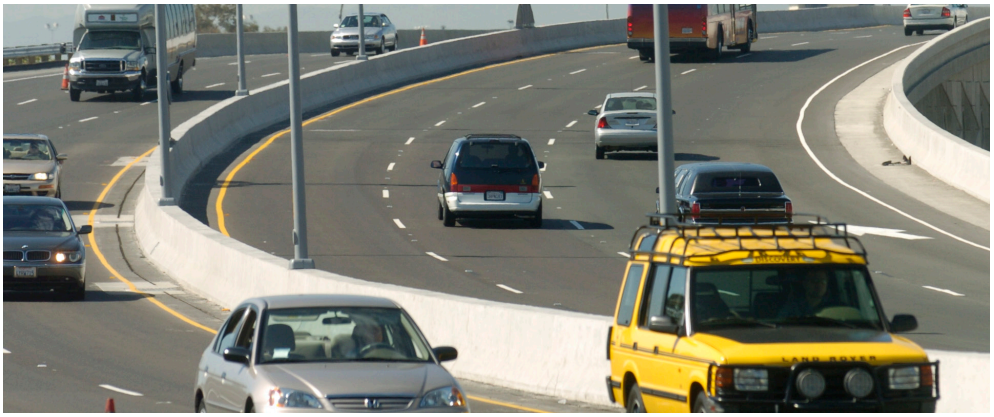
2013 Performance Report

State of the Transportation System in Alameda County

ALAMEDA
County Transportation Commission



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Purpose of the Performance Report

The Alameda County Transportation Commission (Alameda CTC) prepares a Performance Report annually to assess the state of the transportation system in Alameda County. The Performance Report tracks progress towards a series of performance measures which are aligned with the goals adopted in the Alameda Countywide Transportation Plan (CWTP) and the Congestion Management Program (CMP) statute. The Performance Report measures are designed to be quantitative metrics that can be evaluated using existing data sources. The Performance Report evaluates measures in the areas of overall commute patterns as well as roadways, transit, biking, and walking—the major elements that comprise the Alameda County transportation system.

Alameda CTC guides transportation investments through the CWTP and CMP documents which are prepared on regular cycles to identify short- and long-term projects and programs to support the movement of people and goods using a variety of transportation modes. The Performance Report is critical to assessing the success of past transportation investments and illuminates transportation system needs that will require future investments. The Performance Report—together with Alameda CTC's other monitoring and analysis activities—evaluates projects and programs selected for inclusion in the CWTP and CMP and highlights the benefits delivered to all users of the Alameda County transportation system.

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 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 2012-2013 (FY12-13). However, some data is reported based on calendar years, and for some data sources, the release of 2012 or 2013 editions lags preparation of the report. Therefore, this report uses the most current data available in the late-2013 to early-2014 timeframe, when Alameda CTC prepared the report and includes some data from 2010 or 2011.

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

Acronyms and Abbreviations

ABAG . . . . . Association of Bay Area Governments
ACCMA . . . . . Alameda County Congestion Management Agency
ACE . . . . . .Altamont Commuter Express
ACTA. . . . . .Alameda County Transportation Authority
ACTIA . . . . . .Alameda County Transportation Improvement Authority
Alameda CTC. . . . . Alameda County Transportation Commission
ADA . . . . . .Americans with Disabilities Act
BAAQMD . . . . . .Bay Area Air Quality Management District
BART . . . . . .San Francisco Bay Area Rapid Transit District
Caltrans . . . . . .California Department of Transportation
CCJPA. . . . . .Capitol Corridor Joint Powers Authority
CEQA . . . . . .California Environmental Quality Act
CIP . . . . . Capital Improvement Program
CMA . . . . . .Congestion Management Agency
CMP . . . . . .Congestion Management Program
CTC . . . . . .California Transportation Commission
CWTP . . . . . Countywide Transportation Plan
EIR . . . . . .Environmental Impact Report
FHWA . . . . . .Federal Highway Administration
FTA . . . . . Federal Transit Administration
GHG . . . . . greenhouse gases
LAVTA . . . . . Livermore-Amador Valley Transportation Authority
LOS. . . . . level of service
MTC . . . . . .Metropolitan Transportation Commission
MTS. . . . . .Metropolitan Transportation System
NEPA. . . . . National Environmental Policy Act
PCI . . . . . .pavement condition index
PM . . . . . particulate matter
RVH . . . . . .revenue vehicle hour
RVM . . . . . .revenue vehicle mile
SCS. . . . . Sustainable Communities Strategy
SR. . . . . State Route
SJRRC . . . . . .San Joaquin Regional Rail Commission
SWITRS . . . . . Statewide Integrated Traffic Records System
TEP . . . . . .Transportation Expenditure Plan
VHD . . . . . vehicle hours of delay
VMT . . . . . vehicle miles traveled

Executive Summary

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Alameda County's extensive multimodal transportation network provides mobility and access for people and goods traveling within the county and beyond. Alameda CTC's fiscal year 2012-13 (FY12-13) Performance Report captures trends in a series of performance measures that track progress toward key goals for overall commuting patterns, roadways, transit, biking, and walking. Data included are for FY12-13, except when the most recent data available are from earlier years.

Commuting Patterns

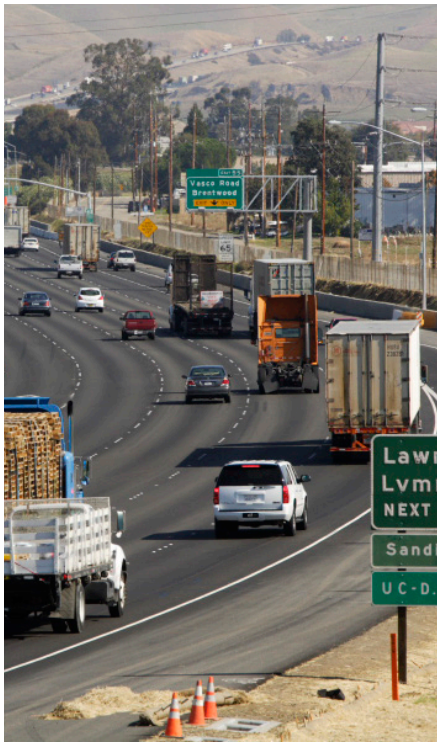
Alameda County's transportation system moves commuters who travel within, to, from, and through Alameda County, supporting the economy of the county and the larger region. Roughly 27 percent of regional commutes involve Alameda County in some way, though the county has just 21 percent of the region's population.

Over the last decade, Alameda County commutes have become more regional in nature. The share of workers living in Alameda County who also work within the county has declined from 54 percent to 48 percent (Alameda County workers are now more likely to seek employment outside of the county. At the same time, the share or workers employed in Alameda County who live in another county has increased from 48 percent to 53 percent (Alameda County employers are now more likely to hire workers from a broader regional labor market).

Commuting mode share moved marginally toward alternative modes in 2012. Driving mode share declined slightly from 2011 to 2012 (work trips only), with drive-alone trips falling from 65.5 percent to 63.6 percent of trips. The biggest increases in commute mode share from 2011 to 2012 were seen by BART, bus, and working from home. Carpooling mode share increased slightly from 2011 to 2012, after several consecutive years of decline. The relative stability of commuting mode share speaks to the maturity of Alameda County's transportation network and built environment.

Over the long term (between 2000 and 2012), the combined commuting mode share of driving-alone and carpooling has dropped by about 5 percent. During this period working from home had the greatest mode

Alameda County's transportation system is critical, not just to the travel of Alameda County residents and workers, but also to overall regional commuting, the movement of goods, and as a backbone to the economy.



share gain, increasing by 2.4 percent. Over the last 12 years, bus and BART commuting mode share have both climbed, and bicycling's commuting mode share has nearly doubled. Walking commute mode share has also increase slightly.

Roadways

A recovering job market and economy generally led to slower, more-congested roadway system performance in 2013. Average weekday a.m. and p.m. peak-hour freeway speeds both declined in FY12-13, as compared to FY11-12, with speeds declining by more than 5 percent on a number of key stretches of the county freeway system. This decline in speeds generally translated to increases in delay. The most severe freeway delay (excess travel time from speeds dropping below 35 mph) climbed by 21 percent in FY12-13 over the previous year.

Local street and road average pavement condition Index (PCI), a measure of pavement quality, declined slightly to 69 after reaching a five-year high of 70 in 2011. More than 20 percent of the centerline mileage in Alameda County has a PCI of "failed" or "poor," and many more miles are classified as "at risk," meaning they will deteriorate rapidly if preventative maintenance is not undertaken. Poor pavement quality affects road users of all types, and addressing outstanding maintenance needs will require significant future adherence to "fix it first" commitments.

Collisions on Alameda County roadways declined by 5 percent between 2010 and 2011 (the most recent year for which complete data is available), which includes a 1 percent decline in injury and fatal collisions. Since 2002, collisions have dropped by 42 percent and have decreased in every consecutive year. However, the absolute number of collisions on Alameda County roadways (18,266 in 2011, of which 6,225 were injury or fatal collisions) indicates that roadway safety requires continued attention.

Transit

Transit plays a critical role in Alameda County by providing vital accessibility to individuals and businesses in Alameda County. Transit ridership increased by 4 percent in FY12-13, the second consecutive year of ridership growth. The ridership growth in FY12-13 was the largest percentage increase since FY05-06, and within Alameda County, ridership now tops 95 million annual boardings.

BART, bus, and ferry services all saw increases in ridership, while commuter rail saw a slight decline. Bus ridership in particular was a bright spot, as it increased by 2 percent after four years of decline or stagnation during the recent recession. Bus ridership began to recover, even though service

levels have generally not been restored from major service cuts instituted during the recession. While bus ridership began to recover in FY12-13, ridership is still below pre-recession levels, and since 2005, bus ridership has dropped from 63 percent to 53 percent of overall transit boardings in Alameda County.

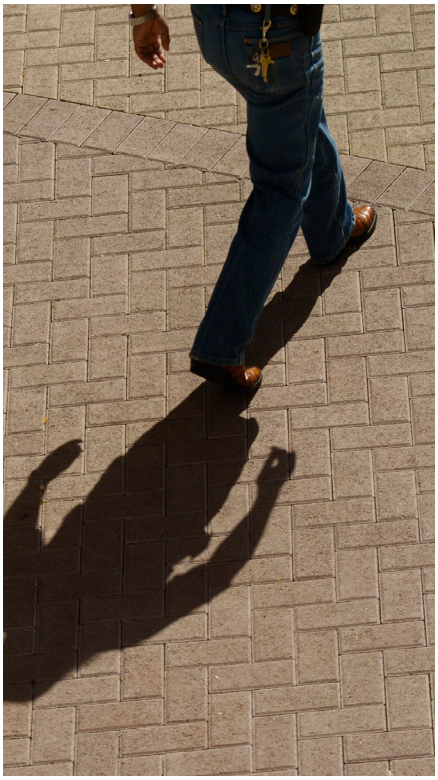
Service utilization—the ratio of how many people ride transit to the amount of revenue service operated—is a measure of transit operator success that takes into account differences in level of service operated from year to year. BART increased boardings per revenue vehicle hour (RVH) by 6 percent in 2013, and has steadily improved performance in this measure since 2005, as it has successfully attracted new riders while adding minimal additional service. AC Transit also improved service utilization in 2013, after performance on this measure declined in 2012; however, AC Transit's service utilization is 5 percent lower than it was in 2005 likely due to ridership declines from the recession and service cuts. Other smaller operators have had a range of experiences with service utilization.

All transit operators saw an increase in the distance or time that their vehicles operate between service interruptions in 2013. Despite these improvements, service interruptions remain an issue, as reliability issues cause significant disruptions and can result in loss of riders. Vehicle breakdowns and other equipment failures are frequently a product of aging equipment and infrastructure, and though service interruptions largely declined in 2013, the county's transit operators have a number of aging assets that require rehabilitation or replacement. AC Transit unveiled the first shipment of a new bus purchase in FY12-13, and BART is procuring new rail cars but has significant track, communications, infrastructure, station, and other capital needs to modernize its almost 40 year old system.

Bicycling

Bicycling's work-trip mode share dipped slightly in 2012 as compared to 2011, but it has nearly doubled over the last decade. Moreover, bicycle count data suggests significant growth in participation and suggests that bicycling is growing for all types of travel (including shopping, recreation, school, and other non-work travel). The number of cyclists observed at the 61 count locations monitored by Alameda CTC increased by 42 percent over the last year; and a smaller set of locations monitored over the long term has nearly doubled since 2002.

Expanding bicycling access and safety will offer greater opportunities for more biking. The gender imbalance in cyclists (only 33 percent of whom were women, according to 2012 counts, up from 18 percent in 2008)



attests to the need for investment that supports greater bicycling access for men, women and children.

Collisions involving bicyclists increased slightly in 2011 from 2010 and have generally climbed over the last decade. However, the number of collisions involving cyclists has grown more slowly than participation in cycling. Yet, safety and perceived lack of safety remain barriers that prevent cycling from being a more prevalent activity—with participation by people who reflect the demographic makeup of the overall population that lives and works in Alameda County.

During the last year, jurisdictions reported implementing over 25 miles of bikeways, including nearly 4 miles of Class I multi-use trails. Several jurisdictions also implemented varying types of upgraded bicycle lanes including bicycle lanes that use buffers, green paint, and other treatments to increase visibility and comfort for cyclists.

At the conclusion of FY12-13, nine of 15 jurisdictions had adopted local bicycle master plans within the last five years. Three of the remaining six have plan development or update work underway.

Thousands of Alameda County residents and workers participated in bike safety education classes (which have grown steadily since they began in FY09-10), and many more have participated in or seen Alameda CTC's *Ride Into Life* encouragement campaign, which supports 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 the mode used by between 3 percent and 4 percent of Alameda County workers for their commute 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).

Pedestrian counts collected through the Alameda Countywide Count Program suggest that pedestrian volumes are increasing, as evidenced by an 8 percent increase in 2012.

Collisions involving pedestrians dipped slightly in 2011, and have generally declined over the last decade even as pedestrian counts have increased, suggesting a drop in the underlying collision rate.

In FY12-13, 13 jurisdictions reported completing a total of 30 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 FY12-13, eight of 15 jurisdictions had adopted local pedestrian master plans within the last five years. Four of the remaining seven have plan development or update work underway.

In addition, the Alameda County Safe Routes to School Program, which promotes walking and biking to get to school, continued its rapid growth; the program was in 147 total schools during the 2012-13 school year, an increase of 45 schools over the previous school year.

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Alameda County's Transportation System

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Multimodal Transportation Network

Alameda County has an extensive multimodal transportation network that facilitates the safe and efficient movement of goods and people within the county and beyond. The 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. Five 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 the Altamont Pass).

Beyond its freeway network, Alameda County has an extensive system of highways and local roads. Major arterial routes serve important county and regional connectivity functions but are also frequently multimodal corridors with transit service, bikeways, and pedestrian accommodations. In many cases downtown main streets are also arterial routes (refer to Figure 1 on the following page). The majority of Alameda County's roadway mileage consists of local streets and roads, and roadways encompass not just the pavement but also curbs, gutters, sidewalks, signage, and traffic signals. On many roads, delay issues, maintenance backlogs, and funding shortfalls affect driving trips as well as transit service, walking and bicycling. Transportation demand management programs supplement the physical roadway infrastructure to maximize limited capacity by shifting trips to non-solo driving modes.

Alameda County has an extensive multimodal transportation network that facilitates the safe and efficient movement of goods and people within the county and beyond.

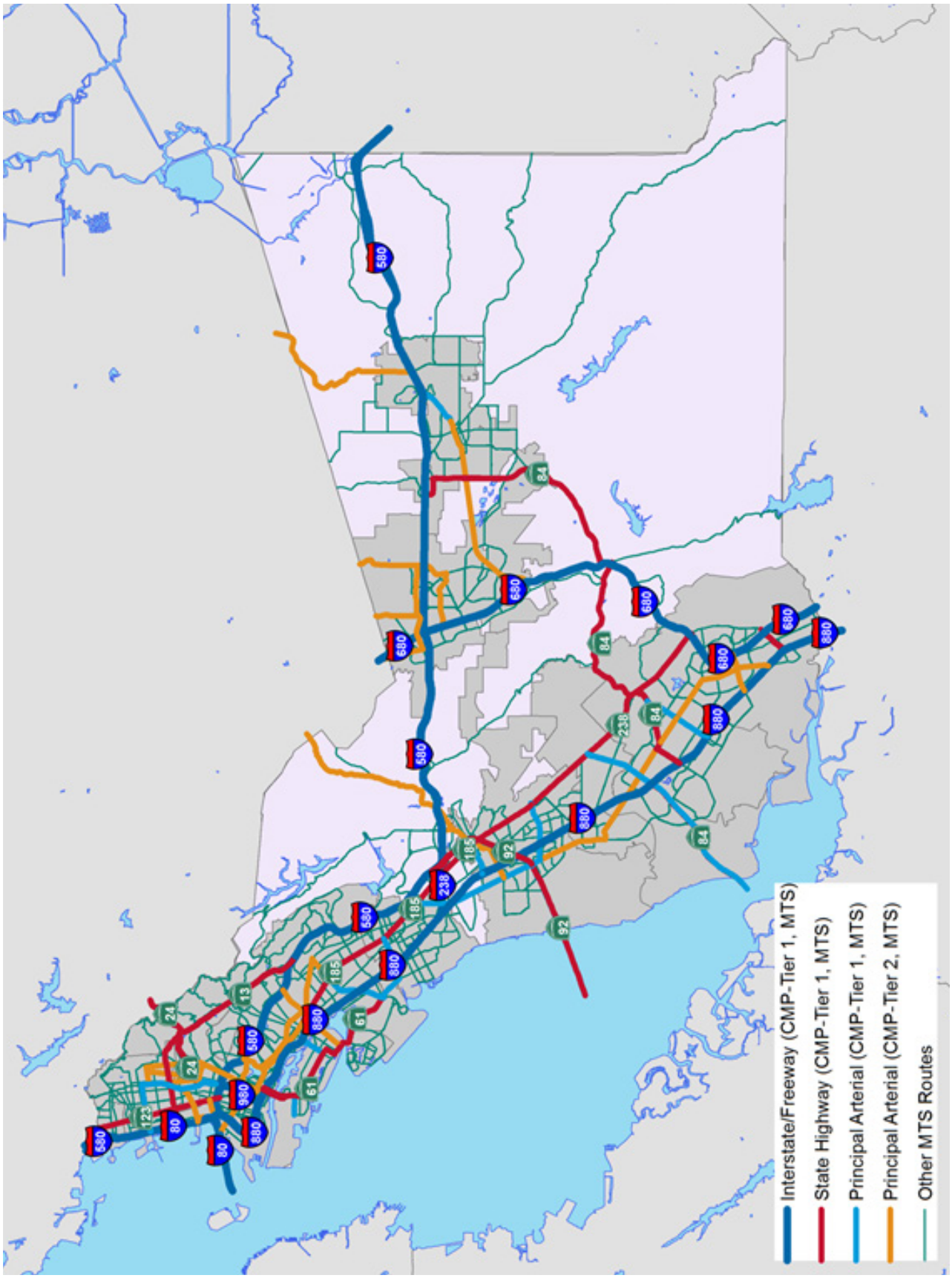


Figure 1. Alameda County roadway system

Transit service in Alameda County includes rail, bus, ferry, and shuttle service provided by a number of public and private operators (refer to Figure 2 on the following page). The major operators in the county are the Alameda-Contra Costa County Transit District (AC Transit) and the San Francisco Bay Area Rapid Transit District (BART), which account for the majority of transit usage and provide mobility at both a regional and sub-county level. Other smaller volume operators including Altamont Commuter Express (ACE), Amtrak Capitol Corridor, Livermore Amador Valley Transit Authority (LAVTA), Union City Transit, and San Francisco Bay Area Water Emergency Transportation Authority (WETA) provide critical service to more specific travel markets. Transit service entails significant public investment in both capital and operations but yields significant public benefits including travel choices, congestion reduction, air quality benefits, efficient use of space in urban environments, and mobility that is essential from economic development and social equity standpoints.

Alameda County has extensive infrastructure to serve bicyclists and pedestrians and continues to invest in making these modes of travel safe and convenient for users of all abilities and trips of all types. The countywide bicycle network includes 394 miles of bikeways and is comprised of major interjurisdictional routes, trails, and other routes that provide key linkages to transit and regional activity centers. Local bicycle networks that connect to countywide bikeways supplement this network. Alameda County and the region have also been leaders in integrating bikes and transit through strategies such as secure bike parking at stations and convenient ways to take bikes on board transit vehicles. Pedestrian infrastructure includes local roads 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 downtown areas and transit hubs. In addition to 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 it has the distinction of handling more exports than imports. Meanwhile, the Oakland International Airport is the second busiest cargo airport in California and moves a significant amount of 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.

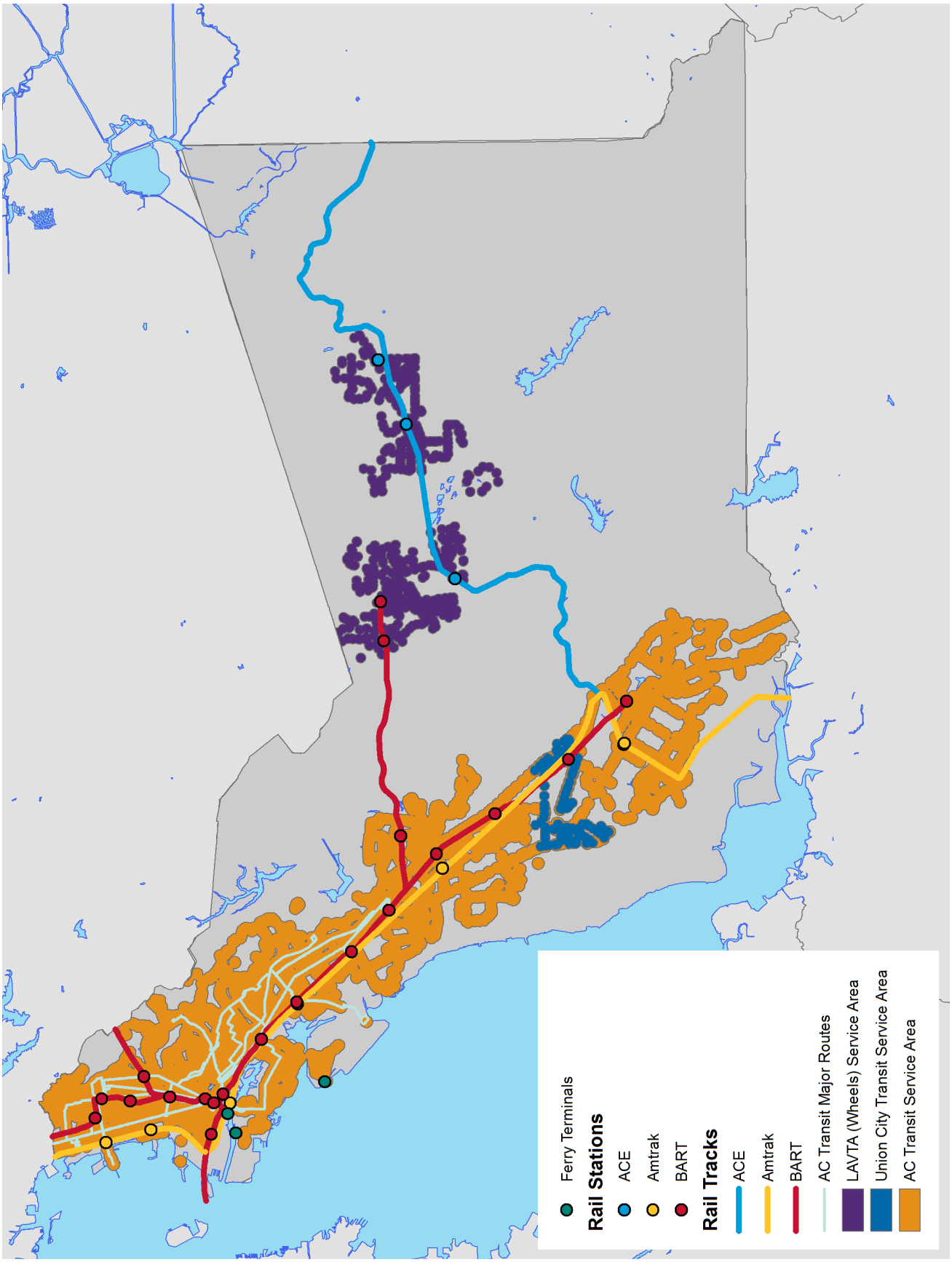


Figure 2. Alameda County transit operator service areas

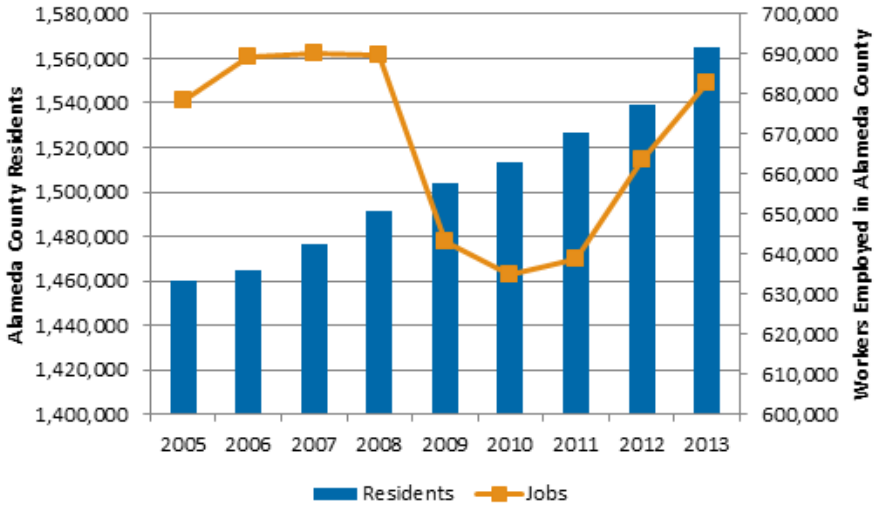
Transportation Planning Challenges

Alameda County has an extensive transportation network, yet the planning challenges to maintain and enhance this network are many. Much of the transportation infrastructure in Alameda County is aging, and the county faces the challenge of maintaining it in a state of good repair in an era of dwindling state and federal funding. Besides maintaining the existing system, numerous system enhancements must be addressed across all modes including addressing capacity shortages, issues of speed and reliability, and closing gaps in coverage or networks. Central planning objectives in Alameda County include addressing safety, congestion, air quality, greenhouse gas emissions, and sea level rise, and ensuring that the system extends basic mobility and accessibility to travelers of all types. In addition, transportation planning must be coordinated with land use planning, economic development goals, and actions of jurisdictions.

Demand Factors

The performance of Alameda County's transportation system depends greatly on how many people live and work in Alameda County, and how much these residents and workers choose to travel. In 2013, Alameda County added 25,000 residents and experienced the largest percentage of population growth of any county in California. Refer to Figure 3 for the number of residents living and workers employed in Alameda County.

Figure 3. Alameda County population and employment

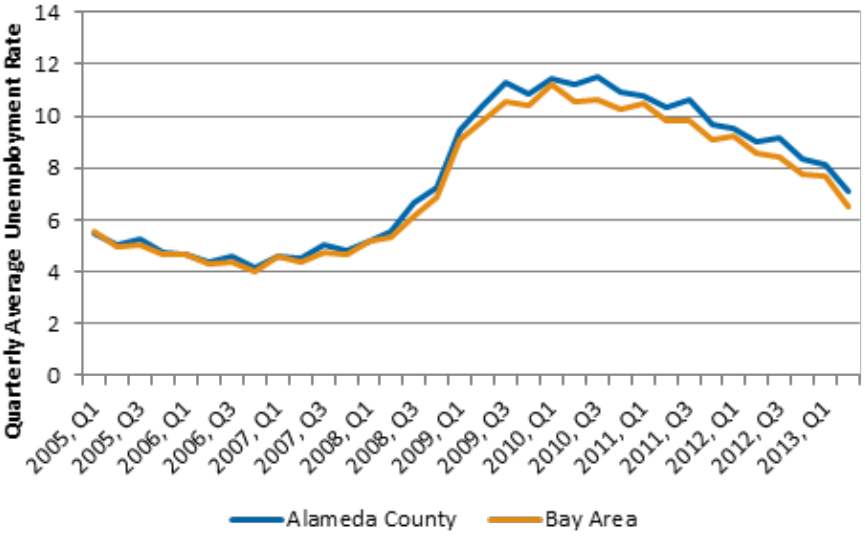


Sources: State of California, Department of Finance, *Population Estimates and Components of Change by County*, July 1, 2010-2013 and July 1, 2000-2010. Bureau of Labor Statistics Quarterly Census of Employment and Wages for Alameda County (June 2013 estimates).

Also in 2013, Alameda County employers added nearly 20,000 jobs, the second consecutive year of job growth after five years of stagnation or decline. This job growth is reflected in a number of transportation system indicators, as more people entering the workforce generally means increased travel.

However, employment in Alameda County remains below 2008 levels, even though the county has added population since that time. Moreover, the economic recovery in Alameda County has lagged that of the region. Alameda County's unemployment rate mirrored that of the regional economy through much of the 2000s, yet Alameda County emerged from the Great Recession with an unemployment rate roughly half a percentage point higher than the Bay Area as a whole (refer to Figure 4).

Figure 4. County and regional unemployment rate



Source: Bureau of Labor Statistics Local Area Unemployment Series for Alameda County and San Jose-San Francisco-Oakland Combined Statistical Area.

Commute Patterns

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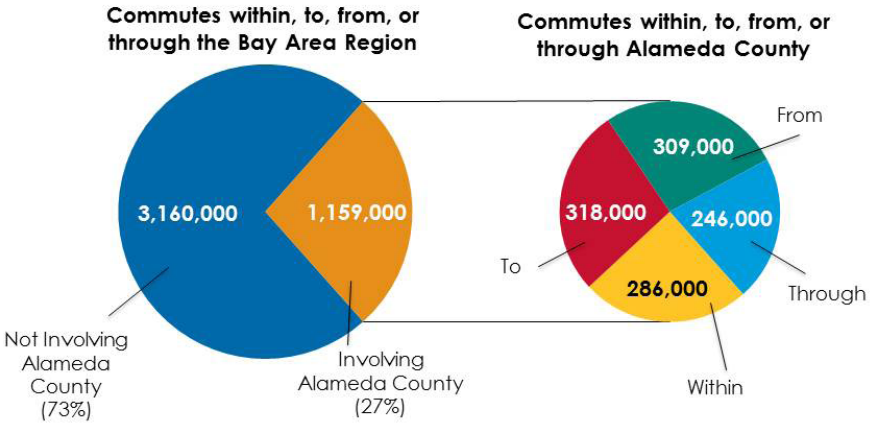
Origins and Destinations (2011)

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 has only 21 percent of the region's population.
- Roughly equal numbers of workers commute entirely within Alameda County (25 percent), commute from residences in Alameda County to jobs in other counties (27 percent), and commute from other counties to jobs in Alameda County (27 percent).
- A significant share (21 percent) of commuting travel in Alameda County is pass-through travel (refer to Figure 5).

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

Figure 5. Alameda County and regional commute flows in 2011



Source: U.S. Census Bureau Longitudinal Employment Household Dynamics program, OnTheMap application.
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 "Other regional commuters" include travel into and out of the mega-region, which includes counties that are adjacent to the 9-county Bay Area. The year 2011 is the most recent year for which data is available.

Long-term Trends in Commute Flows (2002 to 2011)

The regional nature of commuting patterns in Alameda County increased between 2002 and 2011. Figure 6 shows the origin-destination breakdown of workers living in Alameda County and workers employed in Alameda County while Figure 7 shows the origin-destination breakdown of workers living in Alameda County by wage earned.

- The share of workers who live in Alameda County who commute to a job in Alameda County declined by about 6 percent from 54 percent to 48 percent. In other words, Alameda County workers are now more likely to seek employment in another county.
- The share of workers employed in Alameda County who commute from a residence in another county increased from 48 percent to 53 percent. Alameda County employers are now more likely to hire workers from a broader regional labor market.
- The shifts in commute flows may reflect a somewhat different regional distribution of jobs following the Recession and subsequent recovery.
- Among workers living in Alameda County, middle and high-income earners are most likely to seek employment opportunities outside the county. The share of workers commuting to jobs in another county increased for all income brackets between 2002 and 2011.

Figure 6. Composition of workers with commutes involving Alameda County

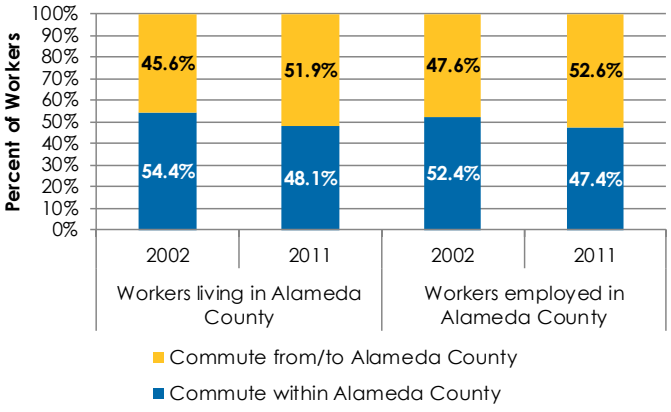
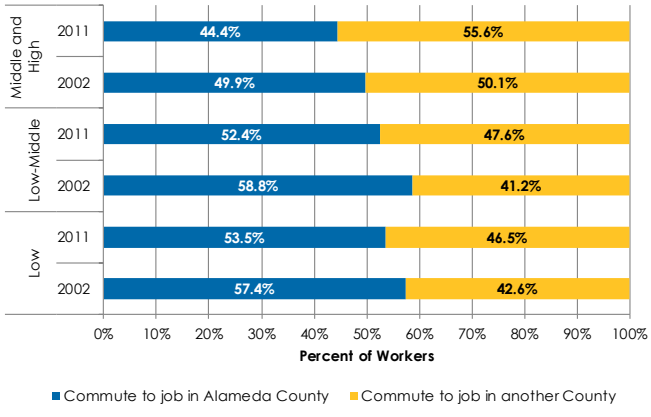


Figure 7. Composition of workers with commutes involving Alameda County by income bracket



Source for Figures 6-7: U.S. Census Bureau Longitudinal Employment Household Dynamics program, OnTheMap application.
Notes: "Low" income workers are those earning less than $15,000 annually. "Low-Middle" income workers earn $15,000 to $40,000 annually. "Middle and High" income workers earn more than $40,000 annually.

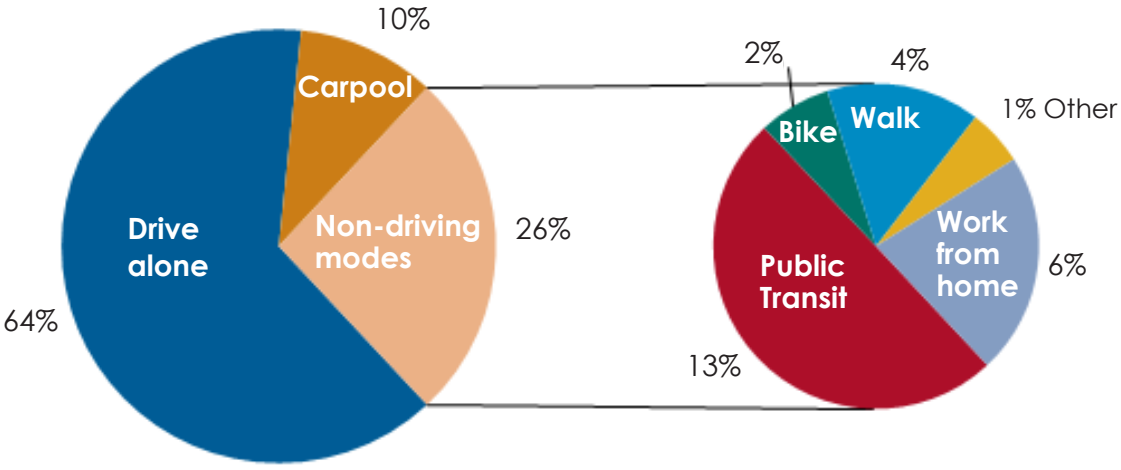
Journey-to-work Commute Mode Share (2012)

Alameda County commuters use a diverse portfolio of travel modes to commute to work (refer to Figure 8).

- Roughly two-thirds of workers who reside in Alameda County commute by driving alone.
- About 10 percent of Alameda County residents carpool to work.
- Approximately a quarter of workers use a non-driving mode. Transit riders accounts for roughly half of workers who do not drive and 13 percent of workers overall. Working from home is the next most common non-driving commute option.
- Walking and biking are modest but critical contributors to the Alameda County commute mode mix. Walking and biking are also critical as access and egress modes which is not captured in the statistics presented below.

Mode share refers to the percentage—or share—of all trips people take using a given form of travel. Journey-to-work mode share is the mode share for trips where the primary purpose is commuting to work.

Figure 8. Journey-to-work mode share of Alameda County residents



Source: U.S. Census Bureau, 2012 American Community Survey 1-Year Estimates, Table B08006.
Notes: Figure 8 is based on the primary commute mode (the mode that comprises the longest leg of a trip), the mode used the majority of week, and reflects workers who live in Alameda County (not necessarily workers who work in Alameda County).

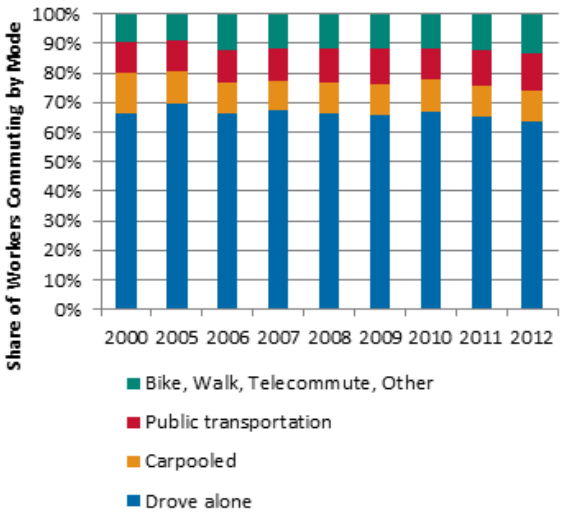
Long-term Trends in Journey-to-work Mode Share (2000 to 2012)

Over the last decade, commuting mode share has become more multimodal, as the combined share of driving and carpooling for work commutes has declined from 80 percent to 75 percent. Figure 9 and Table 1 show how the journey to work has evolved since the year 2000.

- Drive-alone mode share has declined slightly over the last decade, from 66 percent to 64 percent.
- Carpooling saw the most dramatic change in commute mode share over the last decade, declining by about 3 percent.
- Working from home exhibited the largest increase in commute mode share, followed by BART and bicycling.
- Bus work-trip mode share has increased slightly, even as overall bus ridership has declined over the last decade.
- The relative stability in the journey-to-work mode share likely reflects the maturity of Alameda County's transportation system and land use patterns.
- Areas of increased alternative mode usage for commuting purposes occurs in all parts of Alameda County (refer to Figure 10).

Appendix C contains maps of the mode share in 2012 and difference in mode share from 2000 to 2012 for Alameda County Census Tracts.

Figure 9. Trend in journey-to-work mode share of Alameda County residents

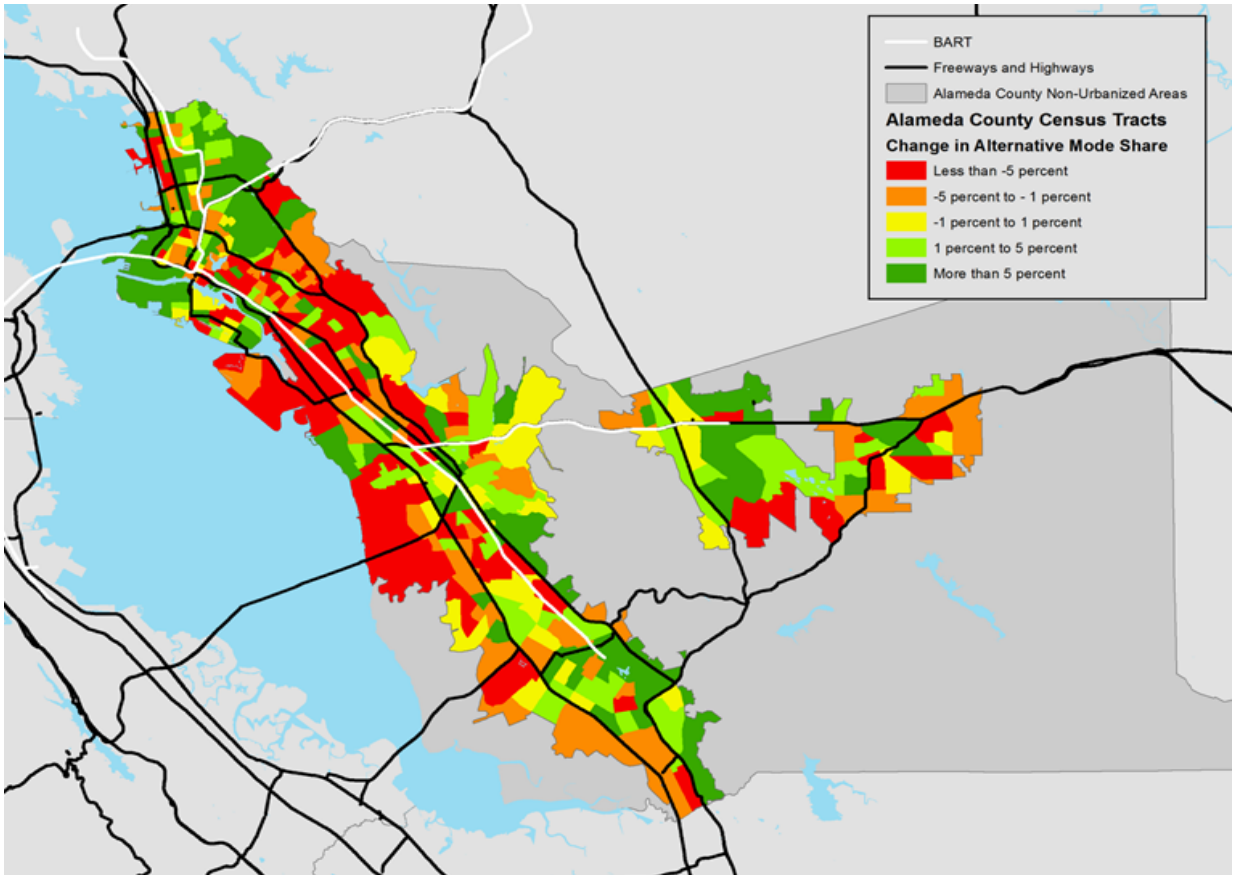


Sources for Figures 9-10 and Table 1: U.S. Census Bureau, 2005-2012 American Community Survey (ACS) 1-Year Estimates, Table B08006 and 2000 Census, Short Form 3, Table P030 (Figure 9 and Table 1). 2012 ACS 5-Year Estimates, Table B08006 and 2000 Census, Short Form 3, Table P030 (Figure 10).
Notes: Figures 9-10 are based on the primary commute mode (mode from longest leg of a trip) and the mode used the majority of week.

Table 1. Changes in journey-to-work mode share of Alameda County residents

	Mode Share			Difference in Mode Share	
	2000	2010	2012	2012 v. 2010	2012 v. 2000
Drive Alone	66.4%	66.9%	63.6%	-3.3%	-2.7%
Carpool	14.2%	11.1%	10.8%	-0.3%	-3.4%
Bus	4.6%	3.9%	5.2%	1.3%	0.6%
BART	5.5%	6.0%	7.3%	1.3%	1.8%
Other Public Transport	0.8%	1.3%	1.3%	0.0%	0.5%
Bike	1.3%	1.4%	2.0%	0.5%	0.7%
Walk	3.3%	3.3%	4.2%	0.9%	0.9%
Work from Home	3.6%	6.1%	6.0%	-0.1%	2.4%
Taxi/Other	1.3%	0.9%	1.5%	0.6%	0.2%

Figure 10. Difference in journey-to-work alternative mode share (2008-2012 American Community Survey vs. 2000 Census)



Note: Alternative modes include carpooling, public transit, walking, biking, and working from home.

Alameda County Residents vs. Alameda County Workers

Alameda County residents may not work in the county, and vice versa—workers employed in Alameda County may not live in the county.

- Workers who live in Alameda County drive alone less than workers who work in Alameda County (64 percent compared to 69 percent). Refer to Figure 11.

Figure 11. 2012 journey-to-work mode share of Alameda County residents and workers

Source: U.S. Census Bureau, 2012 American Community Survey 1-Year Estimates, Tables B08006 and B08046.
Notes: Figure 11 is based on the primary commute mode (the mode that comprises the longest leg of a trip), the mode used the majority of the week.

Non-work Travel

Travel for non-work purposes such as school, shopping, recreation, and social travel has a significant impact on the transportation system. Unfortunately, data on non-work travel is not as readily available as commute data. Data on non-work travel typically comes from household travel surveys conducted intermittently due to their time and complexity. The most recent household travel survey data for the Bay Area is from the Metropolitan Transportation Commission's Bay Area Travel Survey 2000. Alameda CTC is compiling data from the recently completed California Department of Transportation's California Household Travel Survey and may analyze it as part of Alameda CTC's upcoming transportation plans.

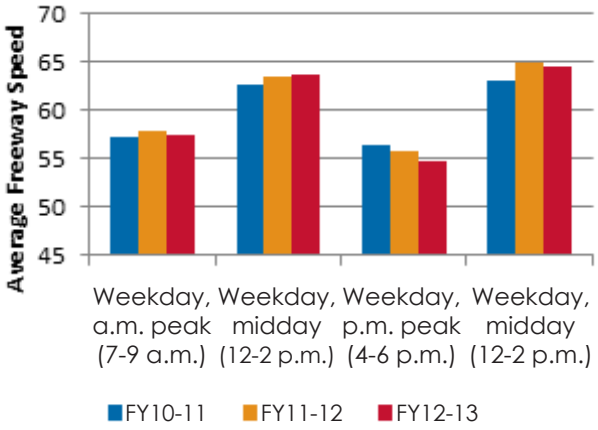
Roadways

3

Travel Speeds (2011-2013)

Average freeway travel speeds on all interstate freeways in Alameda County in both a.m. and p.m. weekday peak periods declined in fiscal year 2012-2013 (FY12-13) from FY11-12 (refer to Figure 12), likely reflecting increased travel from a recovering economy.

Figure 12. Average freeway travel speeds by time of day



Sources for Figures 12-15: Alameda CTC, Level of Service (LOS) Monitoring Reports (Figure 12) and INRIX, Inc., Analytics Tools (Figures 13-15).
Notes: INRIX, Inc. data collected is for 241 directional miles of interstates in Alameda County.

- The sharpest drop in speed was seen in the p.m. peak period (2 percent decrease).
- Weekday p.m. peak-hour speeds declined for the second consecutive year, while weekday a.m. peak-hour speeds declined after improving during the previous fiscal year.
- Weekday midday speeds improved marginally in FY12-13, while weekend midday speeds declined slightly.

Over the long term, freeway speeds have generally increased and decreased in relation to regional economic performance.

- Weekday peak-hour speeds exhibit distinct performance across different days of the week. Friday a.m. peak periods are generally several miles per hour higher in speed, which may reflect increased telecommuting or alternative mode usage on this day. Friday p.m. peak-hour speeds are generally much lower, which may reflect weekend recreation travel overlapping with normal commute traffic.
- In the a.m. peak period in FY12-13, the sharpest declines in speed were on I-80 Westbound between I-580 and the MacArthur Maze and on I-880 Southbound between State Route 84 and Auto Mall Parkway. Refer to Figure 13 for average a.m. peak-period freeway travel speeds and Figure 15 for the change in a.m. freeway speeds for key freeway segments.
- In the p.m. peak period in FY12-13, significant drops in freeway speed occurred on I-580 Eastbound from I-238 to I-680 an from I-680 to Vasco Road; on I-680 Northbound from State Route 237 to State Route 84 and from I-580 to State Route 24; on I-238 between I-880 and I-580, and on I-880 from State Route 237 to Auto Mall Parkway. Refer to Figure 14 for average p.m. peak-period travel speeds and Figure 16 for the change in p.m. freeway speeds.

Appendix D contains tables of the travel speeds for key freeway segments from FY10-11 to FY12-13.

Figure 13. Average a.m. peak period (7–9 a.m.) freeway travel speeds

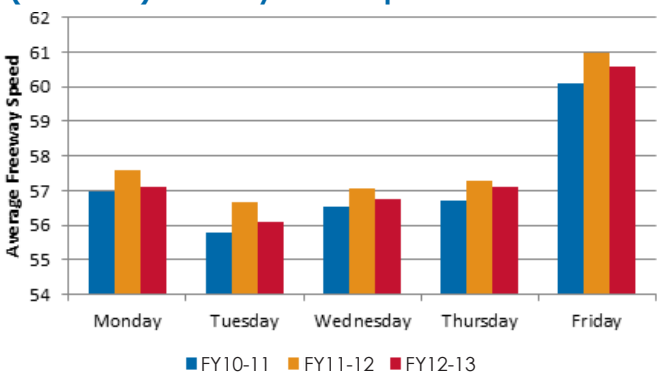
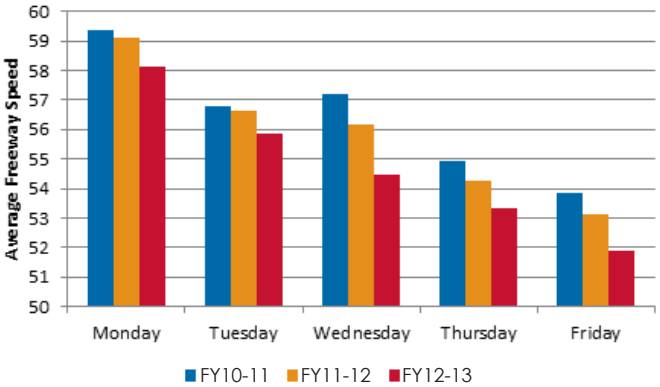


Figure 14. Average p.m. peak period (4–6 p.m.) freeway travel speeds



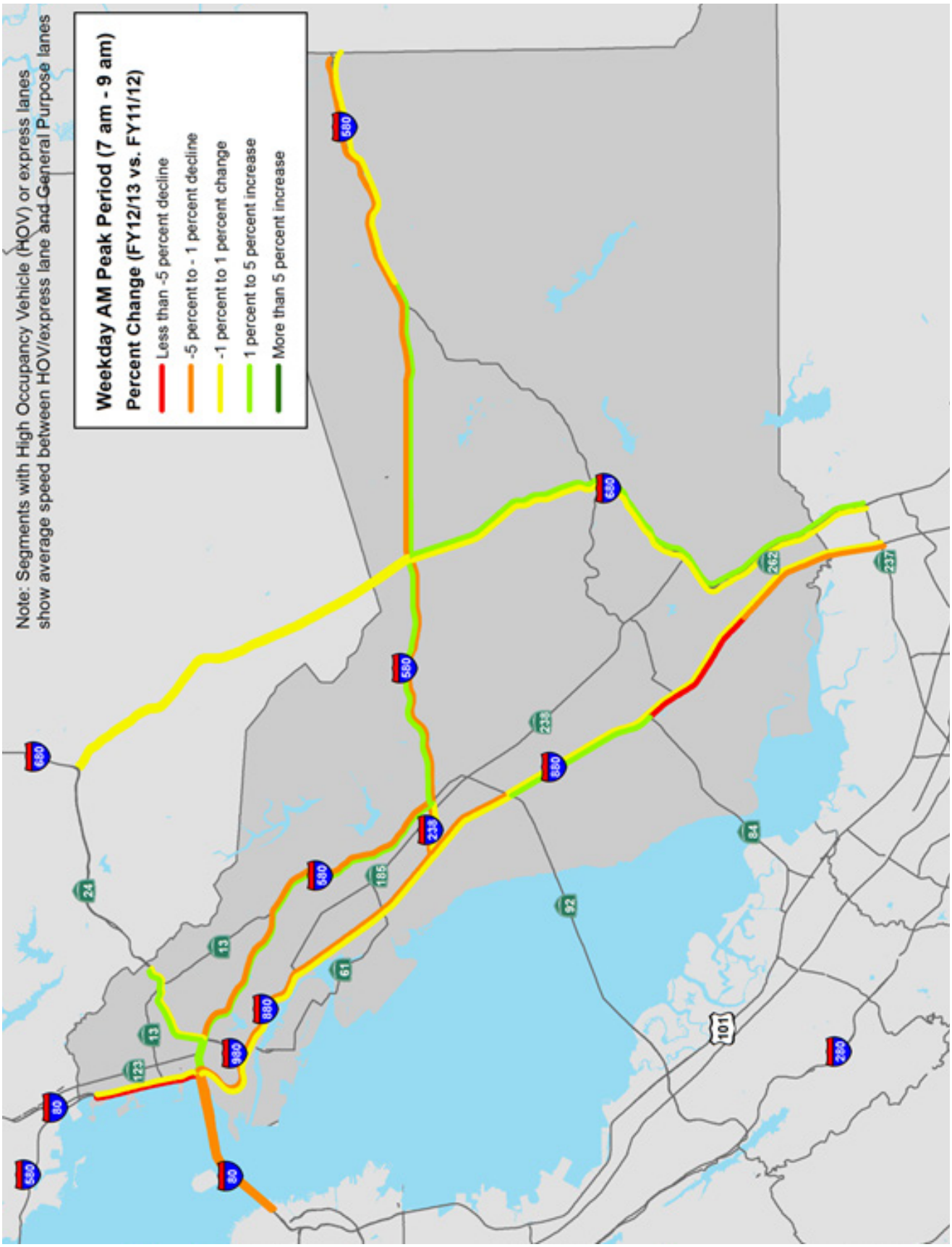


Figure 15. Change in a.m. freeway speeds

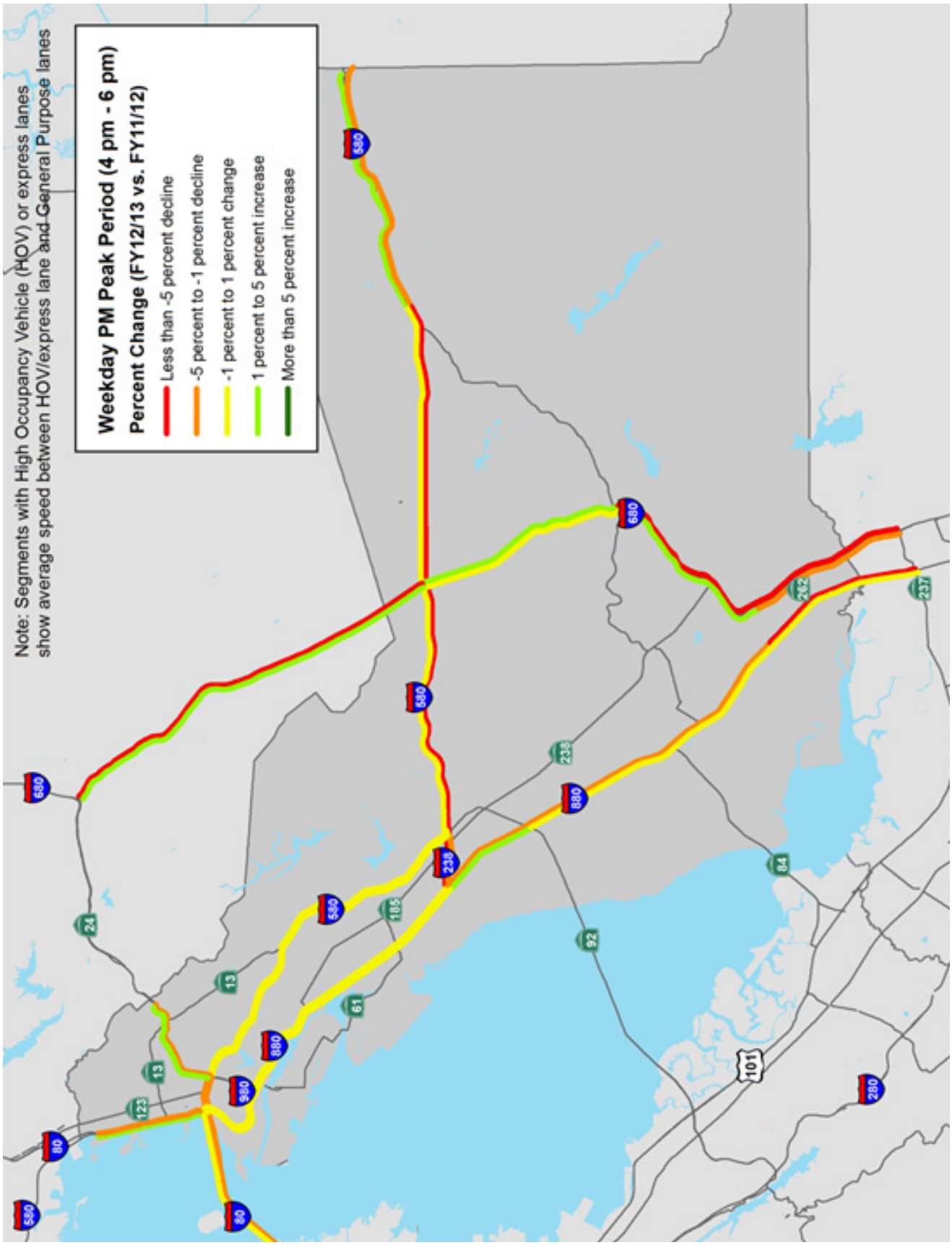
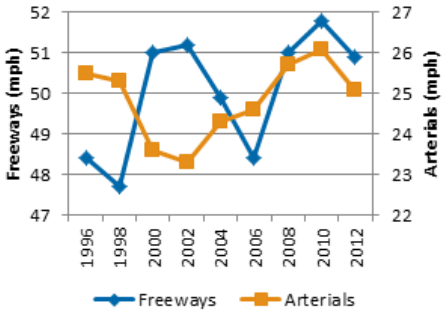


Figure 16. Change in p.m. freeway speeds

Long-term Trends in Travel Speeds (2000-2012)

Over the long term, freeway speeds have generally increased and decreased along with regional economic performance (e.g., rising during the recession of 2009-2010 and falling as the economy recovers). Arterial speeds are generally less closely aligned to economic trends (refer to Figure 17).

Figure 17. Average p.m. travel speeds



Notes: Alameda CTC LOS monitoring data is based on GPS floating-car runs conducted Tuesday through Thursday during the spring on the Alameda County Congestion Management Program freeway and arterial network.

Freeway Congestion

- Freeway delay increased by 22 percent overall from FY11-12 to FY12-13. This 22 percent overall increases corresponds to a 21 percent increase in weekday freeway delay and a 37 percent rise in weekend freeway delay (refer to Figures 18 and Table 2).
- The greatest increases in freeway delay occurred in spring and summer months, which may be attributable to particularly strong job growth in late FY12-13 (refer to Figure 19).
- Weekday increases in delay were largely due to increased travel in traditional peak hours, while weekend increases were due to increases in midday and afternoon periods. Average weekend midday is greater than average weekday midday delay on Alameda County freeways.

Figure 18. Average daily severe freeway delay by time of day

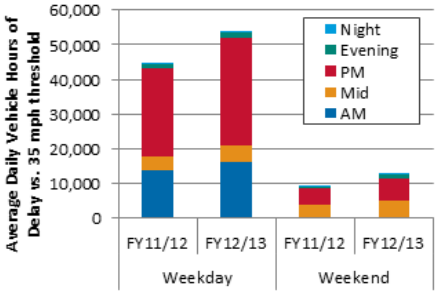
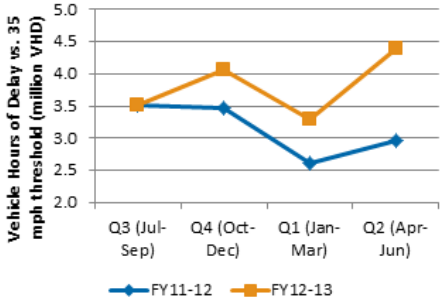


Table 2. Total severe freeway delay (thousand vehicle hours of delay vs. 35 mph threshold)

		Quarter 3 (Jul-Sep)	Quarter 4 (Oct-Dec)	Quarter 1 (Jan-Mar)	Quarter 2 (Apr-Jun)	Fiscal Year Total
Weekday	FY11-12	3,199	3,229	2,466	2,696	11,589
	FY12-13	3,170	3,793	3,066	3,948	13,976
	Percent Change	-1%	17%	24%	46%	21%
Weekend	FY11-12	307	237	148	268	959
	FY12-13	349	276	239	449	1,313
	Percent Change	14%	16%	62%	67%	37%
Overall	FY11-12	3,505	3,465	2,613	2,965	12,548
	FY12-13	3,519	4,069	3,305	4,397	15,289
	Percent Change	0%	17%	26%	48%	22%

Sources: INRIX, Inc. Analytics Tools.
Notes: 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.

Figure 19. Total severe freeway delay by quarter

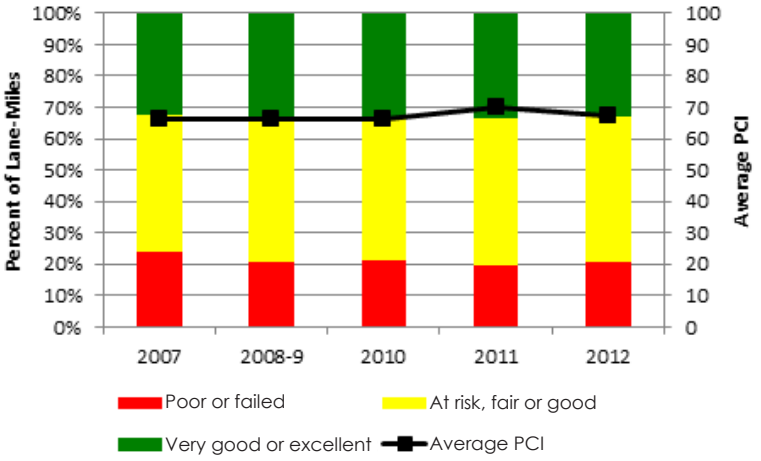


Local Road State of Repair

Pavement condition has largely remained constant in Alameda County over the last five years, reflecting limited funds to improve the condition of an extensive network of local roads (refer to Figure 20).

- Despite the increase in PCI, 20 percent of the centerline mileage in Alameda County has a PCI of "poor" or "failed," and additional miles are "at risk," meaning they will deteriorate rapidly if not repaved soon.
- Dublin has the best PCI in Alameda County at 86.
- San Leandro has the lowest PCI at 56.
- In general, the highest PCIs are in East County and the lowest PCIs are in North and Central County, which may reflect average age of roadways (refer to Table 3).

Figure 20. Pavement condition index in Alameda County



Source: MTC's StreetSaver database.
Notes: Average PCI is based on a weighted average of functional classifications, with weighting based on centerline-mile distance.

Table 3. Local average pavement condition index

	2005	2006	2007	2008-9	2010	2011	2012
Alameda	66	63	63	62	66	67	68
Alameda County	70	69	71	72	72	73	71
Albany	60	62	63	63	60	58	57
Berkeley	63	62	60	60	60	59	59
Dublin	79	80	80	81	82	84	86
Emeryville	73	76	79	76	77	78	78
Fremont	71	70	68	66	64	63	63
Hayward	66	68	68	69	69	69	69
Livermore	78	79	79	78	78	78	78
Newark	77	75	71	69	69	71	73
Oakland **	55	56	57	59	56	57	58
Piedmont	67	67	67	69	70	73	71
Pleasanton	71	74	75	76	77	77	77
San Leandro	63	62	60	58	57	56	56
Union City *	76	76	75	76	78	79	79

Source for Table 3: MTC's StreetSaver database.
Notes: Average PCI is based on a weighted average of functional classifications, with weighting based on centerline-mile distance. The averages presented are three-year rolling averages.
*PCI is a single-year value (rather than a three-year moving average) prior to 2007.
**PCI was correlated from an alternate scale prior to 2007.

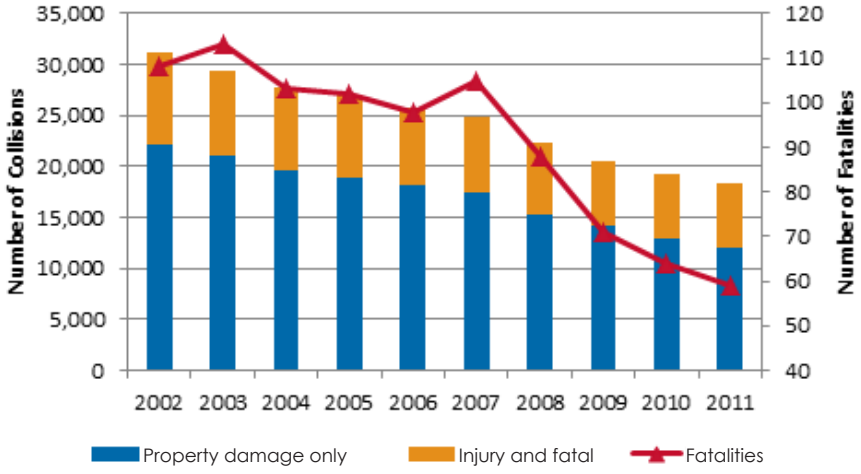
Safety

Collisions in Alameda County have declined steadily over the last decade (refer to Figure 21).

- Collisions decreased by 5 percent from 2010 to 2011, and by almost 50 percent from 2002 to 2011.
- Both injury and fatal and non-injury, non-fatal collisions have declined since 2002. Despite these reductions, there were 59 traffic fatalities in 2011.

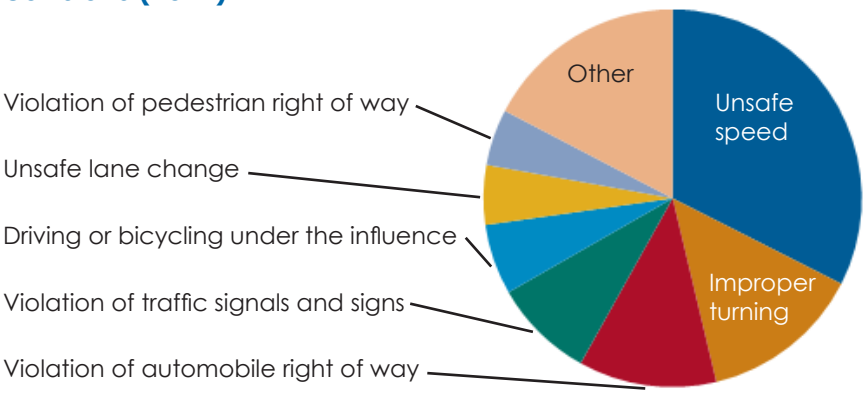
Collisions in Alameda County have declined steadily over the last decade.

Figure 21. Roadway collisions in Alameda County



Unsafe speed was the most common cause for injury and fatal collisions in 2011, and accounted for more than twice as many collisions as the next highest cause (refer to Figure 22).

Figure 22. Causes of injury and fatal roadway collisions (2011)



Source: The California Highway Patrol (CHP) Statewide Integrated Traffic Record System (SWITRS) database.
Notes: The SWITRS database is continuously updated as collision reports are processed. The year 2011 is the most recent year for which updating is substantially complete.

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Transit

4

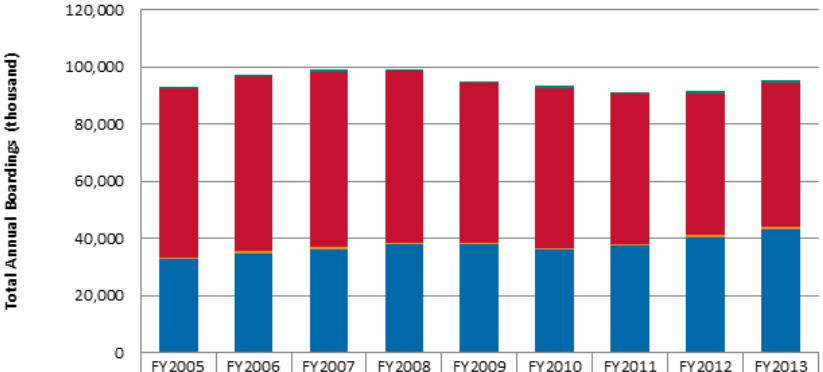
Ridership

In FY12-13, total transit ridership on commuter rail, BART, ferries, and buses in Alameda County increased considerably over the previous year.

- Annual transit boardings in Alameda County increased by 4 percent in FY12-13, topping 95 million total boardings.
- BART ridership was responsible for the majority of the increase (nearly 3 million new boardings, representing about two-thirds of the ridership growth).
- On a percentage basis, commuter rail and ferry saw the largest increases in ridership.
- Bus boardings also increased in FY12-13, after declining in four of the previous five years.

Over the long term, BART has represented a steadily growing share of Alameda County transit ridership. Since FY04-05, BART ridership has gone from 35 percent to 45 percent of Alameda County transit boardings, while bus ridership has dropped from 63 percent to 53 percent (refer to Figure 23).

Figure 23. Total annual transit boardings in Alameda County (in thousands)



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

Sources for Figures 21-23: Federal Transit Administration's (FTA's) National Transit Database (2002-2012) and special request from transit operators (2013).
Notes: Rail operators include BART and ACE. Ferry operator is WETA. Bus operators include AC Transit, LAVTA, and Union City Transit. Multi-county bus operators are prorated for Alameda County using the share of route-miles in Alameda County. Boardings are "unlinked" passenger trips.

Figure 24. Alameda County large operator boardings per revenue vehicle hour (RVH) trend

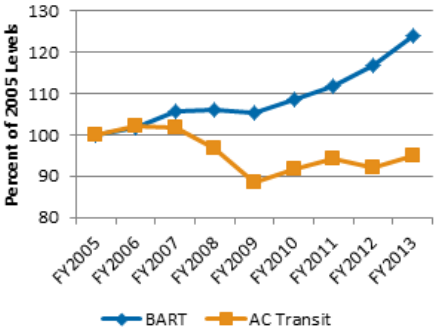
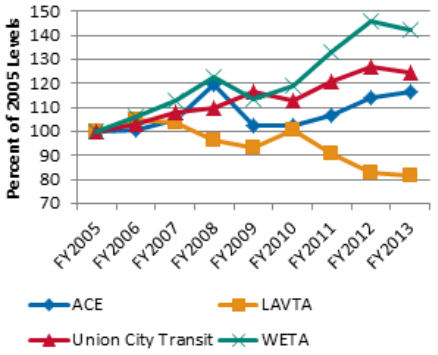


Figure 25. Alameda County small operator boardings per RVH trend



Service Utilization

Most transit operators saw an improvement or minimal change in service utilization in 2013 (refer to Figure 24 and 25, and Table 4).

- BART saw a significant increase in service utilization (6 percent over the previous year) as ridership continued to grow while no new service was added.
- AC Transit saw a slight increase in service utilization in 2013 (3 percent), though utilization has largely held flat since 2011 and remains below pre-recession levels. Service cuts instituted in 2010 reduced frequencies on many routes which may explain lower ridership and service utilization.
- Among small operators, ACE saw an increase in service utilization, while LAVTA, Union City Transit, and WETA all saw a small decline (refer to Figure 25).

Service utilization is a ratio of how many people use transit (demand) to how much service is provided (supply). It can be measured using boardings per revenue vehicle mile (RVM) or revenue vehicle hour (RVH) (miles or hours when a vehicle is in revenue service). 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. Systemwide service utilization (boardings per RVH) for Alameda County transit operators

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
BART	55.95	56.95	59.12	59.38	59.05	60.84	62.61	65.44	69.49
ACE	34.22	34.34	35.97	40.97	35.16	35.15	36.55	38.97	39.82
AC Transit	36.05	36.84	36.75	34.86	31.88	33.08	34.01	33.23	34.20
LAVTA	16.93	17.71	17.55	16.25	15.76	17.05	15.37	14.00	13.86
Union City Transit	10.05	10.33	10.85	11.05	11.70	11.34	12.13	12.74	12.52
WETA	75.46	80.05	85.35	92.35	85.54	89.96	100.50	110.22	107.25

Sources: FTA's National Transit Database (2002-2012) and special request from transit operators (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are unlinked passenger trips. Capitol Corridor statistics not available because Capitol Corridor does not submit data to the National Transit Database.

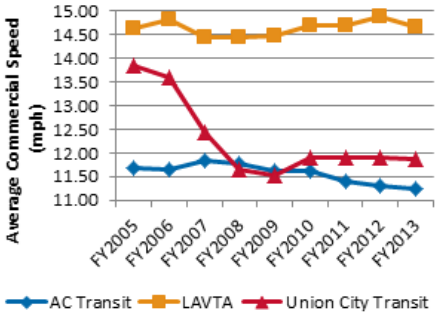
Average Commercial Speed

Most bus operators saw a drop in average commercial speed in 2013 (refer to Figure 26).

- AC Transit and LAVTA both saw a slight drop in commercial speed in 2013 versus 2012.
- AC Transit has seen a steady degradation in commercial speed since 2007, which could reflect growing traffic among other types of delays. Projects that seek to expedite passenger boarding, give buses signal priority, and separate buses from traffic should help reverse this trend.
- Union City Transit has seen a large drop in commercial speed since 2005, though the reasons and significance of this drop are unclear.

Commercial speed is the average speed that buses achieve, taking into account delays from traffic signals, passenger boarding and alighting, and roadway congestion. Average commercial speed is computed as the ratio of revenue vehicle miles to revenue vehicle hours. Commercial speed on particular routes or at particular times of day may be quite different than the overall systemwide operator average.

Figure 26. Alameda County bus operator commercial speed



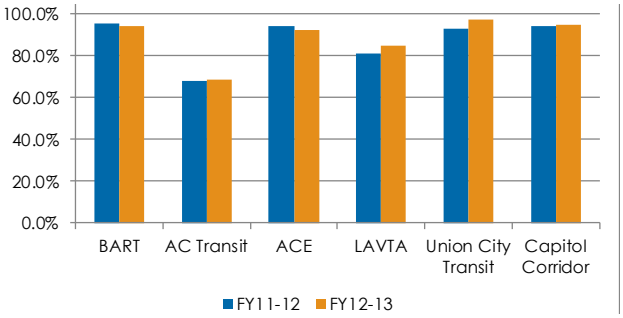
Sources: FTA's National Transit Database (2002-2012) and special request from transit operators (2013).
Notes: Figures are systemwide statistics.

On-time Performance

All operators except for BART and ACE saw an increase in on-time performance in 2013 from 2012 (refer to Figure 27).

- Most operators achieve an on-time performance of 90 percent or better.
- AC Transit, which operates many routes in congested urban conditions, has an average on-time performance below 70 percent (with many lines at many times of day much lower).

Figure 27. Alameda County transit operator on-time performance



Source: Special request from transit operators (2013). "On-time" is as defined by each operator.

Figure 28. Alameda County large operator cost per rider trend

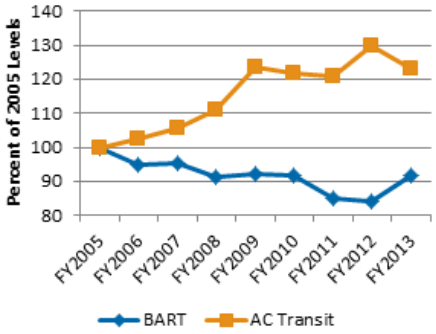
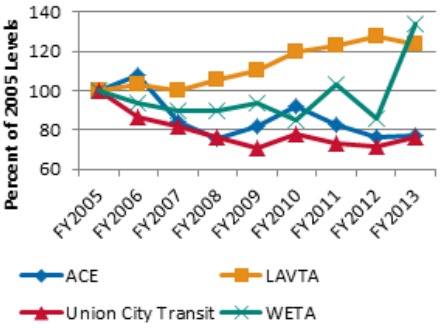


Figure 29. Alameda County small operator cost per rider trend



Sources for Figures 28-29 and Table 5: FTA's National Transit Database (2002-2012) and special request from transit operators (2013). Notes: Figures are systemwide statistics (not within Alameda County). Costs are inflation-adjusted (in 2013). Capitol Corridor statistics not available because Capitol Corridor does not submit data to the National Transit Database.

Cost Efficiency

Alameda County transit operators achieve very different costs per rider due to differences in technology and service structure (refer to Table 5). Cost per rider is an important metric to track to ensure efficient uses of operating funds, though it should be noted transit operators face many service planning considerations in addition to efficiency.

- BART saw an increase in operating cost per rider in 2013, despite the fact that BART has managed to reduce its cost per rider in recent years through growing ridership and cost containment (refer to Figure 28).
- AC Transit reduced its cost per rider in 2013, after increases in five of the last seven years. AC Transit's cost per rider is now 20 percent higher than it was in 2005. Long-term declines in ridership and increases in operating costs both contribute to the higher cost per rider.
- Among smaller operators, most operators managed to reduce or prevent a significant increase in their cost per rider in 2013. WETA was an exception, where a significant increase in cost per rider is likely attributable to the merger with the San Francisco-Vallejo ferry service, which has a very different cost-structure (refer to Figure 29).

Table 5. Systemwide cost efficiency (cost per rider) for Alameda County transit operators

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
BART	$5.01	$4.75	$4.77	$4.57	$4.61	$4.61	$4.26	$4.21	$4.59
ACE	$20.74	$22.35	$17.46	$15.71	$17.00	$19.02	$17.15	$15.86	$16.03
AC Transit	$4.32	$4.43	$4.55	$4.79	$5.34	$5.26	$5.22	$5.61	$5.32
LAVTA	$5.76	$5.93	$5.74	$6.07	$6.35	$6.90	$7.09	$7.36	$7.14
Union City Transit	$8.73	$7.58	$7.15	$6.62	$6.16	$6.78	$6.39	$6.26	$6.64
WETA	$11.19	$10.46	$10.05	$10.07	$10.46	$9.54	$11.54	$9.57	$15.03

Fleet Age

The fleets of most Alameda County transit operators are midway through their useful life, on average. Two exceptions: BART's aging cars and Union City Transit's fairly new fleet (refer to Table 6).

- BART's rail cars are quite close to the end of their useful life. BART is currently procuring new rail cars, and the first shipment is expected to go into service by 2017.
- AC Transit unveiled the first shipment of a new bus purchase in FY2013, and more shipments are coming in FY2014. AC Transit's average bus age dropped from 9 years to 7.6 years due to the introduction of these new buses and retirement of some older vehicles.

Table 6. Alameda County transit operator average fleet age

	Average Age	Typical Useful Life
BART	33.8	34.8*
ACE (locomotives/ passenger cars)	13.5/ 12.1	30/ 40
AC Transit	7.6	15
LAVTA	8.7	15
Union City Transit	4.4	12
WETA	12.6	15

* BART's rail cars have a useful life of 25 years. Of BART's 669 total rail cars, 439 received rehabilitation which extends their useful life to 40 years. The average useful life accounting for the two types of rail cars is 34.8 years.

Service Interruptions

All Alameda County transit operators saw an increase in the time and distance between service interruptions in 2013. For all transit operators, 2013 had the best performance in minimizing service interruptions in the last five years (refer to Table 7; note rail and bus service interruption frequencies are measured using different metrics).

Despite improved performance, service interruptions remain a concern, as they cause economic disruption and may result in loss of riders. More frequent vehicle breakdowns and other equipment failures are often a product of aging equipment and infrastructure. Alameda County transit operators have significant capital asset rehabilitation and replacement needs.

Table 7. Time or distance between service interruptions

	FY2009	FY2010	FY2011	FY2012	FY2013
Rail	**Mean time between service delay (hours)**				
BART	2,683	2,796	2,995	3,216	3,758
ACE	546	438	388	2438	359
Bus	**Average miles between mechanical failure**				
AC Transit	4,656	5,727	7,941	6,556	8,244
LAVTA	4,904	4,837	6,353	15,249	17,397
Union City Transit	3,880	4,902	11,402	13,749	16,505

Sources: FTA's National Transit Database (2002-2012) and special request from transit operators (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Miles between mechanical vehicle failure were computed as total revenue vehicle miles divided by total mechanical failures (major and minor).

Since 2005, farebox recovery has increased from 65 percent to 70 percent.

BART

BART has seen strong ridership growth over the last decade, and ridership is well above pre-recession levels.

- The year 2013 was BART's highest ridership year ever, with total annual boardings reaching 126 million (refer to Figure 30).
- Several single-day ridership records were set, including the highest ridership day ever at 522,198 station exits.
- Average daily ridership now tops 400,000 boardings.
- Service (Revenue Vehicle Hours (RVH)) was held at roughly the same level in 2013 as in 2012. Growing ridership combined with equivalent service provision resulted in an increase in service utilization (boardings per RVH) in 2013.
- Operating expenses have grown over the long term, though on a per-unit basis, they have stayed relatively flat. In 2013, however, BART saw a sharp increase in operating costs, as the cost per RVH climbed 21 percent, from $263/RVH to $319/RVH (refer to Figure 31).
- Increases in fare revenues have generally outpaced increases in operating expenses, though 2013 was an exception to this trend. Fare revenues have increased due to longer trips and reduced use of discount tickets, as Clipper cards have proliferated. Since 2005, farebox recovery has climbed from 65 percent to 70 percent.

BART faces challenges including crowded trains at peak hours and an aging fleet and other station, track, and communication infrastructure. Appendix E-1 provides detailed data for BART.

Sources: FTA's National Transit Database (2002-2012) and special request from BART (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Figure 30. BART ridership, service operated, operating expenses, and fare revenue trends

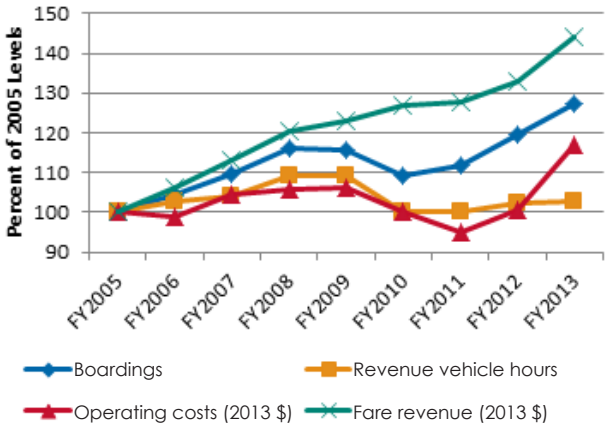
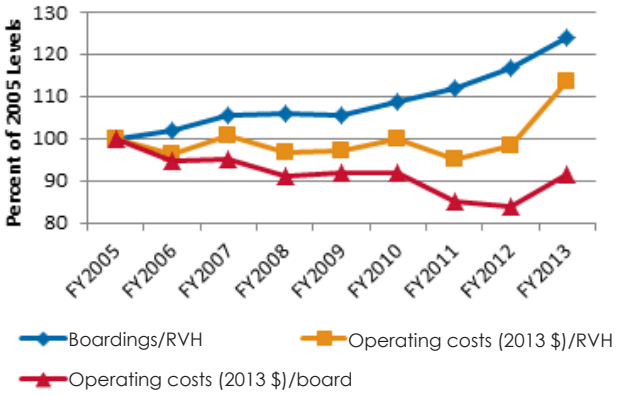


Figure 31. BART performance concept trends



AC Transit

The year 2013 marked the beginning of a ridership recovery for AC Transit. AC Transit instituted major service cuts in 2010 as a result of lower revenues amid the recession significant ridership loss. Ridership began to increase in 2013 though both ridership and service operations remain below pre-recession levels.

2013 marked the beginning of a ridership recovery for AC Transit.

- In 2013, ridership began to rebound, increasing by 2 percent (refer to Figure 32).
- Also in 2013, ridership and service provision were 9 percent and 18 percent below 2009 levels, respectively (the last full year prior to major service cuts).
- Service utilization (boardings/RVH) dipped from 2007 to 2009, but has since recovered and remained steady.
- Growth in costs is a significant issue for AC Transit. AC Transit's cost per RVH (the cost to operate an hour of service) has grown steadily since 2005. From 2005 to 2013, the cost per rider has increased from $2.96/boarding to $5.32/boarding (refer to Figure 33).
- Fare revenues have largely kept pace with increases in operating expenses. Higher fare revenues are largely attributable to fare increases, rather than growth in ridership. AC Transit has managed to maintain and even slightly improve its farebox recovery ratio since 2005, in spite of operating cost escalation.

Appendix E-2 provides detailed data for AC Transit.

Sources: FTA's National Transit Database (2002-2012) and special request from AC Transit (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index. Total annual ridership figure presented here is collected using a different methodology than average daily ridership statistics presented in AC Transit's Annual Ridership Reports.

Figure 32. AC Transit ridership, service operated, operating expenses, and fare revenue trends

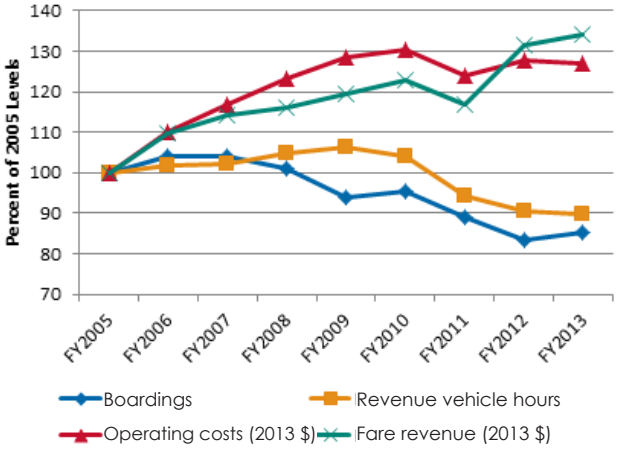
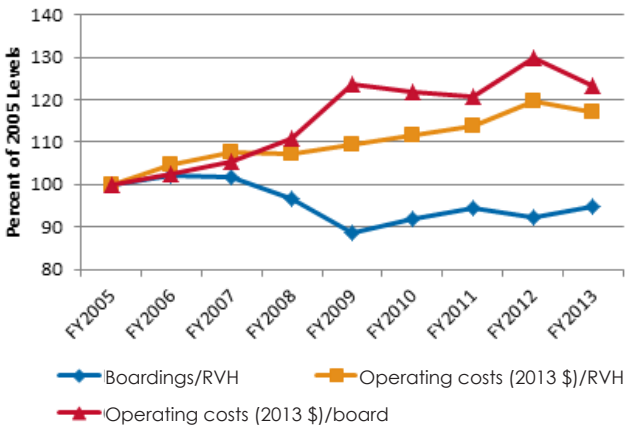


Figure 33. AC Transit performance concept trends



Altamont Commuter Express (ACE)

The year 2013 marked a year of significant increases in both ridership and service offered for ACE. A recovering economy and the addition of a fourth daily train combined to contribute to a nearly 20 percent growth in annual boardings.

- In 2013, ACE had the third consecutive year of ridership growth. Ridership is now fully recovered from the recession, and 2013 was the operator's highest ridership year (refer to Figure 34).
- ACE added a fourth daily train in September 2012, and as a result, revenue vehicle hours were 17 percent higher in 2013 than in 2012. However, ridership grew faster than service offered, and as a result service utilization (boardings per RVH) increased in 2013 (refer to Figure 35).
- After staying relatively flat for a number of years, ACE's cost per RVH has increased in consecutive years. This cost increase may reflect increases in diesel fuel costs, which are a major expense for ACE.
- While ACE's cost per RVH has increased in consecutive years, ACE's success at attracting riders means that cost per rider is actually lower now than it was in 2010.
- ACE increased fares in August 2012 by 10 percent, after no fare increase since 2009. The fare increase combined with growing ridership corresponded to a large growth (37 percent) in fare revenues earned in 2013.

Appendix E-3 provides detailed data for ACE.

Sources: FTA's National Transit Database (2002-2012) and special request from ACE (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Figure 34. ACE ridership, service operated, operating expenses, and fare revenue trends

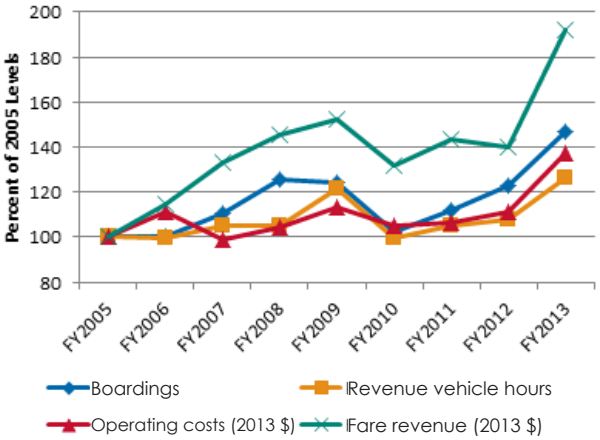
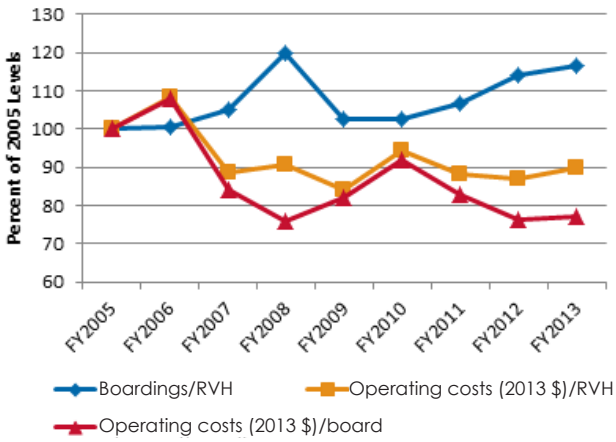


Figure 35. ACE performance concept trends



Livermore Amador Valley Transit Authority (LAVTA)

LAVTA's ridership dipped slightly in 2013, and has remained essentially at the same level since 2010 (refer to Figure 36). Ridership dropped starkly during the recession, likely due to a combination of overall reduced travel and service cuts, and has not recovered.

- LAVTA restored some service in 2011 and 2012, and introduced a rapid line, but did not add any new service in 2013.
- Ridership recovery has generally lagged service restoration over the last three years. As a result, service utilization (boardings per RVH) has declined by nearly 20 percent since 2010 (refer to Figure 37).
- LAVTA has managed to hold cost per hour of service operated flat since 2010. Even in spite of this cost containment success, the cost per rider has grown steadily, largely reflecting lower ridership in recent years.
- Fare revenues earned increased rather significantly in 2013 (13 percent increase), though this largely represents a developer contribution. In spite of lower ridership, LAVTA's financial position improved in 2013, as its farebox recovery went from 16 percent to 19 percent.

Appendix E-4 provides detailed data for LAVTA.

Sources: FTA's National Transit Database (2002-2012) and special request from LAVTA (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Figure 36. LAVTA ridership, service operated, operating expenses, and fare revenue trends

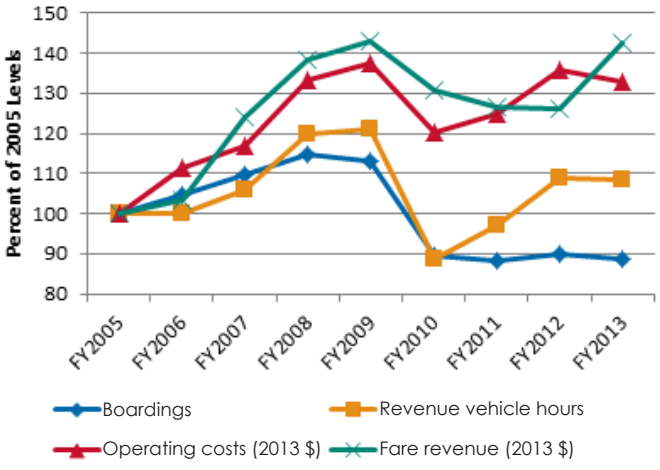
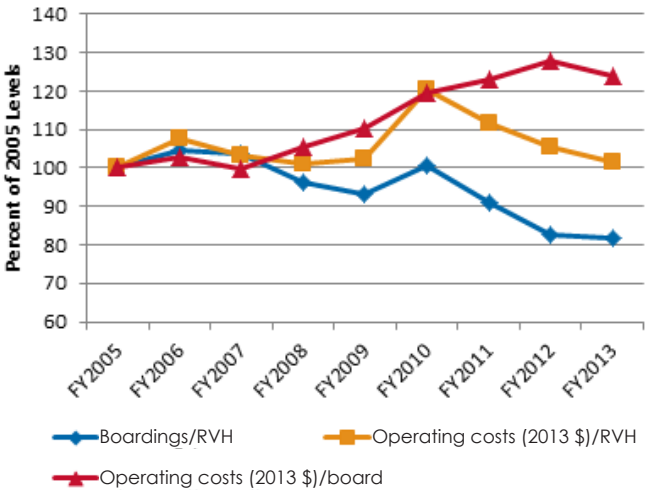


Figure 37. LAVTA performance concept trends



Union City Transit

Union City Transit ridership dipped slightly in 2013, after two consecutive years of growth.

- Over the long term, Union City Transit has attracted significant new ridership, with boardings increasing 30 percent since 2005 (refer to Figure 38).
- In the 2010-2011 time frame, ridership growth was partly attributable to a growth in student riders, as school bus service was curtailed.
- Union City Transit has operated essentially the same level of service over the last four years, after slight increases in the mid-2000s.
- The dip in ridership resulted in a slight decline in service utilization (boardings per RVH) in 2013 (refer to Figure 39, next page). This decline followed several years of increase.
- Union City Transit's operating costs have increased on an annual basis since 2009, reflecting its agreement with its concessionaire. Growth in operating costs has outpaced growth in ridership since 2011, resulting in an increased cost per rider.
- Fare revenues dipped in 2013, partially reflecting ridership declines.

Union City Transit has also seen increased utilization of discount fare instruments in recent years (particularly among students) as these have become available for purchase online.

Appendix E-5 provides detailed data for Union City Transit.

Sources: FTA's National Transit Database (2002-2012) and special request from Union City Transit (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Figure 38. Union City Transit ridership, service operated, operating expenses, and fare revenue trends

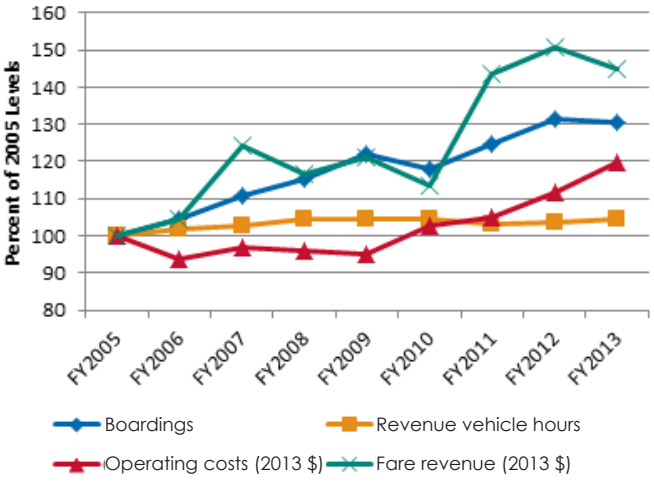
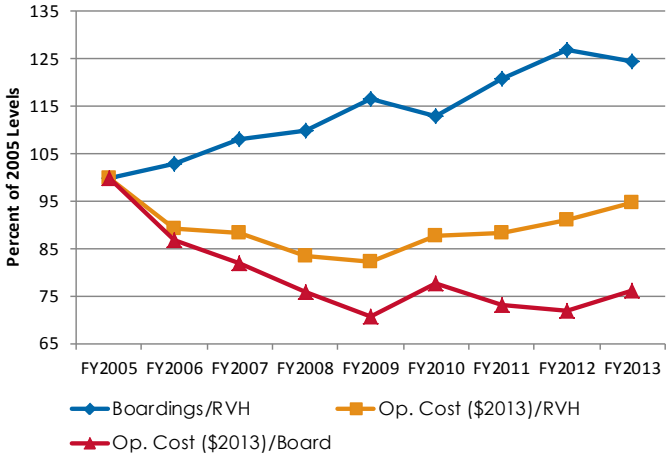


Figure 39. Union City Transit performance concept trends



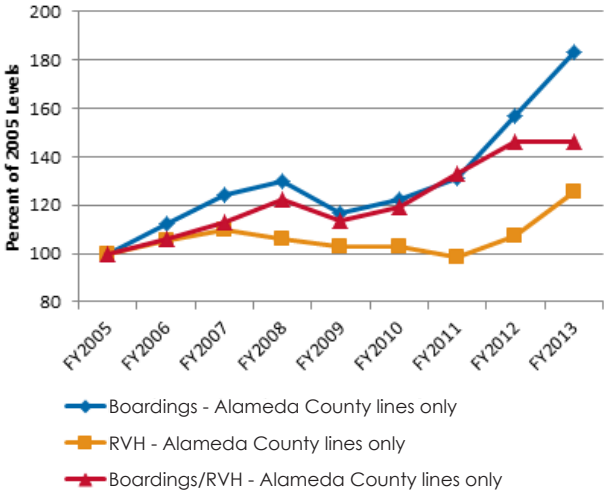
Water Emergency Transit Authority (WETA)

Ferry service in Alameda County has undergone significant transformation in recent years. The City of Alameda transferred its ferry services to the San Francisco Bay Area Water Emergency Transportation Authority in FY09-10. Then in late FY11-12, WETA introduced a new route between Alameda County and South San Francisco. In FY12-13, service between Vallejo and San Francisco was transferred to WETA, effectively doubling WETA's operations (as measured by hours of service operated). The consolidation of ferry services somewhat complicates trend analysis.

- Ridership on the WETA routes serving Alameda County increased in FY12-13 versus in FY11-12, partially reflecting the first full year of operations of the route serving South San Francisco (refer to Figure 40).
- Boardings and hours of service operated grew at roughly the same rate, such that utilization (boardings per RVH) remained flat. Utilization was nearly 20 percent greater in FY12-13 than it was in FY07-08, prior to the recession.
- In coming years, consolidation of ferry services is expected to reduce costs by eliminating redundancies.

Appendix E-6 provides detailed data for WETA.

Figure 40. WETA performance concept trends



Sources: FTA's National Transit Database (2002-2012) and special request from WETA (2013).
Notes: Figures are systemwide statistics (not within Alameda County). Data from prior to FY09-10 are for Alameda/Oakland - San Francisco and Alameda Harbor Bay - San Francisco ferry lines. Boardings are total annual boardings. Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Capitol Corridor

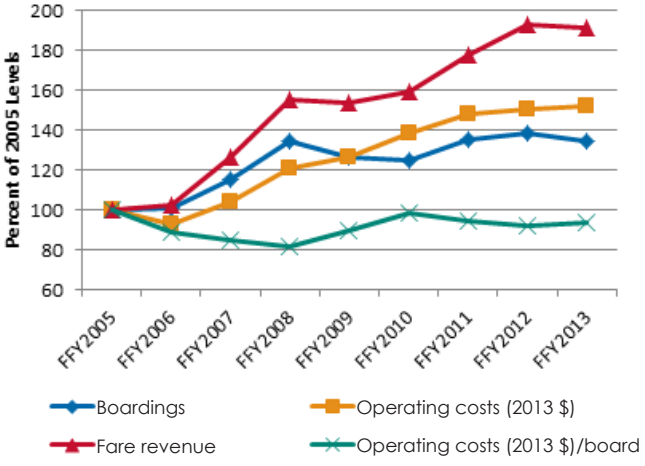
Capitol Corridor Intercity Rail Service ridership dipped slightly in 2013, following significant growth from 2009 to 2012.

Ridership has grown nearly 60 percent since 2002. Over the long term, increases in ridership can be attributed to improvements in reliability, successful marketing efforts, and with gas prices, which often inspire commuters to seek driving alternatives (refer to Figure 41).

- Costs have grown steadily since 2006, even as the number of daily trains has remained roughly unchanged. Increases in costs have largely been driven by fuel and insurance costs.
- In 2013, fare revenues dropped modestly. Prior to 2013, fare revenues kept pace with increases in operating expenses. Since 2007, fares have been raised about 2-3 percent twice a year, to keep pace with fuel, insurance, and added staffing required by Amtrak.
- Reliability improvements have been a major success story. Reliability has improved mainly because of the near-elimination of delays from freight traffic. The Capitol Corridor Joint Powers Authority has worked with Union Pacific Railroad (UPRR) to reduce delays by eliminating locations where trains must slow due to track conditions, installing capital projects to eliminate dispatching bottlenecks, and negotiating incentive payments to UPRR for consistent performance.

Appendix E-7 provides detailed data for Capitol Corridor.

Figure 41. Capital Corridor ridership, service operated, operating expenses, and fare revenue trends



Sources: Annual Reports (FFY2005 - FFY2012) and special request from CCJPA (FFY 2013).
Notes: Figures are systemwide statistics (not within Alameda County). Cost and fare measures are inflation-adjusted to $2013 using San Francisco Bay Area Consumer Price Index.

Bicycling

5

Bicycle Counts

Tracking levels of cycling through counts provides valuable insight into bicycling for all purposes including commuting, recreation, and other activities (as opposed to journey-to-work mode share data, which speaks to only one type of travel).

- Counts of cyclists have nearly doubled between 2002 and 2012 at a set of nine locations in Alameda County monitored over this ten-year period (refer to Figure 42).
- Alameda CTC began tracking levels of cycling at a more statistically robust set of 61 locations starting in 2010. Since this time, the number of bicyclists counted has increased by 42 percent at these locations, with an increase exhibited in every year (refer to Figure 43).
- Since 2008, Alameda CTC has tracked the gender of cyclists. The percentage of women counted has increased from 18 percent to 33 percent (refer to Figure 44).
- The finding that men comprise the majority of cyclists in Alameda County is consistent with national data for many other cities. Research suggests that increases in the number of women cycling are a positive sign, as women are less likely to bike than men, when facilities are not sufficiently safe.

Figure 42. Bicyclists counted at nine long-term monitoring locations (p.m. period)

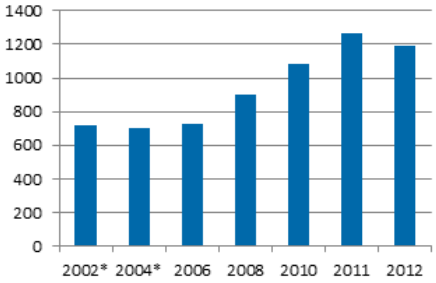


Figure 43. Bicyclists counted at 61 locations (p.m. Period)

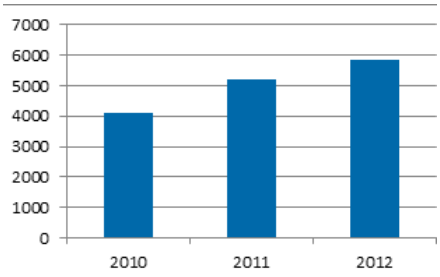
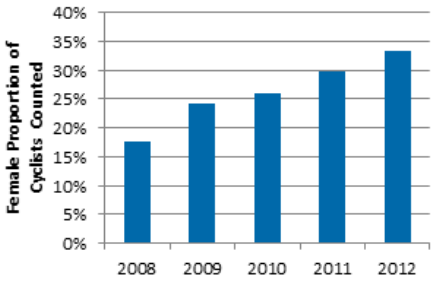


Figure 44. Gender of bicyclists counted



Source for Figures 40-42: Alameda CTC Bicycle and Pedestrian Count Program (2012).
Notes: Counts are for a two-hour p.m. peak period (4:00-6:00 p.m.).
* In 2002-2004, data were extrapolated from a three-hour count period to a two-hour count period.

Collisions

Collisions involving cyclists have generally increased over the last decade, even as overall collisions have dropped. However, there is some evidence that the greater number of collisions involving bicyclists may be attributable to growth in levels of bicycling.

- Since 2008, the number of collisions involving cyclists has remained relatively constant, though there appears to have been a jump between 2007 and 2008 (refer to Figure 45).
- While the number of collisions fluctuates some due to statistical variation, 2011 represented the highest number of collisions overall and the highest number of injury and fatal collisions since 2002.
- The number of collisions by itself is not an accurate representation of the trend in safety conditions that cyclists face. Bike counts grew several times as fast as bike collisions between 2002 and 2011, which suggests that the collision rate (number of collisions involving bicyclists per unit of exposure) may have declined (refer to Figure 46).
- Improving bicycle safety through design as well as education and enforcement remains a priority as safety concerns represent a barrier to participation for many potential bicyclists.

Figure 45. Collisions involving cyclists

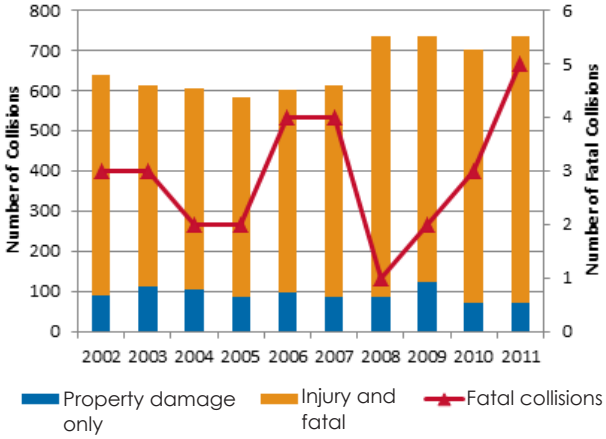
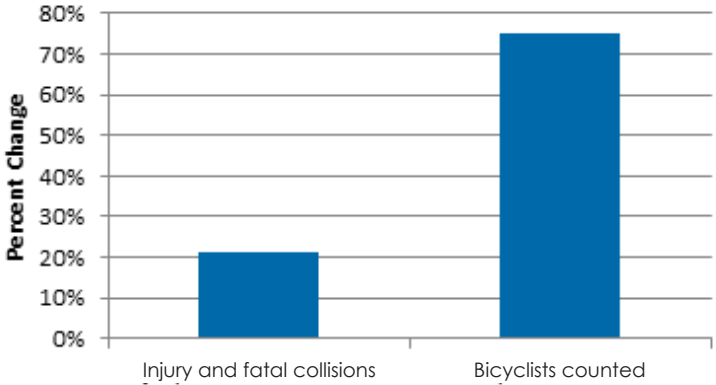


Figure 46. Comparison of changes in bicycle collisions and counts between 2002 and 2011



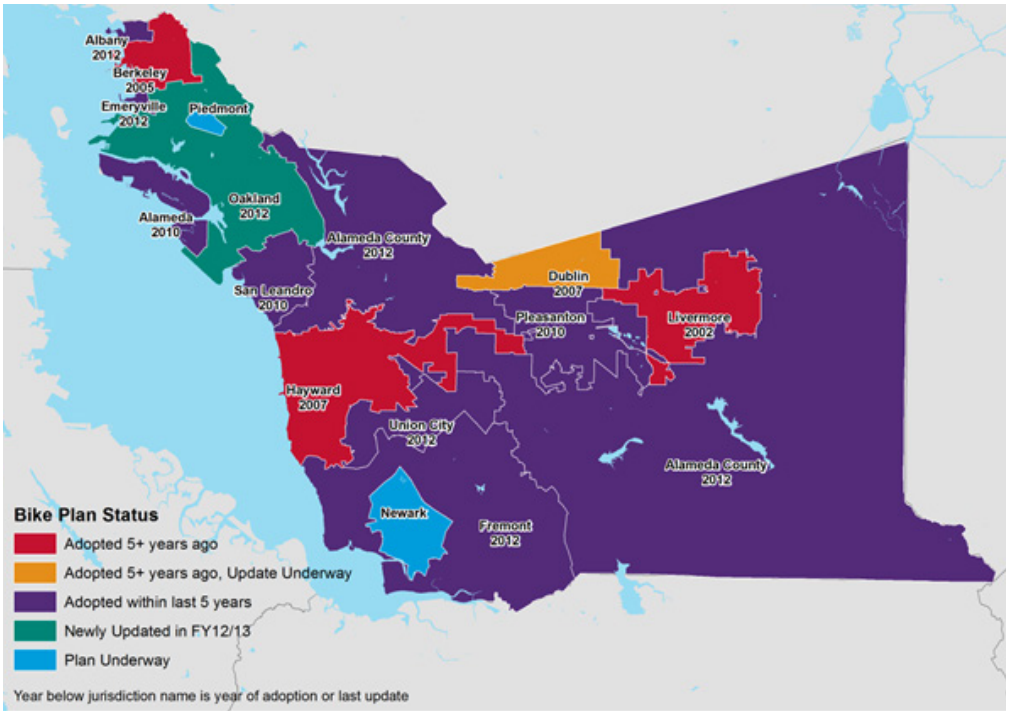
Sources for Figures 45-46: CHP's Statewide Integrated Traffic Record System (SWITRS) database and Alameda CTC Bicycle and Pedestrian Count Program (2013).
Notes: The SWITRS database is continuously updated as collision reports are processed. The year 2011 is the most recent year for which updating is substantially complete.

Local Master Plans

Alameda CTC assists jurisdictions in preparing local bicycle master plans by providing funding. Local master plans designate networks that comprise the Countywide Bicycle Network as well as important complementary routes that connect to local origins and destinations with countywide routes. As such, it is important that jurisdictions engage in the planning process to identify target areas for improvements, funding sources, and supportive programs, and to ensure public participation.

- At the conclusion of FY12-13, nine of 15 jurisdictions had adopted local master plans within the last five years, which means the plans are likely still aligned with local priorities and contain additional facilities and improvements to implement (refer to Figure 47).
- The City of Oakland's plan was newly updated in FY12-13.
- In addition, three jurisdictions have their first plan or an update currently underway (Dublin, Newark, and Piedmont).
- Of the remaining three jurisdictions with no plan adopted in the last five years and no local master plan work underway, two are actively pursuing funding to update their local plan (Hayward and Berkeley).

Figure 47. Status of local bike master plans



Network Completion

Progress on completing a bicycle network in Alameda County continues. In FY12-13, local jurisdictions reported implementing over 25 miles of bikeways in Alameda County (refer to Figures 48-50). Jurisdictions also began implementing different types of upgraded Class II bicycle lanes in FY12-13, including bicycle lanes with buffers or green paint to give cyclists greater visibility and separation from traffic.

- Oakland alone accounted for more than half or the bikeway mileage implemented in FY12-13, as it striped nearly 13 miles of bicycle lanes and routes.
- Alameda County, Dublin, Fremont, and San Leandro all reported upgraded Class II bike lane projects.

Appendix F-1 lists all bikeway projects that local jurisdictions reported completing in FY12-13.

Figure 48. Bikeway mileage installed in FY12-13 by jurisdiction

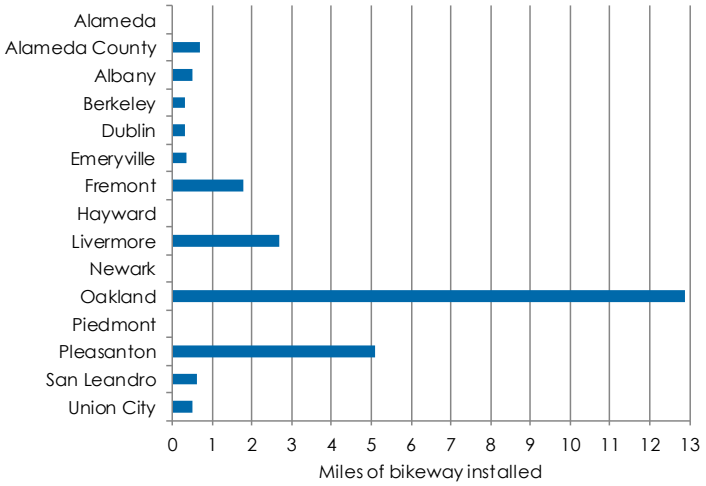
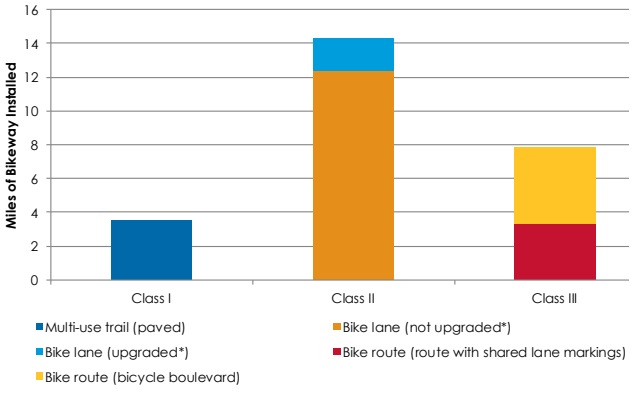


Figure 49. Bikeways installed in FY12-13 by type of bikeway



Sources for Figures 48-50: Data reported by local jurisdictions through a survey conducted for this report.

Figure 50. Bikeway projects implemented in FY12-13

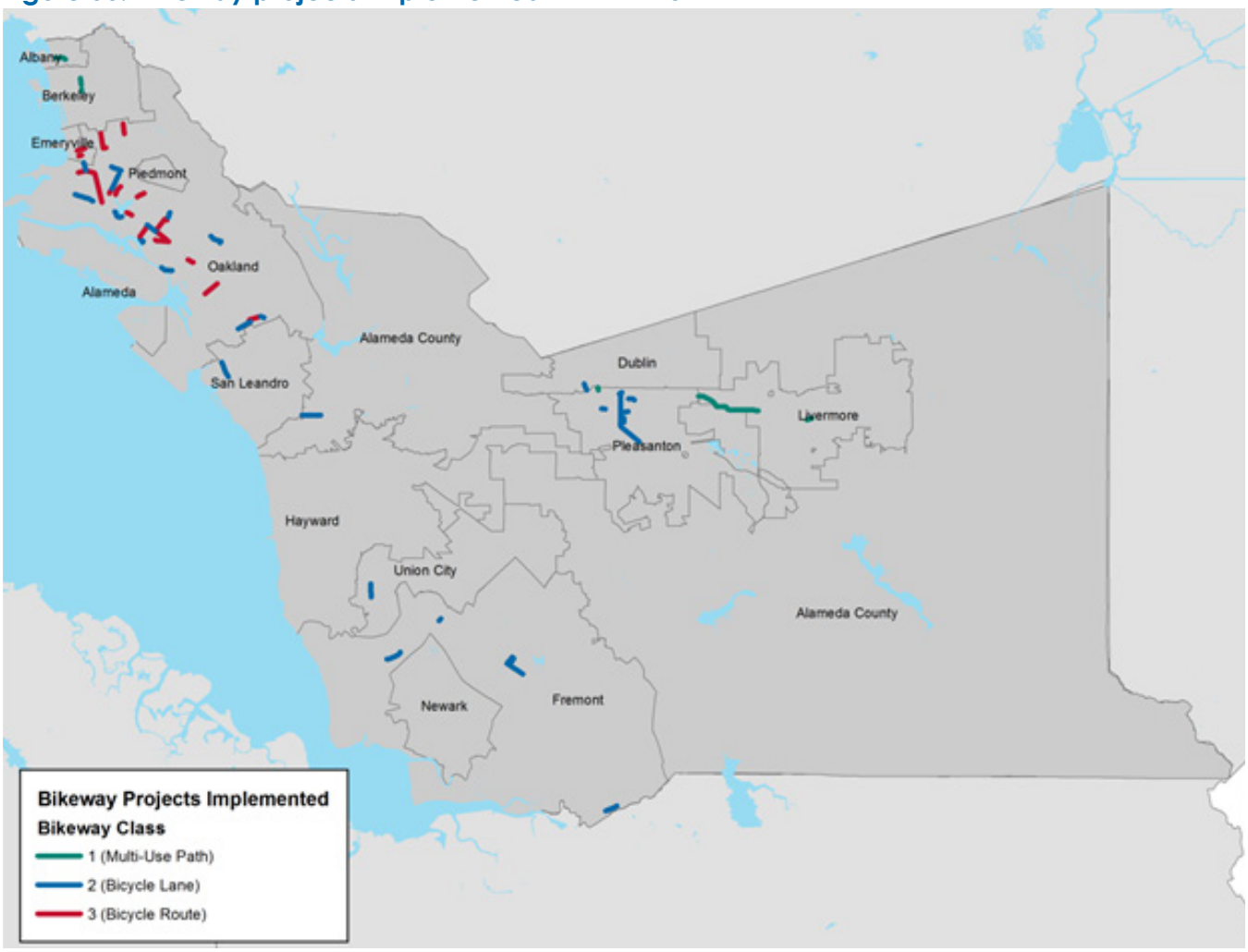
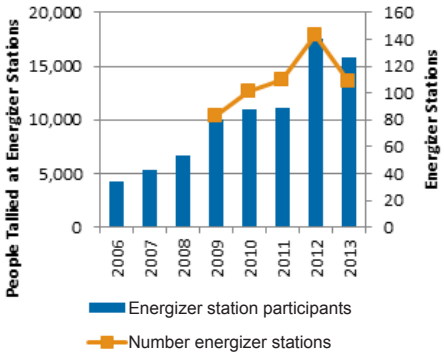
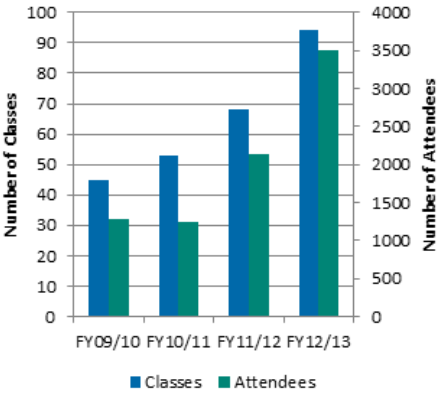


Figure 51. Bike to Work Day participants and energizer stations



Source: Bike to Work Day Final Reports.

Figure 52. Bicycle safety education classes and attendees



Source: Bike Safety Education Grant Program Semi-Annual Progress Reports.

Programs and Education

In addition to infrastructure improvements, Alameda CTC funds and supports a variety of programs designed to raise awareness about the feasibility and benefits of cycling as well as to educate cyclists about how to safely ride a bike and interact with other road users.

Bike to Work Day is an annual event celebrating commuting to work by bike. The event includes energizer stations with giveaway bags and refreshments, awards, participation by elected officials, and other activities. Bike to Work Day is a critical part of Alameda CTC's bicycling encouragement efforts, and numerous participants report an increased level of bicycling for daily activities following the event.

- Energizer stations and people tallied have both increased greatly since 2006 (refer to Figure 51).
- In 2013, stations and participants were scaled back, but notably the drop in participants was not as sharp as the drop in stations.

Alameda CTC funds a Bicycle Safety Education Program that has been in existence since 2009. The program includes a variety of types of classes that cater to different experience levels and includes classes in Spanish and Chinese.

- The number of bike safety education classes has increased over the last four years, and attendance increased by 63 percent between FY11-12 and FY12-13.
- Moreover, the number of attendees per class grew, indicating more students are aware of the program and the classes offered (Figure 52).

Walking

6

Walking Counts

Tracking levels of walking through pedestrian counts provides valuable insight into walking for all purposes including commuting, recreation, and other activities (as opposed to journey-to-work mode share data, which speaks to only one type of travel).

- Counts of pedestrians have increased by 60 percent between 2002 and 2012 at a set of six locations in Alameda County monitored over this long-term period (refer to Figure 53).
- Alameda CTC began tracking levels of walking at a more statistically robust set of 61 locations starting in 2010. In 2012, the number of pedestrians counted reached a three-year high (refer to Figure 54).
- Between 2011 and 2012, all planning areas saw an increase in pedestrians counted, with Central and East County each seeing percentage increases greater than 20 percent. North County saw the most modest increase, though greater absolute numbers make large percentage changes less likely there (refer to Figure 55).

Figure 53. Pedestrians counted at six long-term monitoring sites (p.m. period)

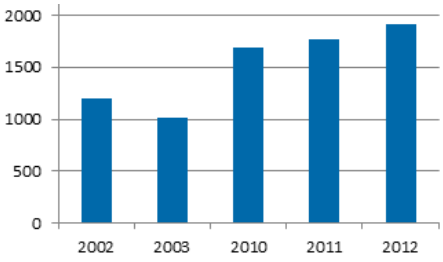


Figure 54. Pedestrians counted at 62 locations (p.m. period)

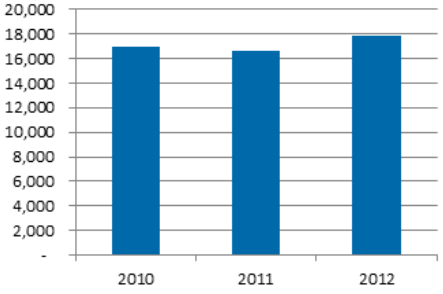
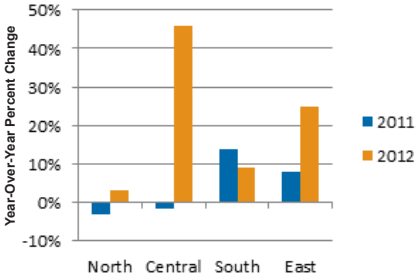


Figure 55. Percent change in pedestrian counts by planning area (p.m. period)



Source for Figures 51-53: Alameda CTC Bicycle and Pedestrian Count Program (2013).
Notes: Counts are for a two-hour p.m. peak period (4:00-6:00 p.m.).

The nearly twenty percent drop in collisions involving pedestrians since 2002 has occurred even as volumes of pedestrians counted have climbed nearly fifty percent.

Collisions

The number of collisions involving pedestrians dropped modestly in 2011 from 2010 and despite the year-to-year fluctuation, there appears to be an overall, long-run trend decline in pedestrian collisions in Alameda County. Encouragingly, collisions have dropped even as counts have increased, suggesting an even greater drop in the collision rate.

- Collisions in recent years (2009-2011) are slightly lower than the number of collisions roughly a decade ago (2002-2004). Refer to Figure 54.
- The nearly twenty percent decrease in collisions involving pedestrians has occurred at the same time as volumes of pedestrians counted have increased by almost 50 percent. This may imply an improvement in the collision rate involving pedestrians (the number of collisions per unit of exposure). Refer to Figure 55.
- While the pedestrian safety trend is encouraging, further design and education actions to improve pedestrian safety are needed to respond to an aging population and increasing infill development.

Figure 54. Collisions involving pedestrians

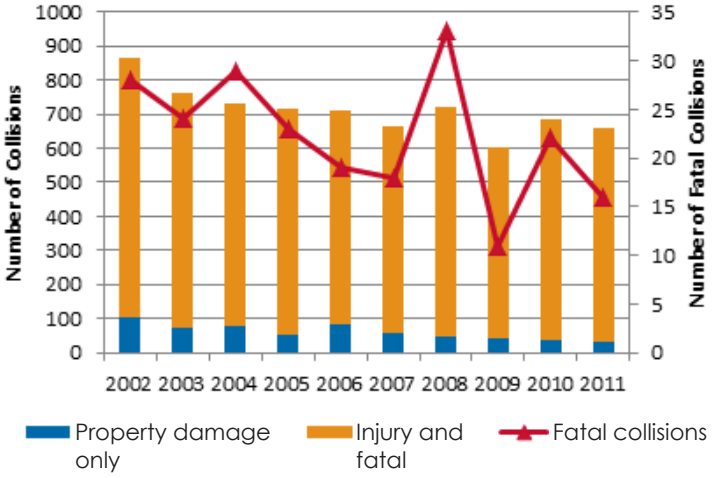
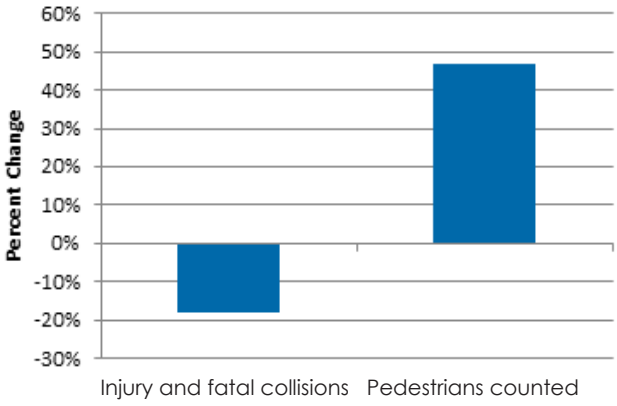


Figure 55. Comparison of changes in pedestrian collisions and counts between 2002 and 2011



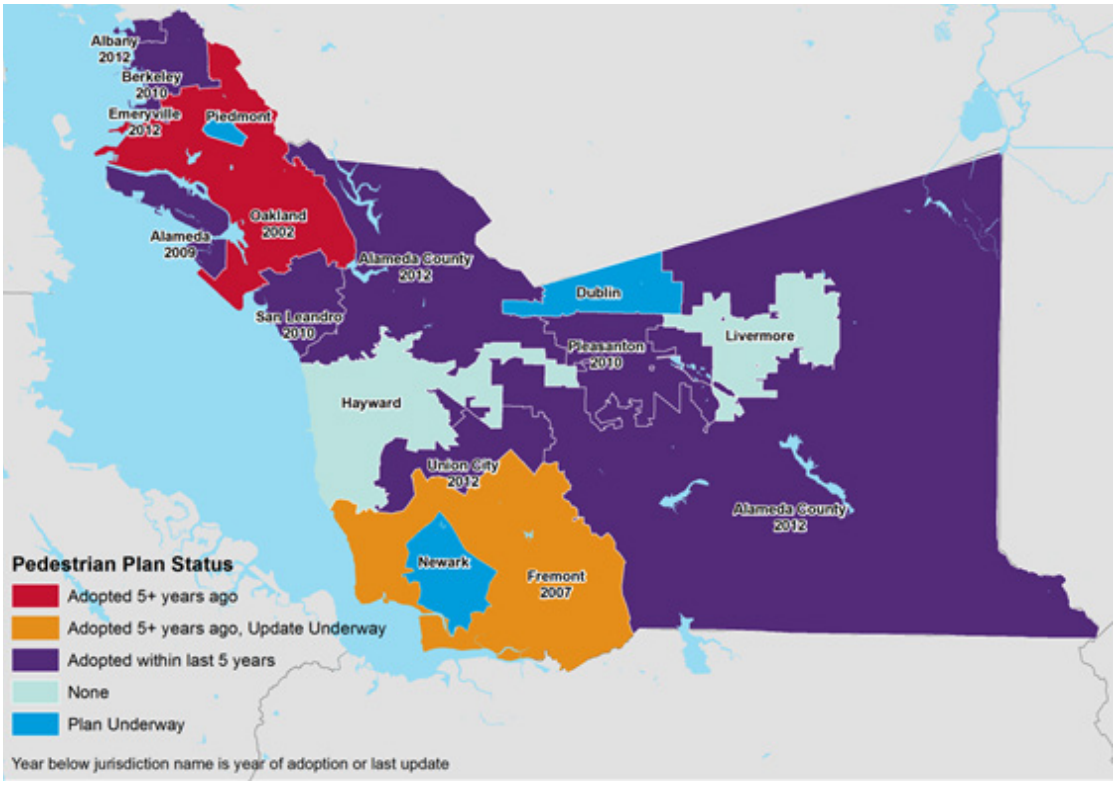
Sources for Figures 54-55: CHP's SWITRS database and Alameda CTC Bicycle and Pedestrian Count Program (2013).
Notes: The SWITRS database is continuously updated as collision reports are processed. The year 2011 is the most recent year for which updating is substantially complete.

Local Master Plans

Alameda CTC assists jurisdictions in preparing local pedestrian master plans by providing funding. Local master plans designate improvements that support Alameda CTC's Countywide Pedestrian Plan Areas of Countywide Significance. As such, it is important that jurisdictions develop plans to identify target areas for improvements, funding sources, and supportive programs, and to ensure public participation.

- At the conclusion of FY12-13, eight of 15 jurisdictions had completed pedestrian plans within the last five years, indicating the plans are likely still aligned with local priorities and contain additional facilities and improvements to implement (refer to Figure 56).
- Of the seven jurisdictions that have not adopted local master plans within the last five years, four jurisdictions have plan development or update work underway (Dublin, Fremont, Newark, and Piedmont).
- Three jurisdictions have no plan or no immediate plans to update an outdated plan.

Figure 56. Status of local pedestrian master plans



Major Pedestrian Capital Projects Completed

In FY12-13, jurisdictions reported completing a total of 30 major pedestrian projects. These completed 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.

- The most common types of pedestrian project completed were crossing improvement projects including installing new traffic signals, midblock crosswalks, striping high-visibility crosswalks, installing pedestrian bulb outs or median refuges to shorten crosswalks, flashing beacons, or a combination of these elements (refer to Figure 57).
- All jurisdictions made some improvements such as rehabilitating individual sidewalk segments, installing curb ramps, or retiming traffic signals to improve pedestrian access that are not reflected in these statistics. All but two jurisdictions reported completing a major pedestrian project in FY12-13 (refer to Figure 58).

Appendix F-2 provides a list of all major capital projects that local jurisdictions reported completing in FY12-13.

Figure 57. Major pedestrian projects completed by project type

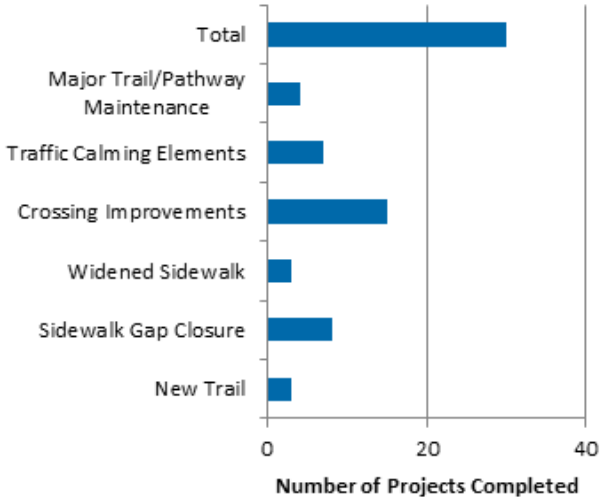
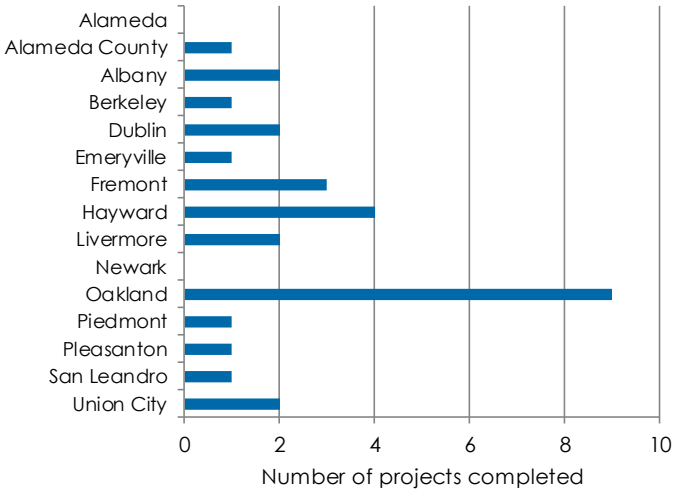


Figure 58. Major pedestrian projects completed by jurisdiction



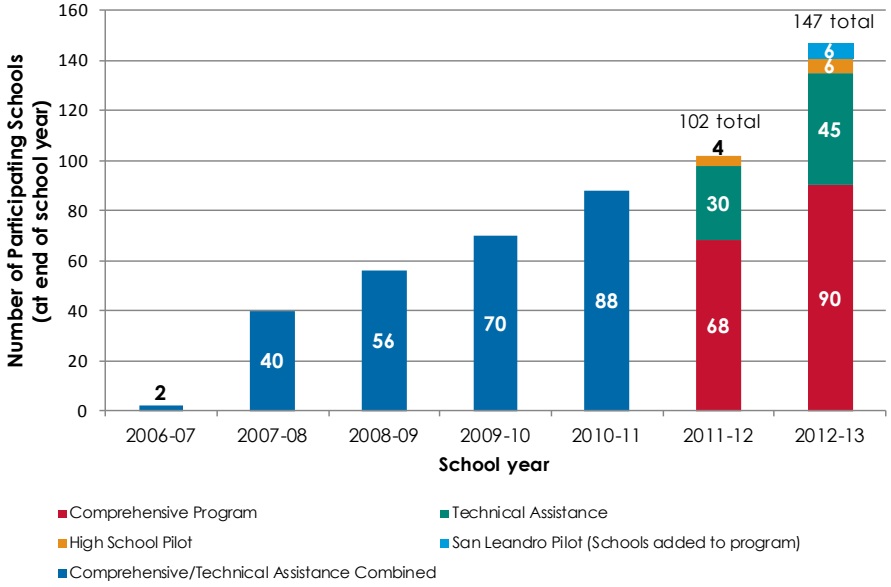
Source for Figures 57-58: Data reported by local jurisdictions through a survey conducted for this report.
Notes: "Major" pedestrian projects do not include sidewalk repair programs, installation of curb ramps, signal retimings, installation of a single traffic calming element (e.g., a single speed hump), trail maintenance programs (as distinct from major trail rehabilitation projects), individual installations of pedestrian countdown signals or pedestrian detection, or installation of new traffic signals for reasons other than improving pedestrian safety. Categories in Figure 58 do not sum to "Total," as some projects fit in multiple categories.

Programs and Education

Alameda CTC funds several countywide programs designed to educate and encourage residents, workers, and visitors to walk.

- Safe Routes to Schools (SR2S) refers to a variety of multi-disciplinary programs aimed at promoting use of alternative modes to get to school and improving safety of using active transportation modes around school areas. The Alameda County SR2S program involves partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies.
- The Alameda County SR2S program began in 2006 as a grant-funded pilot program in two schools, and has expanded significantly. The program shifted to receive federal, state, and local Measure B sales tax funding in the 2011-12 school year and expanded its offerings to cater to different levels of involvement from interested schools including elementary, middle and high school programs. In 2012-13, the program added 45 new schools, reaching a total of 147 participating schools (refer to Figure 59).
- Alameda CTC also funds the Step into Life campaign designed to inspire people living or working in Alameda County to walk for every day trips.

Figure 59. Alameda County Safe Routes to School participating schools



Source: Safe Routes to School 2012-13 Annual Report.

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Appendices

Appendix A. Performance Measures Not Included in This Performance Report

Performance Measure	Rationale for Exclusion
Low-income households near activity centers	This measure is one of the "Liveable Communities" performance measures added in the 2011 Performance Report. The measure is complex to compute and does not typically exhibit significant change on an annual basis. Alameda CTC will reevaluate the suitability of reporting on this measure in an annual document as part of the 2015 Alameda County Congestion Management Program (CMP) update.
Low-income households near transit	This measure is one of the Liveable Communities performance measures added in the 2011 Performance Report. The measure is complex to compute and does not typically exhibit significant change on an annual basis. Alameda CTC will reevaluate the suitability of reporting on this measure in an annual document as part of the 2015 Alameda County CMP update.
CO_2 emissions	This measure is one of the Liveable Communities performance measures added in the 2011 Performance Report. The measure is computed using the Alameda Countywide Travel Demand Model rather than a longitudinal data source; therefore, Alameda CTC will reevaluate the suitability of reporting on this measure in an annual document as part of the 2015 Alameda County CMP update.
Fine particulate emissions	This measure is one of the Liveable Communities performance measures added in the 2011 Performance Report. The measure is computed using the Alameda Countywide Travel Demand Model rather than a longitudinal data source; therefore, Alameda CTC will reevaluate the suitability of reporting on this measure in an annual document as part of the 2015 Alameda County CMP update.
Travel time of key origin-destination pairs	This measure will be reported on in the 2014 LOS monitoring report.
Transit routing	This measure will be reported on in the CMP document.
Transit frequency	This measure will be reported on in the CMP document.
Coordination of transit service	This measure will be reported on in the CMP document.
Transit capital needs and shortfall	This measure is based on the Regional Transportation Plan financial analysis conducted every four years; therefore, there is no new information to report.
State highway miles in need of rehab	Caltrans has not had new data for this measure since 2008.
Countywide funds devoted to bicycle and pedestrian modes	Alameda CTC is exploring opportunities for reporting on this measure as part of its Annual Report.

Appendix B. Detailed Information on Data Sources

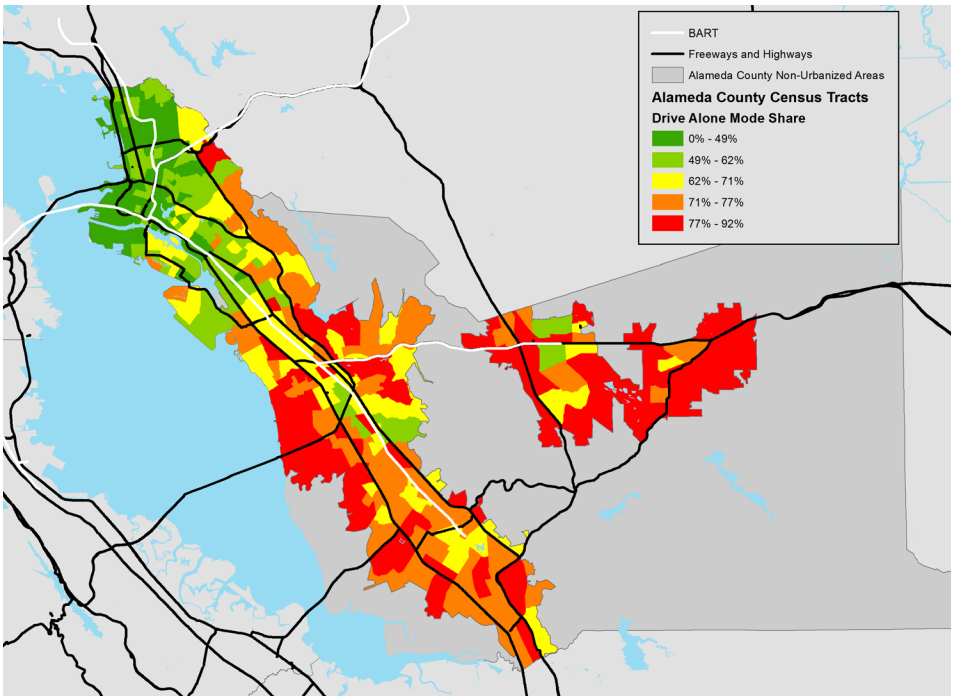
Measure	Data Source	Notes
Commuter flows	Longitudinal Employment-Household Dynamics OnTheMap Application	The Longitudinal Employer-Household Dynamics (LEHD) program is part of the Center for Economic Studies at the U.S. Census Bureau. LEHD produces the LEHD Origin-Destination Employment Statistics data used in the OnTheMap application by synthesizing U.S. Census data and state unemployment insurance earnings data.
Mode share	American Community Survey, 1-Year Estimates	This measure is based on a sample expanded to the 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.
Freeway and arterial speeds – long-term trends	Alameda CTC Level of Service Monitoring Studies	This measure is based on biennially conducted GPS-floating car runs. Data collection occurs from March to May of even-numbered years.
Freeway speeds – recent trends	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 in-road sensors and serves a wide range of public and private clients. INRIX data has been validated against GPS-floating car data collected in Alameda County for freeways.
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 in-road sensors and serves a wide range of public and private clients. INRIX data has been validated against GPS-floating car data collected in Alameda County for freeways.
Local streets and roads pavement condition index	MTC's StreetSaver database	StreetSaver is an online pavement management system that enables local jurisdictions to track the PCI of their roadways.
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	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	
Transit service utilization (boardings per revenue vehicle hour)	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	
Transit cost efficiency (operating cost per rider)	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	Operating costs are escalated to 2012 dollars using the Consumer Price Index for the San Francisco Bay Area.
Transit commercial speed (revenue vehicle miles per revenue vehicle hour)	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	

Appendix B, Continued. Detailed Information on Data Sources

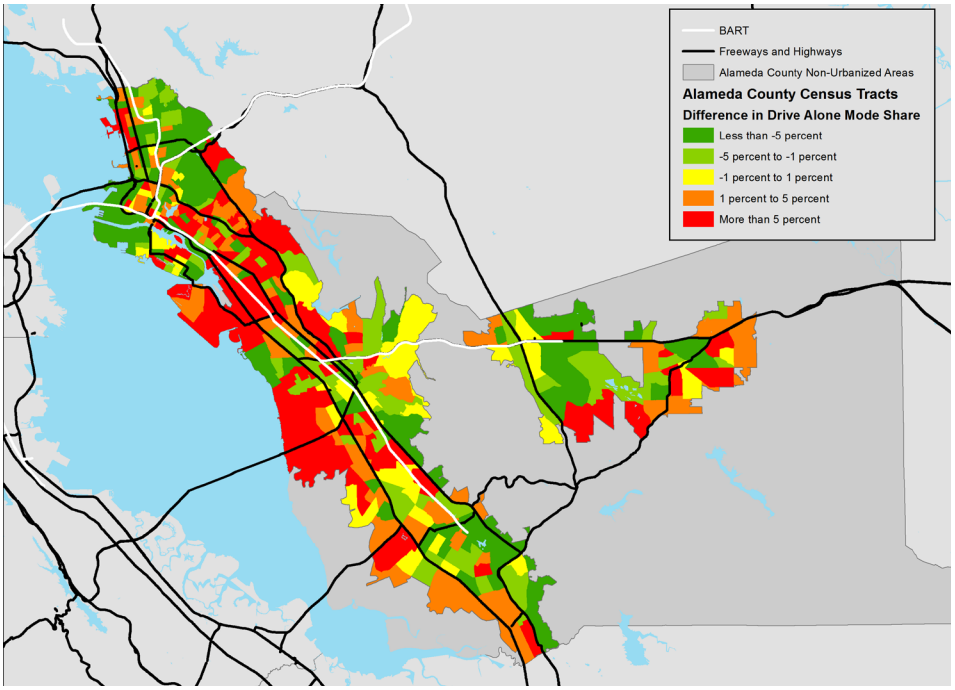
Measure	Data Source	Notes
Transit on-time performance	Special request from transit operators	"On-time" threshold is as defined by operator (e.g., AC Transit uses a standard of no more than 1 minute early or 5 minutes late).
Transit fleet age	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	
Transit service interruptions	FTA's National Transit Database (FY2005-FY2012) and special request from transit operators (2013)	
Bicycle/pedestrian counts	Alameda CTC count program	The p.m. peak-hour counts (4:00-6:00 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/major pedestrian capital projects completed	Reported by local jurisdictions	Survey of local bicycle and pedestrian coordinators was conducted for the is report. Alameda CTC staff slightly modified responses to pedestrian project portion for consistency.
Bicycle/pedestrian program participation	Semi-annual progress reports (Bike Safety Education) and annual reports (Bike to Work Day and Safe Routes to School)	

Appendix C. Mode Share Maps

Appendix C-1. Journey-to-work drive-alone mode share (American Community Survey (ACS) 2008-2012 5-Year Sample)

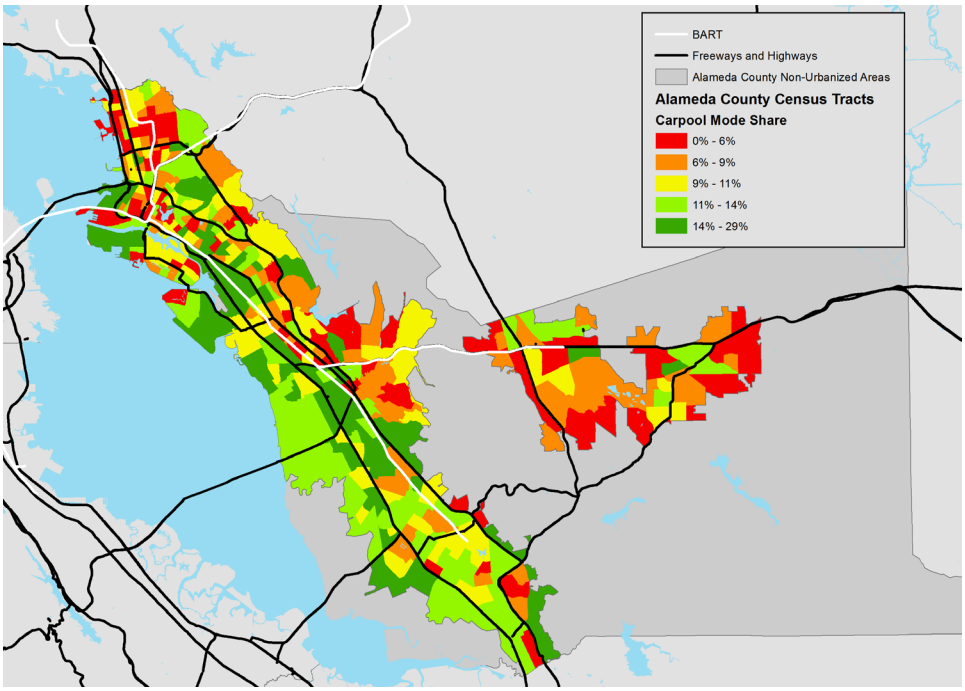


Appendix C-2. Difference in journey-to-work drive-alone mode share (ACS 2008-2012 vs. 2000 Census)

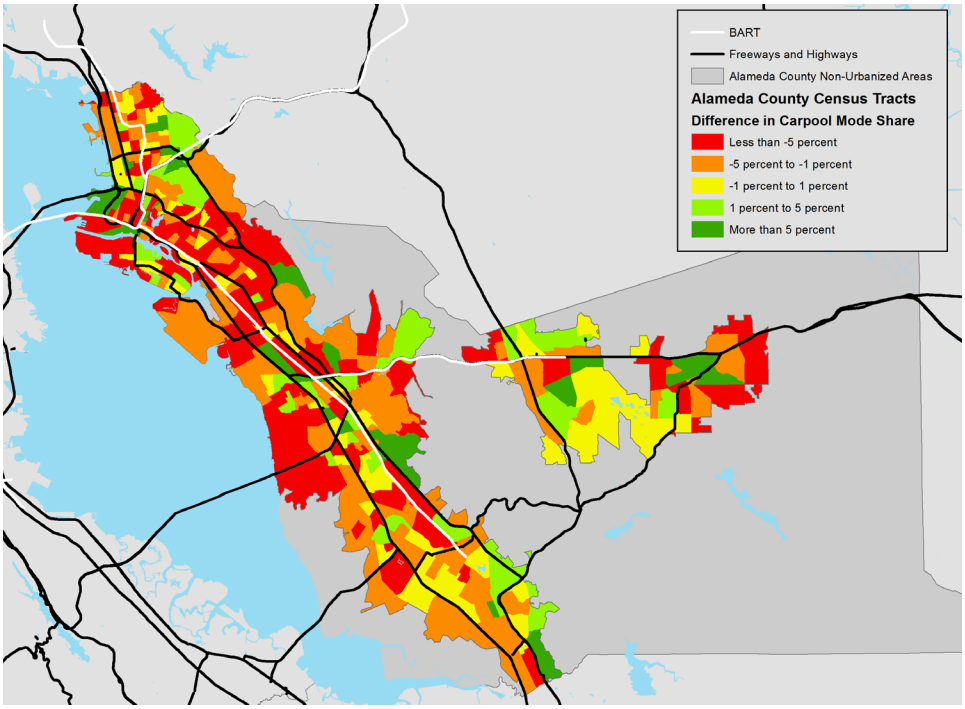


Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix C-3. Journey-to-work carpool mode share (ACS 2008-2012 5-Year Sample)

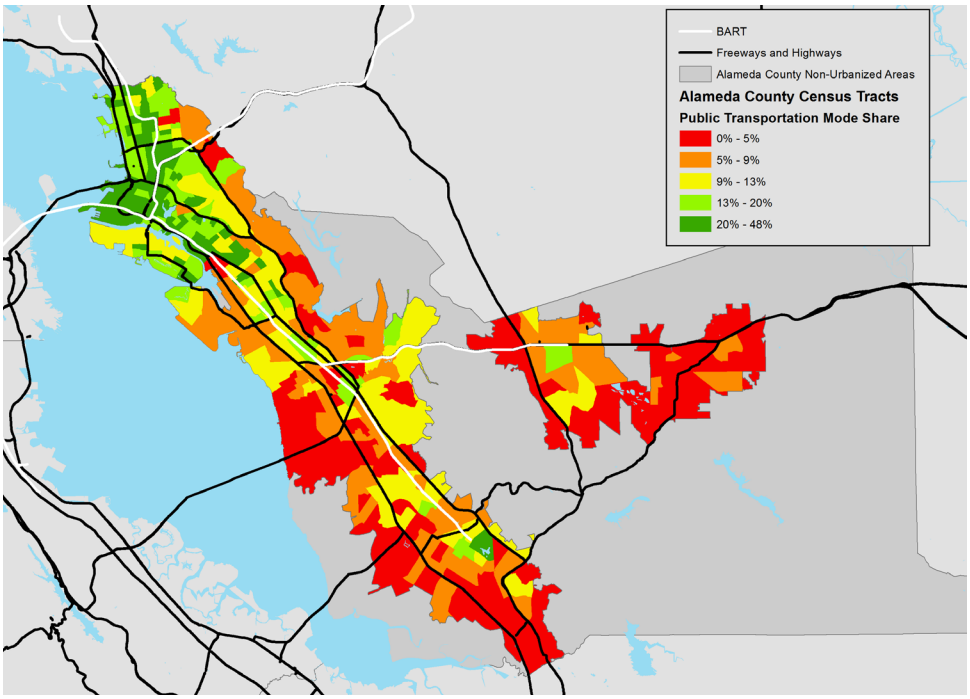


Appendix C-4. Difference in journey-to-work carpool mode share (ACS 2008-2012 vs. 2000 Census)

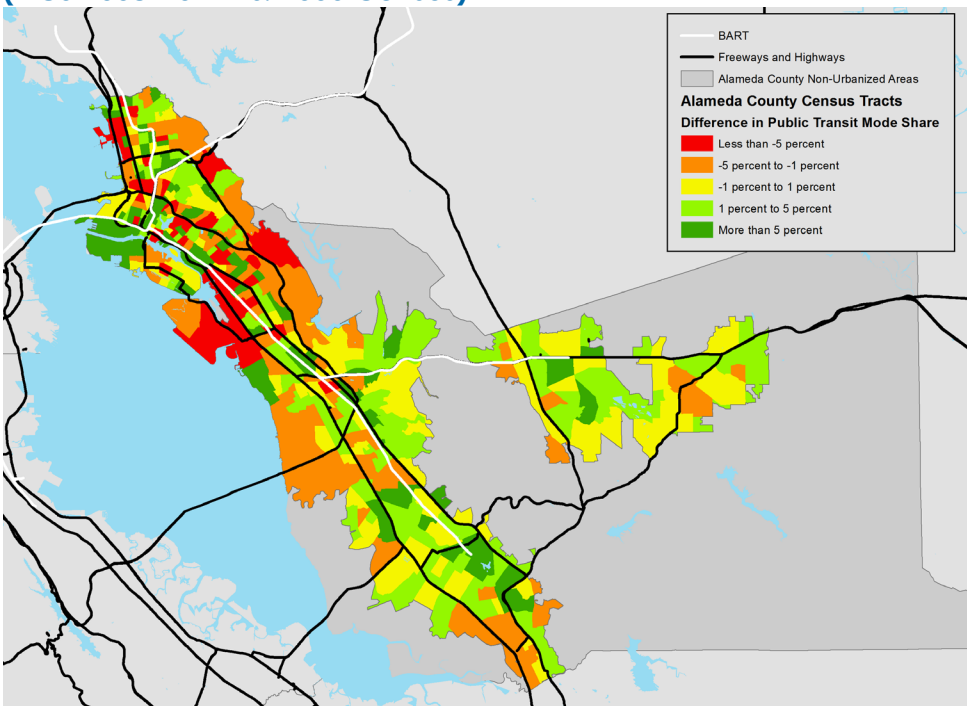


Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix C-5. Journey-to-work public transportation mode share (ACS 2008-2012 5-Year Sample)

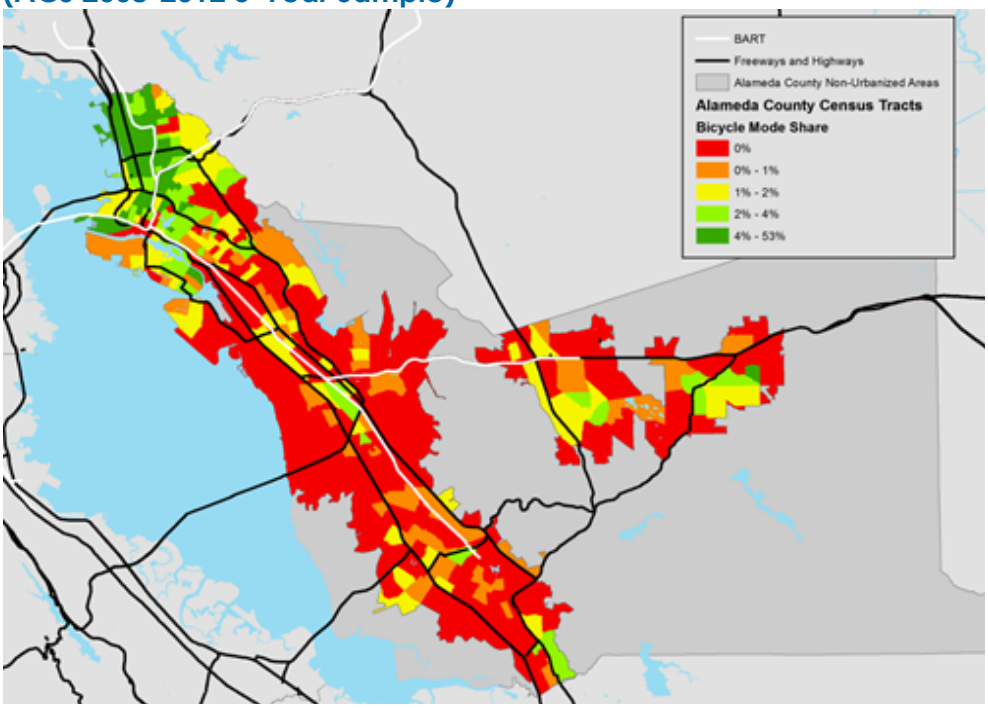


Appendix C-6. Difference in journey-to-work public transportation mode share (ACS 2008-2012 vs. 2000 Census)

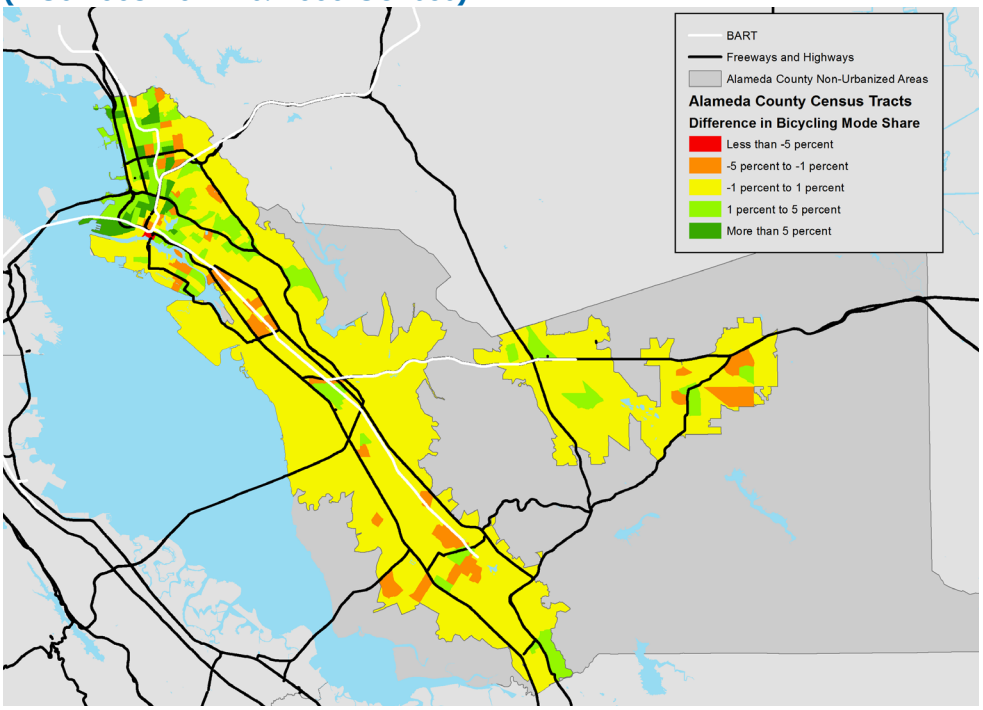


Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix C-7. Journey-to-work bicycling mode share (ACS 2008-2012 5-Year Sample)

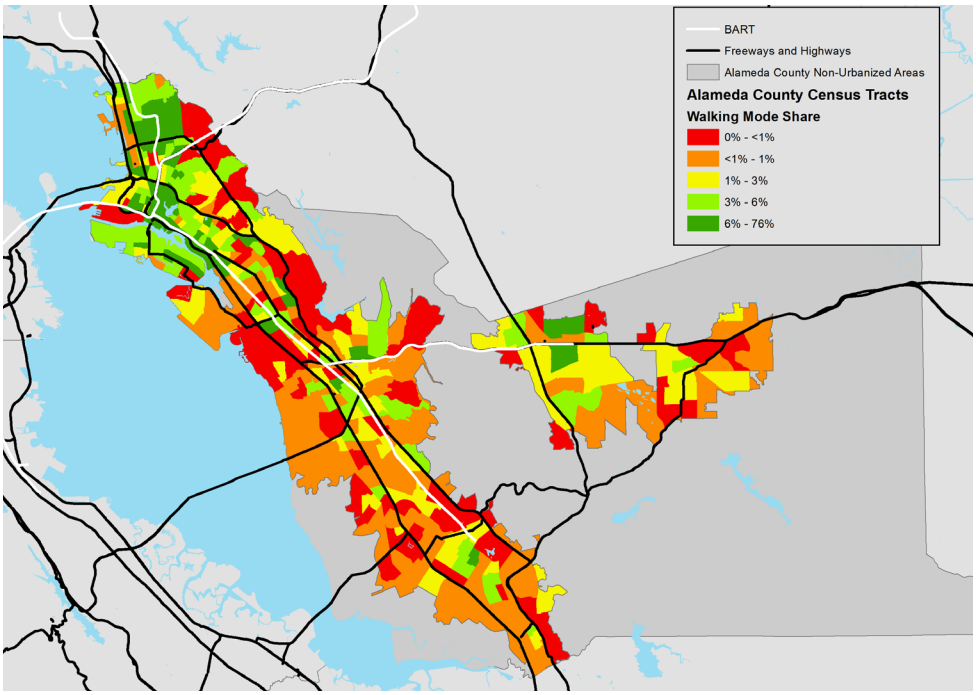


Appendix C-8. Difference in journey-to-work bicycling mode share (ACS 2008-2012 vs. 2000 Census)

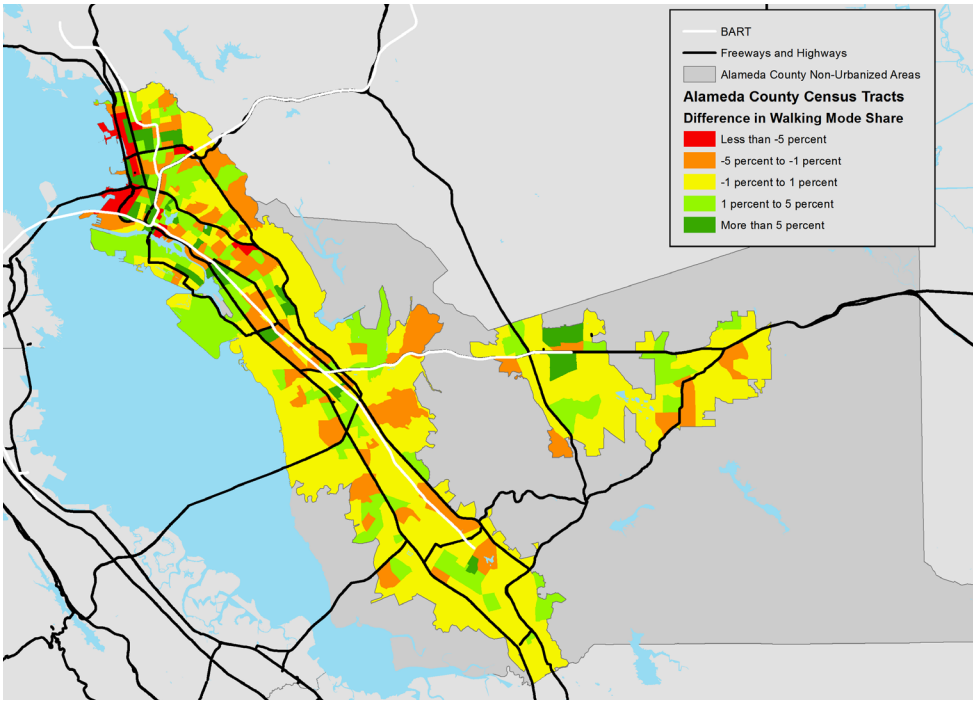


Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix C-9. Journey-to-work walking mode share (ACS 2008-2012 5-Year Sample)

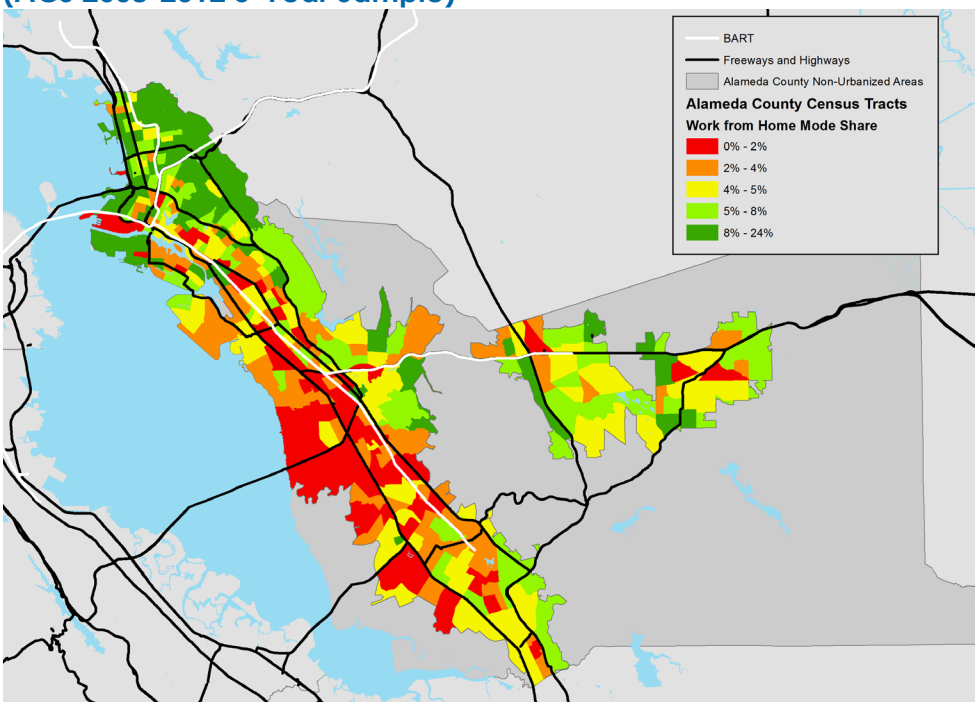


Appendix C-10. Difference in journey-to-work walking mode share (ACS 2008-2012 vs. 2000 Census)

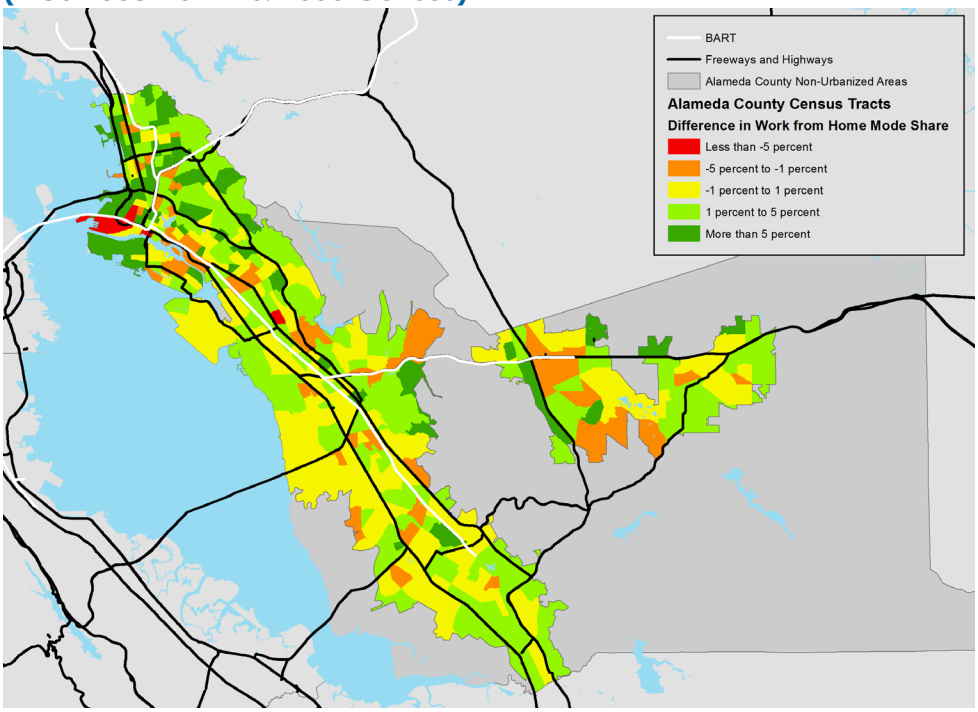


Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix C-11. Journey-to-work trip work-from-home mode share (ACS 2008-2012 5-Year Sample)



Appendix C-12. Difference in journey-to-work trip work-from-home mode share (ACS 2008-2012 vs. 2000 Census)



Note: Maps show mode share and difference in mode share at the Census Tract level of geography. Difference in mode share is computed as ACS 2008-2012 mode share minus Census 2000 mode share. For instance, if a tract had a 7 percent mode share in the ACS 2008-2012 and a 5 percent mode share in the Census 2000, the difference in mode share would be 2 percent. Census mode share data are based on the primary (longest portion of trip) mode used to get to work most days of the week.

Appendix D. Speed Data

Appendix D-1. Weekday a.m. peak-period (7:00-9:00 a.m.) average speeds

		FY10-11	FY11-12	FY12-13	Percent Change (FY12-13 vs. FY11-12)
I-80 from I-80/I-580 Diverge to MacArthur Maze	EB	60.22	60.96	61.09	0%
I-80 from I-80/I-580 Diverge to MacArthur Maze	WB	41.46	42.54	40.17	-6%
I-80 from MacArthur Maze to San Francisco	EB	53.39	57.37	55.24	-4%
I-80 from MacArthur Maze to San Francisco	WB	41.00	41.62	40.02	-4%
I-580 from MacArthur Maze to CA-24/I-980	EB	57.69	58.23	59.17	2%
I-580 from MacArthur Maze to CA-24/I-980	WB	50.53	50.70	51.59	2%
I-580 from CA-24/I-980 to I-238	EB	65.97	66.83	67.51	1%
I-580 from CA-24/I-980 to I-238	WB	58.15	58.85	57.72	-2%
I-580 from I-238 to I-680	EB	63.59	63.04	62.32	-1%
I-580 from I-238 to I-680	WB	62.66	62.12	62.76	1%
I-580 from I-680 to Vasco Rd.	EB	63.65	65.44	66.70	2%
I-580 from I-680 to Vasco Rd.	WB	46.21	45.88	44.16	-4%
I-580 from Vasco Rd. to I-205	EB	63.83	65.30	65.95	1%
I-580 from Vasco Rd. to I-205	WB	50.72	50.50	49.46	-2%
I-680 from CA-24 to I-580	NB	62.52	62.50	62.33	0%
I-680 from CA-24 to I-580	SB	57.14	57.51	57.18	-1%
I-680 from I-580 to CA-84	NB	67.01	66.80	67.60	1%
I-680 from I-580 to CA-84	SB	55.24	55.14	55.57	1%
I-680 from CA-84 to Auto Mall Pkwy.	NB	64.81	65.03	66.36	2%
I-680 from CA-84 to Auto Mall Pkwy.	SB	56.73	58.63	58.58	0%
I-680 from Auto Mall Pkwy. to CA-237	NB	66.42	66.43	67.10	1%
I-680 from Auto Mall Pkwy. to CA-237	SB	63.28	63.90	63.50	-1%
I-880 from MacArthur Maze to I-238	NB	50.24	50.73	49.10	-3%
I-880 from MacArthur Maze to I-238	SB	59.68	61.46	60.85	-1%
I-880 from I-238 to CA-92	NB	59.06	59.48	58.42	-2%
I-880 from I-238 to CA-92	SB	44.67	45.95	46.27	1%
I-880 from CA-92 to CA-84	NB	53.42	56.74	56.29	-1%
I-880 from CA-92 to CA-84	SB	41.92	40.78	41.70	2%
I-880 from CA-84 to Auto Mall Pkwy.	NB	63.62	64.50	64.18	0%
I-880 from CA-84 to Auto Mall Pkwy.	SB	45.68	43.75	40.67	-7%
I-880 from Auto Mall Pkwy. to CA-237	NB	65.14	66.06	66.01	0%
I-880 from Auto Mall Pkwy. to CA-237	SB	56.91	57.01	54.74	-4%
CA-24 from Caldecott Tunnel to I-580	EB	52.37	52.89	53.02	0%
CA-24 from Caldecott Tunnel to I-580	WB	60.02	59.39	60.21	1%
I-238 from I-880 to I-580	NB	38.56	33.68	33.12	-2%
I-238 from I-880 to I-580	SB	59.96	59.94	59.77	0%

Appendix D-2. Weekday p.m. peak-hour (4:00-6:00 p.m.) average speeds

		FY10-11	FY11-12	FY12-13	Percent Change (FY12-13 vs. FY11-12)
I-80 from I-80/I-580 Diverge to MacArthur Maze	EB	32.39	31.00	30.52	-2%
I-80 from I-80/I-580 Diverge to MacArthur Maze	WB	33.52	32.34	33.45	3%
I-80 from MacArthur Maze to San Francisco	EB	45.65	45.44	44.16	-3%
I-80 from MacArthur Maze to San Francisco	WB	44.75	44.32	44.47	0%
I-580 from MacArthur Maze to CA-24/I-980	EB	44.82	43.64	42.75	-2%
I-580 from MacArthur Maze to CA-24/I-980	WB	48.22	48.33	47.11	-3%
I-580 from CA-24/I-980 to I-238	EB	57.89	56.91	56.45	-1%
I-580 from CA-24/I-980 to I-238	WB	66.09	66.57	67.15	1%
I-580 from I-238 to I-680	EB	61.90	57.63	51.74	-10%
I-580 from I-238 to I-680	WB	64.12	64.45	64.48	0%
I-580 from I-680 to Vasco Rd.	EB	56.11	52.44	45.98	-12%
I-580 from I-680 to Vasco Rd.	WB	61.85	63.15	63.26	0%
I-580 from Vasco Rd. to I-205	EB	54.64	50.74	48.83	-4%
I-580 from Vasco Rd. to I-205	WB	63.83	65.13	66.09	1%
I-680 from CA-24 to I-580	NB	54.38	51.78	48.73	-6%
I-680 from CA-24 to I-580	SB	61.04	60.59	61.66	2%
I-680 from I-580 to CA-84	NB	65.92	64.24	65.16	1%
I-680 from I-580 to CA-84	SB	66.12	66.48	67.14	1%
I-680 from CA-84 to Auto Mall Pkwy.	NB	44.09	39.69	31.09	-22%
I-680 from CA-84 to Auto Mall Pkwy.	SB	65.07	66.43	67.39	1%
I-680 from Auto Mall Pkwy. to CA-237	NB	53.90	51.00	47.63	-7%
I-680 from Auto Mall Pkwy. to CA-237	SB	66.77	66.85	65.61	-2%
I-880 from MacArthur Maze to I-238	NB	57.99	58.94	58.92	0%
I-880 from MacArthur Maze to I-238	SB	49.64	47.80	47.35	-1%
I-880 from I-238 to CA-92	NB	54.52	46.28	44.37	-4%
I-880 from I-238 to CA-92	SB	51.02	51.63	53.12	3%
I-880 from CA-92 to CA-84	NB	36.77	36.58	35.34	-3%
I-880 from CA-92 to CA-84	SB	52.79	52.84	53.30	1%
I-880 from CA-84 to Auto Mall Pkwy.	NB	53.21	53.08	50.61	-5%
I-880 from CA-84 to Auto Mall Pkwy.	SB	60.33	60.60	60.94	1%
I-880 from Auto Mall Pkwy. to CA-237	NB	52.82	52.33	43.31	-17%
I-880 from Auto Mall Pkwy. to CA-237	SB	63.36	62.93	63.39	1%
CA-24 from Caldecott Tunnel to I-580	EB	38.21	32.88	32.36	-2%
CA-24 from Caldecott Tunnel to I-580	WB	61.64	59.66	61.83	4%
I-238 from I-880 to I-580	NB	58.32	57.32	54.04	-6%
I-238 from I-880 to I-580	SB	55.62	50.30	48.07	-4%

Appendix E. Transit Operator Data

Appendix E-1. Summary of BART's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Directional route miles	290	290	290	290	290	290	290	290	290
Alameda County	97	97	97	97	97	97	97	97	97
Total annual revenue passenger car miles (million)	60.0	62.1	64.3	67.0	67.8	63.2	63.3	63.4	65.7
Alameda County	29.4	30.4	31.5	32.8	33.2	31.0	31.0	31.1	32.2
Total annual revenue passenger car hours (million)	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8
Alameda County	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9
Fleet									
Number of active train cars	667	660	667	667	669	667	668	664	664
Average age of active train car	25.8	26.8	27.8	28.8	29.8	30.8	31.8	32.8	33.8
Demand									
Total annual boardings (million)	99.3	103.7	109.0	115.2	114.7	108.3	111.1	118.7	126.5
Alameda County	32.9	34.9	36.3	37.8	37.8	36.0	37.4	40.5	43.3
Average weekday boardings	329,199	343,026	361,811	384,231	379,007	357,461	367,505	391,777	420,396
Alameda County	111,303	116,502	120,989	126,098	126,031	119,308	124,501	134,111	143,726
Total annual passenger miles traveled (million)	1,255.5	1,307.1	1,368.0	1,448.5	1,442.1	1,390.9	1,442.9	1,545.7	1,649.3
Average miles per trip	12.6	12.6	12.5	12.6	12.6	12.8	13.0	13.0	13.0
Financial									
Total annual operating expenses (2013 $ x million)	$497.9	$492.1	$520.5	$526.8	$528.7	$498.8	$472.8	$499.8	$581.3
Total fare revenue earned (2013 $ x million)	$281.8	$299.4	$319.2	$339.7	$346.7	$356.9	$359.8	$374.7	$406.1
Service Utilization Performance Concepts									
Total annual boardings per revenue passenger car mile systemwide	1.65	1.67	1.69	1.72	1.69	1.71	1.75	1.87	1.93
Total annual boardings per revenue passenger car hour systemwide	55.95	56.95	59.12	59.38	59.05	60.84	62.61	65.44	69.49
Load factor systemwide	20.92	21.05	21.27	21.62	21.26	22.00	22.78	24.37	25.12
Financial Performance Concepts									
Operating expense per passenger mile traveled	$0.40	$0.38	$0.38	$0.36	$0.37	$0.36	$0.33	$0.32	$0.35
Operating expense per rider	$5.01	$4.75	$4.77	$4.57	$4.61	$4.61	$4.26	$4.21	$4.59
Operating expense per revenue passenger car mile	$8.30	$7.93	$8.09	$7.86	$7.79	$7.89	$7.46	$7.88	$8.85
Operating expense per revenue passenger car hour	$280.53	$270.34	$282.22	$271.51	$272.29	$280.20	$266.44	$275.61	$319.18
Farebox recovery ratio	57%	61%	61%	64%	66%	72%	76%	75%	70%

Sources: National Transit Database (2002-2012) and BART (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI. Load factor computed as total annual passenger miles traveled/total annual revenue passenger car miles. Farebox recovery computed as fare revenues generated/total annual operating expenses.

Appendix E-2. Summary of AC Transit's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Directional route miles	1,352	1,365	1,365	1,365	1,364	1,278	1,254	1,254	1,254
Alameda County	1,190	1,201	1,201	1,201	1,200	1,124	1,104	1,104	1,104
Total annual revenue vehicle miles (million)	20.9	21.2	21.6	22.0	22.1	21.6	19.2	18.2	18.0
Alameda County	18.4	18.7	19.0	19.4	19.4	19.0	16.9	16.1	15.9
Total annual revenue vehicle hours (million)	1.8	1.8	1.8	1.9	1.9	1.9	1.7	1.6	1.6
Alameda County	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.4	1.4
Fleet									
Number of active buses	626	632	678	646	647	643	610	637	569
Average age of active buses	5.6	7.0	7.5	8.0	6.9	7.5	8.1	9.0	7.6
Demand									
Total annual boardings (million)	64.4	67.0	67.0	65.2	60.5	61.4	57.3	53.6	54.9
Alameda County	56.7	58.9	58.9	57.4	53.2	54.0	50.5	47.2	48.3
Average weekday boardings	209,744	226,732	226,855	218,245	197,208	197,445	190,948	174,022	171,957
Alameda County	184,575	199,524	199,632	192,056	173,543	173,752	168,034	153,039	151,322
Total annual passenger miles traveled (million)	197.7	209.4	204.2	197.6	192.5	173.6	187.1	187.3	203.3
Average miles per trip	3.1	3.1	3.0	3.0	3.2	2.8	3.3	3.5	3.7
Financial									
Total annual operating expenses (2013 $ x million)	$278.2	$296.7	$305.0	$312.1	$322.7	$322.8	$299.1	$300.8	$292.5
Total fare revenue earned (2013 $ x million)	$52.5	$55.8	$56.3	$55.4	$56.5	$57.3	$53.2	$58.4	$58.2
Service Utilization Performance Concepts									
Total annual boardings per revenue vehicle mile systemwide	3.09	3.16	3.11	2.96	2.74	2.85	2.99	2.94	3.04
Total annual boardings per revenue vehicle hour systemwide	36.05	36.84	36.75	34.86	31.88	33.08	34.01	33.23	34.20
Load factor systemwide	9.48	9.88	9.47	8.98	8.73	8.05	9.74	10.26	11.26
Financial Performance Concepts									
Operating expense per passenger mile traveled	$1.41	$1.42	$1.49	$1.58	$1.68	$1.86	$1.60	$1.61	$1.44
Operating expense per rider	$4.32	$4.43	$4.55	$4.79	$5.34	$5.26	$5.22	$5.61	$5.32
Operating expense per revenue vehicle mile	$13.33	$14.00	$14.15	$14.19	$14.63	$14.98	$15.58	$16.49	$16.21
Operating expense per revenue vehicle hour	$155.71	$163.24	$167.40	$166.90	$170.14	$173.93	$177.43	$186.39	$182.13
Farebox recovery ratio	19%	19%	18%	18%	18%	18%	18%	19%	20%

Sources: National Transit Database (2002-2012) and AC Transit (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI. Alameda County shares of boardings based on share of route miles in Alameda County. Load factor computed as total annual passenger miles traveled/total annual revenue vehicle miles. Farebox recovery computed as fare revenues generated/total annual operating expenses. AC Transit changed its method of measuring passenger miles traveled in FY12-13.

Appendix E-3. Summary of ACE's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Directional route miles	172	172	172	172	172	172	172	172	172
Alameda County	90	90	90	90	90	90	90	90	90
Total annual revenue passenger car miles (thousand)	783.3	721.8	780.2	780.2	780.2	719.0	786.0	805.2	914.7
Alameda County	9.8	9.8	10.3	10.3	11.9	9.8	10.3	10.6	12.4
Total annual revenue passenger car hours (thousand)	18.7	18.7	19.7	19.7	22.7	18.6	19.7	20.2	23.6
Alameda County	211.6	212.1	233.5	266.0	265.0	235.0	254.0	332.5	313.6
Fleet									
Number of active train cars	29	29	30	30	30	34	34	34	34
Average age of train car	5.6	6.6	7.4	8.4	9.4	9.4	10.4	11.4	12.6
Demand									
Total annual boardings (thousand)	640.6	642.0	706.9	805.2	797.3	655.5	718.4	786.9	940.8
Alameda County	211.6	212.1	233.5	266.0	265.0	235.0	254.0	332.5	313.6
Average weekday boardings	2,532	2,537	2,805	3,191	3,164	2,601	2,851	3,123	3,748
Alameda County	800	829	852	1,053	1,048	922	1,011	1,319	1,961
Total annual passenger miles traveled (million)	33.3	30.2	33.6	37.8	35.8	29.4	32.9	36.0	42.1
Average miles per trip	52.0	47.0	47.6	46.9	44.8	44.8	45.9	45.7	44.8
Financial									
Total annual operating expenses (2013 $ x million)	$13.3	$14.4	$12.3	$12.6	$13.6	$12.5	$12.3	$12.5	$15.1
Total fare revenue earned (2013 $ x million)	$3.6	$4.0	$4.5	$4.8	$5.0	$4.2	$4.5	$4.3	$5.8
Service Utilization Performance Concepts									
Total annual boardings per revenue passenger car mile systemwide	0.82	0.89	0.91	1.03	1.02	0.91	0.91	0.98	1.03
Total annual boardings per revenue passenger car hour systemwide	34.22	34.34	35.97	40.97	35.16	35.15	36.55	38.97	39.82
Load factor systemwide	42.49	41.80	43.08	48.39	45.83	40.84	41.90	44.66	46.07
Financial performance concepts									
Operating expense per passenger mile traveled	$0.40	$0.48	$0.37	$0.34	$0.38	$0.42	$0.37	$0.35	$0.36
Operating expense per rider	$20.74	$22.35	$17.46	$15.71	$17.00	$19.02	$17.15	$15.86	$16.03
Operating expense per revenue passenger car mile	$16.96	$19.88	$15.81	$16.21	$17.37	$17.34	$15.67	$15.50	$16.49
Operating expense per revenue passenger car hour	$709.71	$767.52	$627.84	$643.69	$597.63	$668.49	$626.62	$618.02	$638.36
Farebox recovery ratio	27%	28%	37%	38%	37%	34%	37%	34%	38%

Sources: National Transit Database (2002-2012) and ACE (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Load factor computed as total annual passenger miles traveled/total annual revenue passenger car miles.
Farebox recovery computed as fare revenues generated/total annual operating expenses.

Appendix E-4. Summary of LAVTA's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Directional route miles	430	309	356	306	323	289	280	300	336
Total annual revenue vehicle miles (thousand)	1680.2	1706.0	1756.3	1983.8	2017.2	1500.2	1637.3	1861.6	1827.0
Total annual revenue vehicle hours (thousand)	114.9	115.0	121.7	137.5	139.3	102.0	111.5	125.1	124.6
Fleet									
Number of active buses	76	74	74	76	68	68	88	89	89
Average age of active buses	6.4	7.2	8.2	8.9	8.9	9.9	7.1	7.8	8.7
Demand									
Total annual boardings (thousand)	1944.5	2037.0	2136.0	2234.2	2195.4	1740.3	1712.9	1751.2	1727.1
Average weekday boardings	6,591	6,939	7,316	7,893	7,809	6,073	6,628	6,101	6,053
Total annual passenger miles traveled (million)	9.4	10.0	10.0	10.6	10.4	8.3	8.3	8.5	8.4
Average miles per trip	4.9	4.9	4.7	4.7	4.7	4.7	4.9	4.9	4.9
Financial									
Total annual operating expenses (2013 $ x thousand)	$9,269.9	$10,315.3	$10,817.4	$12,336.4	$12,764.3	$11,143.3	$11,564.2	$12,603.3	$12,333.4
Total fare revenue earned (2013 $ x thousand)	$1,621.9	$1,676.0	$2,013.3	$2,245.5	$2,318.9	$2,118.8	$2,051.5	$2,044.0	$2,309.0
Service Utilization Performance Concepts									
Total annual boardings per revenue vehicle mile systemwide	1.16	1.19	1.22	1.13	1.09	1.16	1.05	0.94	0.95
Total annual boardings per revenue vehicle hour systemwide	16.93	17.71	17.55	16.25	15.76	17.05	15.37	14.00	13.86
Load factor systemwide	5.62	5.84	5.69	5.35	5.16	5.50	5.10	4.59	4.60
Financial performance concepts									
Operating expense per passenger mile traveled	$1.19	$1.21	$1.23	$1.28	$1.34	$1.45	$1.45	$1.51	$1.47
Operating expense per rider	$5.76	$5.93	$5.74	$6.07	$6.35	$6.90	$7.09	$7.36	$7.14
Operating expense per revenue vehicle mile	$6.67	$7.08	$6.99	$6.84	$6.91	$8.00	$7.41	$6.92	$6.75
Operating expense per revenue vehicle hour	$97.54	$105.02	$100.82	$98.72	$100.05	$117.62	$108.92	$102.99	$98.96
Farebox recovery ratio	17%	16%	19%	18%	18%	19%	18%	16%	19%

Sources: National Transit Database (2002-2012) and LAVTA (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Load factor computed as total annual passenger miles traveled/total annual revenue vehicle miles.
Farebox recovery computed as fare revenues generated/total annual operating expenses.

Appendix E-5. Summary of Union City Transit's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Directional route miles	49	48	54	48	60	60	60	60	60
Total annual revenue vehicle miles (thousand)	524.0	524.3	482.9	462.4	456.7	470.9	464.7	467.8	470.8
Total annual revenue vehicle hours (thousand)	37.9	38.5	38.9	39.6	39.6	39.5	39.1	39.3	39.6
Fleet									
Number of active buses	15	15	15	15	16	17	17	17	18
Average age of active buses	7.3	8.3	9.3	10.3	9.6	5.8	6.8	7.8	4.4
Demand									
Total annual boardings (thousand)	380.5	398.0	421.5	438.0	463.6	448.1	474.0	500.5	496.1
Average weekday boardings	1,319	1,335	1,464	1,518	1,637	1,567	1,793	1,780	1,783
Total annual passenger miles traveled (million)	1.2	1.2	1.3	1.4	1.4	1.5	N/A	N/A	1.6
Average miles per trip	3.1	3.0	3.0	3.2	3.1	3.2	N/A	N/A	3.2
Financial									
Total annual operating expenses (2013 $ x thousand)	$2,747.3	$2,575.0	$2,656.8	$2,638.2	$2,615.7	$2,821.3	$2,886.8	$3,066.7	$3,293.5
Total fare revenue earned (2013 $ x thousand)	$300.1	$313.2	$373.3	$349.4	$363.5	$340.2	$430.4	$451.8	$435.0
Service Utilization Performance Concepts									
Total annual boardings per revenue vehicle mile systemwide	0.73	0.76	0.87	0.95	1.01	0.95	1.02	1.07	1.05
Total annual boardings per revenue vehicle hour systemwide	10.05	10.33	10.85	11.05	11.70	11.34	12.13	12.74	12.52
Load factor systemwide	2.26	2.30	2.64	3.03	3.10	3.08	N/A	N/A	3.40
Financial Performance Concepts									
Operating expense per passenger mile traveled	$2.80	$2.50	$2.36	$2.07	$2.01	$2.10	N/A	N/A	$2.06
Operating expense per rider	$8.73	$7.58	$7.15	$6.62	$6.16	$6.78	$6.39	$6.26	$6.64
Operating expense per revenue vehicle mile	$6.34	$5.75	$6.24	$6.28	$6.25	$6.45	$6.52	$6.70	$7.00
Operating expense per revenue vehicle hour	$87.67	$78.30	$77.53	$73.21	$72.08	$76.90	$77.53	$79.78	$83.10
Farebox recovery ratio	11%	12%	14%	13%	14%	12%	15%	15%	13%

Sources: National Transit Database (2002-2012) and Union City Transit (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Load factor computed as total annual passenger miles traveled/total annual revenue vehicle miles.
Farebox recovery computed as fare revenues generated/total annual operating expenses.

Appendix E-6. Summary of WETA's performance measures

	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Total annual revenue vehicle miles (thousand)	75.6	76.5	77.9	77.7	78.0	78.7	73.2	82.2	311.9
Total annual revenue vehicle hours (thousand)	6.2	6.5	6.8	6.5	6.3	6.3	6.1	6.6	14.6
Fleet									
Number of active ferries	5	5	5	5	6	9	8	6	11
Average age of active ferries	14.2	15.2	16.2	17.2	15.2	11.1	11.5	8.2	12.6
Demand									
Total annual boardings (thousand)	464.7	520.7	577.4	603.7	542.8	568.5	609.3	727.7	1563.4
Alameda/Oakland – SF Route	382.0	426.0	443.0	458.0	400.1	421.2	455.1	545.4	608.2
Harbor Bay – SF Route	84.0	132.0	134.0	145.0	142.6	147.2	154.1	177.2	202.3
Alameda/Oakland – South San Francisco Route			Route did not exist					5.1	40.7
Vallejo – SF Route				Route not part of WETA					712.3
Average weekday boardings	1,419	1,594	1,777	1,873	1,694	1,760	1,945	2,274	4,854
Total annual passenger miles traveled (million)	3.1	3.4	3.9	4.1	3.7	3.9	4.1	5.0	25.6
Average miles per trip	6.6	6.4	6.7	6.7	6.8	6.8	6.8	6.9	16.4
Financial									
Total annual operating expenses (2013 $ x thousand)	$5,200.7	$5,444.7	$5,803.0	$6,078.1	$5,677.3	$5,424.0	$7,027.8	$6,963.5	$23,500.1
Total fare revenue earned (2013 $ x thousand)	$2,467.1	$2,828.3	$2,984.3	$3,003.2	$3,005.5	$3,117.8	$3,706.1	$3,426.8	$10,502.0
Service Utilization Performance Concepts									
Total annual boardings per revenue vehicle mile systemwide	6.15	6.80	7.41	7.77	6.96	7.22	8.32	8.86	5.01
Total annual boardings per revenue vehicle hour systemwide	75.46	80.05	85.35	92.35	85.54	89.96	100.50	110.22	107.25
Load factor systemwide	40.39	43.79	49.84	52.41	47.46	49.27	56.45	61.44	82.16
Financial Performance Concepts									
Operating expense per passenger mile traveled	$1.70	$1.62	$1.49	$1.49	$1.53	$1.40	$1.70	$1.38	$0.92
Operating expense per rider	$11.19	$10.46	$10.05	$10.07	$10.46	$9.54	$11.54	$9.57	$15.03
Operating expense per revenue vehicle mile	$68.78	$71.13	$74.47	$78.28	$72.75	$68.91	$96.01	$84.74	$75.35
Operating expense per revenue vehicle hour	$844.55	$837.01	$857.80	$929.80	$894.77	$858.23	$1,159.33	$1,054.75	$1,612.13
Farebox recovery ratio	47%	52%	51%	49%	53%	57%	53%	49%	45%

Sources: National Transit Database (2002-2012) and WETA (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Load factor computed as total annual passenger miles traveled/total annual revenue vehicle miles.
Farebox recovery computed as fare revenues generated/total annual operating expenses.

Appendix E-7. Summary of Capitol Corridor's performance measures

	FY04-05*	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Supply									
Daily trains from Oakland to Sacramento	24	24/32**	32	32	32	32	32	32/30***	30
Daily trains from San Jose to Sacramento	N/A	N/A	14	14	14	14	14	14	14
Total annual revenue passenger car miles (million)	No Data	No Data	No Data	No Data	No Data	No Data	No Data	5.1	5.1
Alameda County	No Data	No Data	No Data	No Data	No Data	No Data	No Data	1.3	1.3
Demand									
Total annual boardings (million)	1.3	1.3	1.5	1.7	1.6	1.6	1.7	1.7	1.7
Alameda County	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total annual passenger miles traveled (million)	No Data	No Data	No Data	No Data	No Data	No Data	No Data	111.2	108.3
Average miles per trip	No Data	No Data	No Data	No Data	No Data	No Data	No Data	63.7	63.7
Financial									
Total annual operating expenses (2013 $ x million)	$45.8	$41.3	$44.9	$50.3	$52.2	$56.6	$58.9	$58.3	$57.7
Total revenue collected (2013 $ x million)	$15.3	$15.7	$19.4	$23.7	$23.5	$24.4	$27.2	$29.5	$29.2
Service Utilization Performance Concepts									
Total annual boardings per revenue passenger car mile systemwide	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.34	0.33
Load factor systemwide	No Data	No Data	No Data	No Data	No Data	No Data	No Data	21.85	21.28
Financial Performance Concepts									
Operating expense per passenger mile traveled	No Data	No Data	No Data	No Data	No Data	No Data	No Data	$0.52	$0.53
Operating expense per rider	$36.32	$32.43	$30.95	$29.67	$32.63	$35.84	$34.47	$33.36	$33.94
Operating expense per revenue passenger car mile	No Data	No Data	No Data	No Data	No Data	No Data	No Data	$11.45	$11.34
System operating ratio	43%	46%	48%	55%	47%	47%	48%	50%	51%

Sources: Capitol Corridor Annual Reports (2005-2012) and Capitol Corridor (2013).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Load factor computed as total annual passenger miles traveled/total annual passenger car vehicle miles.
System operating ratio computed as total revenue collected/total annual operating expenses.
*Amtrak uses the federal fiscal year (FFY) time frame: October 1 - September 30.
**Capitol Corridor added eight additional daily trains on August 28, 2006.
***The number of trains decreased from 32 daily trains to 30 daily trains on August 13, 2012.

Appendix F. Bicycle and Pedestrian Network Completion

Appendix F-1. Bikeway projects completed in FY12-13

Jurisdiction	Project Name	Roadway/Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Miles	Notes
Alameda County	Lewelling Blvd. Streetscape Improvement Project	Lewelling Blvd., San Lorenzo	Lewelling Blvd. between Hesperian Blvd. and Meekland Ave.	Class II: Bike Lane	Bike Lane (upgraded*)	0.7	Completed spring 2013
Albany	Buchanan Marin Bikeway Phases I and II	Marin Ave. and Buchanan St.	From Pierce St. to San Pablo Ave.	Class I: Multi-Use Trail	Multi-Use Trail (paved)	0.5	This project includes three types of bike facilities: Class I trail for entirety of length. Class II (standard bike lane) for entirety of WB length. Class III (sharrows) for entirety of EB length.
Berkeley	West Street Pathway Part 1	West St. Pathway	Cedar St. to Delaware St.	Class I: Multi-Use Trail	Multi-Use Trail (paved)	0.25	Segment 1
Berkeley	West Street Pathway Part 2	West St. Pathway	University Ave. to Addison St.	Class I: Multi-Use Trail	Multi-Use Trail (paved)	0.05	Segment 2
Dublin	Alamo Canal Trail – I-580 Undercrossing Project	Class I Bike Path	Underneath I-580	Class I: Multi-Use Trail	Multi-Use Trail (paved)	0.1	Gap closure project
Dublin	Golden Gate Dr. Enhancement Project	Roadway	Dublin Blvd., West Dublin BART Station	Class II: Bike Lane	Bike Lane (upgraded*)	0.3	Green bike lanes
Emeryville	53rd St. Bike Boulevard	Bike Boulevard on 53rd St.	Horton St. to Boyer St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.3	
Emeryville	45th St. Bike Boulevard	Bike Boulevard on 45th St.	Horton St. to Hollis St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.1	
Fremont	2012 Cape and Slurry Seal	Kaiser Dr. (north side)	Paseo Padre Pkwy. to Ardenwood	Class II: Bike Lane	Bike Lane (not upgraded*)	0.28	New bike lane
Fremont	2012 Cape and Slurry Seal	Decoto Rd. (north side)	Fremont Blvd. to a point 200 feet east	Class II: Bike Lane	Bike Lane (not upgraded*)	0.04	New bike lane
Fremont	2012 Cape and Slurry Seal	Fremont Blvd. (west side)	Sundale to Bidwell Dr.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.12	New bike lane
Fremont	2012 Cape and Slurry Seal	Fremont Blvd. (east side)	Stevenson Blvd. to Bidwell	Class II: Bike Lane	Bike Lane (not upgraded*)	0.10	New bike lane
Fremont	Beacon, California, and Walnut Improvements	Beacon Ave. (each side), Walnut Ave. (north side), California St. (each side)	On Beacon Ave. between Fremont Blvd. to Liberty St. On California St. between Walnut Ave. and Beacon Ave. On California between Walnut Ave. and Beacon Ave.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.85	New bike lane and refresh of existing lane

Appendix F-1, Continued. Bikeway projects completed in FY12-13

Jurisdiction	Project Name	Roadway/Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Miles	Notes
Livermore	Iron Horse Trail Downtown	Iron Horse Trail	Transit Center to K St.	Class I: Multi-Use Trail	Multi-Use Trail (paved)	0.10	
Livermore	Arroyo Mocho Trail	Arroyo Mocho Trail	El Charro Rd. to Jack London Blvd./Isabel Ave.	Class I: Multi-Use Trail	Multi-Use Trail (paved)	2.60	
Oakland	104th Ave. Bikeway	104th Ave.	International Blvd., Link St.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.4	
Oakland	105th Ave. Bikeway	105th Ave.	Russet St., International Blvd.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.5	Also resurfaced
Oakland	14th St. Bikeway	14th St.	Mandela Pkwy., Brush St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.7	Also resurfaced
Oakland	16th Ave. Bikeway	16th Ave.	E. 12th St., Embarcadero	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	
Oakland	16th Ave. Bikeway	16th Ave.	E. 21st St., E. 12th St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.5	
Oakland	23rd Ave./E. 30th St./21st Ave. Bikeway	23rd Ave./E. 30th St./21st Ave.	Ardley Ave., E. 21st St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.8	
Oakland	32nd St. Bikeway	32nd St.	Mandela Pkwy., San Pablo Ave.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.7	
Oakland	69th Ave. Bikeway	69th Ave.	International Blvd., San Leandro St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.6	
Oakland	Alameda Ave. Bikeway	Alameda Ave.	Fruitvale Ave., Howard St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.5	Also resurfaced
Oakland	Ardley Ave. Bikeway	Ardley Ave.	MacArthur Blvd., E. 31st St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.2	Part resurfaced
Oakland	Broadway Bikeway	Broadway	22nd St., 25th St.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.2	Also resurfaced
Oakland	Broadway Bikeway	Broadway	25th St., I-580 overpass	Class II: Bike Lane	Bike Lane (not upgraded*)	0.8	Also resurfaced
Oakland	Calaveras/Buell Bikeway	Calaveras Ave./ Buell St.	MacArthur Blvd., MacArthur Blvd.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.2	

Appendix F-1, Continued. Bikeway projects completed in FY12-13

Jurisdiction	Project Name	Roadway/Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Miles	Notes
Oakland	Colby St. Bikeway	Colby St.	Claremont Ave., Alcatraz Ave.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.4	Also resurfaced
Oakland	E. 18th St. Bikeway	E. 18th St.	Lakeshore Ave., Park Blvd.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.2	
Oakland	E. 21st St. Bikeway	E. 21st St.	14th Ave., 23rd Ave.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.6	
Oakland	E. 21st St./Mitchell St. Bikeway	E. 21st St./Mitchell St.	23rd Ave., Foothill Blvd.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.5	
Oakland	Foothill Blvd. Bikeway	Foothill Blvd.	23rd Ave., Austin St.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.5	Also resurfaced
Oakland	Foothill Blvd. Bikeway	Foothill Blvd.	45th Ave., Fremont Wy.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.2	Also resurfaced
Oakland	Genoa St./52nd St. Bikeway	Genoa St./52nd St.	Adeline St., West St.	Class III: Bike Route	Bike Route (bicycle boulevard)	0.7	
Oakland	Harrison St. Bikeway	Harrison St.	Grand Ave., Fairmount Ave.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.3	Part resurfaced
Oakland	Hollis St. Bikeway	Hollis St.	Mandela Pkwy., Peralta St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	
Oakland	Lake Merritt Blvd. Bikeway	Lake Merritt Blvd.	Oak St., E 12th St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.4	Also resurfaced
Oakland	Lakeshore Ave. Bikeway	Lakeshore Ave.	MacArthur Blvd., Mandana Blvd.	Class III: Bike Route	Bike Route (route with shared lane markings)	0.3	
Oakland	Link St. Bikeway	Link St.	Bancroft Ave., Sunnyside St.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.2	Also resurfaced
Oakland	MacArthur Blvd. Bikeway	MacArthur Blvd.	High St., Enos Ave.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	Also resurfaced

Appendix F-1, Continued. Bikeway projects completed in FY12-13

Jurisdiction	Project Name	Roadway/Facility	Limits: From, To	Bikeway Class	Detailed Bikeway Type	Miles	Notes
Oakland	San Pablo Ave. Bikeway	San Pablo Ave.	16th St., 32nd St.	Class III: Bike Route	Bike Route (route with shared lane markings)	1.2	Also resurfaced
Oakland	W. MacArthur Blvd. Bikeway	W. MacArthur Blvd.	Telegraph Ave., Broadway	Class II: Bike Lane	Bike Lane (not upgraded*)	0.4	
Pleasanton	Hopyard Rd. Bike Lanes	Hopyard Rd.	Owens Dr. to Black Ave.	Class II: Bike Lane	Bike Lane (not upgraded*)	3.5	
Pleasanton	Owens Dr. Bike Lanes	Owens Dr.	Hopyard Rd. to Chabot Dr.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.1	
Pleasanton	Inglewood Dr. Bike Lanes	Inglewood Dr.	Hopyard Rd. to Willow Rd..	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	
Pleasanton	Stoneridge Dr. Bike Lanes	Stoneridge Dr.	Johnson Dr. to I-680	Class II: Bike Lane	Bike Lane (not upgraded*)	0.6	
Pleasanton	Coronado Ln. Bike Lanes	Coronado Ln.	Hopyard Rd. to W. Las Positas Blvd.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	
Pleasanton	Gibraltar Dr. Bike Lanes	Gibraltar Dr. S.	Willow Rd. to Hacienda Dr.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.3	
San Leandro	Doolittle Class II Bike Lanes Project	Doolittle Dr.	Davis St., Williams St.	Class II: Bike Lane	Bike Lane (upgraded*)	0.6	
Union City	Alvarado Blvd./Union City Blvd. Intersection Improvements	Union City Blvd.	Alvarado Blvd., Silvertide Dr.	Class II: Bike Lane	Bike Lane (not upgraded*)	0.5	

Source: Data reported by local jurisdictions.
Notes: Upgraded bike lanes refer to bike lanes that feature buffers, green paint, or other treatments to increase visibility and separation from vehicles.

Appendix F-2. Major pedestrian capital projects completed in FY12-13

Jurisdiction	Project Name	Project Description	Location/ Roadway/Trail	Limits: From, To
Alameda County	Lewelling Blvd. Streetscape Improvement Project	Project features included new textured sidewalks construction, crosswalks, median islands, and bicycle lanes.	Lewelling Blvd., San Lorenzo	Lewelling Blvd. between Hesperian Blvd. and Meekland Ave.
Albany	Buchanan Marin Bikeway Phases I and II	The project consists of installing a multi-use trail along the south side of Buchanan St. and Marin Ave., a bicycle lane in the westbound direction on this corridor segment and bike sharrows in the eastbound direction from Pierce St. to San Pablo Ave., Installation of a traffic signal at Pierce St. and pedestrian improvements at the signal at the intersection with San Pablo Ave.	Buchanan St. and Marin Ave.	From Pierce St. to San Pablo Ave.
Albany	Marin Santa Fe Pedestrian Improvements	Install a new traffic signal at the intersection of Marin Ave. and Santa Fe Ave. adjacent to Marin Elementary. The project included pedestrian bulbouts, speed humps on Santa Fe Ave., count down pedestrian signal head, and a No Right Turn on Red sign and a blank sign during school hours.	Intersection of Marin Ave. and Santa Fe Ave.	Intersection of Marin Ave. and Santa Fe Ave.
Berkeley	AC Transit Pedestrian and Bicycle Access Improvements	Sidewalk widening, bulbouts, lane reduction, crosswalk improvements at AC Transit TransBay bus stop.	Solano/Colusa intersection	Colusa west to Colusa east on Solano Ave. (offset intersection)
Dublin	Sierra Ct. Sidewalk	Install new sidewalk on Sierra Ct.	Sierra Ct.	Dublin Blvd., Sierra Ln.
Dublin	Golden Gate Dr. Enhancement Project	Project consists of the widening of sidewalks along Golden Gate Dr. and installation of Class II bike lanes.	Golden Gate Dr.	Dublin Blvd., West Dublin BART Station
Emeryville	Marina Pedestrian Paths	Asphalt pedestrian path rehabilitation.	Marina pathways paralleling Powell St.	West of Captain Dr. to end
Fremont	Deep Creek Pedestrian Crossing Intersection Improvements	Construct new speed tables/raised crosswalks, curb ramps, bulb-outs, median island, striping, and signing on Deep Creek Rd. at two intersections adjacent to Deep Creek Park and Ardenwood Elementary School. Project will slow traffic and reduce intersection crossing distance.	Deep Creek Rd./ Macbeth Ave. and Deep Creek Rd./Emilia Lane Intersection	On Deep Creek Rd. between Macbeth Ave. and Emilia Ln.
Fremont	Niles Blvd. Roadway Improvement	Construct new or upgrade existing sidewalk and Americans with Disabilities Act (ADA) compliant ramps on Niles Blvd.	On east and west side of Niles Blvd. between Hillview and Sullivan Underpass	On Niles Blvd. between Hillview and Sullivan Underpass (1,600 feet on east side and 1,600 feet on west side)

Appendix F-2, Continued. Major pedestrian capital projects completed in FY12-13

Jurisdiction	Project Name	Project Description	Location/ Roadway/Trail	Limits: From, To
Fremont	Walnut-Beacon-CA Street Improvements	Construct new or upgrade existing sidewalk and ADA ramps on California St., Beacon Ave., and Walnut Ave.	Downtown Fremont frontage, Walnut Ave., Beacon Ave., and California St.	On north side of Walnut Ave. between 400 feet west of Liberty St. to California St. On east side of California St. between Beacon Ave. and Walnut Ave. On Beacon Ave. between California St. and a point 540 feet east. A total of approximately 1,400 feet of new sidewalk.
Hayward	RT 238 Corridor Improvement Project	Install midblock high-visibility crosswalk and rapid flashing beacon.	Mission Blvd.	Torrano Ave.
Hayward	New Sidewalk	Close sidewalk gap.	D St.	Panda Way – city limit
Hayward	New Sidewalk	Close sidewalk gap.	Industrial Blvd.	Cryer St. to 360 feet north
Hayward	New Sidewalk	Close sidewalk gap.	Industrial Pkwy.	Pacific St. – Huntwood Ave.
Livermore	Iron Horse Trail, Downtown	Install class I multiuse trail.	Downtown Livermore	Transit Center to K St.
Livermore	Arroyo Mocho Trail	Install class I multiuse trail.	Arroyo Mocho Trail	El Charro Rd. to Jack London Blvd.
Oakland	Creed Road Stair Path Repairs	Replace broken concrete stairs and landings; add new handrails on both sides. Stairway to be repaired is 150 linear feet.	Creed Rd.	915 Creed Rd. to 1057 Underhills Rd.
Oakland	Castlemont Stairs Rehabilitation	Replace broken concrete stairs and landing; add new guardrails and handrails at stair path in city right of way.	Castlemont Stairs	MacArthur Blvd. to Thermal St.
Oakland	Railroad Ave. Improvements - Phase II	Regrade roadway, provide new pavement section throughout with 9-inch AB base and 6-inch AC pavement, widen roadway to provide new parking lane, provide curbs and gutters on both sides of roadway, install new sidewalk on one side of street, plus misc. storm drain improvements.	Railroad Ave.	Louisiana St. and 98th Ave.
Oakland	E. 18th St. Streetscape	Street improvements along E. 18th St.; pedestrian lights; trees; landscape and irrigation; crosswalks; bulb outs.	E. 18th St.	Lakeshore Ave. to 4th Ave.
Oakland	Cleveland Cascade	Phase 1 to restore Cleveland Cascade; install hand railing and guard railings and install interpretive signage.	Cleveland Cascade	Lakeshore Ave. to Merritt Ave.
Oakland	Lakeshore Avenue Complete Streets Project	Construct pedestrian plaza, bus bulbout, and pedestrian bulbout. Signal improvements and Measure DD mitigation measure included.	Lakeshore Ave.	Lake Park Ave. to MacArthur Blvd.

Appendix F-2, Continued. Major pedestrian capital projects completed in FY12-13

Jurisdiction	Project Name	Project Description	Location/ Roadway/Trail	Limits: From, To
Oakland	CIP 2008-09 Traffic Signal Installations and Modifications	Install a traffic signal at three intersections to improve safety for vehicular traffic, bicycles, and pedestrians. Modify existing traffic signal at three locations. New TS: C313710 Fruitvale Ave./School St. (N), Foothill Blvd./34th Ave., C318210 High St./Porter St. Existing TS: C313710 Foothill Blvd./34th Ave., C371010 Foothill Blvd./ Coolidge Ave., C316210 San Leandro St./ Seminary Ave., Webster St./12th St.	See description	N/A
Oakland	Coliseum BART Plaza and Pedestrian Areas	Improvements include replacing fencing, landscaping, lighting improvements, bus shelter removal, bike racks, repainting tunnel, signage, banners, street furniture, improved crosswalks, and localized sidewalk repair.	Snell St.	69th Ave. to 72nd Ave.
Oakland	23rd Ave. Street Improvement	Removal and replacement of sidewalk, curb, gutter; new bulb-outs; new decorative crosswalks; cold plane existing pavement; new AC overlay; new traffic stripings and markings; new pedestrian lights; new trees and irrigation; plaza with planters; and modified traffic signal.	23rd Ave.	E. 12th St. to Foothill Blvd.
Piedmont	Ramona/ Ronada Intersection Improvements	Install bulb-out neighborhood park with pedestrian facilities that greatly shortened travel distance for crossing the street for pedestrians.	Intersection of Ramona Ave. and Ronada Ave.	Intersection
Pleasanton	ACE Train Station Improvements	This project includes new sidewalks, high-visibility crosswalk, new street lights, drainage improvements, improved access for the disabled, improved pedestrian access to the Alameda County Fairgrounds, improved public transit circulation at the fairgrounds entrance, and resurfacing of the parking facilities.		N/A
San Leandro	San Leandro High Signal (SR2S) 136th Ave./Bancroft Ave.	Install scrambled (i.e., dedicated, all-directional) pedestrian signal phase and inpavement bicycle detection).	136th Ave. at Bancroft Ave.	N/A
Union City	Alvarado Blvd./ Union City Blvd. Intersection Improvements	Reconfigure intersection to improve safety. Extend Class II bike lanes approximately half mile to the south in both directions. Install ladder-type crosswalks.	Alvarado Blvd./ UCB intersection	Intersection improvements, including 600 feet of lane widening along UCB
Union City	Smith St. Smart Crosswalk	Installed three stamped, colored crosswalks and one flashing pedestrian crossing sign with pedestrian push button.	Smith St.	Smith St. between Fredi St. and Vallejo St.

Source: Data reported by local jurisdictions.
Notes: "Major" pedestrian projects do not include sidewalk repair programs, installation of curb ramps, signal retimings, installation of a single traffic calming element (e.g., a single speed hump), trail maintenance programs (as distinct from major trail rehabilitation projects), individual installations of pedestrian countdown signals or pedestrian detection, or installation of new traffic signals for reasons other than improving pedestrian safety.

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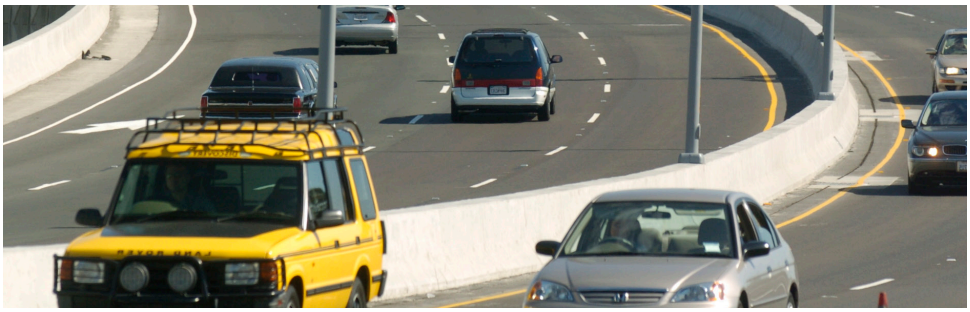

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