Mateo Bridge and Dumbarton Bridge have also both grown just over 20 percent since 2010. The fastest growing gateways suggest a strong influence of job centers in the Peninsula and South Bay on commuting patterns.
- All gateways have seen steady growth since 2013.
- As a point of comparison, overall BART boardings systemwide increased by 25 percent since 2010 (volumes through the Transbay Tube likely greatly exceed the systemwide growth). In other words, the growth in volume at the fastest growing individual freeway gateway in Alameda County is comparable to the growth in BART ridership systemwide.

Figure 3.2 Alameda County Gateway Volume Trend Since 2010



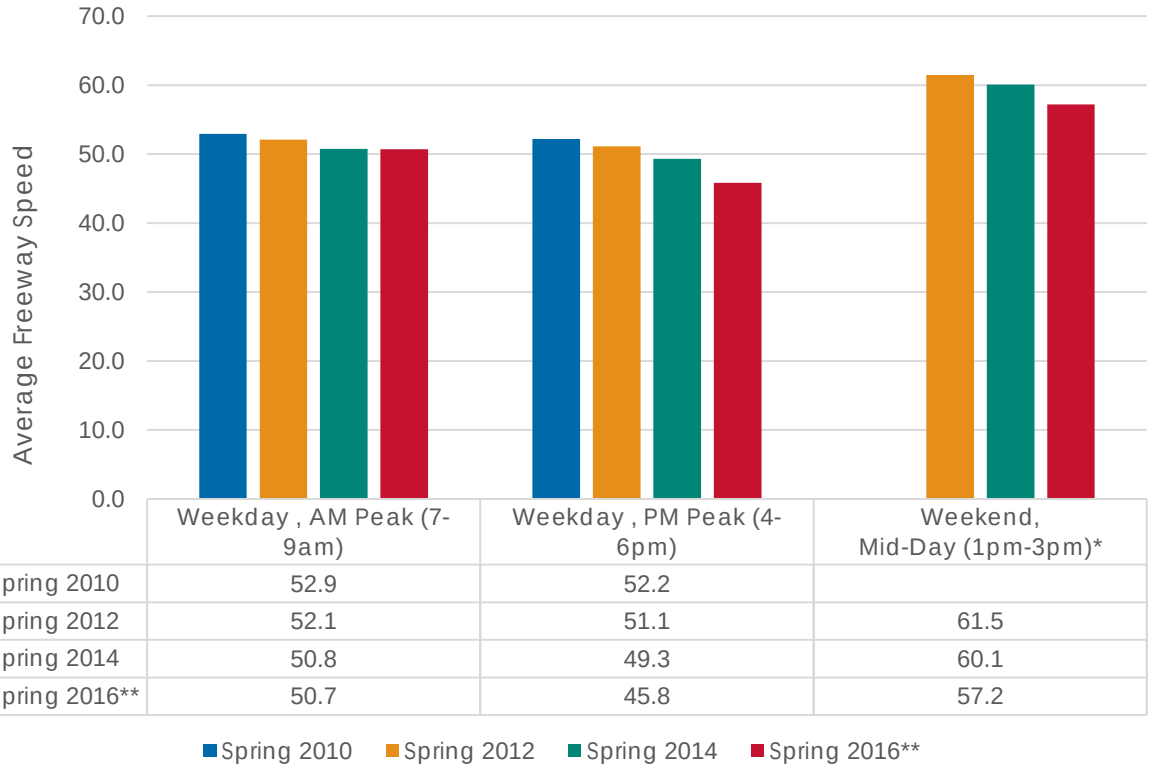
Sources: Bay Area Toll Authority, Sunol I-680 Express Lane Operations, PeMS.
Notes: Data are averages of Tuesday-Thursday from spring and fall months (intended to represent a "typical" travel day). I-680 volumes include an express lane.

Travel Speeds

Average travel speed on freeways in Alameda County declined in all time periods from 2010 to 2016, reflecting increased travel time from a robust economy. The travel speed below are averages from Alameda CTC's biennial roadways Levels of Service (LOS) monitoring.

- The decline in weekday a.m. peak-hour speed has moderated slightly from 2014 to 2016.
- Weekday p.m. peak-hour speed has experienced the sharpest drop in speed and has continued to remain the time of day with the lowest travel speed.
- Weekend midday period has also experienced speed reduction, which likely reflects more discretionary travel.

Figure 3.3 Average Freeway Travel Speeds by Time of Day (2010 to 2016)



	Weekday , AM Peak (7-9am)	Weekday , PM Peak (4-6pm)	Weekend, Mid-Day (1pm-3pm)*
Spring 2010	52.9	52.2	
Spring 2012	52.1	51.1	61.5
Spring 2014	50.8	49.3	60.1
Spring 2016**	50.7	45.8	57.2

Source: INRIX Commercial Speed Data.
* Weekend LOS data collection began in 2012.
** 2016 data is preliminary.

FREEWAY CONGESTION DEFINED

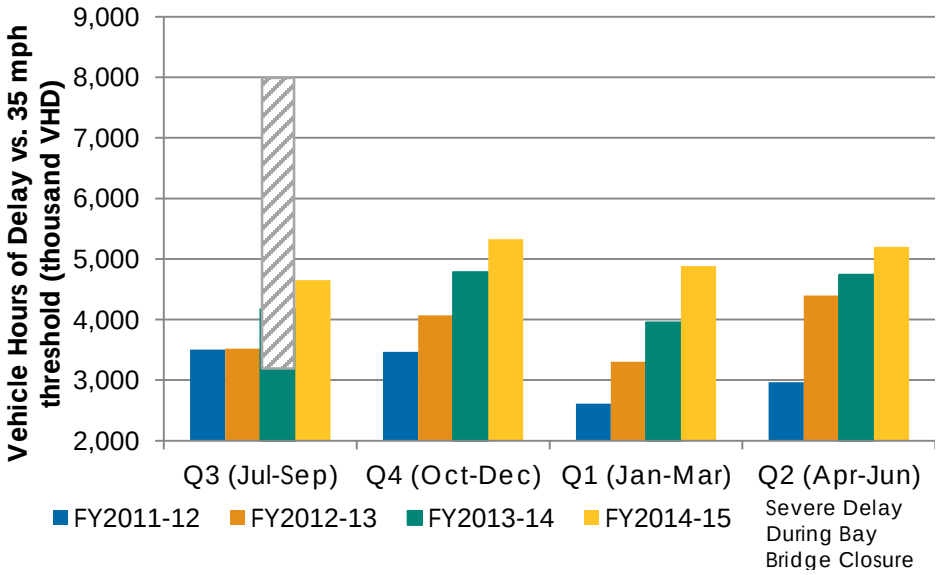
Freeway congestion is defined as a condition with an excess of vehicles on a portion of freeway at a particular time, resulting in a slower speed than if the freeway volume is not excessive (or is operating at a free-flow speed). This report defines severe freeway delay as the additional time it takes a vehicle to travel a freeway segment due to the segment operating at a speed of less than 35 mph, which is the speed at which vehicle flow begins to diminish.

Freeway Congestion

Figure 3.4 and Table 3.1 show the trend in delay on freeway facilities in Alameda County, by quarter.

- Freeway delay in Alameda County increased by 14 percent overall from FY2013-14 to FY2014-15. This overall increase corresponds to a 12 percent increase in weekday freeway delay and a 31 percent rise in weekend freeway delay.
- Freeway delays vary seasonally. Weekday delays are lowest in Quarter 1 (January through March) and Quarter 3 (July through September). Weekend delays are highest in Quarter 2 (April through June) and Quarter 3 (July through September) when there are more recreational trips.
- Figure 3.4 shows that seasonal variation in vehicle delays has changed slightly from FY2011-12 to FY2014-15:
- Overall, vehicle hours of delay in Quarter 1 continue to remain the lowest.

Figure 3.4 Total Severe Freeway Delay (thousand vehicle hours of delay vs. 35 mph threshold)*



Source: INRIX Commercial Speed Data.

Notes: *The Bay Bridge was closed to traffic from August 28, 2013 (8 p.m.) to September 3, 2013 (5 p.m.). Grey hatched column indicates the additional vehicle hours of delay incurred in 2013 Quarter 3 from the Bay Bridge Closure.

Table 3.1 Total Severe Freeway Delay (thousand vehicle hours of delay vs. 35 mph threshold)*

		Quarter 3 (Jul-Sep)	Quarter 4 (Oct-Dec)	Quarter 1 (Jan-Mar)	Quarter 2 (Apr-Jun)	Fiscal Year Total
Weekday	FY2013-14	3,717	4,396	3,644	4,199	15,955
	FY2014-15	4,093	4,892	4,333	4,521	17,839
	Percent Change	10%	11%	19%	8%	12%
Weekend	FY2013-14	456	388	310	541	1,695
	FY2014-15	560	437	550	677	2,224
	Percent Change	23%	13%	77%	25%	31%
Overall	FY2013-14	4,172,649	4,783,997	3,953,554	4,740,022	17,650,222
	FY2014-15	4,652,882	5,328,964	4,882,817	5,198,132	20,062,796
	Percent Change	12%	11%	24%	10%	14%

Source: INRIX Commercial Speed Data.

Notes: *FY2013-14 data does not include delay during the period of the Bay Bridge closure from August 28, 2013 (8 p.m.) to September 3, 2013 (5 p.m.). Vehicle hours of delay vs. 35 mph threshold refers to increased time that it takes a vehicle to travel a freeway segment due to the segment operating at a speed of less than 35 mph.

- Overall, vehicle hours of delay in Quarter 2 and Quarter 4 have surpassed vehicle hours of delay in Quarter 1 and Quarter 3 during this time period.
- The closure of the Bay Bridge from August 28, 2013 to September 3, 2013 more than doubled the vehicle hours of delay in 2013 Quarter 3, if included in statistics.

Some of the most-congested freeway segments in the Bay Area are in Alameda County. As shown in Figure 3.5, of the top 10 congested Bay Area freeway segments in 2013, six of them are within Alameda County:

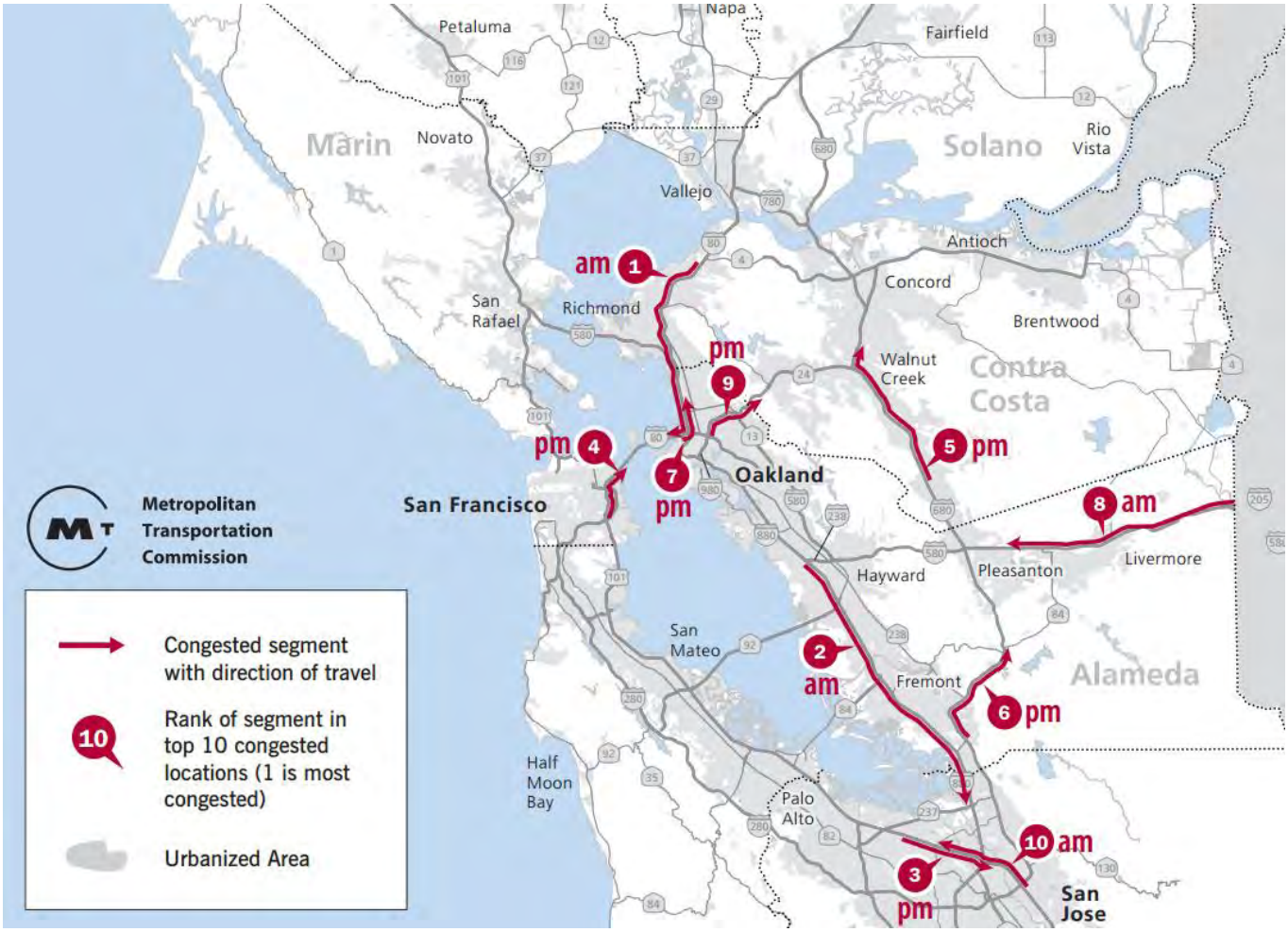
- Interstate 80, westbound from SR-4 to the Bay Bridge Toll Plaza (ranked 1 in the map)
- Interstate 880, southbound from I-238 to SR-237 in the a.m. period (ranked 2 in the map)
- Interstate 680, northbound from SR-262 to SR-84 in the p.m. period (ranked 6 in the map)
- Interstate 80, eastbound from West Grand Avenue to Gilman Street in the p.m. period (ranked 7 in the map)

- Interstate 580, westbound from San Joaquin County line to Santa Rita Road/Tassajara Road in the a.m. period (ranked 8 in the map)
- SR-24, eastbound from I-580 to Wilder Road in the p.m. period (ranked 9 in the map)

In addition, two congested segments are located outside of Alameda County but are in gateway corridors to Alameda County:

- I-80, eastbound from I-280 to east of Treasure Island Tunnel in the p.m. period (ranked 4 in the map)
- I-680, northbound from Crow Canyon Road to Treat Boulevard in the p.m. period (ranked 5 in the map)

Figure 3.5 MTC's Top 10 Congested Corridors in the Bay



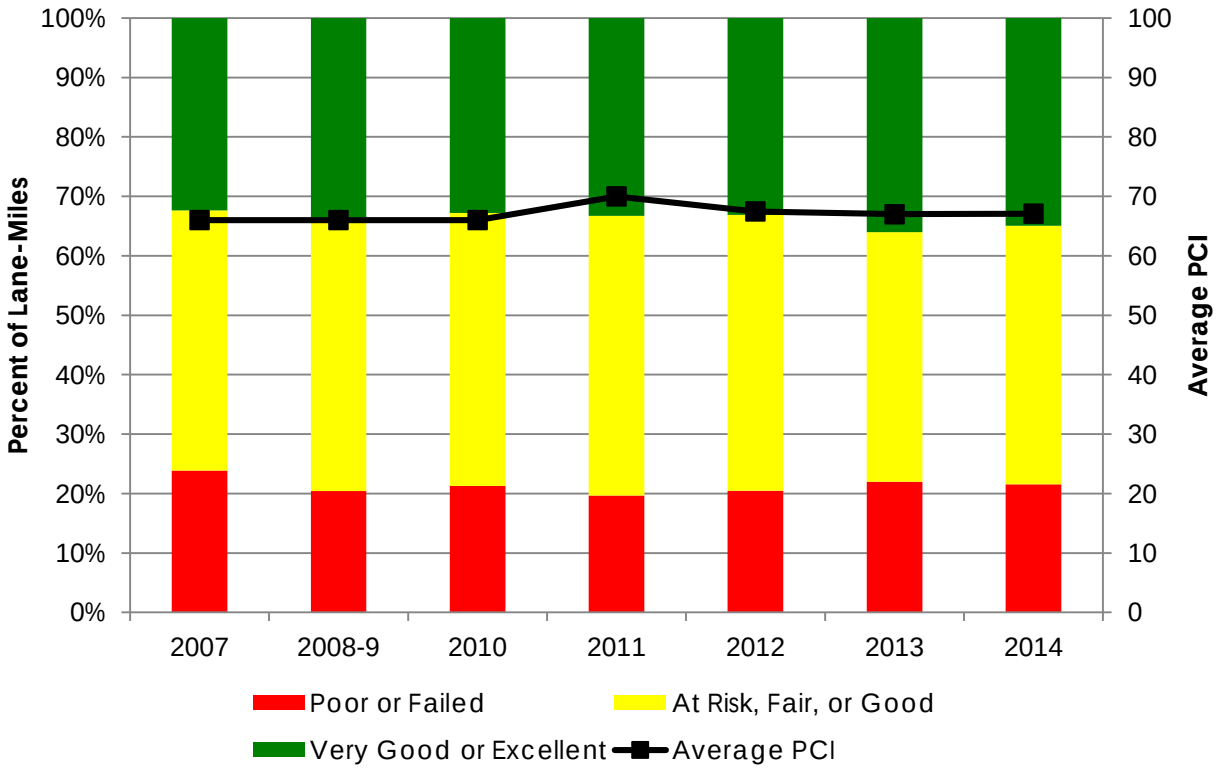
Source: http://mtc.ca.gov/sites/default/files/Handout%20%20Poster%2012-15-2015%20%282%29.pdf.

Local Road State of Repair

Pavement condition has largely remained constant in Alameda County from 2007 to 2014 (refer to Figure 3.6).

- In 2014, 22 percent of the centerline mileage in Alameda County has a pavement condition index (PCI) of "poor" or "failed." Additional miles are "at risk," meaning they will deteriorate rapidly if not repaved soon.
- Dublin has the best PCI in Alameda County at 86.
- Albany, Oakland, and San Leandro have the lowest PCI in Alameda County at 56.
- In general, the highest PCIs are in East County, and the lowest PCIs are in North County and Central County, which may reflect the average age of roadways (refer to Table 3.2 on the next page).

Figure 3.6 Pavement Condition Index in Alameda County



Source; MTC Street Saver database.

Notes: Average PCI is based on a weighted average of functional classifications, with weighting based on centerline mile distance.

Table 3.2 Local Average Pavement Condition Index

	2005	2006	2007	2008-9	2010	2011	2012	2013	2014
Alameda	64	60	64	63	72	67	66	68	67
Alameda County	71	72	69	75	73	72	71	71	71
Albany	60	66	63	60	58	56	58	55	56
Berkeley	58	61	60	58	61	58	58	58	58
Dublin	78	82	80	80	87	84	87	85	85
Emeryville	82	78	76	74	80	79	75	73	80
Fremont	71	68	66	64	63	63	63	67	69
Hayward	67	69	68	69	70	68	69	67	66
Livermore	80	79	77	77	80	78	76	77	76
Newark	78	69	67	71	68	75	76	76	76
Oakland*	52	61	57	58	54	60	61	58	56
Piedmont	66	69	67	72	72	74	67	67	67
Pleasanton	74	75	76	78	77	76	77	78	78
San Leandro	62	60	59	56	56	56	57	57	56
Union City*	76	75	75	79	80	78	80	79	83

Source: StreetSaver database.

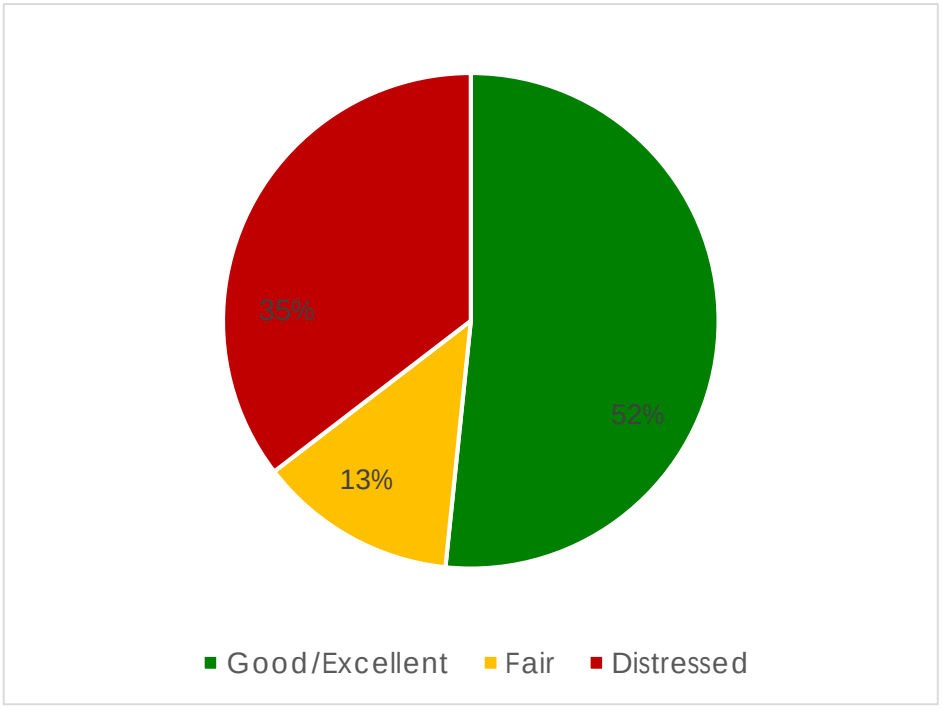
Notes: Average PCI is based on a weighted average of functional classifications, with weighting based on centerline mile distance. *PCI was correlated from an alternate scale prior to 2007.

Freeway and Highway State of Repair

The majority of Alameda County's state highway system lane miles are in good condition.

- To identify distressed pavement, Caltrans assesses the ride quality and structural distress on each pavement lane mile on the state highway system. There are three condition states:
    - Good/excellent condition with no or few potholes or cracks.
    - Fair condition with minor surface distress that only needs corrective maintenance.
    - Distressed condition with poor ride quality, significant or extensive pavement cracks.
- Figure 3.7 shows that in 2014, 35 percent of Alameda County's state highway system lane miles were in distressed condition. Further analysis will be conducted to identify the locations of these distressed roadways in Alameda County.

Figure 3.7 2014 Alameda County State Highway Lane Miles - Pavement Condition



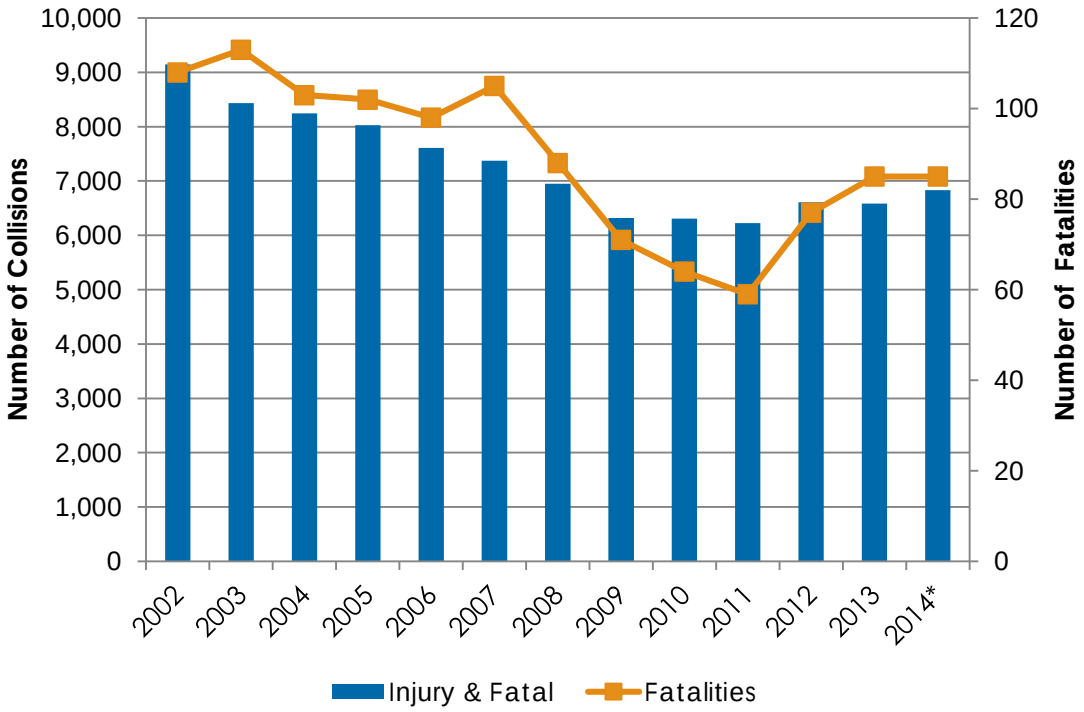
Source: Caltrans.

Safety

From 2002 to 2011, collisions in Alameda County declined steadily (refer to Figure 3.8 below and Table 3.3 on the next page). However, collisions increased from 2011 to 2014:

- The number of fatalities increased by 44 percent to 85 total fatalities in 2014.
- The number of injury and fatal collisions increased by more than 9 percent to 6,833 collisions in 2014. Table 3.3 shows collision rates in Alameda County from 2005 to 2014.
- Unsafe speed was the most common cause for injury and fatal collisions in 2014, and accounted for more than twice as many collisions as the next highest cause (refer to Figure 3.9).

Figure 3.8 Injury and Fatal Collisions



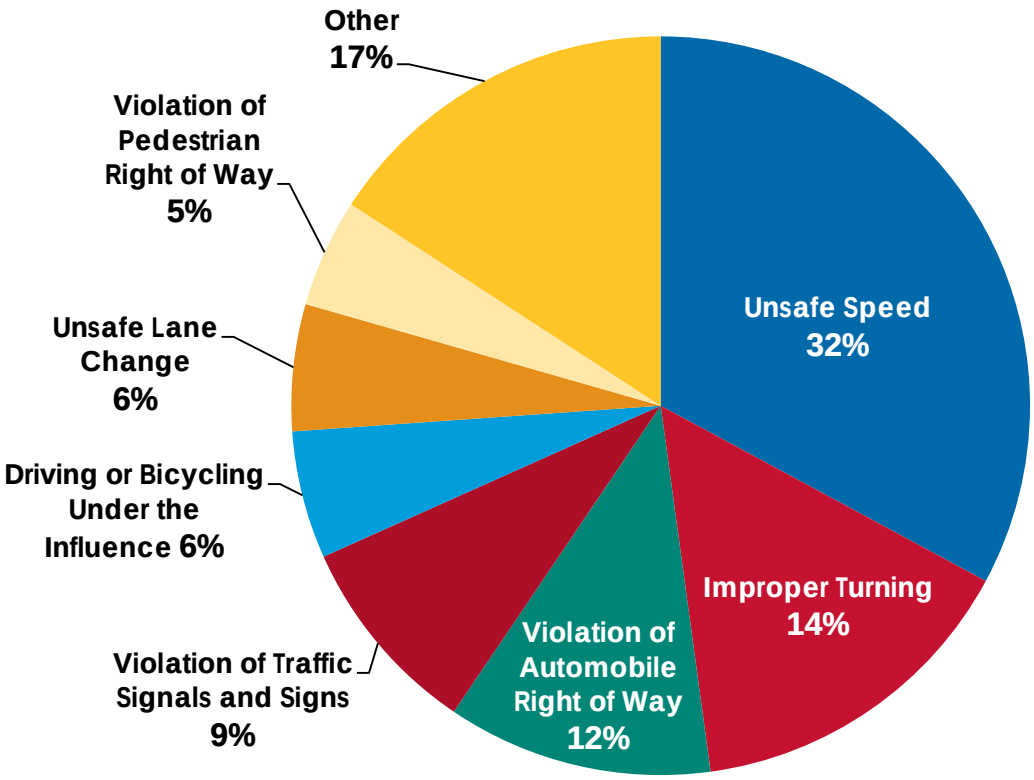
Source (Figures 3.8 and 3.9, and Table 3.3): The California Highway Patrol Statewide Integrated Traffic Record System (SWITRS) database.

* The SWITRS database is continuously updated as collision reports are processed. The 2014 collision and fatality numbers are preliminary.

Table 3.3 Injury and Fatal Collision Totals in Alameda County (2005 to 2014)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
Fatal Collisions	89	89	99	82	61	62	57	72	82	83
Injury Collisions	7,941	7,518	7,276	6,867	6,259	6,244	6,168	6,533	6,500	6,750

Figure 3.9 Causes of Injury and Fatal Roadway Collisions (2014)



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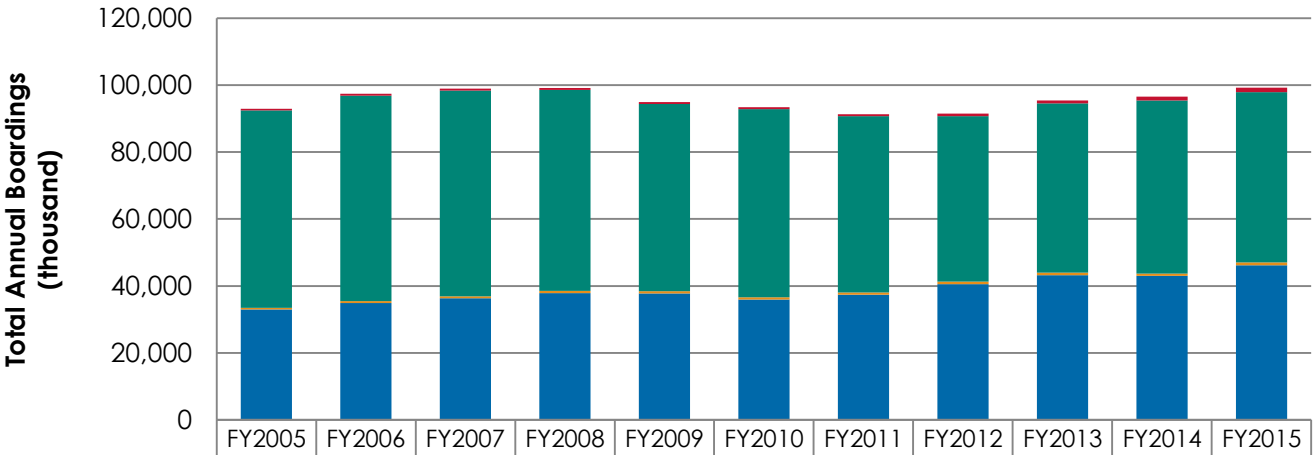
4. Transit

Ridership

- Total transit boardings increased in FY2015, the fourth consecutive year of increase. The 2.7 percent growth brought total ridership in Alameda County to just under annual 100,000,000 boardings (Figure 4.1).

Figure 4.1 Alameda County Transit Operator Annual Boardings in Alameda County

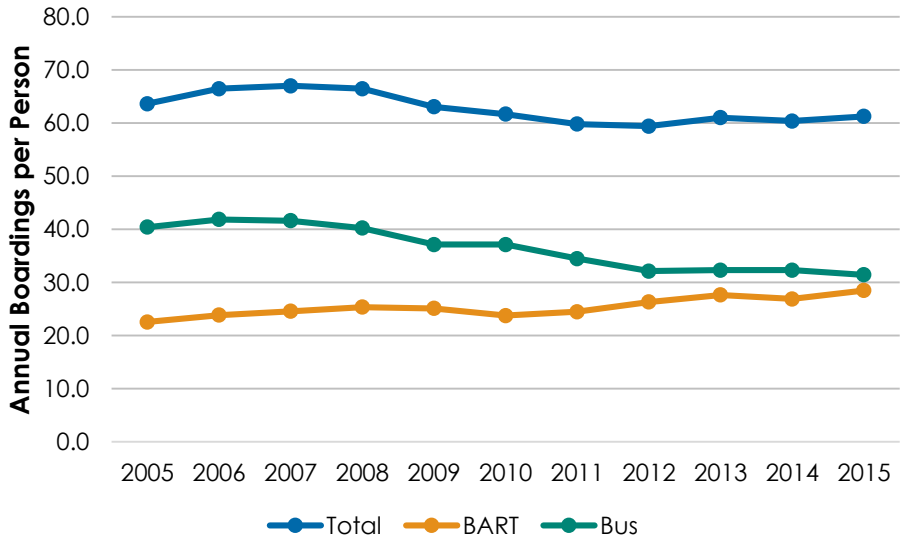


	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Ferry	466	558	577	603	543	568	609	728	851	1,152	1,285
Bus	59,005	61,362	61,491	60,043	55,871	56,212	52,640	49,457	50,561	51,663	50,922
Commuter Rail	527	530	596	690	665	630	681	769	739	736	838
BART	32,946	34,939	36,297	37,829	37,809	35,971	37,400	40,528	43,264	43,004	46,162

Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).
Note: Reflects only Alameda County boardings. AC Transit boardings in Alameda County are based on a fraction of route miles.

- While total boardings have increased steadily since FY2011, boardings per capita have declined from 67 in 2007 to 61 in 2015 (Figure 4.2).
- BART has seen significant ridership grown over the past decade. Ridership grew by more than 3 million boardings from FY2014 to FY2015.
- Bus ridership in Alameda County has declined significantly over the last decade. Total bus boardings (all bus operators) were 17 percent lower in FY2015 than in FY2007. Bus boardings dipped marginally in FY2015, after increasing the previous two years. Further investigation using a detailed rider survey would be needed to determine what types of trips (e.g., commute vs. other purposes are no longer being made by bus, as well as the travel modes that bus riders have switched to).

Figure 4.2 Alameda County Transit Boardings per Capita



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015). American Community Survey 1-year population estimates.

Service Utilization

Service utilization is a ratio of how many people use transit (service consumed) to how much service is provided (supply). Table 4.1 shows service utilization for Alameda County transit operators, measured in boardings per revenue vehicle hour. Figures 4.3 and 4.4 show trends in service utilization for large and small operators, respectively.

- Between 2005 and 2015, BART, ACE, and WETA have generally seen increases in service utilization, indicating they are carrying more passengers per hour of service operated.
- BART's service utilization has steadily climbed over the last decade, reflecting the continued growth in ridership. BART managed to keep service utilization flat between FY2014 and FY2015, reflecting measures taken to add supplemental service to address peak-period crowding. BART now carries 15 more passengers per service hour than it did in 2005, on average.
- AC Transit has kept service utilization relatively flat over the last decade. Service utilization dropped in 2014 as service was added, but ridership declined slightly.

SERVICE UTILIZATION DEFINED

Service utilization is a ratio of how many people use transit (service consumed) to how much service is provided (supply). It can be measured using boardings per revenue vehicle mile (RVM) or revenue vehicle hour (RVH). An increase in service utilization is a positive outcome for a transit operator, as it implies more people rode transit for the same level of service operated, or that the operator served the same number of passengers while operating less service (incurring lower costs).

Table 4.1 Transit Operator Boardings per Revenue Vehicle Hour

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
BART	55.95	56.95	59.12	59.38	59.05	60.84	62.61	65.44	69.49	69.76	70.49
ACE	34.22	34.34	35.97	40.97	35.16	35.15	36.55	38.97	40.41	44.26	48.27
AC Transit	36.05	36.84	36.75	34.86	31.88	33.08	34.01	33.23	34.20	34.19	32.73
LAVTA	16.93	17.71	17.55	16.25	15.76	17.05	15.37	14.00	13.86	13.13	13.17
Union City	10.05	10.33	10.85	11.05	11.70	11.34	12.13	12.74	12.52	11.38	9.83
WETA	75.46	80.05	85.35	92.35	85.54	89.96	100.50	110.22	103.58	129.26	139.96

Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).
Note: Reflects systemwide operating statistics. For rail operators, boardings per revenue passenger car hour are presented. WETA reflects only Alameda County lines. Data for Capitol Corridor unavailable because Capitol Corridor does not report to FTA's National Transit Database.

- LAVTA and Union City Transit have seen sharp drops in service utilization since 2005. LAVTA ridership generally did not recover as service was restored after recessionary service cutbacks, and LAVTA seeks to realign routes to better match rider origins and destinations. Union City Transit implemented a route restructuring in 2014 that has not yet resulted in ridership gains.

Figure 4.3 Large Operator Boardings per Revenue Vehicle Hour Trend

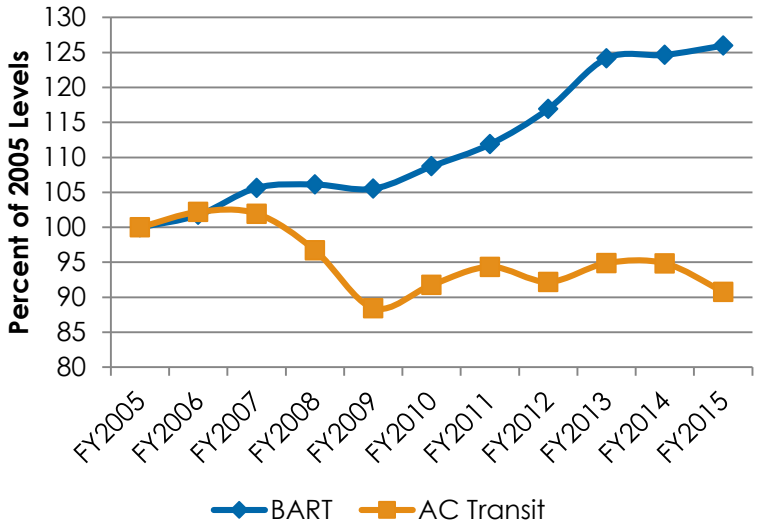
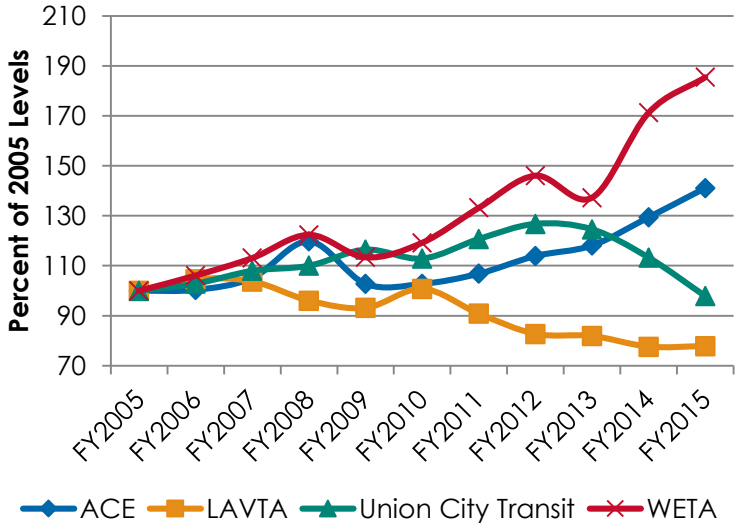


Figure 4.4 Small Operator Boardings per Revenue Vehicle Hour Trend



Source (Figures 4.3 and 4.4): National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

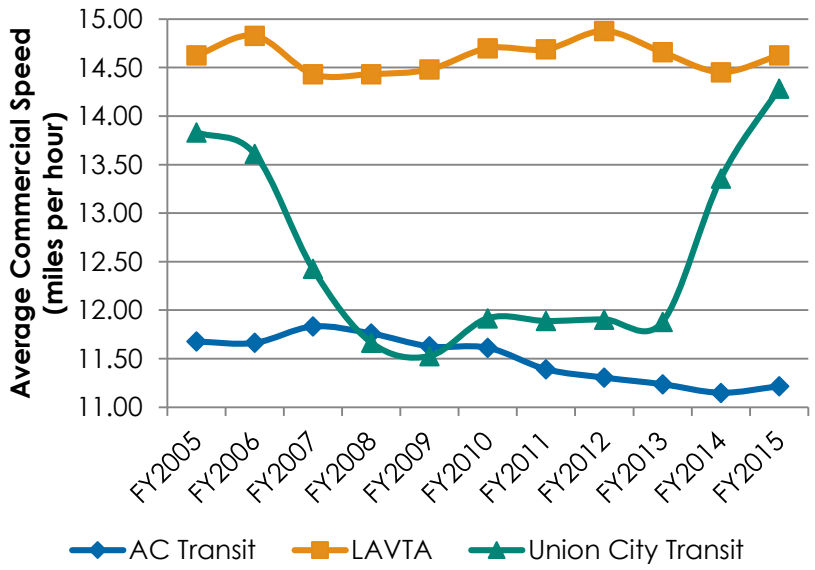
Note: Reflects systemwide operating statistics. For rail operators, boardings per revenue passenger car hour are presented.

Bus Operator Commercial Speed

Commercial speed is the average speed that buses achieve, taking into account delays from traffic signals, passenger boarding and alighting, and other factors. Figure 4.5 shows commercial speed for Alameda County's three bus operators.

- AC Transit saw a slight increase in commercial speed but has generally seen a decline over the last 10 years. AC Transit's commercial speed has dropped from nearly 12 mph in 2006 to slightly over 11 mph, a considerable change for a systemwide average statistic.
- Further analysis is needed to identify sources of delay to AC Transit service, in particular to determine the role of local vs. Transbay service.
- LAVTA generally has high commercial speeds, which likely reflects differences in the built environment, stop spacing, levels of congestion, and other characteristics, as compared to other Alameda County bus operators.
- Union City's service restructuring to allocate additional service to the employment centers in the western part of the city in 2014 has generally resulted in higher commercial speeds.

Figure 4.5 Bus Operator Commercial Speed



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

COMMERCIAL SPEED DEFINED

Commercial speed is the average speed that buses achieve, taking into account delays from traffic signals, passenger boarding and alighting, and other factors. Average commercial speed is computed as the ratio of RVMs to RVHs. Commercial speed on particular routes or at particular times of day may be quite different than the operator overall systemwide average. Low commercial speed means riders do not get to their destination as quickly, and more buses must be assigned to a route (greater costs) to maintain the same frequency of bus arrivals.

ON-TIME PERFORMANCE DEFINED

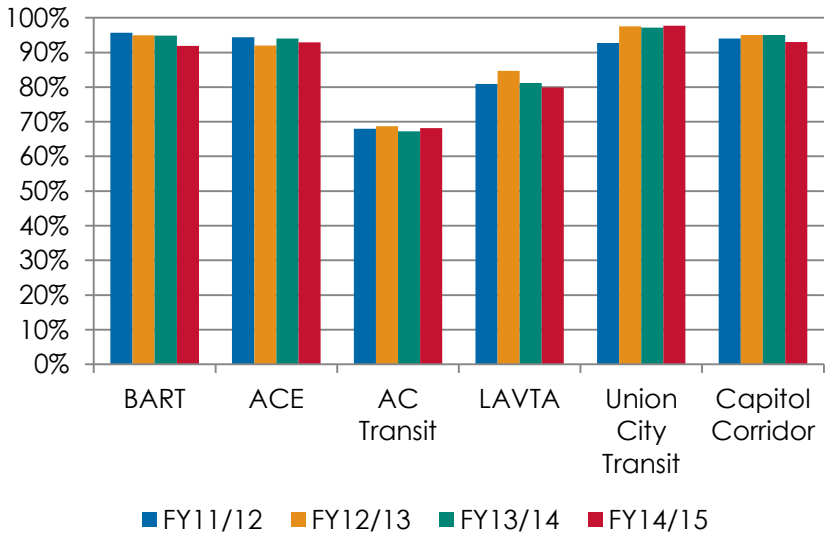
On-time performance is the percentage of time that a transit operator's vehicle arrives at its stop/station within some allowable threshold of the scheduled time. Operators define "on-time" differently, but no more than five minutes late or one minute early is a typical definition.

On-Time Performance

On-time performance is the percentage of time that a transit operator's vehicle arrives at its stop within some threshold of the scheduled time. Figure 4.6 shows on-time performance data since FY2011-12 for all Alameda County transit operators.

- Most transit operators saw minimal change in on-time performance in FY2015 compared to FY2014.
- BART saw a sizeable dip in on-time performance from approximately 94 percent to approximately 91 percent. Aging wayside equipment and system crowding that impacts passengers' ability to board and alight from trains and increases the need for BART police to respond to incidents are contributing factors.
- AC Transit saw a slight improvement in on-time performance but remains below the 70 percent systemwide average. AC Transit operates many routes in dense urban conditions which complicates delivery of reliable service. In addition, some AC Transit routes have frequent headways (e.g., 15 minutes or less) meaning that while on-time performance may be lower, passengers may not wait as long on average.

Figure 4.6 Alameda County Transit Operator On-Time Performance



Source: Transit operators.

Cost Efficiency

Cost efficiency in this report refers to a transit operator's operating cost normalized by the number of riders served. Table 4.2 shows cost efficiency performance data since 2005 for Alameda County transit operators, while Figures 4.7 and 4.8 show trend lines for large and small operators, respectively.

- BART continued a steady decline in cost per rider in FY2015 that reflects a combination of growing ridership and relatively flat operating costs.
- AC Transit saw an increase in operating costs per rider in FY2015. This increase primarily reflects an increase in the cost of providing service (the cost per revenue vehicle hour has increased 24 percent since FY2005, even after adjusting for inflation).
- LAVTA has seen a steady increase in cost per rider over the last decade. LAVTA has greatly reduced its cost per revenue vehicle hour over the last five years, but lower ridership has resulted in a higher cost per rider.
- Union City Transit has seen a sharp increase in cost per rider since FY2013, which primarily reflects lower ridership during this period.
- WETA saw a sharp spike in cost per rider in FY2013 (which may be due to a merger of ferry services) but has reduced the cost per rider since, primarily through significant increases in ridership.

COST EFFICIENCY DEFINED

Cost efficiency in this report refers to a transit operator's operating cost normalized by the number of riders served. Cost efficiency is an important metric to track, as transit operators have limited resources, and increases in operating costs mean an operator is unable to provide an equivalent level of service for the same level of funding. Cost per rider can be reduced by controlling costs or attracting additional riders. Note that the costs used to compute cost efficiency here do not include capital costs, which can vary substantially between rail and bus operators.

Table 4.2 Transit Operator Cost per Rider ($2015)

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
BART	$5.29	$5.01	$5.04	$4.83	$4.87	$4.86	$4.49	$4.44	$4.38	$4.35	$4.29
ACE	$21.33	$22.99	$17.95	$16.16	$17.48	$19.56	$17.63	$16.31	$16.32	$14.43	$16.56
AC Transit	$4.56	$4.68	$4.81	$5.05	$5.63	$5.55	$5.51	$5.92	$5.62	$5.53	$6.24
LAVTA	$6.08	$6.26	$6.06	$6.41	$6.70	$7.28	$7.48	$7.77	$7.54	$8.11	$7.72
Union City	$9.21	$8.00	$7.54	$6.99	$6.50	$7.16	$6.75	$6.61	$7.01	$9.03	$10.82
WETA	$11.81	$11.03	$10.61	$10.63	$11.04	$10.07	$12.17	$10.10	$16.41	$12.89	$12.38

Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Note: Reflects systemwide operating statistics. For rail operators, boardings per revenue passenger car hour are presented. WETA reflects only Alameda County lines. Data for Capitol Corridor unavailable because Capitol Corridor does not report to FTA's National Transit Database.

Figure 4.7 Large Operator Cost per Rider Trend

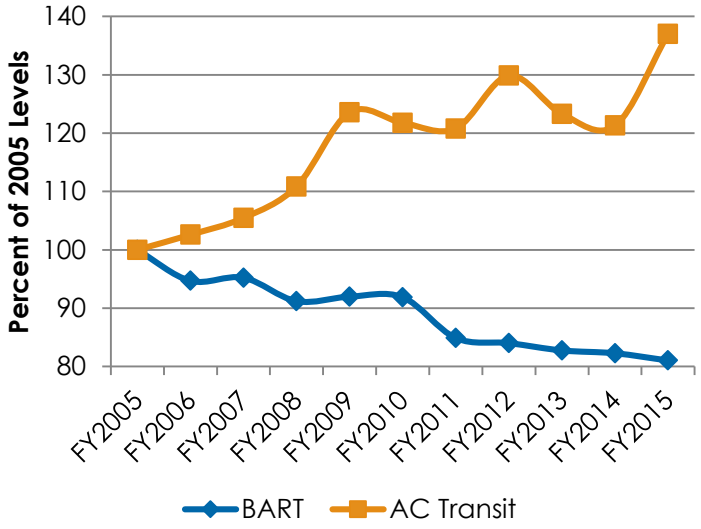
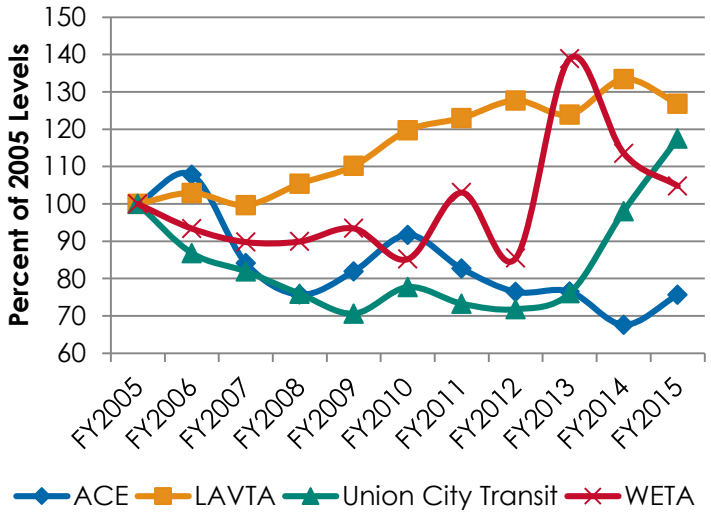


Figure 4.8 Small Operator Cost per Rider Trend



Source (Figures 4.7 and 4.8): National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Note: Reflects systemwide operating statistics. WETA reflects Alameda County lines only.

Farebox Recovery

Farebox recovery is the amount of a transit agency's operating expenses covered by passenger fare revenues. Table 4.3 shows farebox recovery performance for Alameda County transit operators since FY2005.

- BART, LAVTA, and WETA all saw improvements in farebox recovery ratios in FY2015.
- BART has seen a dramatic improvement in farebox recovery ratio over the last decade from 57 percent in FY2005 to 80 percent in FY2015.
- AC Transit has generally kept its farebox recovery steady between 18 percent and 21 percent over the last decade.
- Rail and ferry operators generally operate at considerable higher farebox recovery ratios than bus operators, reflecting the fact that their cost structure is more capital-intensive and less labor-intensive (with capital costs not factoring into farebox recovery calculations).

FAREBOX RECOVERY DEFINED

Farebox recovery ratio refers to the percentage of a transit agency's operating expenses that are covered by passenger fare revenues (as opposed to other sources such as parking revenues, advertising revenues, and subsidies). Farebox recovery does not include capital costs.

Table 4.3 Alameda County Transit Operator Farebox Recovery Ratios

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
BART	57%	61%	61%	64%	66%	72%	76%	75%	77%	78%	80%
ACE	27%	28%	37%	38%	37%	34%	37%	34%	39%	44%	40%
AC Transit	19%	19%	18%	18%	18%	18%	18%	19%	20%	21%	19%
Capitol Corridor	43%	46%	48%	55%	47%	47%	48%	50%	51%	50%	52%
LAVTA	17%	16%	19%	18%	18%	19%	18%	16%	19%	15%	16%
Union City	11%	12%	14%	13%	14%	12%	15%	15%	13%	11%	9%
WETA	47%	52%	51%	49%	53%	57%	53%	49%	45%	51%	52%

Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).
Note: Reflects systemwide operating statistics.

Fleet Age

Maintaining transit fleets in a state of good repair by replacing fleet vehicles at regular intervals is critical to maintaining service reliability.

- BART and WETA both have fleets consisting of vehicles, on average, at or beyond the typical useful life of a fleet vehicle. Other operators generally have fleets with ages, on average, less than the typical useful life.
- BART in particular one of the oldest fleets of train cars among its peer transit systems around the country, and is in the process of procuring new rail cars, the first shipment of which are expected to enter service in fall 2016.
- AC Transit unveiled a shipment of new buses in FY2014, bringing the average age of its fleet down to 6.9 years.

Table 4.4 Alameda County Transit Operator Fleet Characteristics

	Fleet Size	Average Age	Typical Useful Life
BART: Rail Cars	669	35.6	25
BART: Automated Guideway Vehicles	12	1	20
ACE: Locomotives	6	15.5	30
ACE: Passenger Cars	30	13.1	40
AC Transit: Buses	593	6.9	15
AC Transit: Articulated Buses	85	7.2	15
LAVTA: Buses	66	11	15
Union City Transit: Buses	20	7.3	12
WETA: Ferry Boats	11	14.0	15

Source: Transit operators. Data for Capitol Corridor unavailable, because Capitol Corridor does not report to FTA's National Transit Database.

Service Interruptions

All transit operators saw an increase in the time or distance operated between service interruptions in FY2015, indicating a reduced frequency of service interruptions.

- AC Transit saw an increase in miles between mechanical failure, as a shipment of new buses that entered service in FY2014 began to result in fewer road calls.
- BART saw an improvement in mean time between service delays compared to FY2014 and has seen an improvement of nearly 50 percent since FY2009, reflecting a tightly adhered to Preventative Maintenance program. However, wayside equipment failures and crime and disruptive patron behavior have increased in recent years, which has led to lower on-time performance even though Mean Time between Service Delay has not increased.
- LAVTA and Union City Transit both saw substantial improvements in miles between mechanical failures.

Table 4.5 Alameda County Transit Operator Service Interruptions

	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Rail	**Mean Time Between Service Delay**						
BART	2,683	2,796	2,995	3,216	3,758	3,584	4,000
ACE	546	438	388	2,438	2,438	5,530	n/a
Bus	**Average Miles Between Mechanical Failure**						
AC Transit	4,656	5,727	7,941	6,556	8,244	5,367	6,082
LAVTA	4,904	4,837	6,353	15,249	17,397	13,249	17,948
Union City Transit	3,880	4,902	11,402	13,749	16,505	15,535	22,015

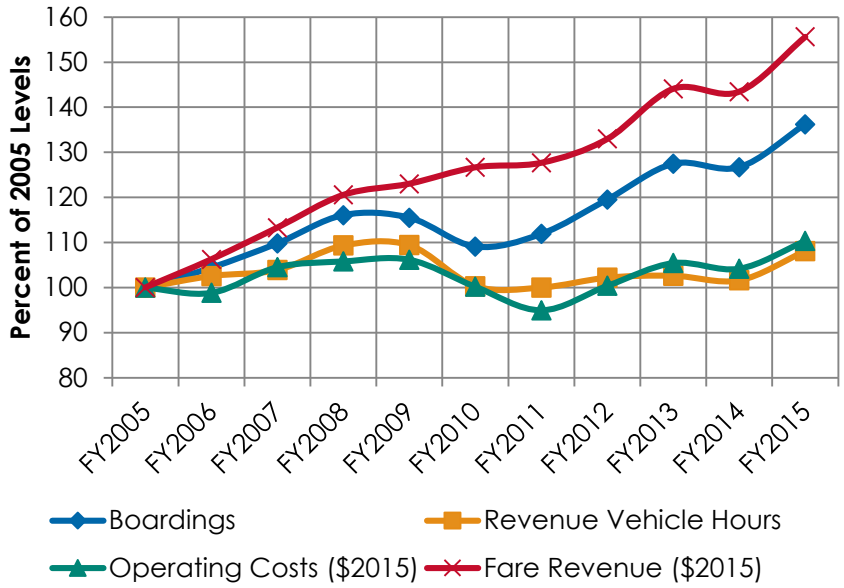
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).
Note: Reflects systemwide operating statistics.

San Francisco Bay Area Rapid Transit District (BART)

BART is a heavy rail operator that provides regional transit service in four counties in the San Francisco Bay Area. BART carries more than 400,000 riders per day, and 20 of the 44 BART stations are located in Alameda County. Figure 4.9 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.10 shows BART performance trends.

- BART has seen significant growth in ridership over the last decade. Ridership increased 8 percent in FY2015, after a slight dip in FY2014 (due to strike days). Ridership has increased 36 percent over the last decade.
- Further analysis is needed to identify reasons for increases in BART ridership. Possible reasons could include increasingly regional commute patterns and a regional economic recovery that has seen record job creation in San Francisco, maturation of transit oriented development projects at BART stations, and system expansions (e.g., SFO line, West Dublin/ Pleasanton infill station, and Oakland Airport Connector extension), increasing prevalence of smart phones and other devices that let people work while in transit, and an emphasis on marketing around major events (BART has set a number of its record ridership days in recent years in conjunction with major sporting events, for instance).
- BART's increases in ridership have come without significant new service additions. BART instituted some measures to ease peak-hour crowding in FY2015, as reflected in the minor uptick in boardings per revenue vehicle hour. The arrival of new fleet cars will enable BART to add additional peak-period trains.
- BART has largely kept costs constant, with minimal growth in the cost of operating a unit of service (operating cost per RVH has increased by less than 5 percent since 2005, adjusting for inflation).

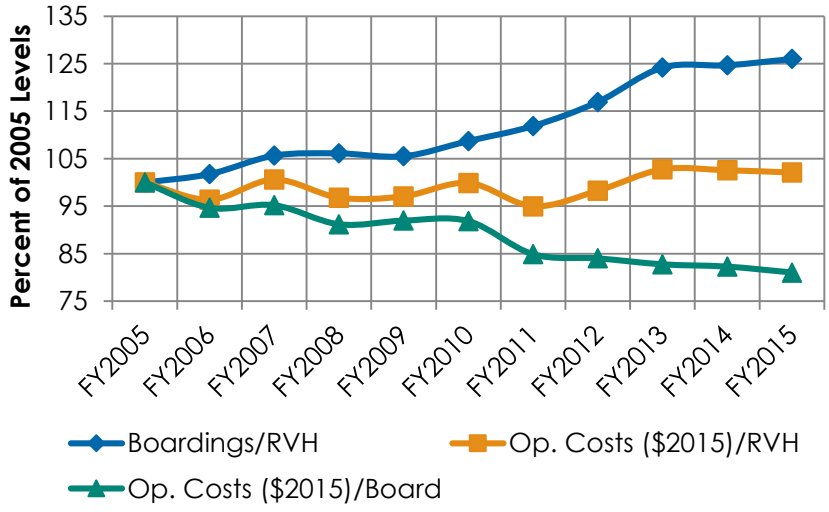
Figure 4.9 BART Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- BART has seen fare revenue increases greater than growth in ridership, even after adjusting for inflation (the former has increased by more than 50 percent since 2005, while the latter has increased by about 36 percent). This may reflect longer trips, since BART has distance-based fares, and fewer discount fare instruments due to increasing Clipper use.

Figure 4.10 BART Performance Concepts Trends



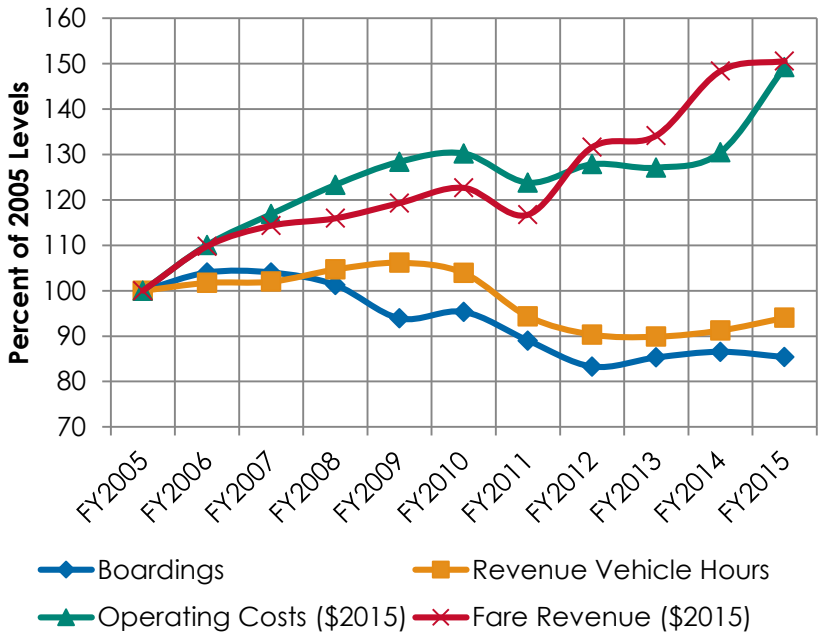
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Alameda-Contra Costa Transit District (AC Transit)

AC Transit is the second largest bus operator in the San Francisco Bay Area, providing both local and Transbay service to Alameda and Contra Costa counties. Roughly 90 percent of AC Transit's service area is in Alameda County, covering North, Central, and South County. AC Transit carries nearly 200,000 riders per day. Figure 4.11 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.12 shows trends in performance concepts for AC Transit.

- AC Transit ridership dipped slightly in FY2015 after growing the previous two years.
- Ridership and service levels (revenue vehicle hours) are generally both below pre-recession levels. AC Transit began to restore some service, increasing frequencies on some lines that were cut back during the recession. More service expansion is planned for FY2016 supported by Measure BB revenues.

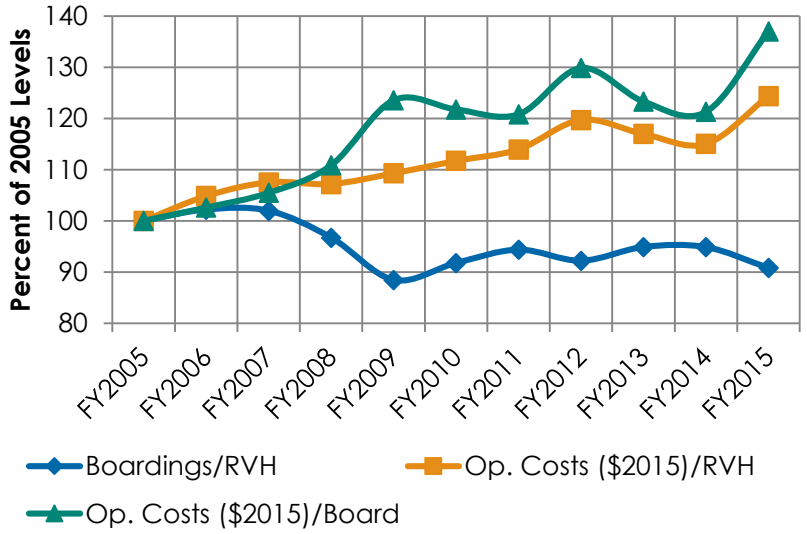
Figure 4.11 AC Transit Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- AC Transit's overall system ridership has declined from 67 million boardings per year in 2007 to 55.7 million boardings in 2014. In addition to service cuts, this may reflect that AC Transit has not had an extensive service redesign in many years. AC Transit's service expansion in 2016 will also reconfigure many routes to improve frequency and reliability, improve network clarity and simplicity, increase hours of service on nights and weekends, and improve connections to key destinations and high-density areas.
- Boardings per RVH have remained relatively constant since FY2009, as changes in ridership and service levels have been roughly proportional during this period.
- Operating costs increased in FY2015, after decreasing or staying flat the previous three years. Operating expenses per RVH have grown over the last decade and are now 25 percent higher than in FY2005
- AC Transit has grown fare revenue over the last four years, even after adjusting for inflation, and even with relatively minimal growth in ridership. The change in fare policy instituted in July 2014, which eliminated free transfers and issued an automatic Day Pass for Clipper riders using three or more buses in a day, did not result in a significant increase in fare revenue.

Figure 4.12 AC Transit Performance Concepts Trends



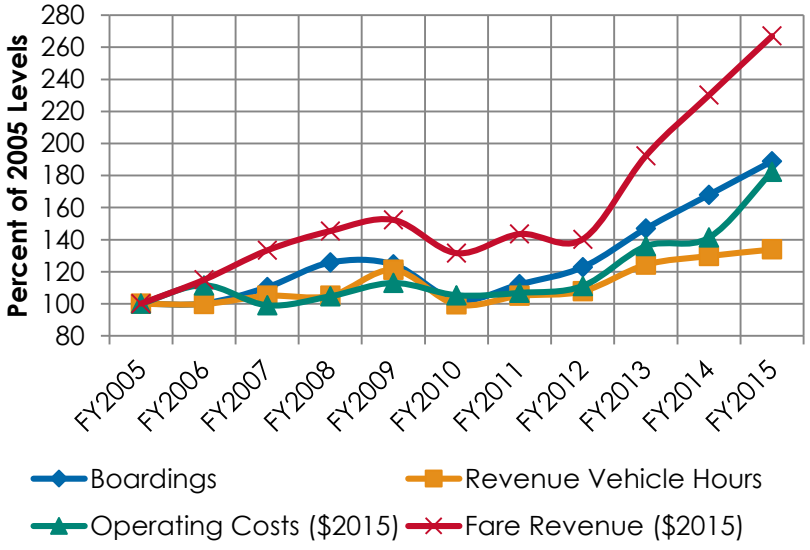
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Altamont Corridor Express (ACE)

ACE offers rail service between San Joaquin County, Alameda County, and Santa Clara County. The service includes four daily trains in each direction and stops at four stations in East and South Alameda County. ACE carries more than 4,000 riders daily, many of whom make trips of 50 or more miles. Figure 4.13 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.14 shows trends in performance concepts for ACE.

- ACE saw an increase in ridership for the fifth consecutive year; ACE now carries nearly 90 percent more passengers than in FY2005. Congestion on I-580 and I-680 are potential contributing factors to the increase in ACE ridership.
- ACE added a fourth daily train in FY2014, but has maintained the same level of service frequency since that time. ACE is working on an environmental analysis to enable additional service frequency.
- ACE has seen a steady increase in service utilization since FY2009, as ridership growth has outpaced the additional service hours from a fourth daily train.

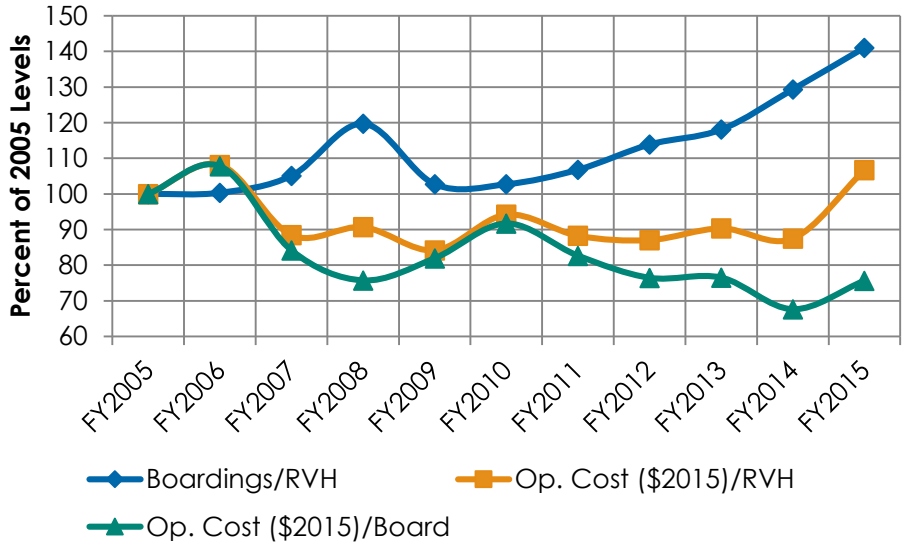
Figure 4.13 ACE Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- ACE saw a sharp increase in operating costs in FY2015, as the cost per RVH increased by about 22 percent over FY2014. However, ACE has generally kept cost per RVH steady over the last decade, and has reduced its cost per rider by attracting greater patronage.
- ACE has seen fare increases that have outpaced ridership growth, even after adjusting for inflation, since FY2012.

Figure 4.14 ACE Performance Concepts Trends



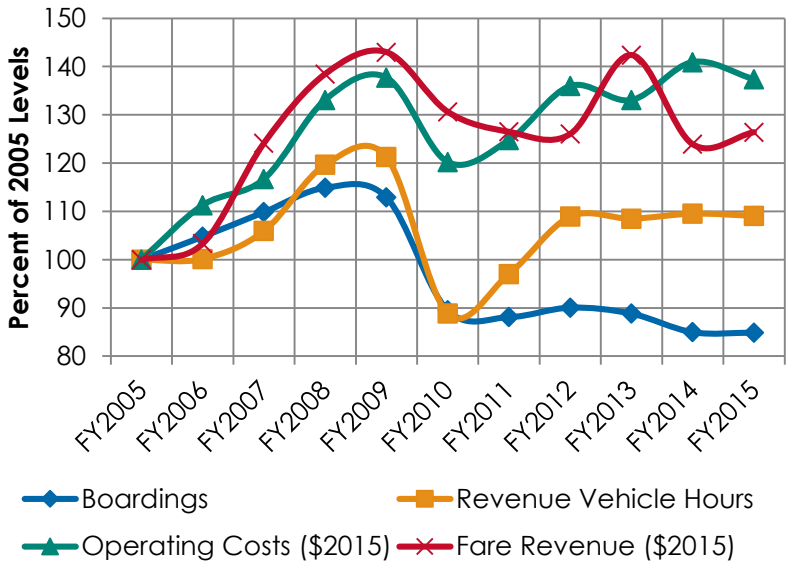
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Livermore Amador Valley Transit Authority (LAVTA)

LAVTA operates Wheels bus service, the primary bus service in the Tri-Valley area of Alameda County. LAVTA operates both local service within the Tri-Valley and express routes to destinations in Contra Costa County. LAVTA carries nearly 6,000 riders per day. Figure 4.15 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.16 shows trends in performance concepts for LAVTA.

- LAVTA's ridership stayed flat in FY2015 compared to FY2014. Ridership is slightly lower than during the recession, and is at its lowest point since 2005.
- Between 2011 and 2012, LAVTA restored service to levels similar to what was operated prior to cuts instituted during the recession. This service restoration has generally not resulted in a ridership recovery, and service utilization is now 20 percent lower than in 2005.
- LAVTA will soon implement the recommendations from a comprehensive operations analysis that will restructure routes to better match service patterns to demand.

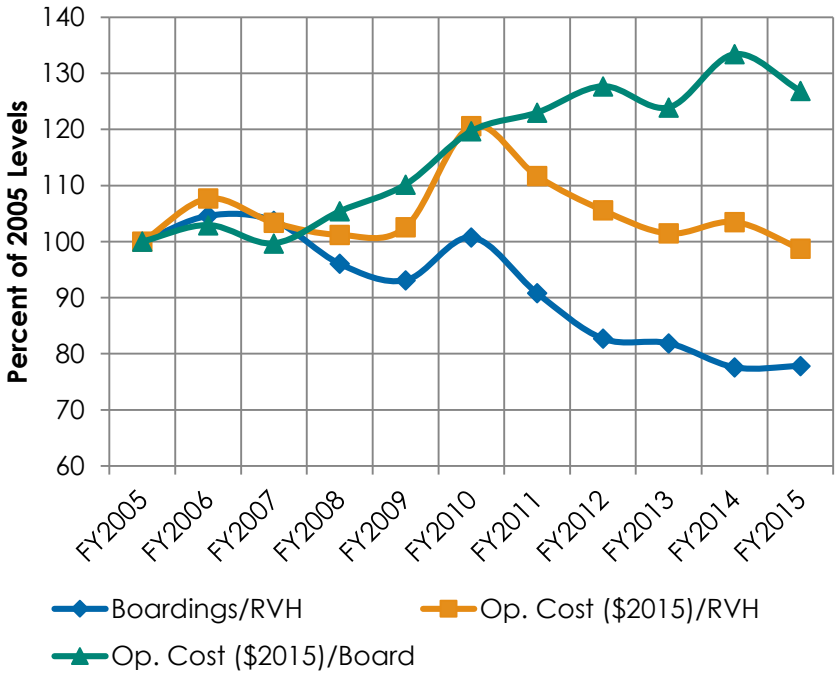
Figure 4.15 LAVTA Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- LAVTA saw a decline in cost per RVH in FY2015, and cost per unit service operated are equivalent to their level 10 years ago after adjusting for inflation. LAVTA has generally been successful at containing costs over the last decade, which may reflect the fact that as a contract operator, LAVTA is able to secure predictable cost increases over the long term.
- Despite cost containment success, declines in ridership mean that the cost per passenger served is now 27 percent higher than it was 10 years ago.
- Fare revenues increased slightly in FY2015 and have been relatively constant over the last five years, with the spike in FY2013 representing a one-time developer contribution.

Figure 4.16 LAVTA Performance Concepts Trends



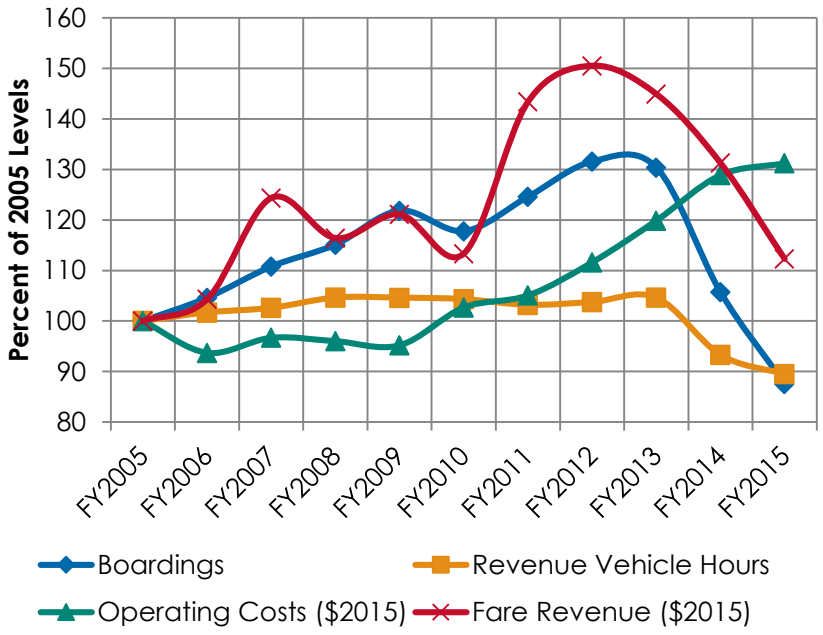
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Union City Transit

Union City Transit is operated by and provides bus service within the City of Union City. Union City Transit operates nine routes, and carries nearly 1,500 passengers per day. Figure 4.17 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.18 shows trends in performance concepts for Union City Transit.

- Union City Transit instituted service restructuring and fare increases in October 2013, which had a marked effect on ridership performance. The service restructuring consisted of introducing pilot routes to increase coverage area, including a peak-hour express bus and circulator to serve job centers on the west side of the city. The service restructuring also included a reduction in service frequencies on some routes that previously had 20- and 30-minute headways due to limited revenue vehicles.

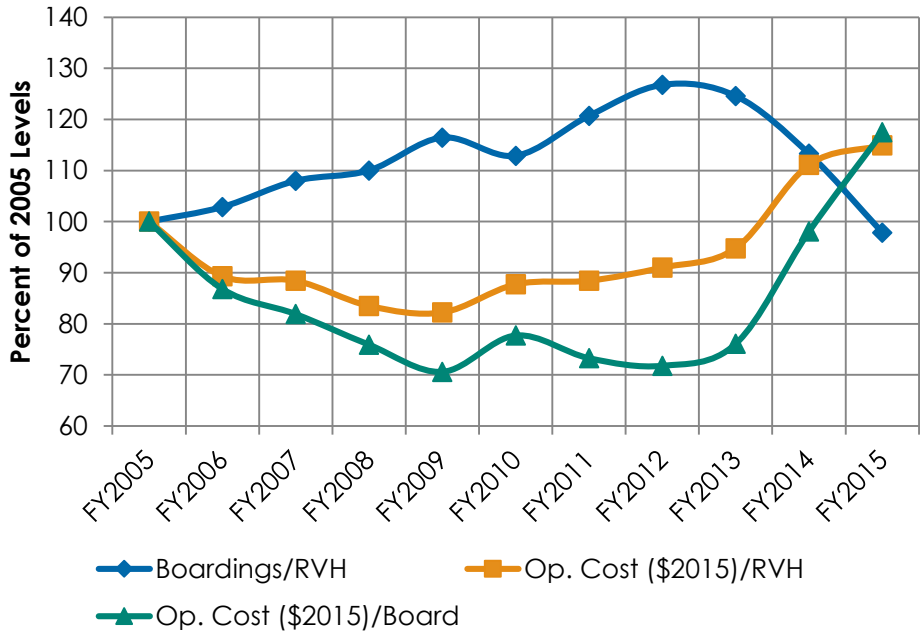
Figure 4.17 Union City Transit Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- Union City also introduced a fare increase and faced competition from a new AC Transit youth pass on Clipper in 2014, which negatively impacted ridership.
- Union City Transit saw a nearly 33 percent decline in ridership in FY2015 from FY2013. This sharp dip in ridership resulted in declines in service utilization (boardings per RVH) as well as fare revenue, and an increase in operating cost per rider (54 percent increase from FY2013 to FY2015).
- Union City Transit implemented service changes on August 1, 2015 to address ridership declines (after FY2015).

Figure 4.18 Union City Transit Performance Concepts Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

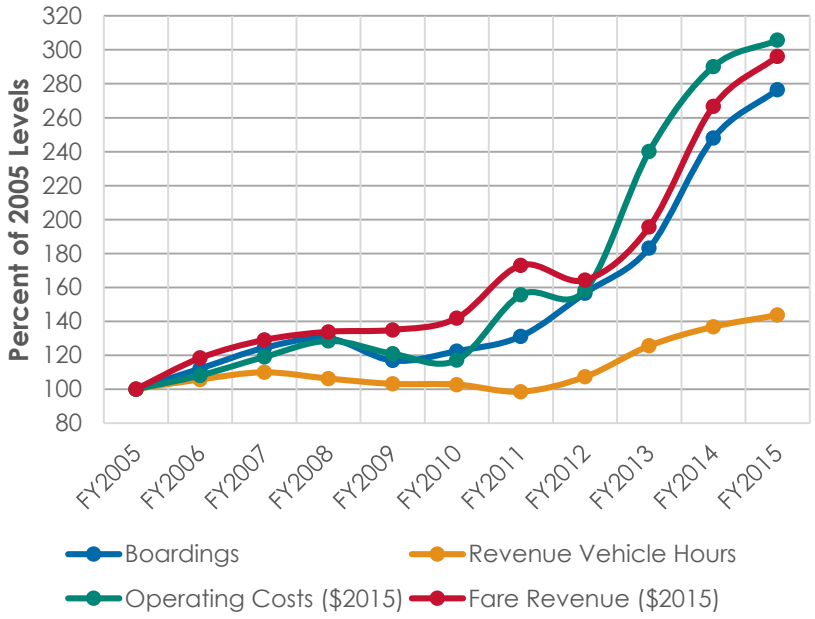
San Francisco Bay Area Water Emergency Transit Authority (WETA)

WETA operates ferry service between destinations in the East Bay and San Francisco. WETA was formed through the merger of previously independently operated ferry services. WETA terminals in Alameda County are located at Jack London Square in Oakland, Main Street in Alameda, and Harbor Bay in Alameda.

WETA carries over 6,000 passengers daily and serves as an important lifeline function in the event that bridges or the BART Transbay Tube are out of service. Figure 4.19 shows trends in ridership, service operated, operating costs, and fare revenue, while Figure 4.20 shows trends in performance concepts for WETA.

- WETA saw a ridership increase in FY2015 over FY2014, and has seen significant growth on its Alameda County lines since FY2010.

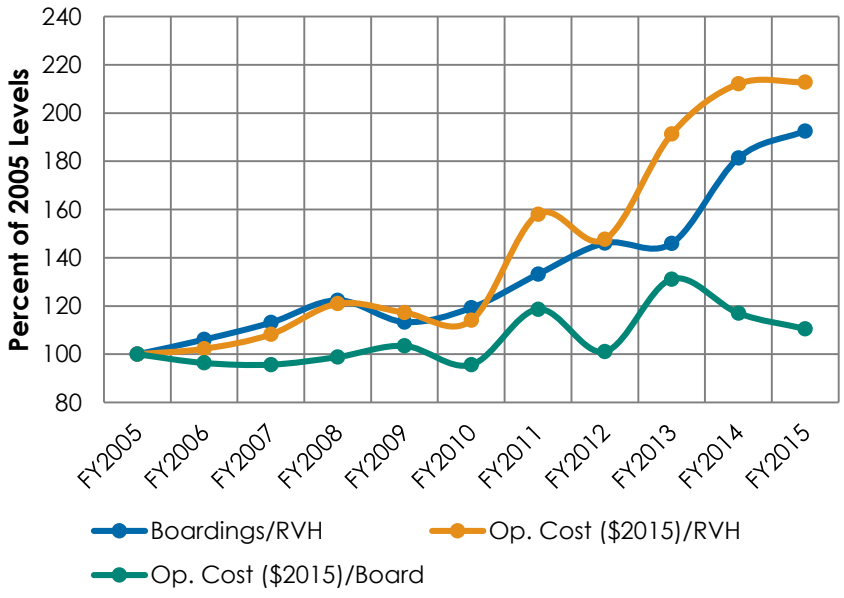
Figure 4.19 WETA Ridership, Revenue Vehicle Hours, Operating Cost, and Fare Revenue Trends



Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

- WETA ridership in FY2015 was more than double pre-recession levels. The long-term increase may reflect the addition of a new line to South San Francisco, strong economic performance in San Francisco and the Peninsula, particularly in neighborhoods located near ferry terminals, as well as growing congestion on roadways.
- Strong ridership growth has generally meant that WETA has increased service utilization (boardings per RVH) since FY2011 and over the last decade.
- WETA has seen significant cost increases and fluctuation over the last five years. These operating cost shifts may reflect costs associated with the consolidation of several smaller ferry services into a single agency. Operating costs per revenue vehicle hour declined slightly in FY2015.
- Increases in fare revenue have generally moved in tandem with boardings and have kept pace with increases in operating costs for a steady farebox recovery.

Figure 4.20 WETA Performance Concepts Trends



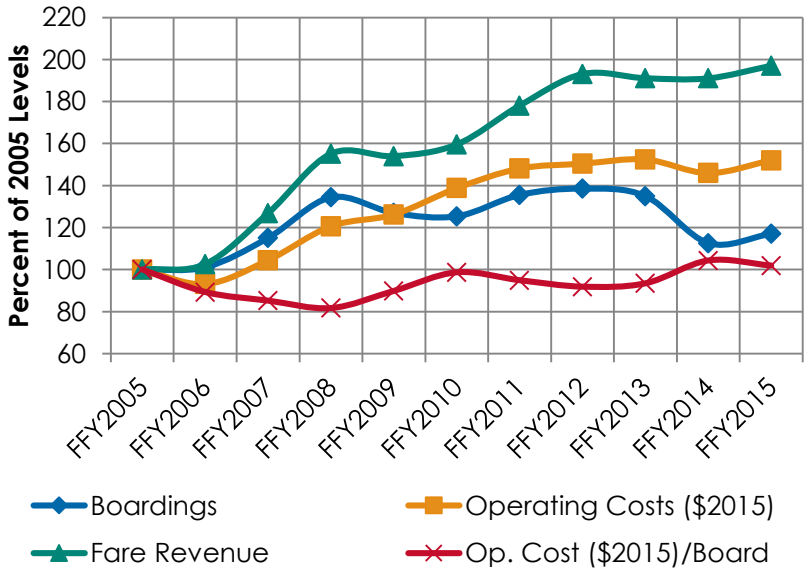
Source: National Transit Database (FY2005-FY2014), provisional data from transit operators (FY2015).

Capitol Corridor

BART operates Capitol Corridor rail service between San Jose and Auburn with six stations in Alameda County, including 30 daily trains between Jack London Square and Sacramento and 16 daily trains between San Jose and Sacramento. Figure 4.21 shows trends in ridership, operating costs, fare revenue, and cost per rider for Capitol Corridor.

- Capitol Corridor saw a slight increase in ridership in FY2015. Ridership is about 20 percent above levels in 2013 and before, though this likely reflects a change in passenger counting method. Capitol Corridor introduced e-ticketing in 2013, which changed its method for accounting for monthly pass riders from an estimate to an actual count. The previous method had overestimated monthly pass riders, so the apparent decline in ridership in 2013 and 2014 may reflect slight overcounting in previous years.
- Capitol Corridor has generally held operating costs flat over the last five years, resulting in a steady farebox recovery ratio.

Figure 4.21 Capitol Corridor Ridership, Operating Cost, Cost per Passenger, and Fare Revenue Trends



Source: Capitol Corridor JPA.

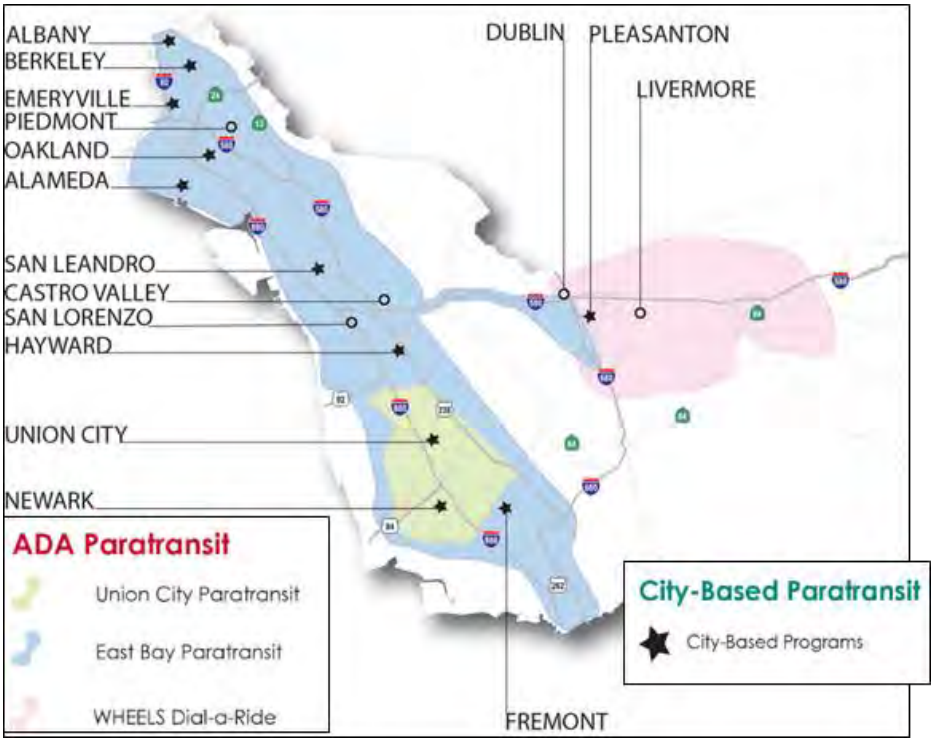
5. Paratransit

Paratransit Service Overview

The 1990 federal Americans with Disabilities Act (ADA) requires all public transit systems to be fully accessible to people who cannot ride regular buses and trains due to a disability. This requires transit operators to provide complementary service to certified eligible users. This service is referred to as "ADA-mandated paratransit."

In Alameda County, city-based, "non-ADA" paratransit programs play an important role in meeting the demand for transportation for seniors and people with disabilities by providing a variety of services to meet their needs, which may not be met entirely by ADA-mandated paratransit.

Figure 5.1 ADA-mandated and City-based Paratransit Services



Source: ADA transit operators; city-based transportation programs.

Together, ADA-mandated paratransit and city-based paratransit services are generally or collectively referred to as "paratransit." Because ADA-mandated paratransit provided over 90 percent of all FY2015 paratransit trips countywide, this report focuses on the performance of ADA-mandated services.

ADA-mandated Paratransit

For certified eligible users, "ADA-mandated" paratransit service must be provided:

- Within a 3/4- mile radius of a regular bus or rail route
- The same days and hours that regular service is offered
- At not more than twice the standard fixed route fare
- The next-day and without prioritization of trips or a pattern or practice of denials

Four public transit operators in Alameda County are required to operate ADA-mandated paratransit: AC Transit, BART, LAVTA and Union City Transit.

- AC Transit and BART partner through the East Bay Paratransit Consortium (EBP) to more efficiently provide mandated ADA service in their respective and overlapping service areas.
- EBP is the largest ADA operator in Alameda County and one of the larger ADA operators in the region.
- All public transit operators in Alameda County contract their ADA-mandated paratransit service to private brokers and/or transportation providers.

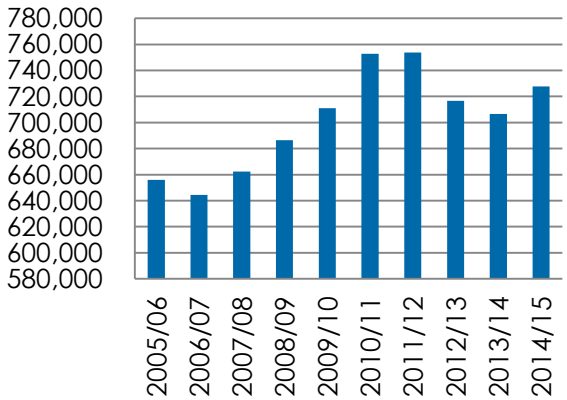
ADA-mandated Paratransit Ridership

Ridership for ADA-mandated ridership is calculated by one-way passenger trips. This data usually excludes companions or attendants who may accompany the certified eligible passenger. Unlike fixed-route transit, in general, ADA-mandated paratransit providers do not try to increase ridership. Ideally, the more accessible fixed-route transit is (including an accessible path of travel to stops and stations), the less the need for ADA-mandated paratransit.

Ideally, the more accessible fixed-route transit is (including an accessible path of travel to stops and stations), the less the need for ADA-mandated paratransit.

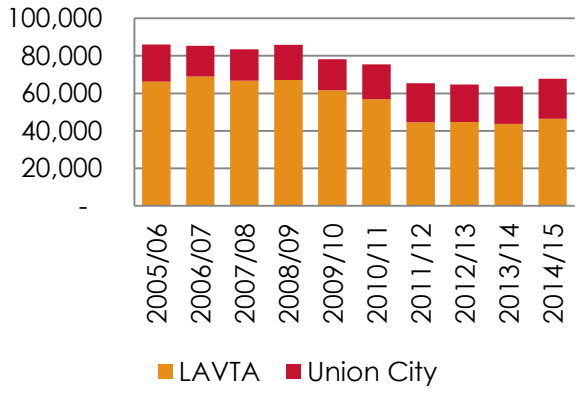
- ADA-mandated paratransit delivered over 795,000 trips in Alameda County in FY2015. East Bay Paratransit provided 91 percent of those trips.
- Overall ridership is rebounding after a decline. LAVTA was showing a decline from a high of 69,000 in FY2007 but is rebounding in FY2015. Union City ridership has been pretty consistent, generally between 16,000-20,000 trips per year, with each of the last 4 years close to 20,000.
- In FY2015 there were approximately 20,000 ADA-mandated paratransit registrants overall. Of these, 87 percent were registered with East Bay Paratransit, 7.9 percent with LAVTA, and 5.1 percent with Union City.

Figure 5.2 East Bay Paratransit Annual Trips



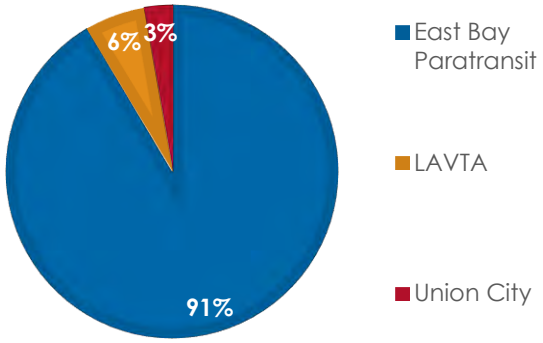
Source: East Bay Paratransit.

Figure 5.3 LAVTA and Union City Annual Trips



Source: ADA transit operators.

Figure 5.4 Paratransit Services in FY2014-15



Source: ADA transit operators.

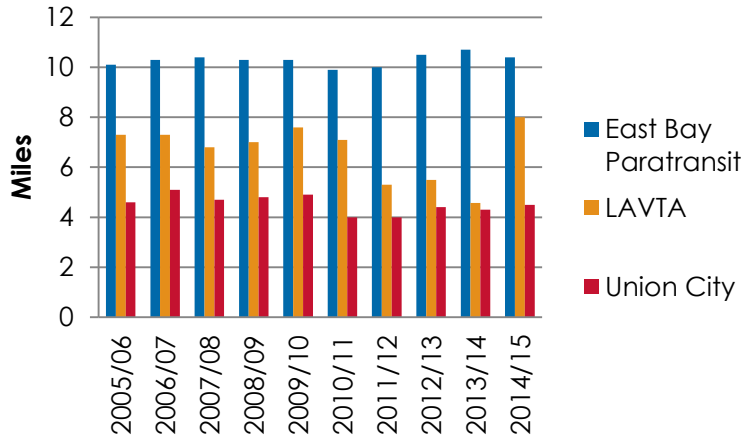
ADA-mandated Paratransit Trip Distance and Duration

Trip distance can vary greatly between ADA-mandated paratransit providers, depending on the overall service area and the most frequent trips. Trip duration is affected by trip distance and has an effect on consumer satisfaction.

- East Bay Paratransit's (EBP) service area is considerably larger than the LAVTA and Union City service areas. EBP's trips average 10 miles, roughly twice the average trip distance of the other two providers. The average trip distances for EBP and Union City have remained fairly consistent, while LAVTA's has varied in the last 5 years.
- EBP and LAVTA trip durations average 35-40 minutes, one-way. Union City trip duration is generally below 20 minutes, but the service area is relatively small. LAVTA's variation is likely tied to short-distance trips but also may be attributable to a change in service providers.
- For FY2015, eight of the 15 most frequent destinations in the EBP service area were dialysis centers. Others were four Regional Center of the East Bay sites (located in Hayward, Oakland, San Leandro and Union City), one adult day care and one organization supporting children with special needs in Fremont, and one assisted living center in Union City.

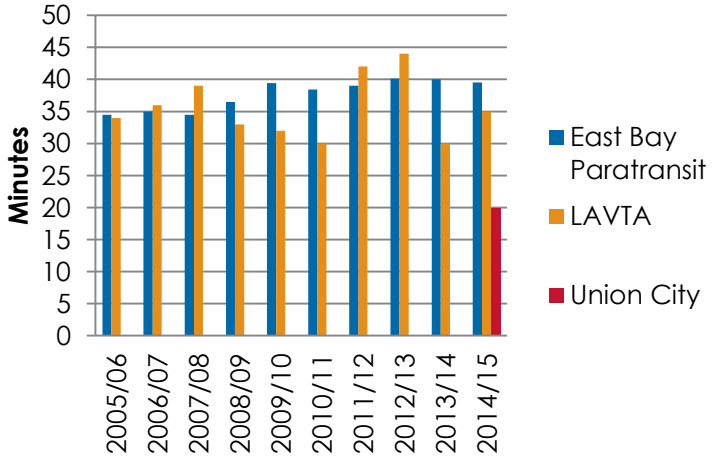
- LAVTA reported that riders traveled most frequently to dialysis centers, nursing homes, hospitals, senior centers, and senior housing complexes.
- Union City reported that riders traveled to dialysis centers, adult day care facilities (regional centers), an organization supporting people with developmental disabilities, medical offices, and local shopping centers.

Figure 5.5 Average Paratransit Trip Distance



Source: ADA transit operators.

Figure 5.6 Average Paratransit Trip Duration



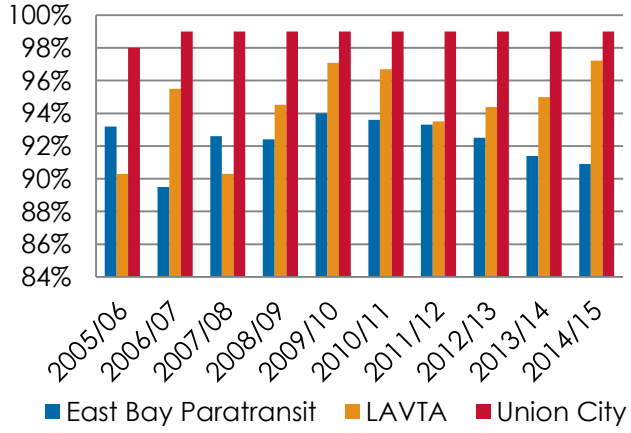
Source: ADA transit operators.

ADA-mandated Paratransit On-time Performance

On-time performance is generally correlated with consumer satisfaction. A couple of regulatory requirements have an effect on on-time performance. Rides can be requested one day in advance, and providers cannot accept subscription (recurring daily or weekly) trips for more than 50 percent of trips. This means that the schedules and routes must be recreated every day. The brokers and/or transportation providers use scheduling software and vehicle mobile data terminals to accomplish this. Staff must also manually adjust the schedules to accommodate missed connections, absent drivers, and non-operating vehicles.

- On-time performance for all providers has been above 90 percent since FY2008. The on-time performance of the largest ADA provider shows a slight decline, but consumer satisfaction remains good. The East Bay Paratransit FY2015 rider survey reports that 77 percent of riders are satisfied or very satisfied with service.
- Union City does not conduct consumer surveys, but its on-time performance has remained consistent at 99 percent for the last nine years.
- LAVTA has been measuring satisfaction since 2010 and averages 4.1 on a 5-point scale, and on-time performance has increased the last two fiscal years.

Figure 5.7 Average Paratransit On-time Performance



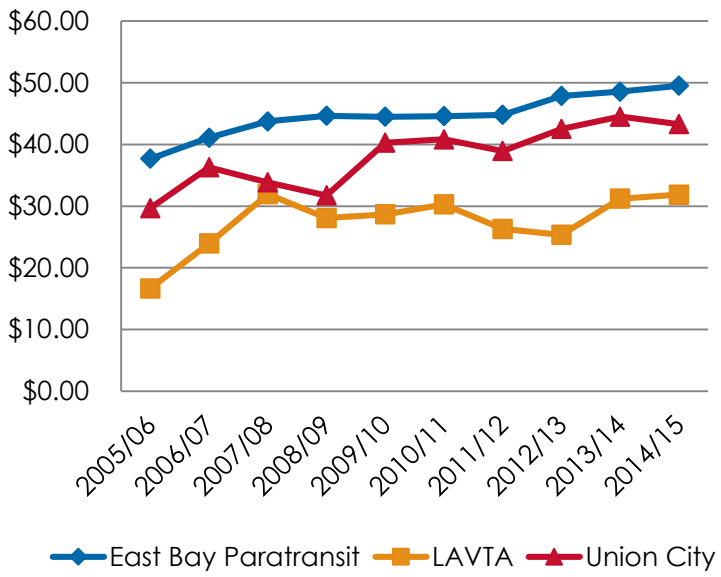
Source: ADA transit operators.

ADA-mandated Paratransit Cost-efficiency

Cost efficiency is a challenging issue for ADA-mandated paratransit because of the need for flexibility and capacity. Transit providers are always looking for greater efficiencies while maintaining compliance with ADA-mandated service requirements. Improvements in software and technology and more accurate eligibility certification are examples of this.

- Overall, operator cost per trip continues to rise. In FY2015 costs increased for the two largest ADA-mandated paratransit providers.

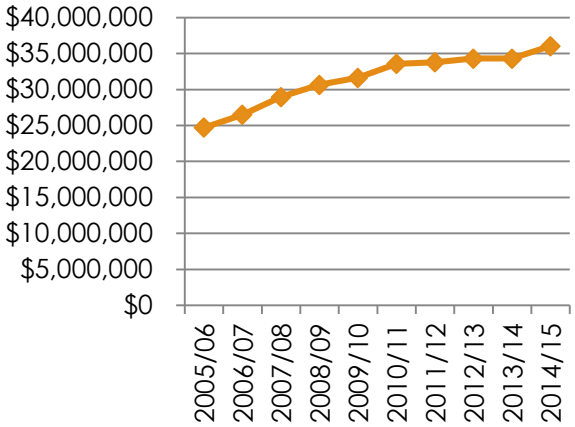
Figure 5.8 Paratransit Operator Cost per Rider



Source: ADA transit operators.

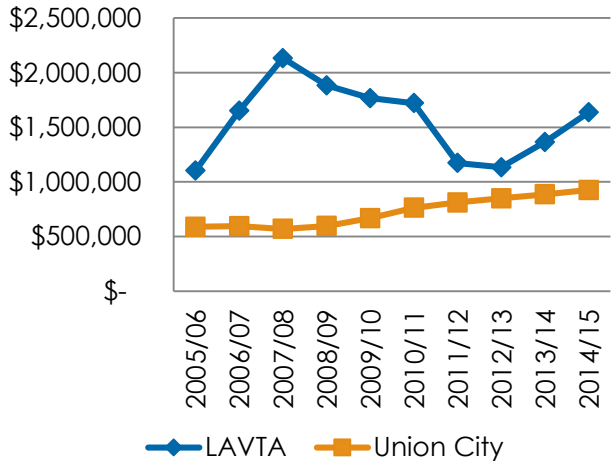
- EBP's cost increase in recent years is due in part to higher fuel costs, conversion to a van fleet, and development of a comprehensive emergency plan.
- LAVTA changed transportation providers in 2014, which has increased its costs.
- Overall operating costs also appear to be on an upward trend for all ADA-mandated paratransit providers.

Figure 5.9 East Bay Paratransit Operating Costs



Source: ADA transit operators.

Figure 5.10 LAVTA, Union City Paratransit Operating Costs



Source: ADA transit operators.

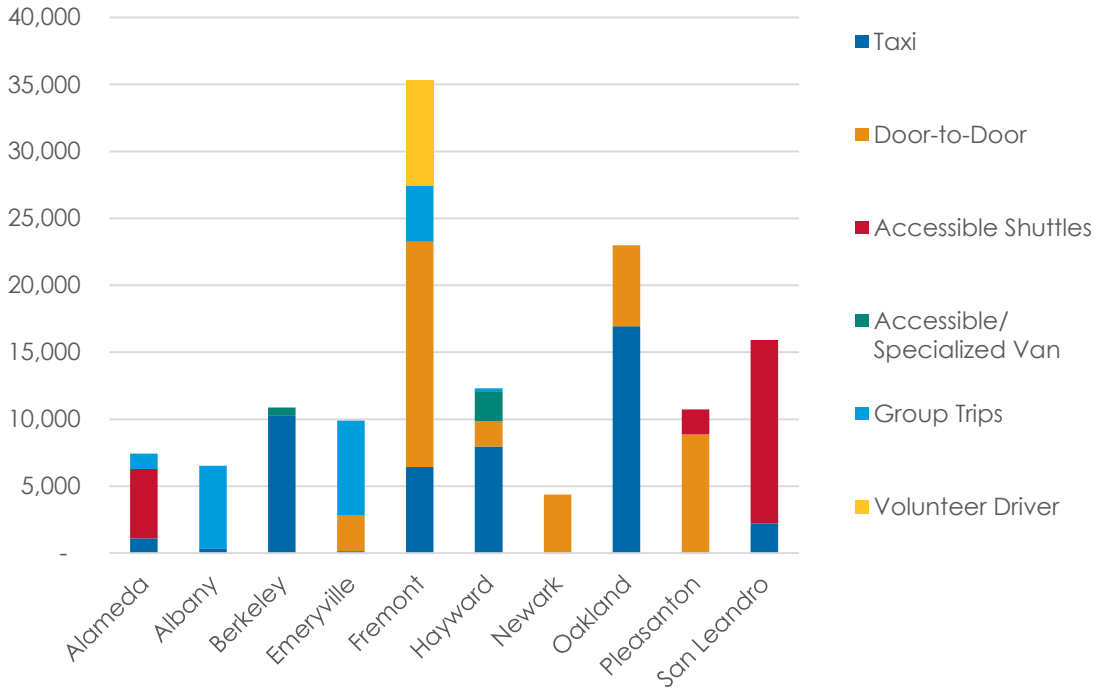
City-based Paratransit Programs

While ADA-mandated paratransit provides the vast majority of paratransit trips countywide, city-based paratransit programs play an important role in meeting the overall demand for paratransit services, by providing a variety of services to meet the needs of seniors and people with disabilities, which cannot be entirely met by ADA-mandated paratransit. Alameda CTC funds operations for city-based paratransit programs which provide a range of services including pre-scheduled trips, same-day trips, wheelchair-accessible trips, travel training, and other services for uniquely vulnerable populations. The goal of this program is to ensure that seniors and people with disabilities in Alameda County can meet their daily needs and maintain a high quality of life through accessible transportation options. Programs such as these are an increasingly important component of the transportation system as the senior population in Alameda County continues to grow.

- Ten cities in Alameda County have city-based paratransit programs designed to meet the needs of consumers in their local jurisdiction.
- In addition to accessible door-to-door, shuttle, and group trips; taxis; and volunteer driver services, city-based paratransit programs can also fund scholarships/subsidized fares, travel training, mobility management, and meal delivery.
- City-based paratransit programs delivered over 136,000 trips in Alameda County in FY2015. Looking ahead for FY2016, approximately 90,000 additional trips are planned over those in FY2015. This significant increase is largely due to the passage of the Measure BB sales tax which provides funding for the additional trips.

- Most city-based programs have incorporated mobility management concepts and practices into their services to improve efficiency and customers' ability to access services. Mobility management is a comprehensive approach to transportation focused on individual customer travel needs rather than a "one size fits all" solution.
- Mobility management improves awareness of transportation options and reduces customer confusion, expands travel options and access for consumers, and provides more cost-effective and efficient services through improved coordination and partnerships. Examples of mobility management strategies include travel training, individualized transportation information, and trip planning services.

Figure 5.11 FY2015 City-based Paratransit Trips



Source: Alameda CTC Direct Local Distributions Compliance Reports; Paratransit Gap Grant Progress Reports.

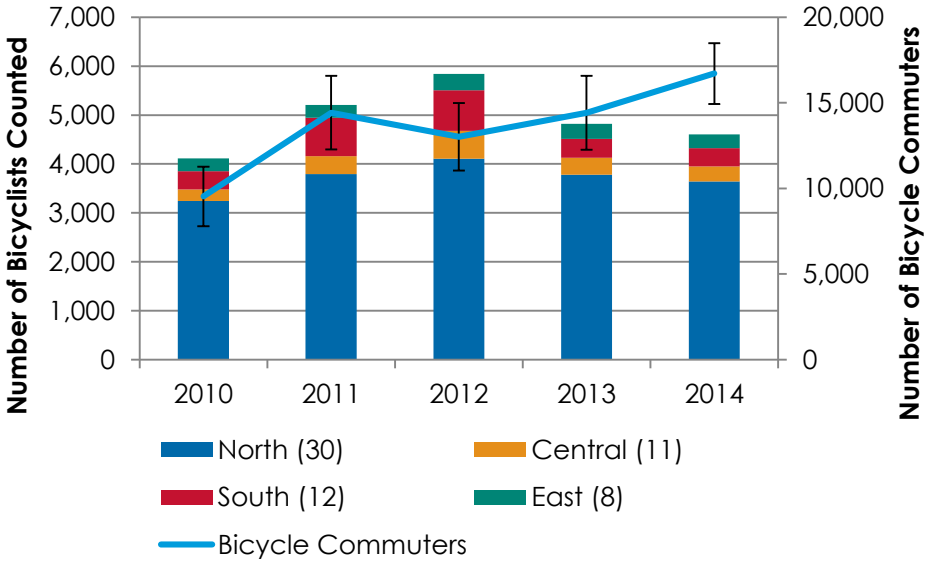
Note: Fremont's volunteer driver and taxi programs serve the entire Tri-city area, which comprises Newark, Fremont, and Union City.

6. Bicycling

Counts

Alameda CTC conducts counts of bicyclists at 63 locations on an annual basis. These counts provide a consistent, longitudinal source of information on bicycling levels for all purposes (commuting, school, shopping, social/recreation, etc.). Figure 6.1 shows the number of bicyclists counted during the p.m. period through the count program, and Appendix E shows the count locations and provides more detail on the count methodology.

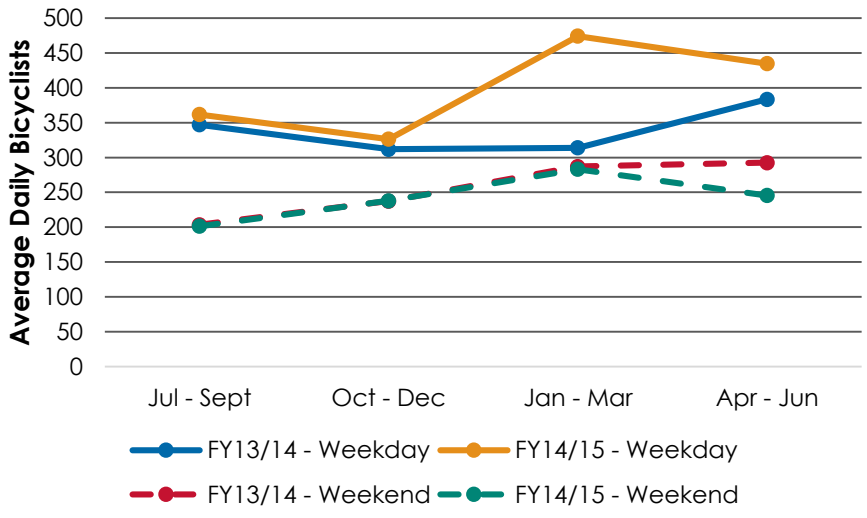
Figure 6.1 Bicyclists Counted Through the Alameda CTC Count Program (p.m. period)



Source: Alameda CTC Count Program, American Community Survey 1-Year Estimates.

- Bicyclists counted through the Alameda CTC count program declined in 2014, which is the second consecutive year of decline.
- National-level data sources such as the US Census Bureau's American Community Survey suggest an increase in the number of bicyclist commuters (see the light blue line trend in Figure 6.1), which suggests that the declines exhibited in the manual counts may be due to statistical fluctuations.
- One-day manual counts can be subject to considerable day-to-day variability. While many count programs nationally continue to use manual counts, an emerging practice to provide statistically reliable information on biking and walking trends is the use of automated counting equipment that collects 24-hour, 365-day data.
- Alameda CTC has several automated counters installed around Alameda County; Figure 6.2 shows count data from a bicycle counter in the Emeryville Greenway, which has been in place for two continuous years. The figure indicates that weekday average bicyclists counts increased in FY2015 compared to FY2014 in all seasons (while weekend counts were similar in all but one season).

Figure 6.2 Average Daily Bicyclist Counts at Emeryville Greenway



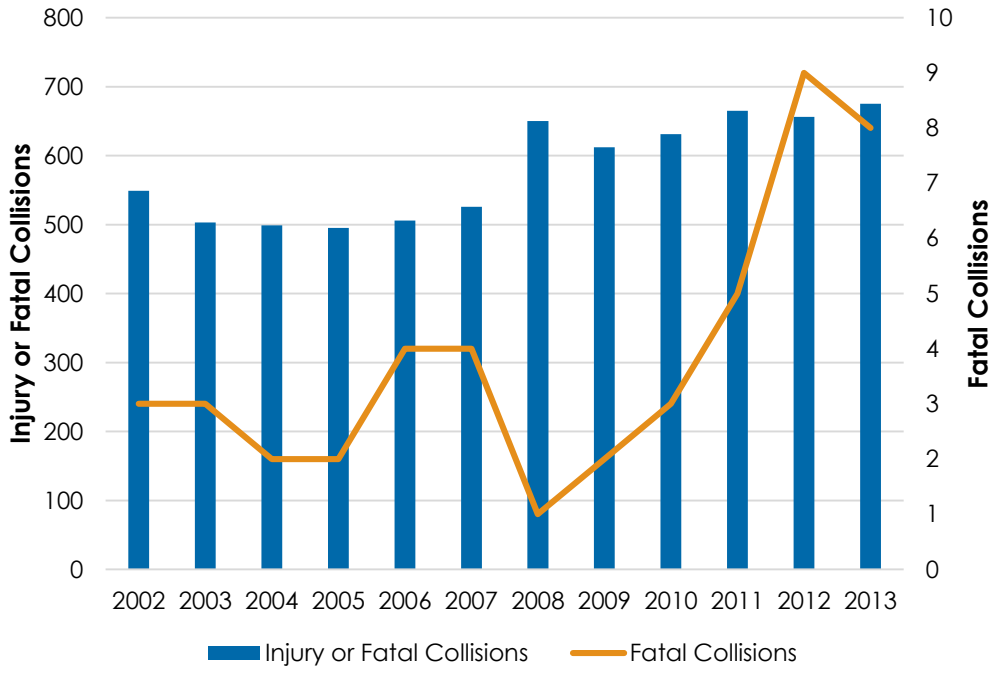
Source: Automated bicycle/pedestrian counter installed between 65th Street and Folger Street in Emeryville.

Safety

Figure 6.3 shows the trend in collisions involving bicyclists in Alameda County between 2002 and 2013 (the most recent year for which data are available).

- Alameda County saw a slight increase in injury or fatal collisions involving bicyclists between 2012 and 2013.
- Over the last decade, Alameda County has seen an increase in the number of injury or fatal collisions involving bicyclists. In particular, collisions involving bicyclists are generally higher from 2008-2013 than they were from 2002-2007.
- The change in number of collisions involving bicyclists may reflect rising bicycling levels, which increase bicyclists' exposure to collisions.

Figure 6.3 Trend in Collisions Involving Bicyclists in Alameda County



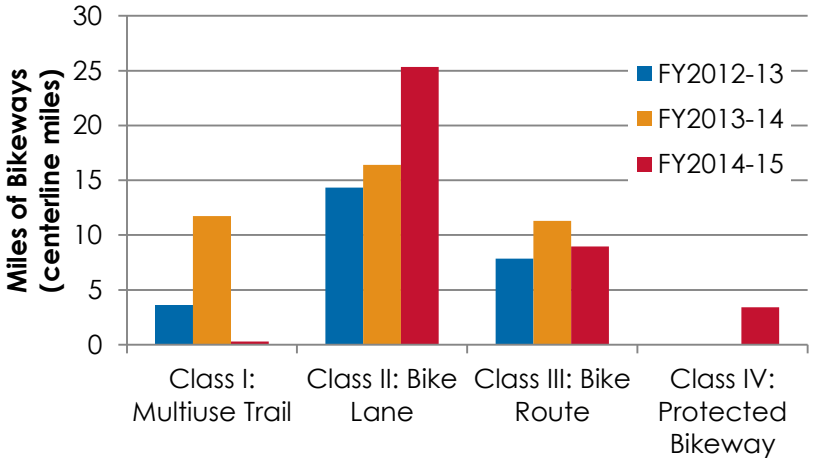
Source: Statewide Integrated Traffic Reporting System Database.

Network Completion

Figures 6.4-6.7 show the mileage of bikeways implemented by local jurisdiction in FY2015.

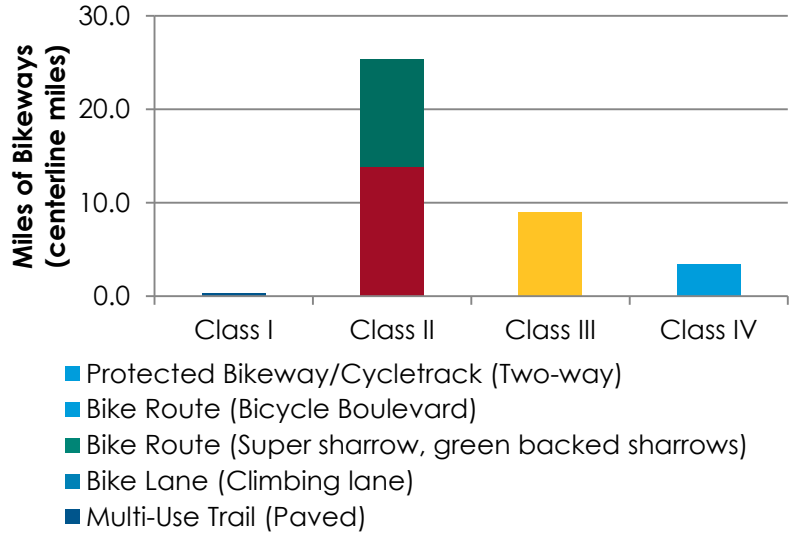
- Local jurisdictions implemented nearly 38 miles of bikeways in FY2015. The total mileage over the past three years exceeds 100 miles of new bikeways.

Figure 6.4 Trend in Bikeway Mileage Implemented



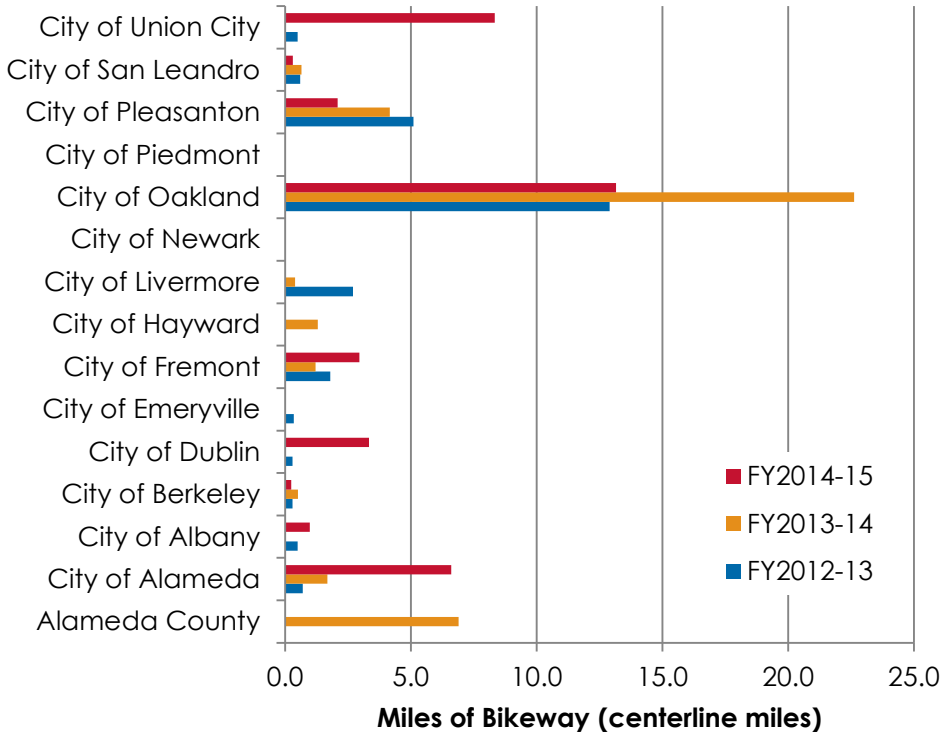
- The first protected bikeway project in Alameda County was opened in FY2015 (Shoreline Drive in Alameda). In addition, nearly half of Class II bikeway mileage featured an "upgraded" design, such as buffers or green paint to improve comfort and visibility of bicyclists.

Figure 6.5 New Bikeway Mileage Implemented by Detailed Type



Source for Figures 6.4-6.7: Reported by local jurisdictions.

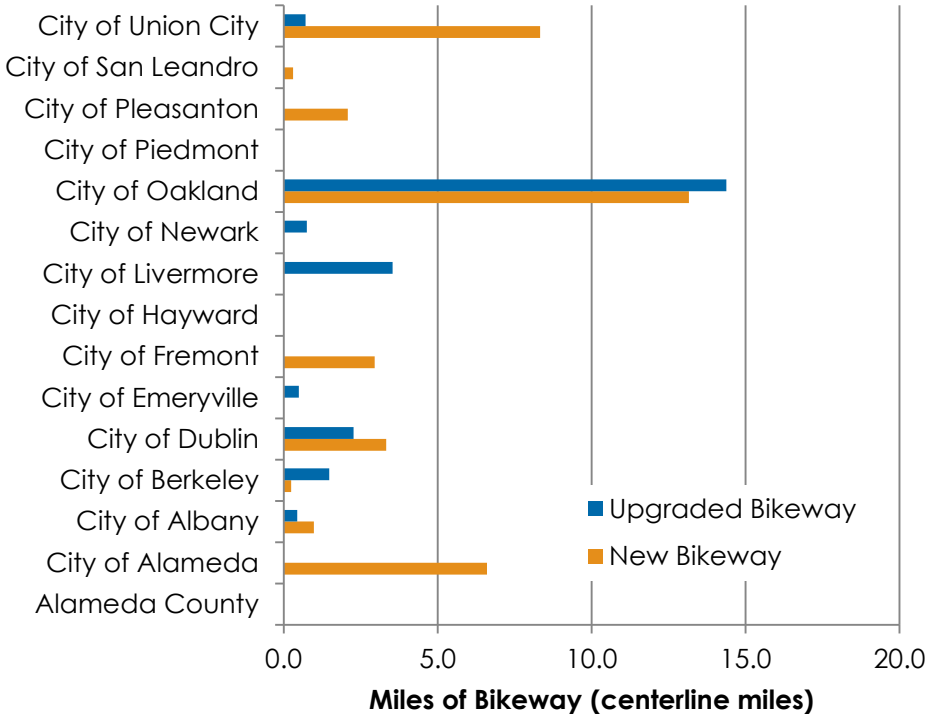
Figure 6.6 Trend in New Bikeway Installation by Jurisdiction



- Oakland installed the most new bikeway mileage in FY2015 (nearly 13 miles).
- Alameda and Union City also both topped 5 new miles of bikeways.
- Pleasanton has installed more than 11 miles of bikeways over the last three years combined.

Shoreline Drive Protected Bikeway, City of Alameda

Figure 6.7 Bikeway Mileage Installed and Upgraded by Jurisdiction



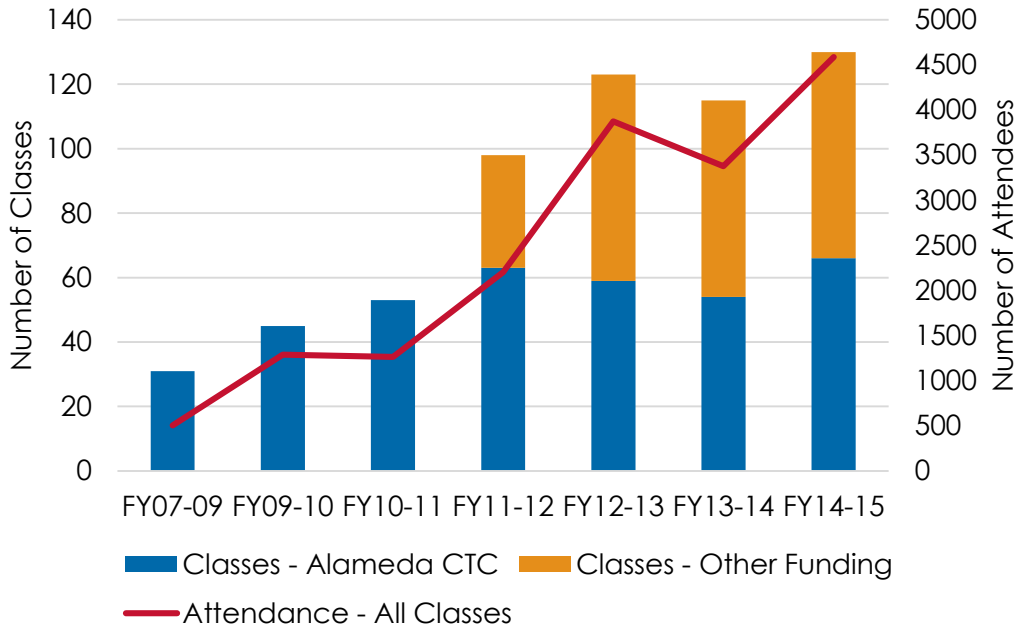
- In addition to installing new bikeways, jurisdictions in Alameda County also upgraded substantial bikeway mileage.
- Upgrades included resurfacing or repaving the street to provide a safe and comfortable riding surface, installing new wayfinding signage, and restriping the bikeways to include sharrows, green paint in conflict zones, wider bicycle lanes, marked buffer space, or other treatments.

Programs and Education

Infrastructure is only one aspect of providing a safe, comfortable bicycling system for Alameda County residents, workers, and visitors. Figures 6.8 and 6.9 show the trend in participation in the two main bicycle education and encouragement activities that Alameda CTC funds and coordinates: the Alameda County bicycle safety education program and Bike to Work Day.

- Alameda CTC funds the Alameda County bicycle safety education program, which is implemented by Bike East Bay as a component of the Alameda County Safe Routes to Schools Program and teaches bicyclists of all ability levels how to safely and legally interact with other road users. The number of classes and attendance levels in the program hit an all-time high in FY2015, with more than 120 classes offered in Alameda County and over 4,500 class attendees.
- The bicycle safety education program also saw a diversification in class types, including more Adult Learn to Ride classes and a new Family Cycling Workshop class format.

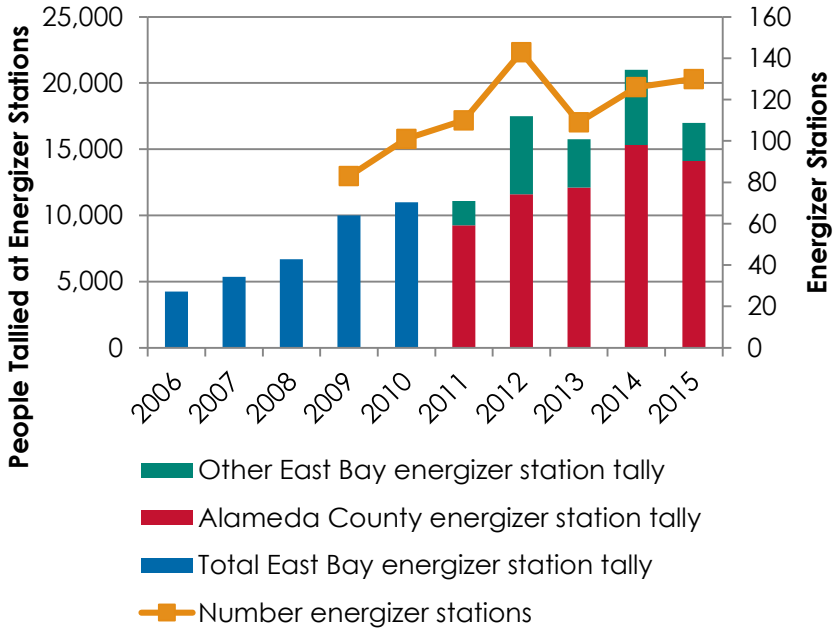
Figure 6.8 Bicycle Safety Education Class and Attendance Trend



Source: Bike East Bay/Alameda County Safe Routes to Schools Program.

- Alameda CTC assists in planning Bike to Work Day, an annual bicycling promotion event held in May. More than 130 companies, cities, and organizations hosted energizer stations in Alameda County during the 2015 Bike to Work Day, and nearly 15,000 cyclists were tallied at those energizer stations.
- Alameda CTC also funds and coordinates the iBike education program, which features bicycling encouragement advertisements on bus shelters, buses, and via online media. This program runs in conjunction with Bike to Work Day.

Figure 6.9 Bike to Work Day Energizer Station and Attendance Trend



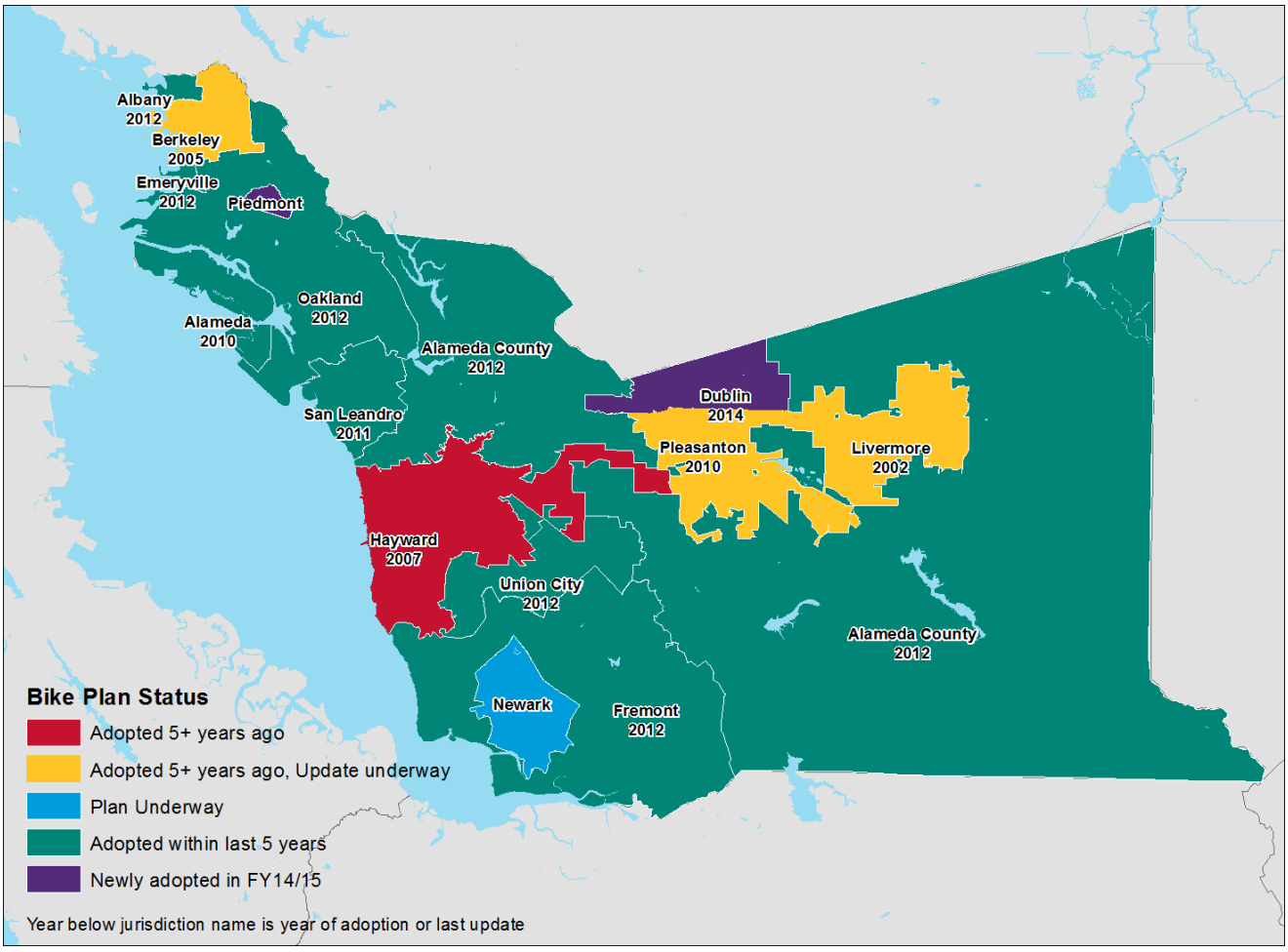
Source: Bike to Work Day Annual Reports.

Local Master Plan Adoption

Alameda CTC assists jurisdictions in preparing local bicycle master plans by providing funding and technical assistance. Local master plans are critical to identifying targeted areas for improvements, capital projects, and supportive programs. Local master plans are also typically an important means for ensuring that projects and programs align with community priorities.

- Piedmont and Dublin adopted new bicycle master plans during FY2015.
- As of the end of FY2015, 10 jurisdictions have bicycle master plans adopted within the last five years, while five jurisdictions have plans more than five years out of date.

Figure 6.10 Status of Alameda County Local Bicycle Master Plans



Source: Reported by local jurisdictions.

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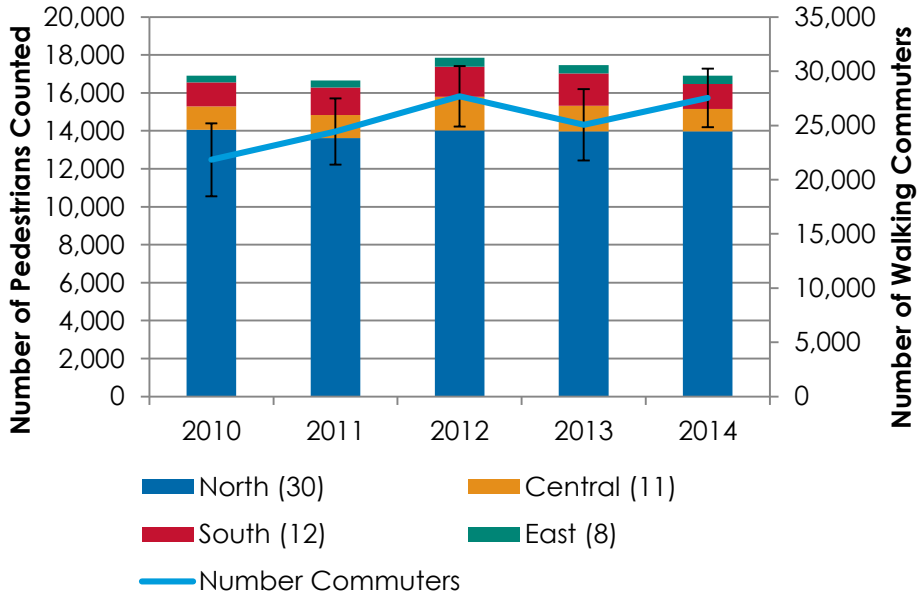
7. Walking

Counts

Alameda CTC conducts counts of pedestrians at 63 locations on an annual basis. These counts provide a consistent, longitudinal source of information on walking levels for all purposes (commuting, school, shopping, social, etc.). Figure 7.1 shows the number of pedestrians counted during the p.m. period through the count program, and Appendix E provides more details on the count locations and methodology.

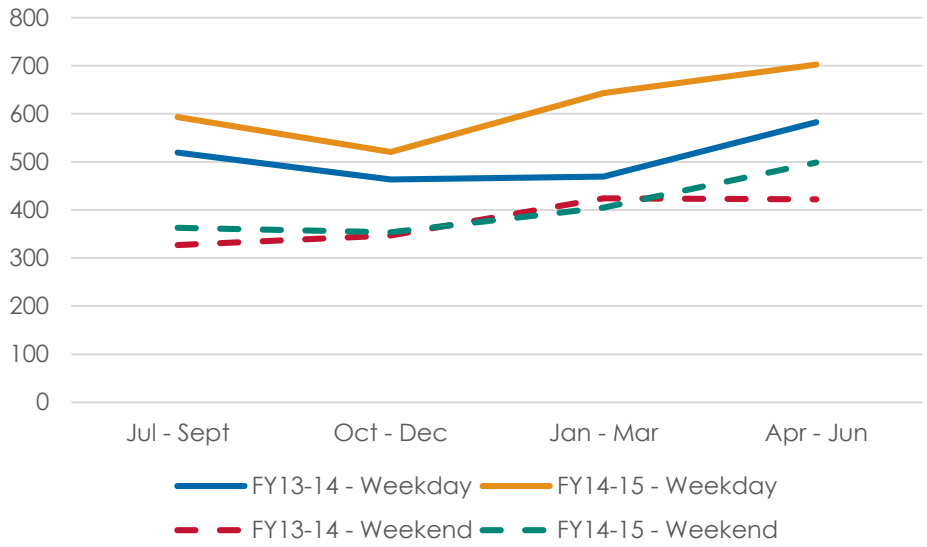
Figure 7.1 Pedestrians Counted Through the Alameda CTC Count Program (p.m. period)



Source: Alameda CTC Count Program, American Community Survey 1-Year Estimates.

- Pedestrians counted through the Alameda CTC count program declined in 2014, which is the second consecutive year of decline.
- National-level data sources such as the US Census Bureau's American Community Survey suggest an increase in the number of walking commuters since 2010 (see the light blue trend line in Figure 7.1), which suggests that the declines exhibited in the manual counts may be due to statistical fluctuations.
- One-day manual counts can be subject to considerable day-to-day variability. While many count programs nationally use manual counts, an emerging practice to provide statistically reliable information on biking and walking trends is the use of automated counting equipment that collects 24-hour, 365-day data.
- Alameda CTC has several automated counters installed around Alameda County; Figure 7.2 shows count data from a pedestrian counter in the Emeryville Greenway, which has been collecting data continuously for two years. The figure indicates that weekday average pedestrian counts increased in FY2015 compared to FY2014 in all seasons (while weekend counts were similar in all seasons).

Figure 7.2 Average Daily Pedestrian Counts at Emeryville Greenway



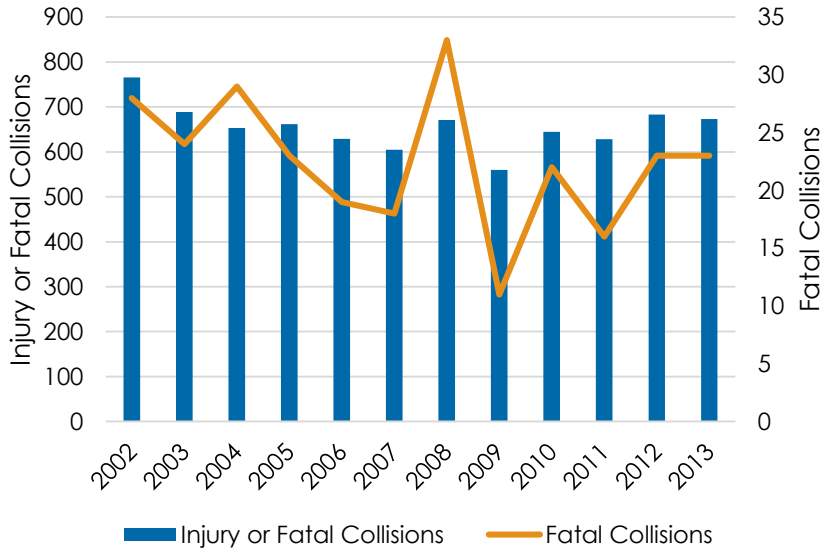
Source: Automated bicycle/pedestrian counter installed between 65th Street and Folger Street in Emeryville.

Safety

Figure 7.3 shows the trend in collisions involving pedestrians in Alameda County between 2002 and 2013 (the most recent year for which data are available).

- Alameda County saw a marginal decrease in injury or fatal collisions involving pedestrians between 2012 and 2013.
- Over the last six years, Alameda County has seen minimal change in the number of injury or fatal collisions involving pedestrians. The number of injury and fatal collisions involving pedestrians in 2013 (673) was slightly higher than the average from 2002-2013 (655).
- Pedestrian safety remains an issue that requires education, enforcement, and infrastructure-based strategies to address, particularly as aging populations and policy goals related to infill development and increased transit and active transportation mode usage result in greater levels of walking.

Figure 7.3 Trend in Collisions Involving Pedestrians in Alameda County



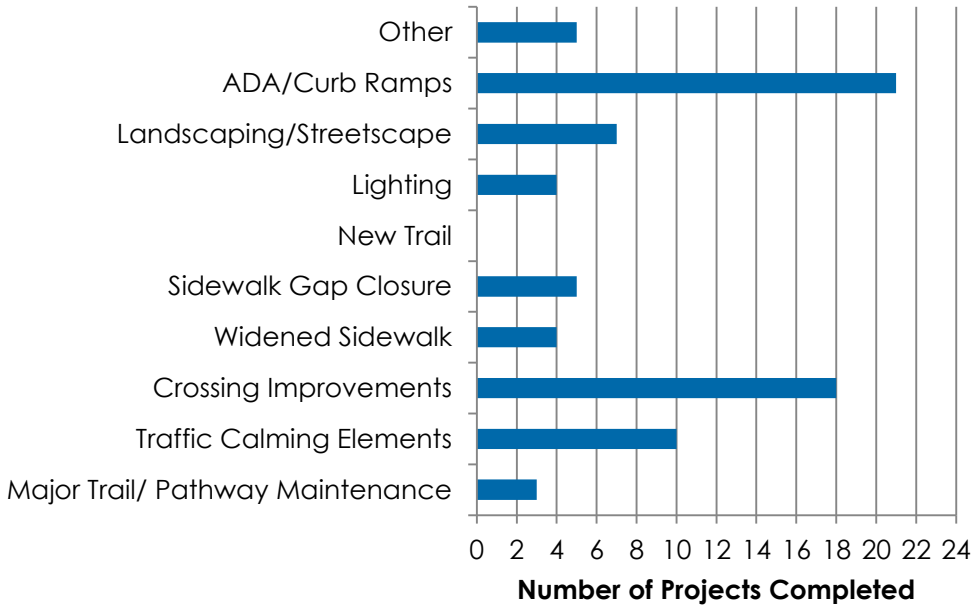
Source: Statewide Integrated Traffic Reporting System Database.

Project Completion

Figure 7.4 shows the number of pedestrian projects completed in Alameda County by type of project in FY2015, while Figure 7.5 shows the number of projects completed by jurisdiction.

- In FY2015, jurisdictions completed a total of 60 pedestrian projects. These span a variety of types of improvements ranging from closing gaps in the county's sidewalk network, to major streetscape improvement projects and safer, more accessible crossings.
- The most common types of pedestrian projects completed were ADA curb/ramp improvement programs, crossing improvements, and projects containing traffic-calming elements.
- All jurisdictions reported completing at least one pedestrian project in FY2015. Appendix F provides details on all pedestrian projects completed in FY2015.

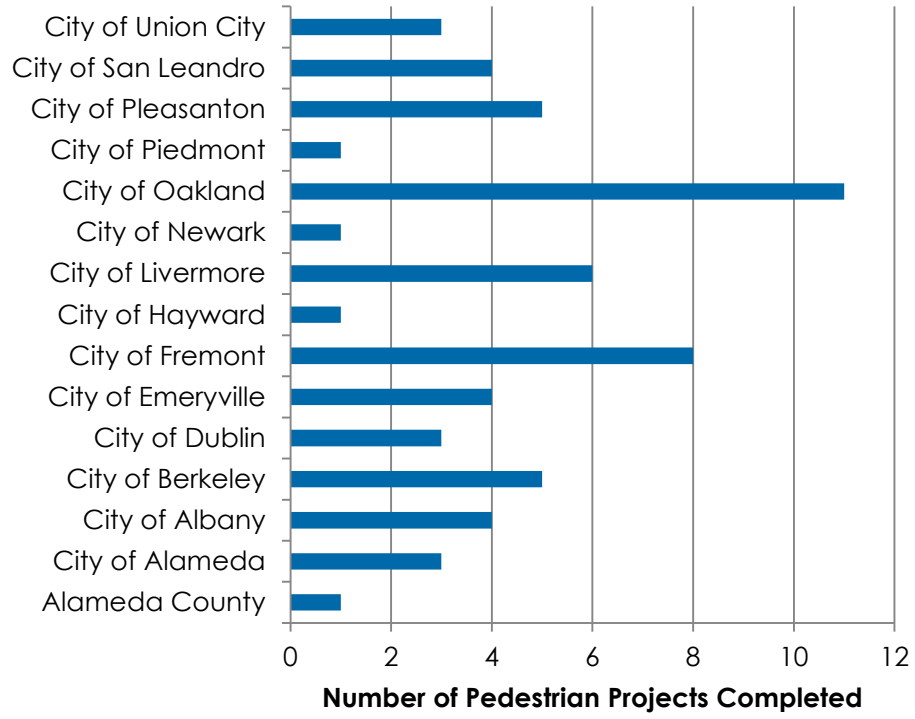
Figure 7.4 Pedestrian Projects Completed in FY2015 by Type



Note: Projects may appear in multiple categories; 60 total projects were completed in FY2014-15.

Source: Reported by local jurisdictions.

Figure 7.5 Pedestrian Projects Completed in FY2015 by Jurisdiction



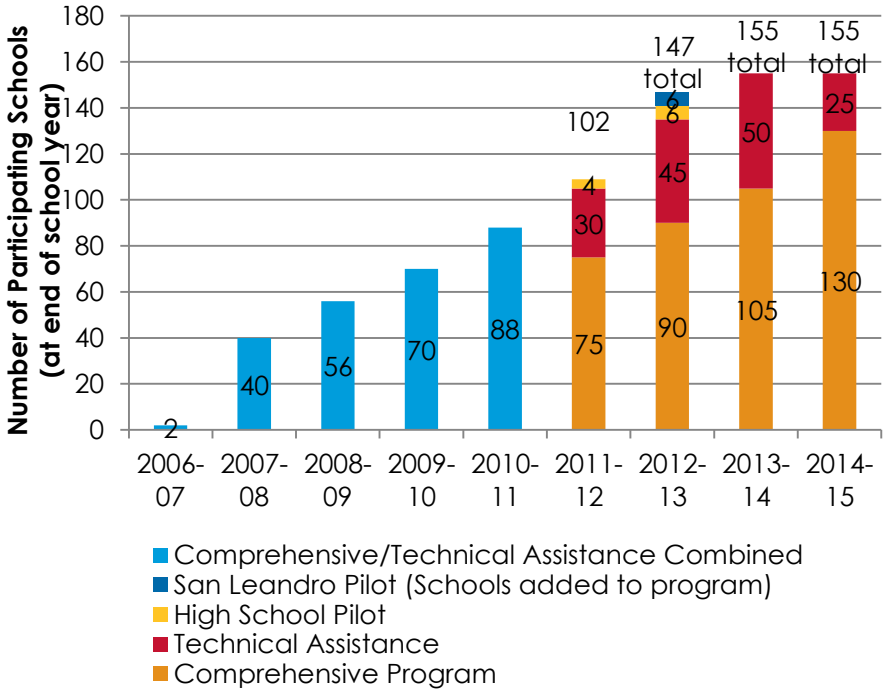
Source: Reported by local jurisdictions.

Programs and Education

Infrastructure is only one aspect of providing a safe, comfortable, and convenient walking environment for Alameda County residents, workers, and visitors.

- The Alameda County Safe Routes to Schools (SR2S) Program is a comprehensive set of school-based education, encouragement, enforcement, and infrastructure strategies aimed at increasing walking, biking, and other sustainable transportation mode use among school age children. Figure 7.6 indicates that the Alameda County SR2S program has grown significantly since its inception as a grant-based pilot in 2006-2007. The program has expanded to more than 150 schools and has greatly broadened the scope of activities.
- In addition to the SR2S program, many other programs that directly or indirectly promote walking are implemented by local jurisdictions and Alameda CTC, including open street events, promotional maps, walking clubs, and more.

Figure 7.6 Alameda County Safe Routes to Schools Participating Schools



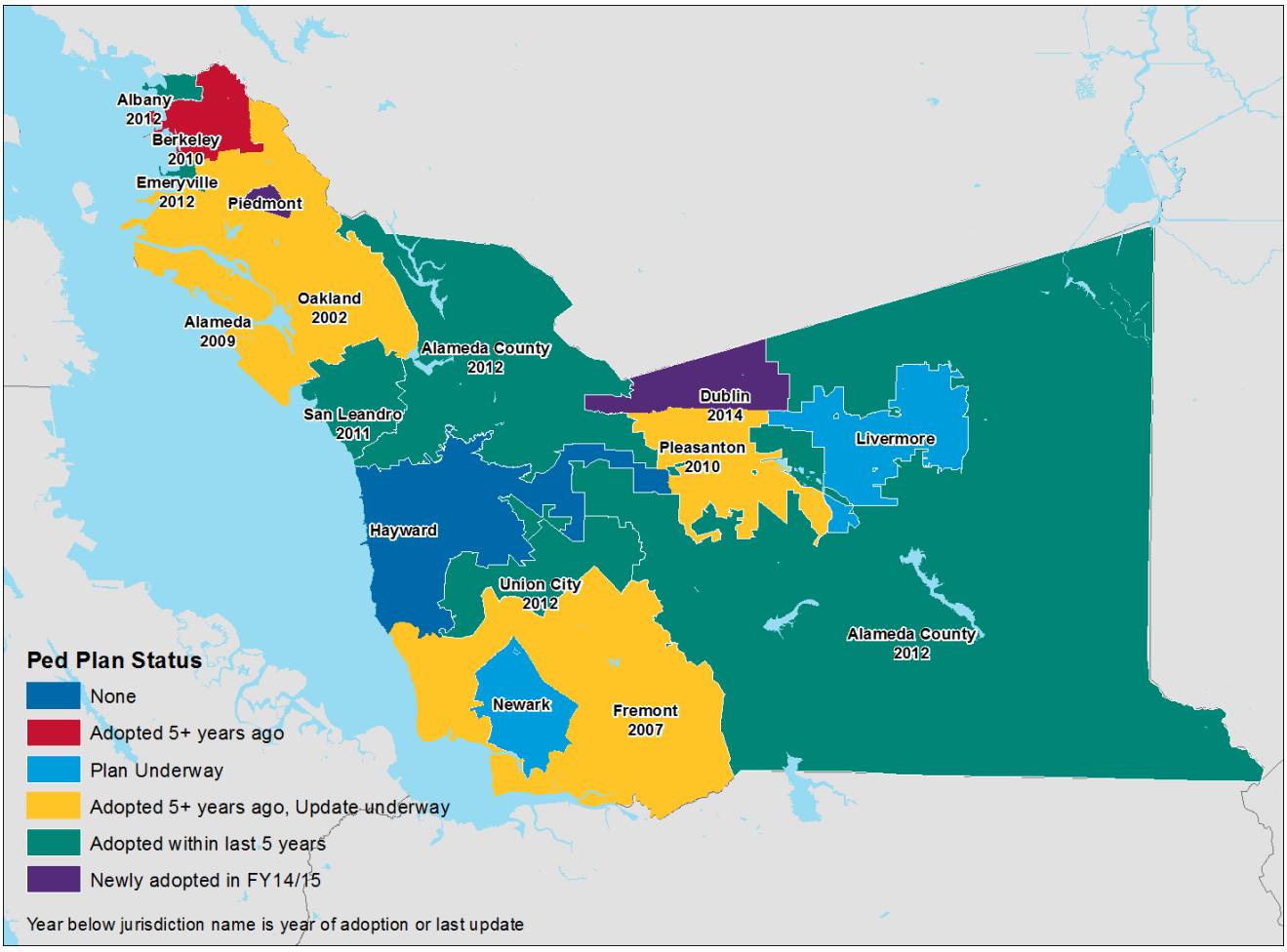
Source: Alameda County Safe Routes to Schools Program.

Local Master Plan Adoption

Alameda CTC assists jurisdictions in preparing local pedestrian master plans by providing funding and technical assistance. Local master plans are critical to identifying targeted areas for improvements, capital projects, and supportive programs. Local master plans are also typically an important means for ensuring that projects and programs align with community priorities.

- Piedmont and Dublin adopted new pedestrian master plans during FY2015.
- As of the end of FY2015, seven jurisdictions have pedestrian master plans adopted within the last five years, while eight jurisdictions have plans more than five years out of date (or no plan at all).

Figure 7.7 Status of Alameda County Local Pedestrian Master Plans



Source: Reported by local jurisdictions.

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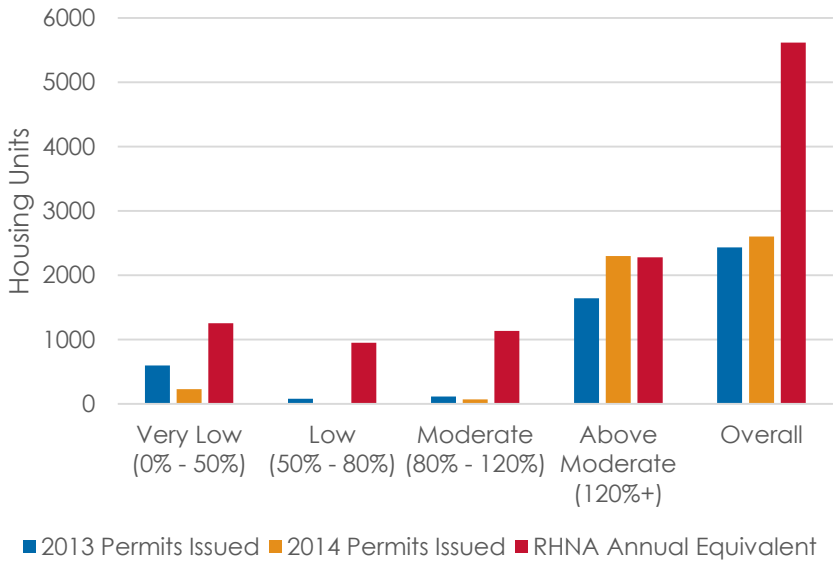
8. Liveable Communities

Housing Permitting

The number and location of housing units permitted has implications for regional affordability and for commuting patterns. Figure 8.1 shows housing units permitted in Alameda County by affordability level, compared to the equivalent number of units needed to meet the county's Regional Housing Needs Allocation (RHNA).

- Overall, Alameda County permitted less than half of its RHNA equivalent in 2013 and 2014.

Figure 8.1 Housing Units Permitted in Alameda County by Affordability Level



Source for Figures 8.1-8.2: Housing Element Annual Progress Reports as compiled by the Association of Bay Area Governments.

Notes: The Regional Housing Needs Assessment is an 8-year target for housing production and permitting in each local jurisdiction by ABAG, based on a regional total from the state Department of Housing and Community Development. The RHNA Annual Equivalent is the total for the RHNA period (2007-2014) divided by the number of years. Affordability level is expressed as a percent of Area Median Income (AMI).

- The only affordability category of housing for which Alameda County met its RHNA was above moderate income housing (in 2014 only).
- Very few units at low (50% to 80% of AMI) or moderate (80% to 120% of AMI) levels were permitted. The number of units permitted at these affordability levels did not exceed 10 percent of the annual RHNA equivalent in 2013 or 2014.
- Housing permitting activity levels reflect market conditions and financial incentives (e.g. subsidies for affordable housing) as well as local decisions.

Figure 8.2 shows the number of housing units permitted in 2013 and 2014, categorized by whether the units were located in a Priority Development Area (PDA). PDAs are locally nominated areas with high quality transit service that are target areas for future housing and employment growth.

- More than 90 percent of very low income housing units permitted in both 2013 and 2014 were located in PDAs.
- More than half of above moderate housing units permitted in 2013 were located in PDAs, while slightly fewer than half of units permitted in 2014 were located in PDAs.

Figure 8.2 Housing Units Permitted by Affordability Level and PDA Location

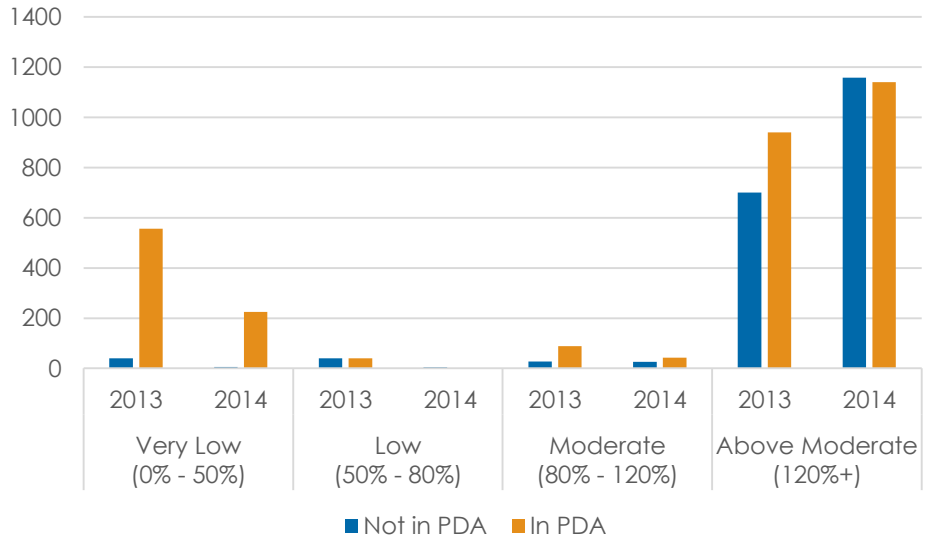
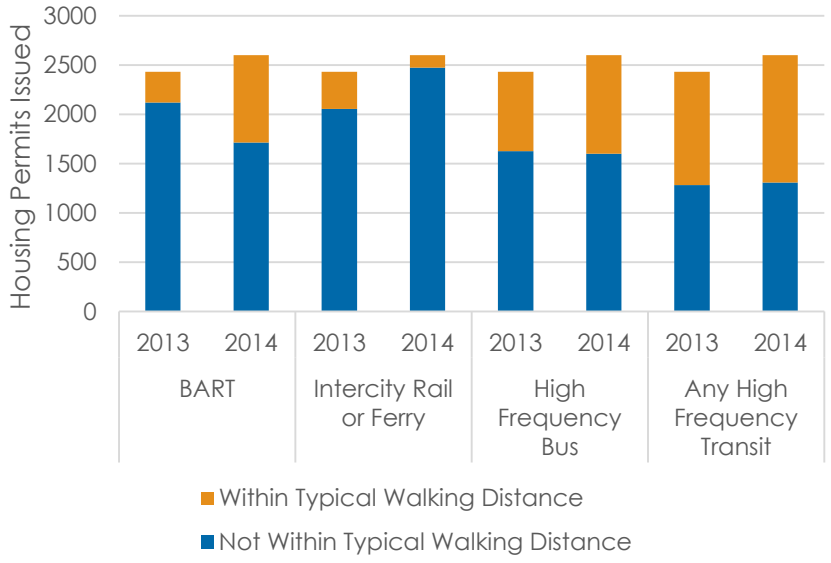


Figure 8.3 shows housing units permitted by proximity to different types of transit.

- Roughly half of units permitted in 2013 and 2014 were within a typical walking distance of some form of high frequency transit.
- In 2014, 34 percent of units were near BART, 5 percent of units were near intercity rail or ferry service, and 39 percent of units were near a high frequency bus stop.

Figure 8.3 Housing Units Permitted by Proximity to Transit

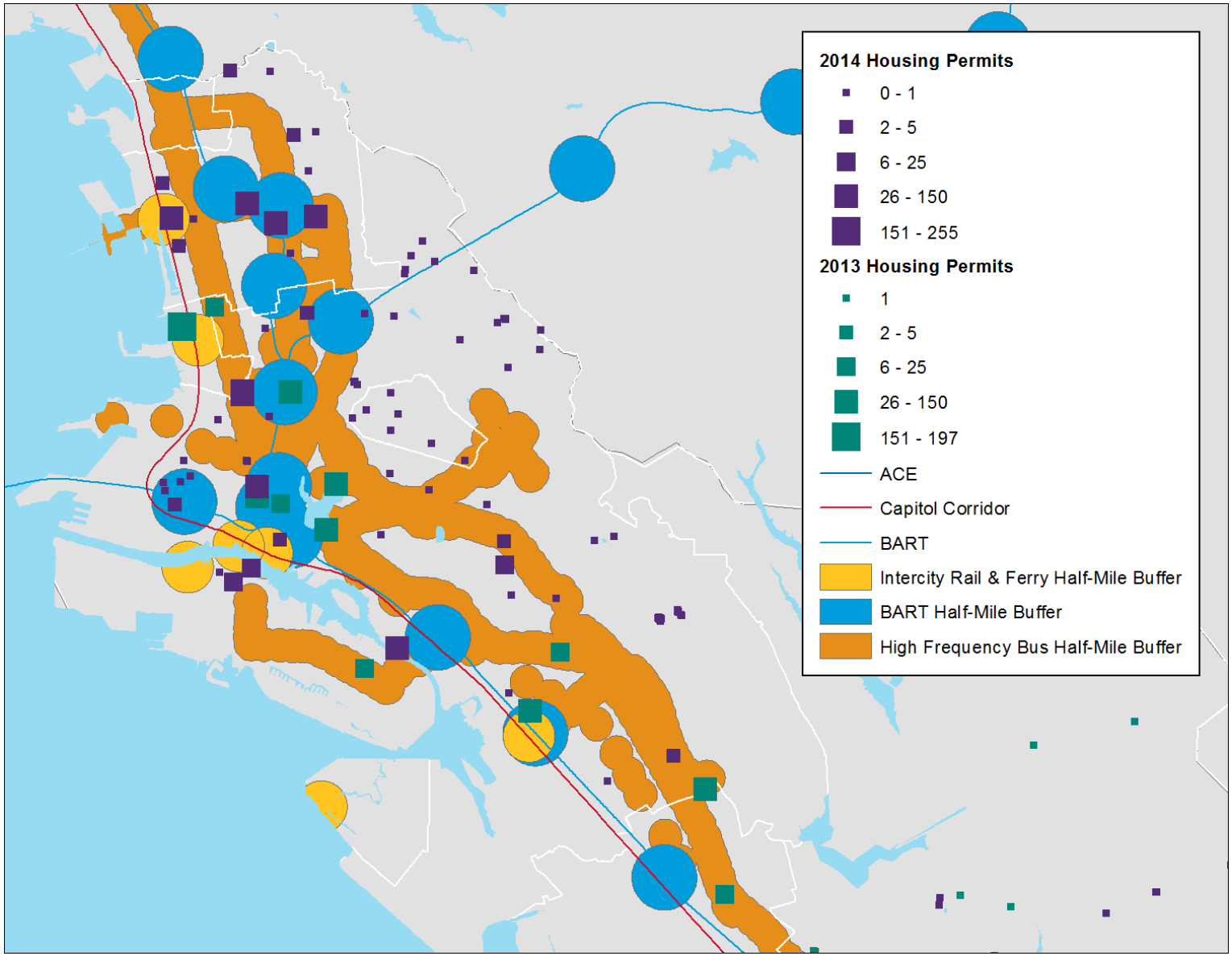


Source: Housing Element Annual Progress Reports as compiled by the Association of Bay Area Governments. Analysis of transit proximity by Alameda CTC.

Notes: Intercity Rail includes Capitol Corridor and ACE. High-frequency buses include AC Transit's Major Corridors and LAVTA's RAPID. Typical walking distance is defined as one-half mile for BART, rail, and ferry and one-quarter mile for bus. Housing affordability is expressed as a percentage of AMI.

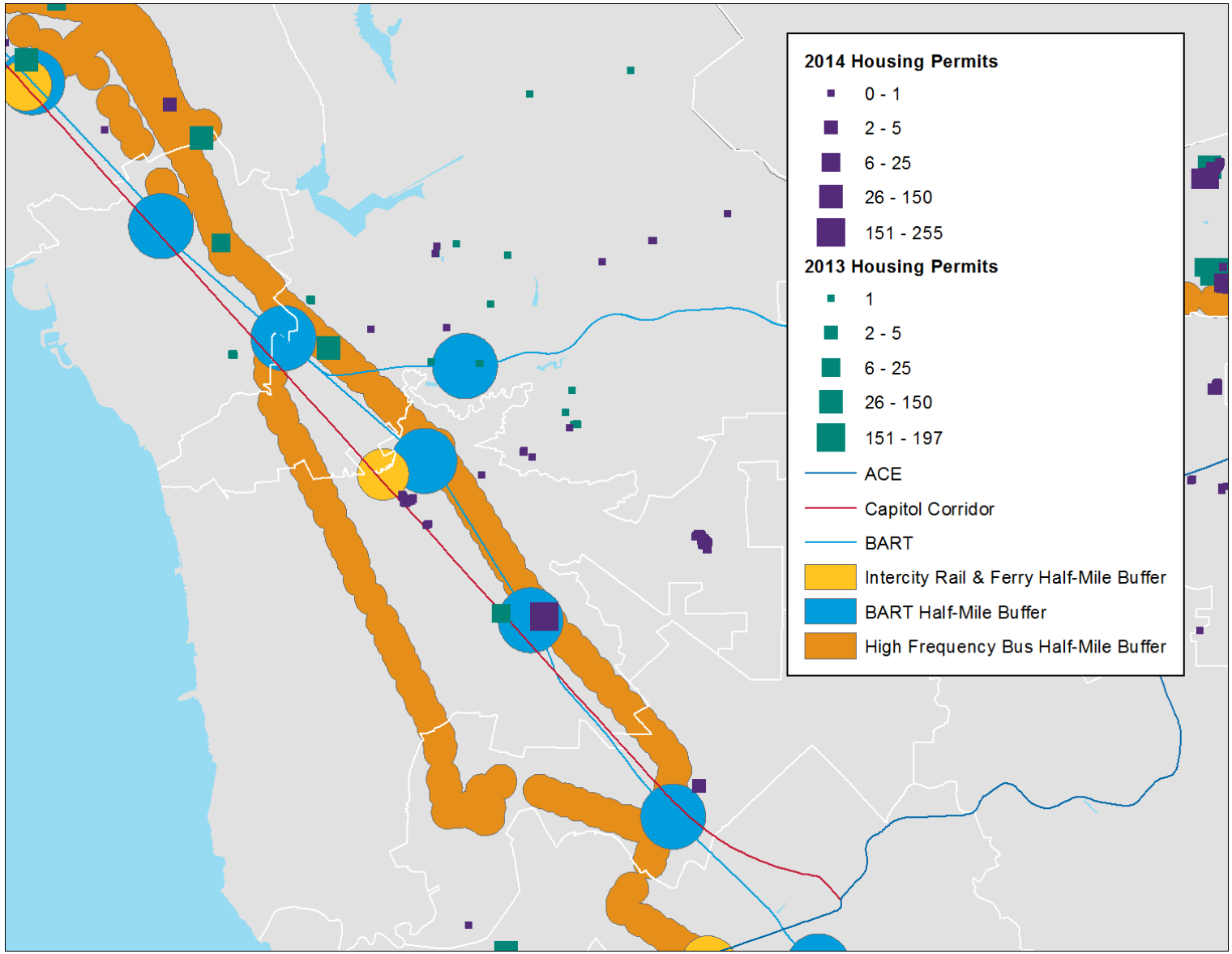
Figures 8.4-8.7 on the following pages show the size and location of housing developments issued permits in 2013 and 2014.

Figure 8.4 Housing Permit Activity 2013-2014 in North Alameda County



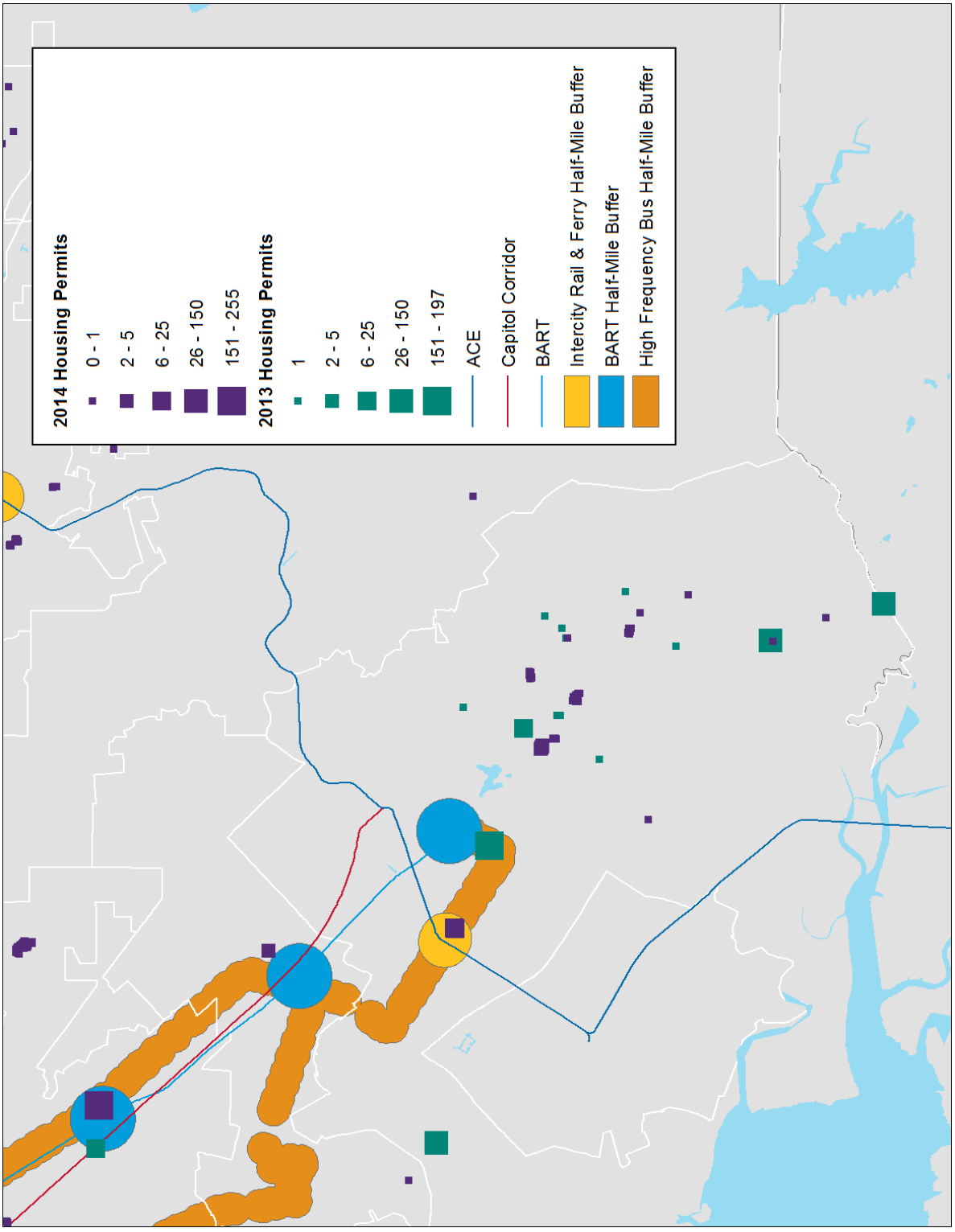
Source: Housing permit information compiled by Association of Bay Area Governments (ABAG) based on local submissions to State Department of Housing and Community Development.

Figure 8.5 Housing Permit Activity 2013-2014 in Central Alameda County



Source: Housing permit information compiled by ABAG based on local submissions to State Department of Housing and Community Development.

Figure 8.6 Housing Permit Activity 2013-2014 in South Alameda County



Source: Housing permit information compiled by ABAG based on local submissions to State Department of Housing and Community Development.

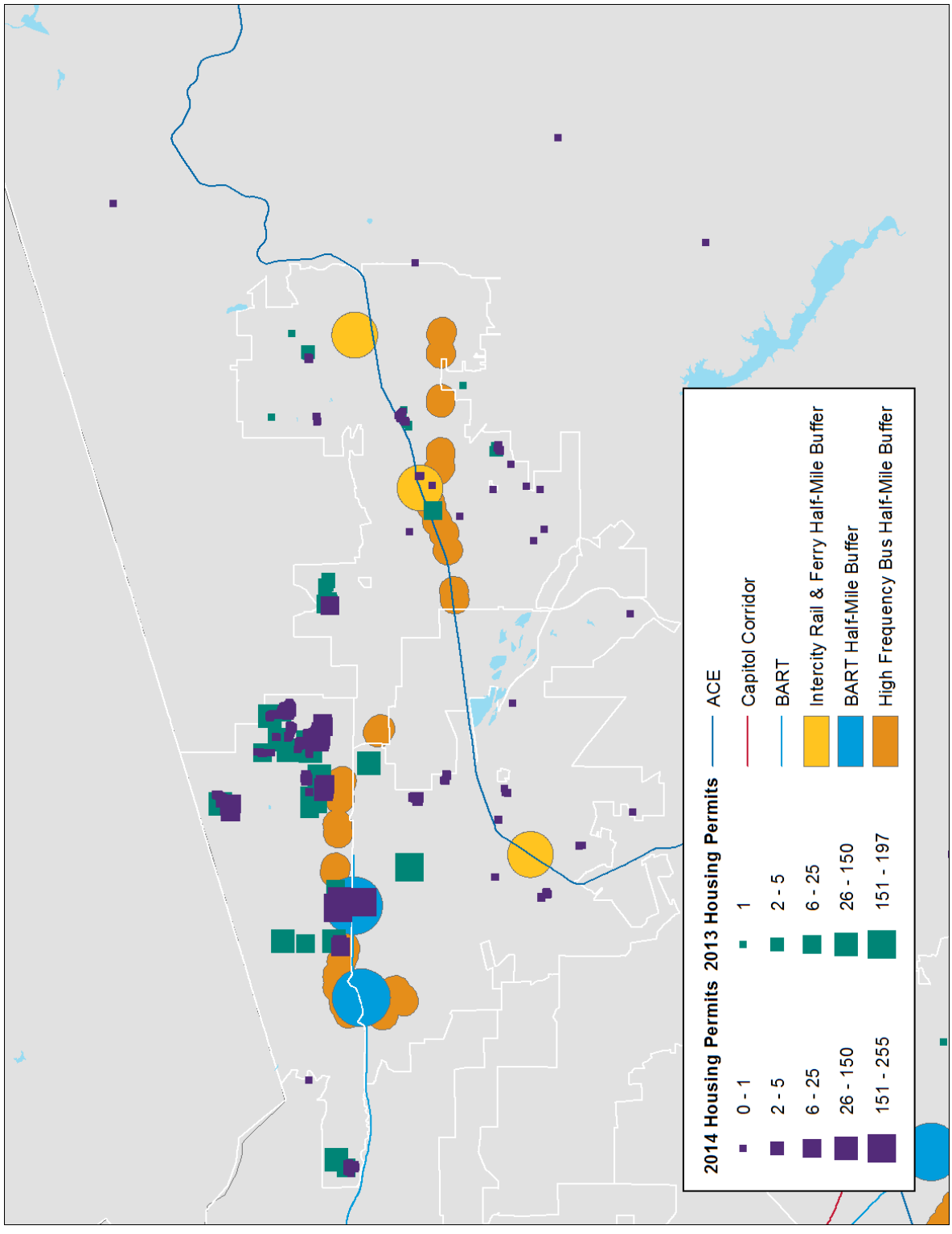


Figure 8.7 Housing Permit Activity 2013-2014 in East Alameda County

Source: Housing permit information compiled by ABAG based on local submissions to State Department of Housing and Community Development.

Housing Production

Table 8.1 shows housing units produced in Alameda County by jurisdiction from 2011 to 2015. Housing production is related to permitting, but is even more subject to market conditions.

- Annual housing production nearly doubled from 2011-12 to 2013-15, reflecting an economic recovery.
- Alameda County produced between 2,200 and 2,400 housing units per year from 2013-2014. During this period, Alameda County added 20,000 to 24,000 residents per year and 18,000 to 24,000 jobs per year.
- The City of Dublin produced nearly half of Alameda County's new housing from 2013 to 2015.

Table 8.1 Alameda County Housing Production

	2011	2012	2013	2014	2015
Alameda	0	117	0	1	8
Alameda County	3	10	10	0	10
Albany	0	5	4	1	5
Berkeley	340	0	10	85	167
Dublin	282	367	1,085	1,124	911
Emeryville	0	6	0	67	0
Fremont	231	205	254	507	127
Hayward	110	265	229	140	144
Livermore	127	76	134	205	158
Newark	0	0	2	3	2
Oakland	212	115	581	204	316
Piedmont	4	4	3	2	3
Pleasanton	16	63	42	131	427
San Leandro	62	4	10	8	5
Union City	7	105	61	0	4
County Total	**1,355**	**1,322**	**2,425**	**2,474**	**2,287**

Source: Department of Finance E-5 Report

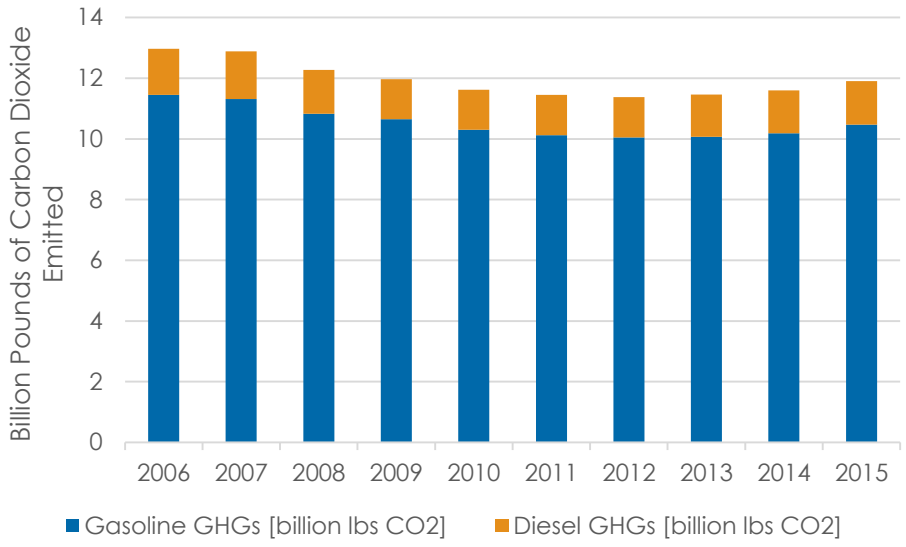
Note: Housing Production is computed as the difference in housing units between successive years.

Greenhouse Gas Emissions

Figure 8.8 shows the trend in total greenhouse gas emissions from transportation in Alameda County.

- Between 2006 and 2012, Alameda County saw a decline in transportation greenhouse gas emissions, which can be attributed to reduced fuel consumption and increased blending of ethanol in gasoline.
- Greenhouse gas emissions from transportation have increased since 2012 but remain 8.5 percent below 2006 levels.

Figure 8.8 Greenhouse Gas Emissions from Transportation in Alameda County



Sources: Board of Equalization, California Energy Almanac, Energy Information Administration.

Note: Transportation emissions computed based on gasoline and diesel sales in Alameda County. Percent of statewide sales occurring in Alameda County computed based on a 2012 survey of fuel retailers. Ethanol blending fraction interpolated between 6 percent in 2006 and 10 percent in 2010 based on California Energy Almanac.

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Measure	Data Source	Notes
Commuter flows	American Community Survey (ACS) Public Use Micro Survey (PUMS) data	This measure is based on a sample expanded to county-level population. The survey is conducted throughout the year. The ACS asked respondents to report the work location at which they worked the greatest number of hours. If the respondents regularly work at several locations each day, the ACS asked for the address where they began work each day.
Mode share	ACS, 1-Year Estimates	This measure is based on a sample expanded to county-level population. The survey is conducted throughout the year. The journey-to-work mode is the mode used the majority of days during week for the longest portion of trip
Journey-to-work travel time	ACS, 1-Year Estimates	This measure is based on a sample expanded to county-level population. The survey is conducted throughout the year. Travel time to work refers to the total number of minutes that it usually takes the worker to get from home to work. The elapsed time includes time spent waiting for public transportation.
Driver license rate	California Department of Motor Vehicles (DMV) ACS, 1-Year Estimate	This measure is based on the number of driver licenses of Alameda County residents over the age of 16 provided by the California DMV. This number of driver licenses is divided by the population of Alameda County based on the ACS, 1-Year Estimate.
Freeway speeds	INRIX, Inc. Analytics Tools	INRIX, Inc. is a commercial traffic information service provider. INRIX aggregates data from a variety of sources including mobile devices, fleet vehicles, and inroad sensors and serves a wide range of public and private clients. INRIX data has been validated against GPS-floating car collected data in Alameda County for freeways.
Gateway traffic volumes	Bay Area Toll Authority (BATA), Caltrans, Performance Measure System (PeMs) data as processed by Metropolitan Transportation Commission, I-680 Express Lane Operations	Bridge traffic volumes are BATA vehicle counts at the westbound toll plazas of the Dumbarton, San Mateo, and Bay bridges. I-680 volumes at Mission Boulevard are from the I-680 Express Lane Operations and include both general purpose and the express lane. All other gateway volumes are from PeMS data, which was processed by MTC. Only Tuesday through Thursday volumes from March through May and September through November are used.
Freeway congestion (vehicle hours of delay)	INRIX, Inc. Analytics Tools	INRIX, Inc. is a commercial traffic information service provider. INRIX aggregates data from a variety of sources including mobile devices, fleet vehicles, and inroad sensors and serves a wide range of public and private clients. INRIX data has been validated against GPS-floating car collected data in Alameda County for freeways.
Local streets and roads pavement condition index (PCI)	MTC's StreetSaver database	StreetSaver is an online pavement management system that enables local jurisdictions to track the PCI of their roadways.

Appendix A. Detailed Information on Data Sources

Measure	Data Source	Notes
Freeway and highway state of repair	Caltrans	State of repair is based on Caltrans' assessment of each pavement lane mile on the state highway system on its ride quality and structural distress. There are three levels of distress: poor ride only, minor pavement distress (pavement in poor condition with significant cracks), and major pavement distress (pavement in poor condition with extensive cracks).
Roadway collisions, injury and fatal collisions, and collision causes	Statewide Integrated Traffic Record System (SWITRS)	Caltrans and the California Highway Patrol partner to track collisions through SWITRS. Through this program, standardized accident reports are filed any time an officer responds to a traffic incident.
Transit ridership (boardings)	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	
Transit service utilization (boardings per revenue vehicle hour)	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	
Transit cost efficiency (operating cost per rider)	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	Operating costs are escalated to 2015 dollars using the Consumer Price Index for the San Francisco Bay Area
Transit commercial speed (revenue vehicle miles per revenue vehicle hours)	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	
Transit on-time performance	Request from transit operators	"On-time" threshold is as defined by operator (e.g., AC Transit uses a standard of no more than 1 minute early or 5 minutes late).
Transit farebox recovery ratio	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	Operating costs and fare revenue are escalated to 2015 dollars using the Consumer Price Index for the San Francisco Bay Area
Transit fleet age	Request from transit operators	
Transit service interruptions	FTA's National Transit Database (FY2005-FY2014) and special request from transit operators (FY2015)	
Paratransit Annual Trips	East Bay Paratransit, Union City Transit, LAVTA (collectively ADA transit operators)	Trips are one-way and include attendants and companions.
Average Paratransit Trip Distance	ADA transit operators	
Average Paratransit Trip Duration	ADA transit operators	
Average Paratransit On-Time Performance	ADA transit operators	

Measure	Data Source	Notes
Paratransit Operator Cost per Rider	ADA transit operators	Cost is per one-way trip.
Total Paratransit Operating Costs	ADA transit operators	
City-Based Paratransit Trips	Direct Local Distribution (DLD) Compliance Reports; Gap Grant Progress Reports	Includes taxi and volunteer driver trips that were Gap Grant funded if the program was sponsored/overseen by a DLD-funded city-based paratransit program.
Bicycle/pedestrian counts	Alameda CTC count program	The p.m. peak-hour counts (4-6 p.m.) are presented in this report. The count program has included 63 locations since 2010.
Bicycle/pedestrian collisions	Statewide Integrated Traffic Record System (SWITRS)	Caltrans and the California Highway Patrol partner to track collisions through SWITRS. Through this program, standardized accident reports are filed any time an officer responds to a traffic incident.
Bicycle/pedestrian updated local master plans	Reported by local jurisdictions	
Bicycle network completion/Pedestrian capital projects completed	Reported by local jurisdictions	
Bicycle/pedestrian program participation	Safe Routes to Schools and Bike to Work Day Annual Reports	
Development approvals	Housing Element Progress Reports submitted to California Department of Housing and Community Development, as compiled by Association of Bay Area Governments	Local jurisdictions submit an annual Housing Element Progress Report. ABAG has created a database of development approvals by geo-coding all individual development projects issued entitlements, based on the Progress Reports.
Housing production	California Department of Finance	
Greenhouse gas emissions	Board of Equalization Taxable Gasoline and Diesel Sales. California Energy Almanac survey of gasoline retailers. Energy Information Administration emission factors.	Board of Equalization data on statewide gasoline and diesel sales are combined with a 2012 survey of gasoline retailers to estimate gasoline and diesel sales (gallons) in Alameda County. A percentage of ethanol is assumed as part of gasoline sales based on California Energy Almanac. Greenhouse gas emissions are estimated using emission factors (pounds of carbon dioxide per gallon) from the EIA.

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BART	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Directional route miles	209	209	209	209	209	209	209	209	209	209	215
Alameda County	97	97	97	97	97	97	97	97	97	97	103
Revenue passenger car miles (million)	60.0	62.1	64.3	67.0	67.8	63.2	63.3	63.4	65.7	64.8	67.3
Alameda County (million)	27.6	28.6	29.6	30.8	31.2	29.1	29.1	29.2	30.2	29.8	30.9
Revenue passenger car hours (million)	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9
Alameda County (million)	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.9
Service Consumed											
Total annual boardings (million)	99.3	103.7	109.0	115.2	114.7	108.3	111.1	118.7	126.5	125.8	135.2
Alameda County (million)	32.9	34.9	36.3	37.8	37.8	36.0	37.4	40.5	43.3	43.0	46.2
Average Weekday boardings	329,199	343,026	361,811	384,231	379,007	357,461	367,505	391,777	420,396	417,286	452,126
Alameda County	111,303	116,502	120,989	126,098	126,031	119,308	124,501	134,111	143,726	146,090	154,522
Passenger Miles Traveled (million)	1255.5	1307.1	1368.0	1448.5	1442.1	1390.9	1442.9	1545.7	1649.3	1655.4	1793.2
Financials											
Operating expenses ($2015 x million)	$525.38	$519.28	$549.24	$555.97	$557.92	$526.39	$498.96	$527.48	$554.05	$547.50	$579.79
Fare revenue earned ($2015 x million)	$297.36	$315.98	$336.90	$358.49	$365.84	$376.67	$379.66	$395.41	$428.51	$426.61	$462.77
Service Utilization (systemwide)											
Boardings per revenue passenger car mile	1.65	1.67	1.69	1.72	1.69	1.71	1.75	1.87	1.93	1.94	2.01
Boardings per revenue passenger car hour	55.95	56.95	59.12	59.38	59.05	60.84	62.61	65.44	69.49	69.76	70.49
Load factor	20.92	21.05	21.27	21.62	21.26	22.00	22.78	24.37	25.12	25.56	26.66
Financial Performance (systemwide)											
Operating expense per passenger mile ($2015)	$0.42	$0.40	$0.40	$0.38	$0.39	$0.38	$0.35	$0.34	$0.34	$0.33	$0.32
Operaing expense per rider ($2015)	$5.29	$5.01	$5.04	$4.83	$4.87	$4.86	$4.49	$4.44	$4.38	$4.35	$4.29
Operating expense per revenue passenger car mile ($2015)	$8.76	$8.36	$8.54	$8.30	$8.22	$8.32	$7.88	$8.31	$8.44	$8.45	$8.62
Operating expense per revenue passenger car hour ($2015)	$296.05	$285.28	$297.83	$286.53	$287.34	$295.70	$281.18	$290.85	$304.22	$303.63	$302.22
Farebox recovery ratio	57%	61%	61%	64%	66%	72%	76%	75%	77%	78%	80%

(P) indicates provisional data

ACE

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Directional route miles	172	172	172	172	172	172	172	172	172	172	172
Alameda County	90	90	90	90	90	90	90	90	90	90	90
Revenue passenger car miles (thousand)	783.3	721.8	780.2	780.2	780.2	719.0	786.0	805.2	914.7	950.4	1001.9
Alameda County (thousand)	409.9	377.7	408.2	408.2	408.2	376.2	411.3	421.4	478.6	497.3	524.2
Revenue passenger car hours (thousand)	18.7	18.7	19.7	19.7	22.7	18.6	19.7	20.2	23.3	24.3	25.1
Alameda County (thousand)	9.8	9.8	10.3	10.3	11.9	9.8	10.3	10.6	12.2	12.7	13.1
Service Consumed											
Total annual boardings (thousand)	640.6	642.0	706.9	805.2	797.3	655.5	718.4	786.9	940.8	1075.6	1209.8
Alameda County (thousand)	211.6	212.1	233.5	266.0	265.0	235.0	254.0	332.5	313.6	381.7	418.6
Average Weekday boardings	2,532	2,537	2,805	3,191	3,164	2,601	2,851	3,123	3,748	4,252	4,782
Alameda County	800	829	852	1,053	1,048	922	1,011	1,319	1,319	1,508	1,655
Passenger Miles Traveled (million)	33.3	30.2	33.6	37.8	35.8	29.4	32.9	36.0	42.1	48.4	52.2
Financials											
Operating expenses ($2015 x million)	$14.02	$15.14	$13.02	$13.35	$14.30	$13.16	$13.00	$13.17	$15.76	$15.93	$20.03
Fare revenue earned ($2015 x million)	$3.82	$4.25	$4.77	$5.05	$5.25	$4.47	$4.76	$4.53	$6.07	$7.07	$7.99
Service Utilization (systemwide)											
Boardings per revenue passenger car mile	0.82	0.89	0.91	1.03	1.02	0.91	0.91	0.98	1.03	1.13	1.21
Boardings per revenue passenger car hour	34.22	34.34	35.97	40.97	35.16	35.15	36.55	38.97	40.41	44.26	48.27
Load factor	42.49	41.80	43.08	48.39	45.83	40.84	41.90	44.66	46.07	50.95	52.14
Financial Performance (systemwide)											
Operating expense per passenger mile ($2015)	$0.42	$0.50	$0.39	$0.35	$0.40	$0.45	$0.39	$0.37	$0.37	$0.33	$0.38
Operaing expense per rider ($2015)	$21.89	$23.59	$18.42	$16.58	$17.94	$20.07	$18.09	$16.74	$16.75	$14.81	$16.56
Operating expense per revenue passenger car mile ($2015)	$17.90	$20.98	$16.69	$17.11	$18.33	$18.30	$16.54	$16.36	$17.23	$16.76	$20.00
Operating expense per revenue passenger car hour ($2015)	$748.95	$809.96	$662.56	$679.29	$630.68	$705.46	$661.27	$652.19	$676.77	$655.48	$799.40
Farebox recovery ratio	27%	28%	37%	38%	37%	34%	37%	34%	39%	44%	40%

(P) indicates provisional data

AC Transit

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Directional route miles	1,352	1,365	1,365	1,365	1,364	1,278	1,254	1,254	1,254	1,201	1,238
Alameda County	1,190	1,201	1,201	1,201	1,200	1,124	1,104	1,104	1,104	1,069	1,101
Revenue vehicle miles (million)	20.9	21.2	21.6	22.0	22.1	21.6	19.2	18.2	18.0	18.2	18.8
Alameda County (million)	18.4	18.7	19.0	19.4	19.4	19.0	16.9	16.1	15.9	16.2	16.8
Revenue vehicle hours (million)	1.8	1.8	1.8	1.9	1.9	1.9	1.7	1.6	1.6	1.6	1.7
Alameda County (million)	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.4	1.4	1.5	1.5
Service Consumed											
Total annual boardings (million)	64.4	67.0	67.0	65.2	60.5	61.4	57.3	53.6	54.9	55.7	55.0
Alameda County (million)	56.7	58.9	58.9	57.4	53.2	54.0	50.5	47.2	48.3	49.6	48.9
Average Weekday boardings	209,744	226,732	226,855	218,245	197,208	197,445	190,948	174,022	171,957	181,562	179,582
Alameda County	184,575	199,524	199,632	192,056	173,543	173,752	168,034	153,039	151,322	161,590	159,828
Passenger Miles Traveled (million)	197.7	209.4	204.2	197.6	192.5	173.6	187.1	187.3	203.3	210.1	211.0
Financials											
Operating expenses ($2015 x million)	$293.6	$313.1	$321.9	$329.4	$340.5	$340.7	$315.6	$317.5	$308.7	$308.1	$343.4
Fare revenue earned ($2015 x million)	$55.4	$58.9	$59.4	$58.4	$59.7	$60.5	$56.1	$61.6	$61.5	$66.1	$65.4
Service Utilization (systemwide)											
Boardings per revenue vehicle mile	3.09	3.16	3.11	2.96	2.74	2.85	2.99	2.94	3.04	3.07	2.92
Boardings per revenue vehicle hour	36.05	36.84	36.75	34.86	31.88	33.08	34.01	33.23	34.20	34.19	32.73
Load factor	9.48	9.88	9.47	8.98	8.73	8.05	9.74	10.26	11.26	11.56	11.20
Financial Performance (systemwide)											
Operating expense per passenger mile ($2015)	$1.48	$1.50	$1.58	$1.67	$1.77	$1.96	$1.69	$1.69	$1.52	$1.47	$1.63
Operating expense per rider ($2015)	$4.56	$4.68	$4.81	$5.05	$5.63	$5.55	$5.51	$5.92	$5.62	$5.53	$6.24
Operating expense per revenue vehicle mile ($2015)	$14.07	$14.77	$14.93	$14.98	$15.44	$15.80	$16.44	$17.40	$17.10	$16.95	$18.22
Operating expense per revenue vehicle hour ($2015)	$164.32	$172.26	$176.65	$176.13	$179.55	$183.55	$187.24	$196.69	$192.20	$189.00	$204.39
Farebox recovery ratio	19%	19%	18%	18%	18%	18%	18%	19%	20%	21%	19%

(P) indicates provisional data

LAVTA

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Directional route miles	430	309	356	306	323	289	280	300	336	366	349
Revenue vehicle miles (million)	1.7	1.7	1.8	2.0	2.0	1.5	1.6	1.9	1.8	1.8	1.8
Revenue vehicle hours (million)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Service Consumed											
Total annual boardings (million)	1.9	2.0	2.1	2.2	2.2	1.7	1.7	1.8	1.7	1.7	1.7
Average Weekday boardings	6,591	6,939	7,316	7,893	7,809	6,073	6,628	6,101	6,053	5,727	5,727
Passenger Miles Traveled (million)	9.4	10.0	10.0	10.6	10.4	8.3	8.3	8.5	8.4	8.2	8.2
Financials											
Operating expenses ($2015 x million)	11.8	12.7	12.9	14.3	14.7	12.7	12.8	13.6	13.0	13.4	12.7
Fare revenue earned ($2015 x million)	2.1	2.1	2.4	2.6	2.7	2.4	2.3	2.2	2.4	2.1	2.1
Service Utilization (systemwide)											
Boardings per revenue vehicle mile	1.16	1.19	1.22	1.13	1.09	1.16	1.05	0.94	0.95	0.91	0.90
Boardings per revenue vehicle hour	16.93	17.71	17.55	16.25	15.76	17.05	15.37	14.00	13.86	13.13	13.17
Load factor	5.62	5.84	5.69	5.35	5.16	5.50	5.10	4.59	4.60	4.51	4.47
Financial Performance (systemwide)											
Operating expense per passenger mile ($2015)	$1.25	$1.28	$1.30	$1.35	$1.41	$1.53	$1.53	$1.59	$1.55	$1.64	$1.56
Operaing expense per rider ($2015)	$6.08	$6.26	$6.06	$6.41	$6.70	$7.28	$7.48	$7.77	$7.54	$8.11	$7.72
Operating expense per revenue vehicle mile ($2015)	$7.04	$7.47	$7.37	$7.22	$7.29	$8.44	$7.82	$7.30	$7.12	$7.37	$6.95
Operating expense per revenue vehicle hour ($2015)	$102.93	$110.83	$106.39	$104.18	$105.58	$124.13	$114.94	$108.68	$104.43	$106.53	$101.61
Farebox recovery ratio	17%	16%	19%	18%	18%	19%	18%	16%	19%	15%	16%

(P) indicates provisional data

Union City Transit

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Directional route miles	49	48	54	48	60	60	60	60	60	105	105
Revenue vehicle miles (thousand)	524.0	524.3	482.9	462.4	456.7	470.9	464.7	467.8	470.8	472.2	484.3
Revenue vehicle hours (thousand)	37.9	38.5	38.9	39.6	39.6	39.5	39.1	39.3	39.6	35.4	33.9
Service Consumed											
Total annual boardings (million)	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.4	0.3
Average Weekday boardings	1,319	1,335	1,464	1,518	1,637	1,567	1,793	1,780	1,783	1,443	1,179
Passenger Miles Traveled (million)	1.2	1.2	1.3	1.4	1.4	1.5	N/A	N/A	1.6	N/A	0.0
Financials											
Operating expenses ($2015 x million)	3.5	3.2	3.2	3.1	3.0	3.2	3.2	3.3	3.5	3.6	3.6
Fare revenue earned ($2015 x million)	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.3
Service Utilization (systemwide)											
Boardings per revenue vehicle mile	0.73	0.76	0.87	0.95	1.01	0.95	1.02	1.07	1.05	0.85	0.69
Boardings per revenue vehicle hour	10.05	10.33	10.85	11.05	11.70	11.34	12.13	12.74	12.52	11.38	9.83
Load factor	2.26	2.30	2.64	3.03	3.10	3.08	N/A	N/A	N/A	N/A	N/A
Financial Performance (systemwide)											
Operating expense per passenger mile ($2015)	$2.95	$2.64	$2.49	$2.18	$2.13	$2.21	N/A	N/A	N/A	N/A	N/A
Operaing expense per rider ($2015)	$9.21	$8.00	$7.54	$6.99	$6.50	$7.16	$6.75	$6.61	$7.01	$9.03	$10.82
Operating expense per revenue vehicle mile ($2015)	$6.69	$6.07	$6.58	$6.62	$6.60	$6.81	$6.88	$7.07	$7.38	$7.70	$7.44
Operating expense per revenue vehicle hour ($2015)	$92.52	$82.63	$81.82	$77.26	$76.06	$81.16	$81.82	$84.19	$87.69	$102.77	$106.34
Farebox recovery ratio	11%	12%	14%	13%	14%	12%	15%	15%	13%	11%	9%

(P) indicates provisional data

WETA

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service Provided											
Revenue vehicle miles (thousand)	75.6	76.5	77.9	77.7	78.0	78.7	73.2	82.2	295.0	310.6	308.1
Alameda County (thousand)	75.6	76.5	77.9	77.7	78.0	78.7	73.2	82.2	129.6	122.5	131.5
Revenue vehicle hours (thousand)	6.2	6.5	6.8	6.5	6.3	6.3	6.1	6.6	14.6	15.3	15.3
Alameda County (thousand)	6.2	6.5	6.8	6.5	6.3	6.3	6.1	6.6	7.7	8.4	8.8
Service Consumed											
Total annual boardings (thousand)	464.7	520.7	577.4	603.7	542.8	568.5	609.3	727.7	1,509.9	1,979.1	2,143.8
Alameda County (thousand)	466.0	558.0	577.0	603.0	542.7	568.4	609.2	727.7	851.2	1,152.4	1,285.2
Average Weekday boardings	1,419	1,594	1,777	1,873	1,694	1,760	1,945	2,274	4,677	6,086	6,737
Passenger Miles Traveled (thousand)	3054.1	3351.8	3883.3	4069.7	3703.5	3878.2	4132.4	5048.9	25626.3	30143.1	32017.6
Financials											
Operating expenses ($2015 x million)	$4.30	$4.65	$5.12	$5.53	$5.20	$5.04	$6.69	$6.81	$23.48	$25.87	$26.54
Fare revenue earned ($2015 x million)	$2.04	$2.41	$2.63	$2.73	$2.75	$2.89	$3.53	$3.35	$10.50	$13.12	$13.92
Service Utilization (Alameda County)											
Boardings per revenue vehicle mile	6.2	7.3	7.4	7.8	7.0	7.2	8.3	8.9	6.6	9.4	9.8
Boardings per revenue vehicle hour	75.7	85.8	85.3	92.2	85.5	89.9	100.5	110.2	110.1	136.8	145.3
Financial Performance (Systemwide)											
Operating expense per passenger mile ($2015)	$1.80	$1.71	$1.58	$1.58	$1.62	$1.48	$1.79	$1.46	$0.97	$0.88	$0.83
Operaing expense per rider ($2015)	$11.81	$11.03	$10.61	$10.63	$11.04	$10.07	$12.17	$10.10	$16.41	$13.42	$12.38
Operating expense per revenue vehicle mile ($2015)	$72.58	$75.06	$78.59	$82.60	$76.77	$72.72	$101.32	$89.43	$83.98	$85.48	$86.16
Operating expense per revenue vehicle hour ($2015)	$891.25	$883.29	$905.23	$981.21	$944.24	$905.69	$1,223.43	$1,113.08	$1,699.56	$1,734.12	$1,733.03
Farebox recovery ratio	47%	52%	51%	49%	53%	57%	53%	49%	45%	51%	52%

(P) indicates provisional data

Capitol Corridor JPA

	FY04/05	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15 (P)
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Daily Trains from Oakland to Sacramento	24	24/32*	32	32	32	32	32	32/30**	30	30	30
Daily Trains from San Jose to Sacramento	N/A	N/A	14	14	14	14	14	14	14	14	14
Total Annual Revenue Passenger Car Miles (millions)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.1	5.1	5.1	5.5
Total Annual Ridership (millions)	1.26	1.27	1.45	1.69	1.60	1.58	1.71	1.75	1.70	1.42	1.47
Total Annual Operating Expenses ($2015 x million)	$48.31	$43.59	$47.36	$53.05	$55.10	$59.76	$62.15	$61.47	$60.92	$56.73	$57.59
Total Revenue Earned ($2015 x million)	$19.48	$19.37	$23.18	$27.51	$27.10	$27.70	$30.13	$31.82	$30.80	$29.94	$30.09
Operating Expense per Rider ($2015)	$38.33	$34.23	$32.66	$31.31	$34.44	$37.82	$36.38	$35.20	$35.81	$39.98	$39.05
System Operating Ratio	43%	46%	48%	55%	47%	47%	48%	50%	51%	50%	52%

* = added 8 additional daily trains on August 28, 2006

** = decreased from 32 daily trains to 30 daily trains on August 13, 2012

(P) indicates provisional data

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East Bay Paratransit

	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service										
Total Ridership (all riders)	656,059	644,478	662,322	686,390	710,951	752,693	753,896	716,681	706,485	727651
Average Trip duration (minutes)	34.5	35.0	34.5	36.5	39.4	38.4	39.0	40.1	40.0	39.5
Average trip distance (miles)	10.1	10.3	10.4	10.3	10.3	9.9	10.0	10.5	10.7	10.4
On time Performance (%)	93.2%	89.5%	92.6%	92.4%	94.0%	93.6%	93.3%	92.5%	91.4%	90.9%
Overall customer satisfaction (%)	78%	78%	78%	81%	81%	79%	80%	77%	82%	77%
Total registrants/enrolled	25,973	19,331	19,048	20,124	22,269	21,435	18,586	17,245	17,253	17,419
Financials										
Total Operating Expense/Cost	$24,728,968	$26,492,409	$28,967,725	$30,655,113	$31,629,276	$33,575,359	$33,787,910	$34,298,203	$34,311,931	$36,032,064
Cost per rider (all riders)	$37.69	$41.11	$43.74	$44.66	$44.49	$44.61	$44.82	$47.86	$48.57	$49.52

LAVTA

	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service										
Total Ridership (all riders)	66,198	68,970	66,704	67,070	61,619	56,795	44,596	44,741	43,739	46,461
Average Trip duration (minutes)	34	36	39	33	32	30	42	44	30	35
Average trip distance (miles)	7.3	7.3	6.8	7	7.6	7.1	5.3	5.5	4.57	8
On time Performance (%)	90%	96%	90%	95%	97%	97%	94%	94%	95%	97%
Overall customer satisfaction (out of a 5 point scale)						4.2	4.1	4.5	3.6	4
Total registrants/enrolled	1100	1250	1678	1810	1500	1500	1400	1400	1420	1,580
Financials										
Total Operating Expense/Cost	$1,102,737	$1,650,932	$2,131,360	$1,882,773	$1,766,628	$1,719,889	$1,173,171	$1,133,961	$1,365,572	1,635,154
Cost per rider (all riders)	$ 16.66	$ 23.94	$ 31.95	$ 28.07	$ 28.67	$ 30.28	$ 26.31	$ 25.35	$ 31.22	$ 31.87

Union City Transit

	FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	FY13/14	FY14/15
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service										
Total Ridership (all riders)	19,848	16,367	16,818	18,776	16,594	18,686	20,837	19,959	19,913	21,386
Average Trip duration (minutes)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20
Average trip distance (miles)	4.6	5.1	4.7	4.8	4.9	4.0	4.0	4.4	4.3	4.5
On time Performance (%)	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Total registrants/enrolled	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1035	1022	1030
Financials										
Total Operating Expense/Cost	$ 589,181	$ 594,122	$ 569,254	$ 595,587	$ 668,638	$ 763,062	$ 811,264	$ 848,983	$ 886,478	$ 926,112
Cost per rider (all riders)	$ 29.68	$ 36.30	$ 33.85	$ 31.72	$ 40.29	$ 40.84	$ 38.93	$ 42.54	$ 44.52	$ 43.30

City-based Paratransit Trips in FY14-15

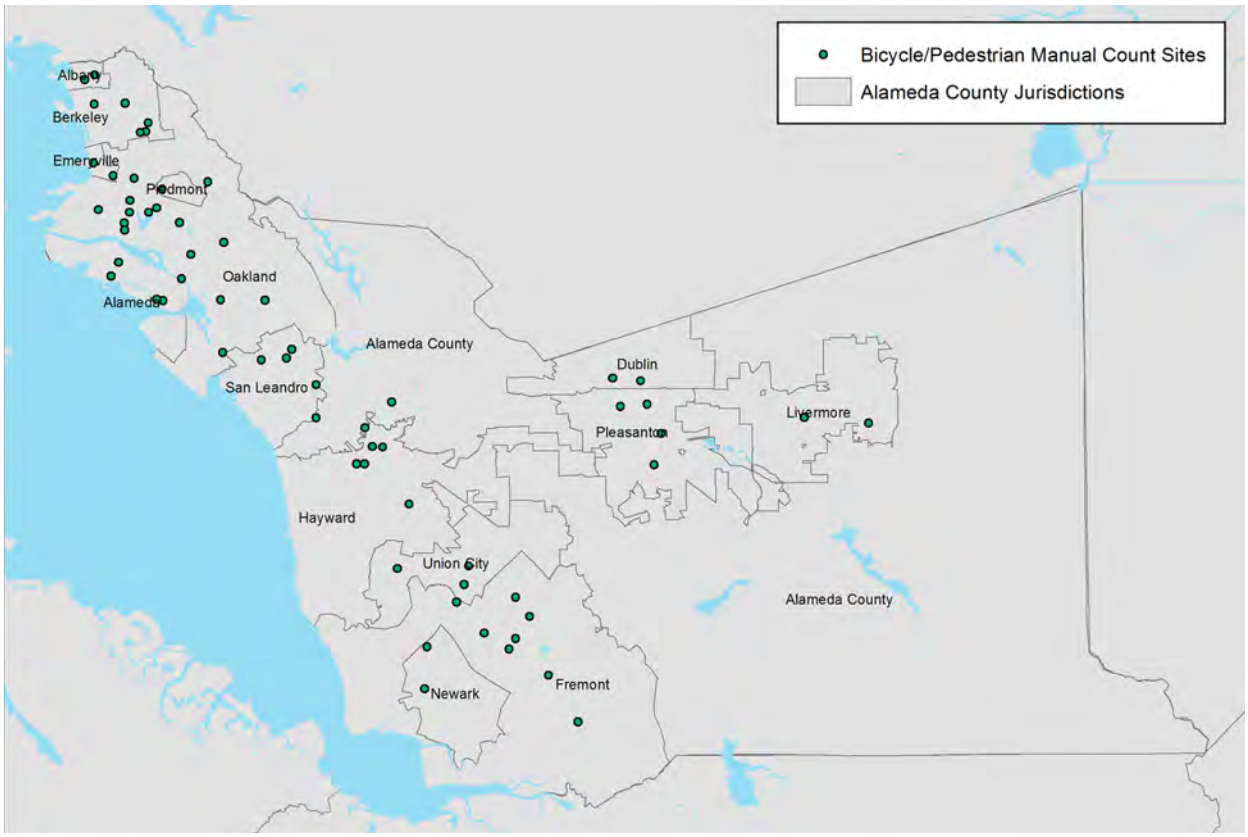
	Alameda	Albany	Berkeley	Emeryville	Fremont	Hayward	Newark	Oakland	Pleasanton	San Leandro	
Taxi	1,103	361	10,250	160	6,426	7,968		16,957		2,232	45,457
Door-to-Door				2,690	16,819	1,882	4,377	6,043	8,868		40,679
Accessible Shuttles	5,176								1,857	13,685	20,718
Accessible/ Specialized Van			628			2,253					2,881
Group Trips	1,163	6,170		7,058	4,179	220					18,790
Volunteer Driver					7,907						7,907
TOTAL	7,442	6,531	10,878	9,908	35,331	12,323	4,377	23,000	10,725	15,917	**136,432**

Alameda CTC conducts manual bicycle and pedestrian counts on an annual basis using the National Pedestrian and Bicycle Documentation Project methodology. Highlights of this methodology include:

- Counts are conducted for 2-hour periods (p.m. peak of 4-6 p.m. and either school period of 2-4 p.m. or midday period of 12- 2 p.m.)
- Counts are conducted between September and October.
- Counts are not conducted on days with rain.
- Counts are conducted via field observation in 15-minute increment tallies.
- Bicycle counts are turning movement counts.
- Pedestrian counts note the number of intersection approaches that are pedestrians cross.

Figure F1 below illustrates the 63 locations at which bicycle and pedestrian counts are conducted.

Figure F1 Bicycle/Pedestrian Manual Count Sites in Alameda County



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Bikeway Projects Completed in FY14-15

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
Alameda County			No information received					
City of Alameda	Third Street Sharrows	Third Street	Southern terminus to Ralph Appezzato Memorial Parkway	Class III: Bike Route	Bike Route (Route with shared lane markings)	6600.0	New Bikeway	No
City of Alameda	Santa Clara Sharrows	Santa Clara Avenue	Webster to Third	Class III: Bike Route	Bike Route (Route with shared lane markings)	6600.0	New Bikeway	No
City of Alameda	Central Avenue Bike Lanes	Central Avenue	Encinal/Sherman to Grand	Class II: Bike Lane	Bike Lane (Standard*)	3720.0	New Bikeway	Yes
City of Alameda	Shore Line Drive/Westline Drive Cycle track	Shore Line Drive/WestLine Drive	Broadway to Otis/Westline	Class IV: Protected Bikeway	Protected Bikeway/Cycletrack (Two-way)	17952.0	New Bikeway	No
City of Albany	Washington Avenue Bike Facility	Washington Avenue	Pomona Street to Berkeley City Limit	Class II: Bike Lane	Bike Lane (Standard*)	2323.2	New Bikeway	No
City of Albany	Washington Avenue Bike Facility	Washington Avenue	San Pablo Avenue to Pomona Street	Class III: Bike Route	Bike Route (Bicycle boulevard)	4065.6	New Bikeway	No
City of Berkeley	Channing Bike Boulevard Repaving	Channing Street	Shattuck Avenue to Piedmont Avenue	Class III: Bike Route	Bike Route (Bicycle boulevard)	8964.0	Upgrade	Yes
City of Berkeley	Alcatraz Bike Lanes Repaving	Alcatraz Avenue	Adeline to Dover	Class II: Bike Lane	Bike Lane (Standard*)	1,300	New Bikeway	Yes
City of Berkeley	Hearst Bike Lanes Repaving	Hearst Avenue	Sacramento to Martin Luther King Jr Boulevard	Class II: Bike Lane	Bike Lane (Standard*)	7842.0	Upgraded Bikeway	Yes
City of Dublin	Annual Street Overlay	Dublin Boulevard	San Ramon Road to Clark Avenue	Class III: Bike Route	Bike Route (Route with shared lane markings)	10000.0	New Bikeway	Yes
City of Dublin	Annual Street Overlay	Maple Drive	Clark Avenue to Penn Drive	Class III: Bike Route	Bike Route (Route with shared lane markings)	3200.0	New Bikeway	Yes
City of Dublin	Annual Street Overlay	Amador Plaza Road	St. Patrick Way to Dublin Boulevard	Class II: Bike Lane	Bike Lane (Upgraded*)	1000.0	New Bikeway	Yes
City of Dublin	Annual Street Overlay	Village Parkway	Dublin Boulevard to Amador Valley Boulevard	Class II: Bike Lane	Bike Lane (Upgraded*)	3400.0	New Bikeway	Yes
City of Dublin	Annual Slurry Seal	Village Parkway	Amador Valley Boulevard to North City Limit	Class II: Bike Lane	Bike Lane (Upgraded*)	12000.0	Upgraded Bikeway	Yes
City of Emeryville	Safe Routes to Transit	San Pablo Avenue at Adeline Street	36th Street to Adeline/ San Pablo intersection	Class III: Bike Route	Bike Lane (Upgraded*)	1300.0	Upgraded Bikeway	Yes
City of Emeryville	Safe Routes to Transit	San Pablo Avenue at 40th Street	Intersection	Class II: Bike Lane	Bike Lane (Upgraded*)	1300.0	Upgraded Bikeway	No
City of Fremont	TRACT 7994 Improvement Plans for the Crossing at 880 - Fremont Boulevard, Fremont CA	Fremont Boulevard	Lakeview Blvd to Dixon Landing Road	Class II: Bike Lane	Bike Lane (Standard*)	7450.0	New Bikeway	No
City of Fremont	PWC8234-O 2014 Pavement Rehabilitation Project	Alvarado Boulevard	From Merganser to Lake Arrowhead	Class II: Bike Lane	Bike Lane (Standard*)	1098.0	New Bikeway	Yes
City of Fremont	PWC8234-O 2014 Pavement Rehabilitation Project	Alvarado Boulevard	From Lake Arrowhead Avenue to Merganser Road	Class II: Bike Lane	Bike Lane (Standard*)	1104.0	New Bikeway	Yes
City of Fremont	PWC8234-O 2014 Pavement Rehabilitation Project	Fremont Boulevard	From Enea Court to Paseo Padre Parkway	Class II: Bike Lane	Bike Lane (Standard*)	400.0	New Bikeway	Yes
City of Fremont	PWC8234-O 2014 Pavement Rehabilitation Project	Fremont Boulevard	From Darwin Drive to Paseo Padre Parkway	Class II: Bike Lane	Bike Lane (Standard*)	312.0	New Bikeway	Yes

Appendix E. Bicycle Network Completion Information

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
City of Fremont	PWC8234-O 2014 Pavement Rehabilitation Project	Fremont Boulevard	From Nicolet Avenue to Tamayo Street	Class II: Bike Lane	Bike Lane (Standard*)	999.0	New Bikeway	Yes
City of Fremont	PWC8796 Citywide Bicycle Facilities Improvement Project	New bicycle detection loops at 94 intersections	N/A	N/A	N/A	N/A	N/A	Yes
City of Fremont	PWC 8669 Walnut & Argonaut Roundabout			Class II: Bike Lane	Bike Lane (Standard*)	4242	New Bikeway	No
City of Hayward	No information received							
City of Livermore	2014-01 2014 Street Resurfacing Project	various	various	Class II: Bike Lane	Bike Lane (Standard*)	5804.0	Upgraded Bikeway	Yes
City of Livermore	2014-04 2014 Slurry Seal Project	various	various	Class II: Bike Lane	Bike Lane (Standard*)	12878.0	Upgraded Bikeway	Yes
City of Livermore	2010-29 Arroyo Las Positas Trail	Arroyo Las Positas Trail		Class I: Multi-Use Trail	Multi-Use Trail (Paved)		Upgraded Bikeway	No
City of Newark	2014 Street Microsurfacing Program	Kiote Driive	Jarvis Avenue to end	Class II: Bike Lane	Bike Lane (Standard*)	2150.0	Upgraded Bikeway	Yes
City of Newark	2014 Street Microsurfacing Program	Haley Street	Cabernet Avenue to Cedar Boulevard	Class III: Bike Route	Bike Route (Signage only route)	1840.0	Upgraded Bikeway	Yes
City of Oakland	C369630: Citywide Street Rehabiltation and Reconstruction Phase II	10th Street	Madison Street, Kaiser driveway	Class II: Bike Lane	Bike Lane (Upgraded*)	2233.94	New Bikeway	No
City of Oakland	C369630: Citywide Street Rehabiltation and Reconstruction Phase II	E 10th Street	4th Avenue, 5th Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	719.02	New Bikeway	No
City of Oakland	C369640: Citywide Streets Resurfacing	105th Avenue	Edes Avenue, Pippin Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	0.36	Upgraded Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	105th Avenue	Pippin St, Russett Street	Class II: Bike Lane	Bike Lane (Standard*)	0.10	Upgraded Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Chabot Road	College Avenue, Golden Gate Avenue	Class III: Bike Route	Bike Route (Bicycle boulevard)	7392.00	Upgraded Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	E 18th Street	Lakeshore Avenue, Park Boulevard	Class III: Bike Route	Bike Route (Route with shared lane markings)	2112.00	Upgraded Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Grand Avenue	Lake Park Ave, MacArthur Blvd	Class II: Bike Lane	Bike Lane (Upgraded*)	1056.00	New Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Grand Avenue	MacArthur Boulevard, El Embarcadero	Class II: Bike Lane	Bike Lane (Upgraded*)	844.80	New Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Grand Avenue	Jean Street, Lake Park Avenue	Class III: Bike Route	Bike Route (Route with shared lane markings)	6019.20	New Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Peralta Street	Mandela Parkway, 32nd Street	Class II: Bike Lane	Bike Lane (Upgraded*)	6336.00	New Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Webster Street	14th Street, Grand Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	4804.80	Upgraded Bikeway	Yes
City of Oakland	C369640: Citywide Streets Resurfacing	Adeline Street	47th Street, 61st Street	Class II: Bike Lane	Bike Lane (Upgraded*)	7392.00	New Bikeway	Yes

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
City of Oakland	C428410-NC3: Bike Lane Improvements at Grand Ave & 27th St	27th Street	Northgate Avenue, Harrison Street	Class II: Bike Lane	Bike Lane (Upgraded*)	3168.00	Upgraded Bikeway	No
City of Oakland	C428410-NC3: Bike Lane Improvements at Grand Avenue and 27th Street	Grand Avenue	Harrison Street, Bay Place	Class II: Bike Lane	Bike Lane (Upgraded*)	2112.00	Upgraded Bikeway	No
City of Oakland	C464540: Citywide Street Rehabilitaion and Reconstruction Project	17th Street	Martin Luther King Jr Way, Broadway	Class II: Bike Lane	Bike Lane (Upgraded*)	1584.00	New Bikeway	Yes
City of Oakland	C464540: Citywide Street Rehabilitaion and Reconstruction Project	Jackson Street	8th Street, 14th Street	Class II: Bike Lane	Bike Lane (Upgraded*)	3168.00	New Bikeway	Yes
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	7th Street	Fallon Street, 5th Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	4540.80	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	7th Street	Madison Street, Fallon Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	736.03	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	8th Street	Fallon Street, Madison Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	739.20	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	Fallon Street	7th Street, 8th Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	264.00	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	Madison Street	8th Street, 2nd Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	2164.80	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	Oak Street	2nd Street, 5th Street	Class II: Bike Lane	Bike Lane (Upgraded*)	1694.88	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	Oak Street	Embarcadero, 2nd Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	528.00	New Bikeway	No
City of Oakland	G121810: Replacement of Embarcadero Bridge Over Lake Merritt Channel	Oak Street	5th Street, 8th Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	838.99	New Bikeway	No
City of Oakland	G381111: Fruitvale Avenue Sidewalk Improvement Project	Fruitvale Avenue	Alameda Avenue, E 7th Street	Class II: Bike Lane	Bike Lane (Standard*)	2112.00	Upgraded Bikeway	No

Appendix E. Bicycle Network Completion Information

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
City of Oakland	G427410: Various Streets Resurfacing & Bikeway Facilities	Broadway	38th Street, Broadway Terrace	Class II: Bike Lane	Bike Lane (Upgraded*)	9504.00	New Bikeway	Yes
City of Oakland	G427410: Various Streets Resurfacing & Bikeway Facilities	E 12th Street	14th Avenue, 21st Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	5151.97	New Bikeway	Yes
City of Oakland	G427410: Various Streets Resurfacing & Bikeway Facilities	E 12th Street	21st Avenue, 22nd Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	736.03	New Bikeway	Yes
City of Oakland	G427410: Various Streets Resurfacing & Bikeway Facilities	E 12th Street	23rd Avenue, 29th Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	6406.75	New Bikeway	Yes
City of Oakland	G427410: Various Streets Resurfacing and Bikeway Facilities	E 12th Street	29th Avenue, Fruitvale Avenue	Class II: Bike Lane	Bike Lane (Standard*)	2605.15	New Bikeway	Yes
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Bayo Vista Avenue	Oakland Avenue, Harrison Street	Class III: Bike Route	Bike Route (Route with shared lane markings)	316.80	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Harrison Street	Santa Clara Avenue, Westlake DW	Class II: Bike Lane	Bike Lane (Upgraded*)	2059.20	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Harrison Street	Bayo Vista Avenue, Santa Clara Avenue	Class III: Bike Route	Bike Route (Route with shared lane markings)	1425.60	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Harrison Street	Grand Avenue, Westlake DW	Class III: Bike Route	Bike Route (Route with shared lane markings)	3696.00	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Oakland Avenue	Orange Street, Perry Street	Class II: Bike Lane	Bike Lane (Upgraded*)	1900.80	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Oakland Avenue	Santa Clara Avenue, Bayo Vista Ave	Class II: Bike Lane	Bike Lane (Upgraded*)	1689.60	Upgraded Bikeway	No

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Oakland Avenue	Bayo Vista Avenue, Monte Vista Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	1161.60	Upgraded Bikeway	No
City of Oakland	Harrison Street/ Oakland Avenue (Grand Avenue to Piedmont) Bikeway Wayfinding Signage Project	Oakland Avenue	Perry Street, Santa Clara Avenue	Class III: Bike Route	Bike Route (Route with shared lane markings)	264.00	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	1st Avenue	E 12th Street, Foothill Boulevard	Class II: Bike Lane	Bike Lane (Upgraded*)	1478.40	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lake Merritt Boulevard	Oak Street, E 12th Street	Class II: Bike Lane	Bike Lane (Upgraded*)	9504.00	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lakeshore Avenue	Foothill Boulevard, El Embarcadero	Class II: Bike Lane	Bike Lane (Standard*)	7920.00	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lakeshore Avenue	MacArthur Boulevard, Lake Park Avenue	Class II: Bike Lane	Bike Lane (Standard*)	528.00	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lakeshore Avenue	Mandana Avenue, Winsor Avenue	Class II: Bike Lane	Bike Lane (Standard*)	4118.40	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lakeshore Avenue	El Embarcadero, MacArthur Boulevard	Class III: Bike Route	Bike Route (Route with shared lane markings)	1267.20	Upgraded Bikeway	No
City of Oakland	Lakeshore Ave/Lake Merritt Blvd Bikeway Wayfinding Signage Project	Lakeshore Avenue	Lake Park Avenue, Mandana Avenue	Class III: Bike Route	Bike Route (Route with shared lane markings)	2640.00	Upgraded Bikeway	No
City of Oakland	MacArthur Transit Village Project	BART Frontage Road	40th Street, garage driveway	Class III: Bike Route	Bike Route (Route with shared lane markings)	1056.00	New Bikeway	No
City of Oakland	MacArthur Transit Village Project	BART Frontage Road	garage driveway, W MacArthur Boulevard	Class II: Bike Lane	Bike Lane (Upgraded*)	1056.00	New Bikeway	No
City of Oakland	Martin Luther King Jr Way/20th Street (2nd Street to Harrison Street) Bikeway Wayfinding Project	20th Street	San Pablo Avenue, Harrison Street	Class III: Bike Route	Bike Route (Signage only route)	3952.44	Upgraded Bikeway	No

Appendix E. Bicycle Network Completion Information

Jurisdiction	Project Name	Roadway/ Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Length (linear feet, both directions)	New Installation or Upgrade?	Coordinated with Repaving (Y/N)?
City of Oakland	Martin Luther King Jr Way/20th Street (2nd Street to Harrison Street) Bikeway Wayfinding Project	Martin Luther King Jr Way	2nd Street, San Pablo Avenue	Class III: Bike Route	Bike Route (Signage only route)	10280.36	Upgraded Bikeway	No
City of Oakland	n/a	Keith Avenue	College Avenue, Broadway	Class II: Bike Lane	Bike Lane (Upgraded*)	2112.00	New Bikeway	No
City of Piedmont	No information received							
City of Pleasanton	Foothill/I-580 interchange improvements	Foothill Road	Dublin Canyon to I-580 westbound ramps	Class II: Bike Lane	Bike Lane (Standard*)	3600.0	New Bikeway	No
City of Pleasanton	Bernal/I-680 interchange improvements	Bernal Avenue	Meadowlark Dr to I-680 northbound ramps	Class II: Bike Lane	Bike Lane (Standard*)	2000.0	New Bikeway	Yes
City of Pleasanton	Black Avenue traffic calming	Black Avenue	Santa Rita Road to Hopyard Road	Class III: Bike Route	Bike Route (Route with shared lane markings)	5000.0	New Bikeway	No
City of Pleasanton	Hopyard Road and Golden Road intersection improvements	intersection	Hopyard Road and Golden Road	Class II: Bike Lane	Bike Lane (Standard*)	400.0	New Bikeway	No
City of San Leandro	Street Sealing	Washington Avenue	139th Avenue and 143rd Avenue	Class II: Bike Lane	Bike Lane (Upgraded*)	1600.0	New Bikeway	Yes
City of Union City	City-Wide Trail System Rehabilitation (91012)	Miscellaneous Class I trails along creek embankments	Various	Class I: Multi-Use Trail	Multi-Use Trail (Paved)	3750.0	Upgraded Bikeway	No
City of Union City	Whipple Road Overlay bet. Amaral and Ithica (91310)	Whipple Road	Amaral Street to Ithaca Street	Class II: Bike Lane	Bike Lane (Standard*)	44000.0	New Bikeway	Yes

Pedestrian Projects Completed in FY14-15

Jurisdiction	Project Name	Major Trail/ Pathway Maintenance	Traffic Calming Elements	Crossing Improvements	Widened Sidewalk	Sidewalk Gap Closure	New Trail	Pedestrian Lighting	Landscaping/Streetscape	ADA/Curb Ramps	Other (explain in notes)	Roadway or Intersection	Limits (From, To - If Roadway)
Alameda County								**No information received**					
City of Alameda	Shore Line Drive/ Westline Drive Cycle track (March 2015)		X	X					X	X	X	Shore Line Drive/Westline Drive	Broadway to Otis/Westline
City of Alameda	Sidewalk Replacement											Citywide	
City of Alameda	ADA improvements as part of annual Street Resurfacing Program									X		Citywide	
City of Berkeley	Citywide Repaving Program									X		Various	Various
City of Berkeley	FY15 Drainage and Valley Gutter Improvements									X			
City of Berkeley	FY15 Drainage and Valley Gutter Improvements										X		
City of Berkeley	FY 2015 Proactive Sidewalk Program										X		
City of Berkeley	FY 2015 Responsive Sidewalk Program										X		
City of Dublin	Crosswalk between Regional Street and Donohue Drive		X	X						X	X	Amador Valley Boulevard	Between Regional Street and Donohue Drive
City of Dublin	Annual Sidewalk Repair and Curb Ramp Installation Program					X				X		Clark Avenue	Dublin Boulevard to 400' south of Dublin Boulevard
City of Dublin	Annual Sidewalk Repair and Curb Ramp Installation Program									X		Citywide	Citywide
City of Emeryville	Cherry Road Streetscape project		X	X	X			X	X	X		Cherry Road	Elm Street, Maple Street
City of Emeryville	Citywide curb ramp program									X			
City of Emeryville	Broadway/A Street Pedestrian Safety Project			X							X	Broadway/A Street intersection	
City of Emeryville	Citywide Traffic Calming Program		X										
City of Fremont	PWC 8444F Citywide intersection ramps and 8195 Pavement Maintenance									X		112 citywide	
City of Fremont	PWC 8669 Walnut and Argonaut Roundabout		X	X	X	X			X	X		Walnut-Argonaut-Parkhurst	
City of Fremont	PWC 8706 East Warren Sidewalk			X		X				X			From Yakima Drive to South
City of Fremont	PWC 8725 LED Streetlight Parking Lot Light Project										X		
City of Fremont	PWC 8736 Alder Nicolet Sidewalk Improvements			X	X	X				X			From Nicolet Street to Alder Court
City of Fremont	PWC 8765 Intersection Improvements on Fremont Boulevard at Alder Avenue		X	X	X					X		Fremont Boulevard and Alder Avenue	
City of Fremont	PWC 8787 Intersection Improvements at Fremont Boulevard and Eggers Drive			X	X					X		Fremont Boulevard and Eggers Drive	
City of Fremont	PWC 8828 Nursery Avenue Safety Improvements		X	X		X				X		Nursery Avenue	Niles Boulevard to Mission Boulevard

Appendix F: Pedestrian Project Completion Information

Jurisdiction	Project Name	Major Trail/ Pathway Maintenance	Traffic Calming Elements	Crossing Improvements	Widened Sidewalk	Sidewalk Gap Closure	New Trail	Pedestrian Lighting	Landscaping/Streetscape	ADA/Curb Ramps	Other (explain in notes)	Roadway or Intersection	Limits (From, To - If Roadway)
City of Hayward	**No information received**												
City of Livermore	2014-01 2014 Street Resurfacing Project									X		Various	Various
City of Livermore	2014-04 2014 Slurry Seal Project									X		Various	Various
City of Livermore	2012-25 Safe Routes to School Junction Avenue			X		X				X		Various	Various
City of Livermore	2014-07 ADA Access Ramps Project			X						X		Various	Various
City of Livermore	2010-29 Arroyo Las Positas Trail	X											
City of Livermore	2014-02 2013-2015 Sidewalk Repair Program			X							X	Various	Various
City of Newark	2014 Curb Gutter and Sidewalk Replacement	X				X				X	X		Citywide Program
City of Oakland	Street Rehabilitation		X							X			17th Street between Castro Street and Lakeside Drive; Jackson Street between 11th Street and Lakeside Drive
City of Oakland	Pedestrian Safety Improvement Project (Various locations)			X						X			Shattuck Avenue and 55th Street, 40th and Market Street, Fruitvale Avenue and E. 27th Street, MacArthur Boulevard and 82nd Avenue
City of Oakland	MacAthur Boulevard Street Improvements		X	X	X			X	X	X			MacArthur Boulevard from 73rd Avenue to 77th Avenue, 89th Avenue to 90th Avenue, and 106th Avenue to Durant Avenue
City of Oakland	BART 17th Street entry between Telegraph and Broadway								X				17th St between Telegraph and Broadway
City of Oakland	Signal Modification at Webster/19th			X								Webster/19th	
City of Oakland	Foothill/Seminary Streetscape		X	X	X				X	X			Foothill Blvd between 62nd Avenue and Brookdale; Seminary Avenue between Fleming Avenue and Bancroft
City of Oakland	Foothill Streetscape Phase II		X	X				X	X	X			Foothill between Austin and 35th Avenue
City of Oakland	Foothill - Melrose - High St Streetscape		X	X				X	X	X			Foothill from Congress Avenue to Cole Street
City of Oakland	Citywide curb ramp installation									X			Various locations
City of Oakland	Citywide sidewalk repair										X		Various locations
City of Oakland	Road diets implemented through various projects		X	X									Keith Avenue between College Avenue and Broadway; 10th Street between Madison Street and Oak Street; E 12th Street between 14th Avenue and Fruitvale Avenue; Broadway between 38th Street and Broadway Terrace; 17th Street between Martin Luther King Jr Way and Telegraph Avenue; Adeline Street between 47th Street and 61st Street

Jurisdiction	Project Name	Major Trail/ Pathway Maintenance	Traffic Calming Elements	Crossing Improvements	Widened Sidewalk	Sidewalk Gap Closure	New Trail	Pedestrian Lighting	Landscaping/Streetscape	ADA/Curb Ramps	Other (explain in notes)	Roadway or Intersection	Limits (From, To - If Roadway)
City of Piedmont	**No information received**												
City of Pleasanton	Foothill/I-580 Interchange improvements			X		X			X	X			Dublin Canyon to I-580 eastbound ramps
City of Pleasanton	Bernal/I-680 Interchange improvements			X		X				X			Foothill Rd to I-680 northbound ramps
City of Pleasanton	Black Ave traffic calming		X	X									
City of Pleasanton	Citywide ADA curb ramp program									X			
City of Pleasanton	Hopyard Road and Golden Road			X						X			Golden Road at Hopyard Road
City of San Leandro	Cherry Road Streetscape project		X	X	X			X	X	X		Cherry Road	Elm Street, Maple Street
City of San Leandro	Citywide curb ramp program									X			
City of San Leandro	Broadway/A Street pedestrian safety project			X							X	Broadway/A Street intersection	
City of San Leandro	Citywide traffic calming program		X										
City of Union City	Wheelchair Ramps (91106 &91503)									X			Various spot locations
City of Union City	Sidewalk Repairs (91216)										X		Various locations
City of Union City	Pedestrian Bridge Rehabilitation (91306)	X											Two pedestrian bridges across creeks

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