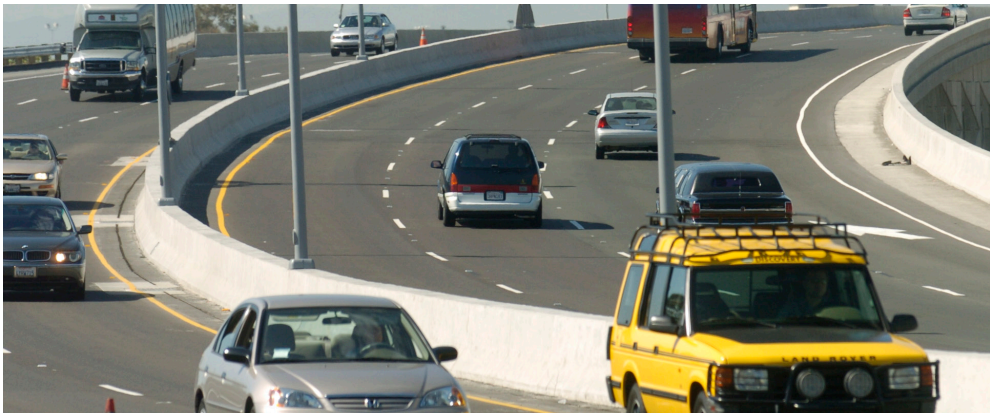
2012 Performance Report

State of the Transportation System in Alameda County

ALAMEDA
County Transportation Commission



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What Is the Performance Report?

The Performance Report is a document prepared annually by the Alameda County Transportation Commission (Alameda CTC) that looks at the state of transportation in Alameda County. The Performance Report tracks trends in a series of performance measures, which are quantitative metrics used to track progress towards specific goals. The performance measures included in the Alameda CTC Performance Report are designed to be evaluated using existing data sources and to be aligned with the goals of the Alameda Countywide Transportation Plan (CWTP) and the Congestion Management Program (CMP) statute.

The Performance Report is a component of the Alameda CTC's legislatively mandated duties as the county's Congestion Management Agency (CMA). The Performance Report is also a vital part of the Alameda CTC's overall work to plan, fund, and deliver transportation projects and programs throughout Alameda County. The Alameda CTC guides transportation investments through the CWTP and the Congestion Management Program (CMP) documents. These documents are prepared on regular cycles and identify long-term and medium-term sets of projects and programs. The Performance Report is critical to assessing the success of past transportation investments and illuminating transportation system needs that will require investment in the future. The Performance Report—together with the Alameda CTC's other monitoring and analysis activities—ensures that projects and programs selected for inclusion in the CWTP and the CMP will deliver benefits to all users of the Alameda County transportation system.

This Performance Report is intended to cover fiscal year 2011-2012 (FY11-12). Some data sources are reported based on calendar years and for other data sources the release of 2011 or 2012 editions lags preparation of the report. Therefore, this report uses the most current releases of data that were available in the late-2012 to early-2013 timeframe when the report was prepared.

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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Commuting Patterns

Alameda County's transportation system is critical to the travel of Alameda County residents and workers as well as overall regional commuting. Approximately 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 became more regional in nature. Of commuters with residences or jobs in Alameda County, the share of workers that commute within the county declined from 36 percent to 32 percent.

Driving mode share declined slightly from 2010 to 2011 (work trips only). The biggest increases in commute mode share were for BART, bicycling, and working from home. Over the longer term (between 2000 and 2011), drive-alone mode share has stayed essentially flat at 65 percent. The largest shift in commute mode share over this period is a nearly 4 percent decline in carpooling mode share. Working from home saw the largest increase in mode share and bicycling's share of work trips has doubled since 2000.

Roadways

The year 2012 appeared to mark a resurgence of demand for use of Alameda County's roadways after several years of weaker travel demand amidst a recession and slow economic recovery. Average evening peak hour freeway and arterial speeds each declined by about 1 mph from 2010, and average weekday vehicle hours of delay (VHD) increased by about 11,000 hours, a nearly 20 percent increase over the year before. Alameda County had four of the region's ten most congested freeway corridors in the second quarter of 2012.

Local street and road average Pavement Condition Index (PCI), a measure of pavement quality, increased by 4 points to 70, after staying flat at 66 for the previous four years. However, despite the significant increase, 30 percent of the centerline mileage in Alameda County has a PCI of "at risk" or worse, meaning it will deteriorate rapidly. Poor pavement quality affects road users of all types, and addressing outstanding maintenance needs will require significant future adherence to "fix it first" commitments.

Alameda County's transportation system is critical not just to the travel of Alameda County residents and workers but also to overall regional commuting.

Collisions on Alameda County roadways declined by 6 percent between 2009 and 2010 (the most recent year for which complete data is available). Since 2002, collisions have dropped nearly 50 percent. However, the absolute number of collisions on Alameda County roadways (19,000 in 2010, of which 6,000 were injury or fatal collisions) indicates that roadway safety requires continued attention.

Transit

Transit plays a critical role in Alameda County by taking cars off of freeways and arterials and providing vital accessibility to individuals and businesses in Alameda County. Transit ridership increased slightly in 2012, marking the first year of increase since 2008. Within Alameda County, ridership increased by 0.2 percent between 2011 and 2012 to reach 91 million total annual boardings. Beneath this slight overall shift are significant swings for different transit modes. Rail and ferry boardings increased by 10 and 19 percent, respectively, while bus boardings fell by 6 percent between 2011 and 2012. Over the last decade, bus ridership has dropped from 64 percent to 54 percent of transit boardings in Alameda County.

Service utilization—the ratio of how many people ride transit (demand) to the amount of service operated (supply)—is a more accurate measure of transit operator success at attracting riders. Each operator has seen a unique trend in service utilization over the last decade. BART has seen a steady increase in boardings per revenue vehicle mile (RVM) operated since 2004. For AC Transit, 2012 was a year of decline in service utilization after several years of improving boardings per RVM.

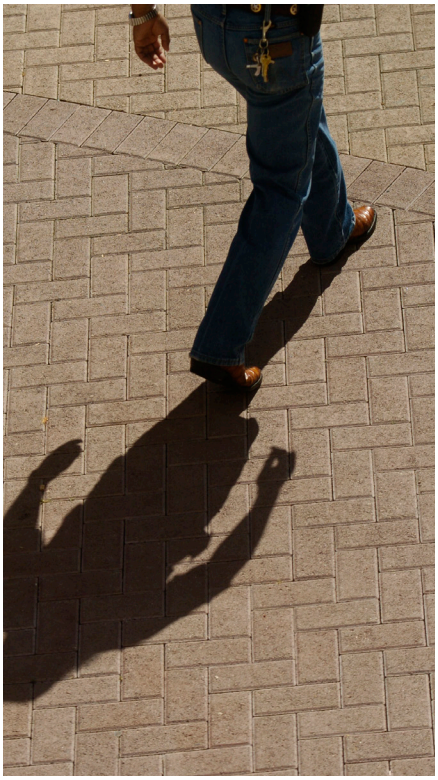
Most transit operators saw reductions in service interruptions in 2012. Only AC Transit saw more frequent vehicle breakdowns in 2012, and all operators, including AC Transit, have seen fewer breakdowns since 2008. Vehicle breakdowns and other equipment failures are frequently a product of aging equipment and infrastructure, and though service interruptions largely declined in 2012, the county's transit operators have a number of aging assets that require rehabilitation or replacement. AC Transit plans to unveil a new bus purchase in 2013 and BART is procuring new rail cars but has significant track, communications infrastructure, station, and other capital needs.

Bicycling

Bicycling is a critical mode within Alameda County's transportation system that is affordable for users, linked to positive public health outcomes, environmentally sustainable, and relatively cheap to invest in. Bicycling's work trip mode share increased in 2011, and bicycle counts also show significant growth in participation, suggesting bicycling is growing for all types of travel. The number of cyclists observed at the 63 count locations monitored by the Alameda CTC increased by 17 percent over the last year; in addition, a set of locations that has been monitored over the longer term has seen a 75 percent growth since 2002. Expanding bicycling to an activity that people of all types feel comfortable engaging in remains an area for improvement; the gender imbalance in cyclists (only 30 percent of whom were women, according to 2011 counts) attests to the need for investment that moves bicycling in this direction.

During the last year, several significant components of the Alameda Countywide Bicycle Plan were completed closing major network gaps. Four local jurisdictions completed or updated local bicycle master plans, and eleven of Alameda County's jurisdictions now have plans that were completed or updated within the last five years. Thousands of Alameda County residents and workers participated in bike safety and awareness programs.

There is some evidence that the collision rate involving cyclists is declining, as the number of collisions involving cyclists has grown more slowly than participation in cycling. At the same time, safety and an incomplete network remain barriers that prevent cycling from being a more prevalent activity in Alameda County whose participants reflect the demographics of the population that lives and works in the county.



Walking

Every trip begins and ends with walking. While walking may not move Alameda County's residents the most miles, walking is fundamental to all modes and is the only available travel option for many users of Alameda County's transportation system. Walking has held steady as the mode used by between 3 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.

During the last year, 10 jurisdictions reported completing a total of 18 projects in areas of countywide significance (these areas include walksheds around and along high frequency transit, major regional activity centers, and interjurisdictional trails). Four jurisdictions completed or updated local pedestrian master plans, and nine jurisdictions have plans that were completed or updated within the last five years.

Alameda County's Transportation System

1

Multimodal Transportation Network

Alameda County is endowed with an extensive multimodal transportation network that facilitates the 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-580, I-880, I-680, and I-238) facilitate cross-county and regional accessibility, connecting residents with jobs and activity centers and providing businesses with access to a broad regional labor market and economy. The freeway system provides vital goods movement connections, linking businesses throughout the region and state to world markets. Alameda County's freeway system also features an extensive network of carpool lanes and an emerging network of express lanes. Alameda County is linked to neighboring counties by three toll bridges (San Francisco-Oakland Bay Bridge, Hayward-San Mateo Bridge, and Dumbarton Bridge) as well as several other natural geographic gateways (the Caldecott Tunnel and Altamont Pass).

Beyond its freeway network, Alameda County has an extensive system of highways and local roads. Major arterial routes serve important county- and regional-level connectivity functions but are also frequently multimodal corridors with transit service, bikeways, and pedestrian accommodations. In many cases arterial routes are also downtown main streets. The majority of Alameda County's roadway mileage is actually local streets and roads, and roadways encompass not just the pavement but also curbs, gutters, sidewalks, signage, and traffic signals. On many roads, issues of delay, maintenance backlogs, and funding shortfalls affect not just motorists, but also transit, bicyclists, and pedestrians. The physical roadway infrastructure is supplemented by Transportation Demand Management programs that seek to maximize limited capacity by shifting trips to alternative modes.

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

Transit service in Alameda County includes rail, bus, ferry, and shuttle service and is provided by a number of public and private operators. The major operators in the county are BART and AC Transit, which account for the majority of transit usage and provide mobility at both a regional and sub-county level. Other smaller operators including LAVTA, Union City Transit, ACE, WETA, and Capitol Corridor 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 improved mobility and accessibility, congestion reduction, improved air quality, and efficient utilization of space in urban environments.

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

Alameda County's transportation system moves freight in addition to people. The Port of Oakland's maritime operations make it the fifth busiest seaport in North America and this deep water port has the distinction of being a net exporter. Meanwhile, the Oakland International Airport is the second busiest cargo airport in California and moves significant high-value goods. These goods movement hubs are connected to the region and mega-region by freeways and railroads. The major goods movement route connecting Central Valley agriculture to the Port of Oakland passes through Alameda County, and two major Class I railways connect Alameda County to the rest of the U.S.

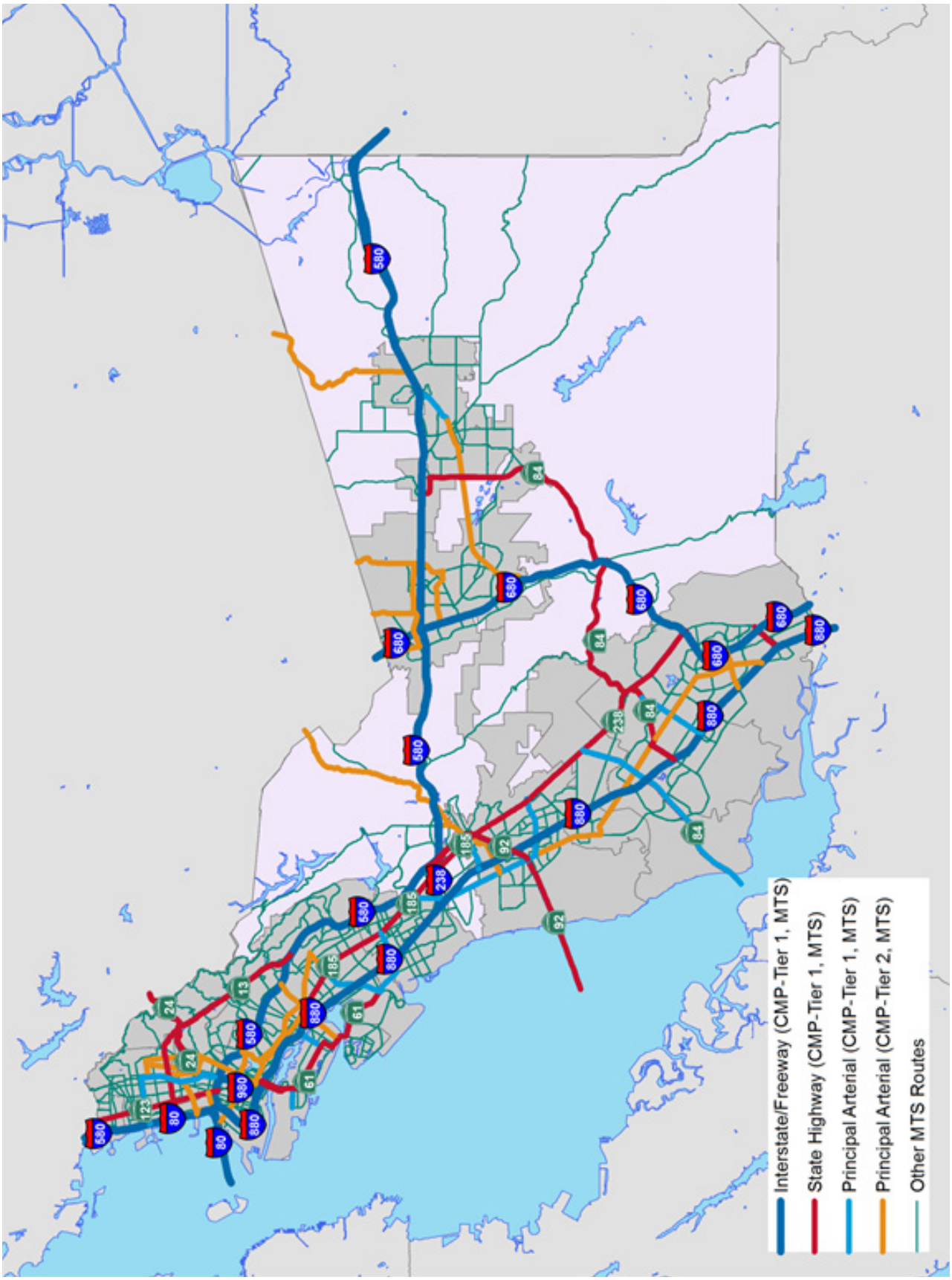


Figure 1—Alameda County roadway system

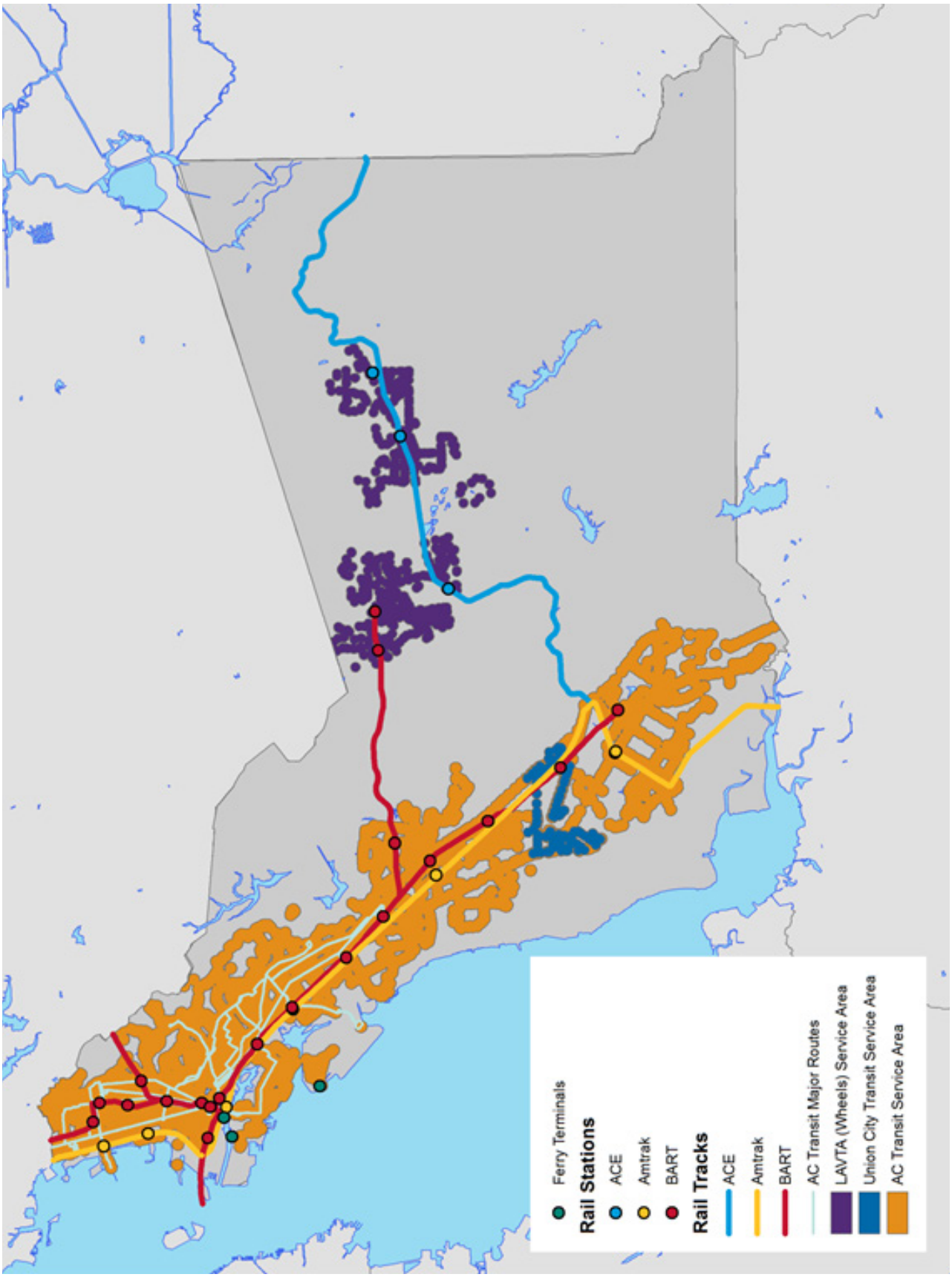


Figure 2—Alameda County transit operator service areas

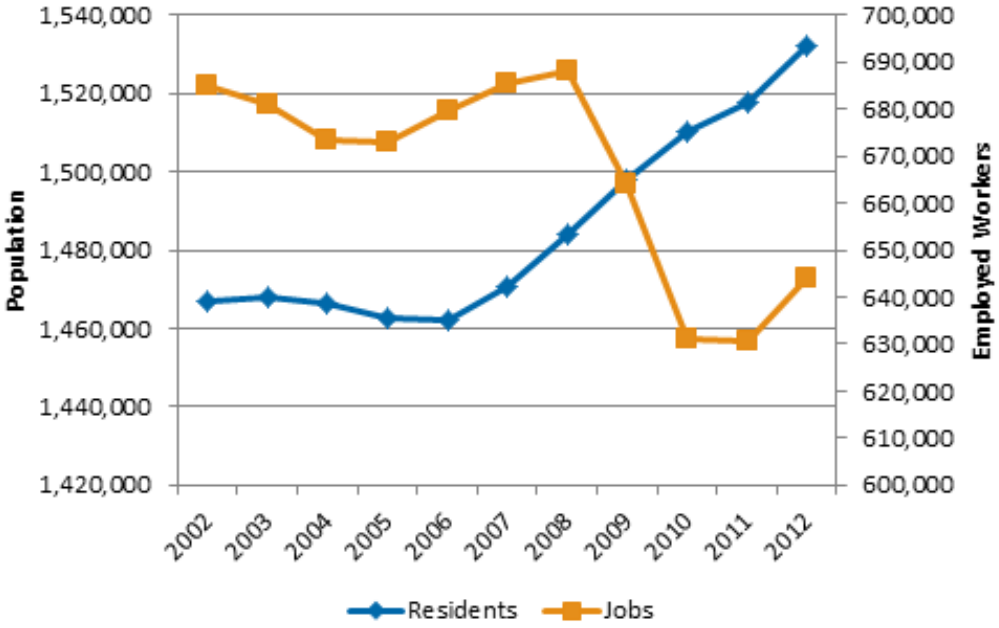
Planning Challenges

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 bringing the system to a state of good repair in an era of dwindling state and federal funding. Besides maintaining the existing system, there are numerous aspects of system enhancement that must be addressed across all modes including addressing capacity shortages, issues of speed and reliability, and closing gaps in coverage or networks. Addressing safety, responding to environmental impacts and challenges including poor air quality, greenhouse gas emissions, and adapting to sea level rise, and ensuring that basic mobility and accessibility are extended to travelers of all types remain central objectives of planning in Alameda County. Finally, transportation planning must be coordinated with the land use planning and economic development goals and actions of jurisdictions.

Demand Factors

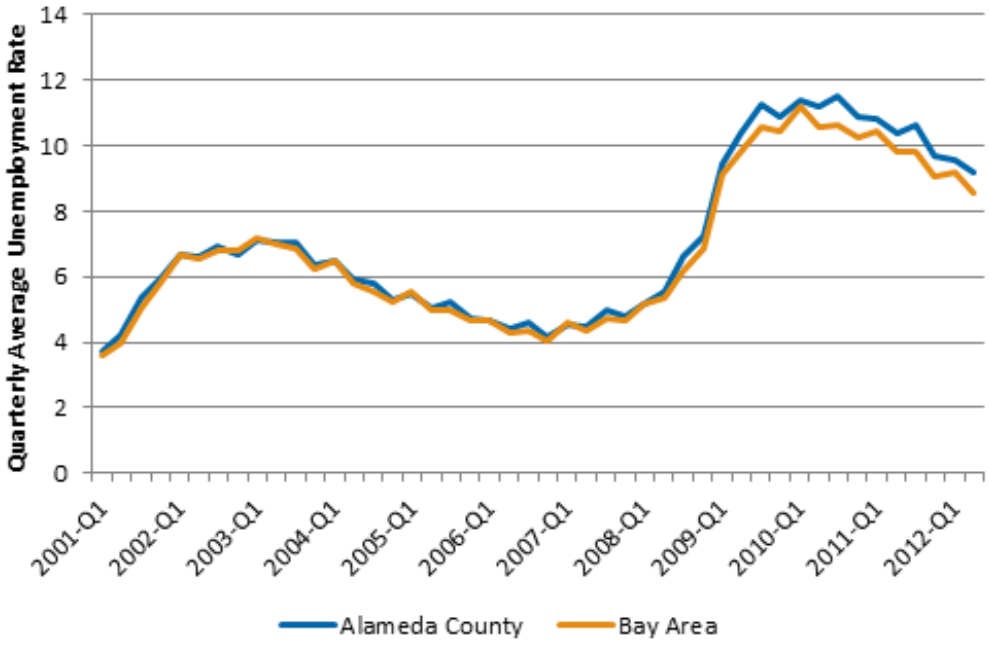
The performance of Alameda County's transportation system depends greatly on how many people live and work in Alameda County, and how much these residents and workers choose to travel. In 2012, Alameda County added 15,000 residents, the sixth consecutive year that the county has seen population growth (after relatively level population figures in the early 2000s). In 2012, Alameda County employers added nearly 10,000 jobs, making 2012 the first year of job growth in Alameda County since 2008. However, employment in Alameda County remains well below the levels of the early- and mid-2000s, as the county slowly recovers from the Great Recession. Moreover, the economic recovery in Alameda County has lagged that of the region as a whole. Whereas Alameda County's unemployment rate mirrored that of the regional economy through much of the 2000s, Alameda County emerged from the Great Recession with an unemployment rate roughly half a percentage point higher than the Bay Area as a whole.

Figure 3—Alameda County population and employment



Sources: Department of Finance E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 2000-2010 and E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark. Bureau of Labor Statistics Quarterly Census of Employment and Wages.

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 (CSA).

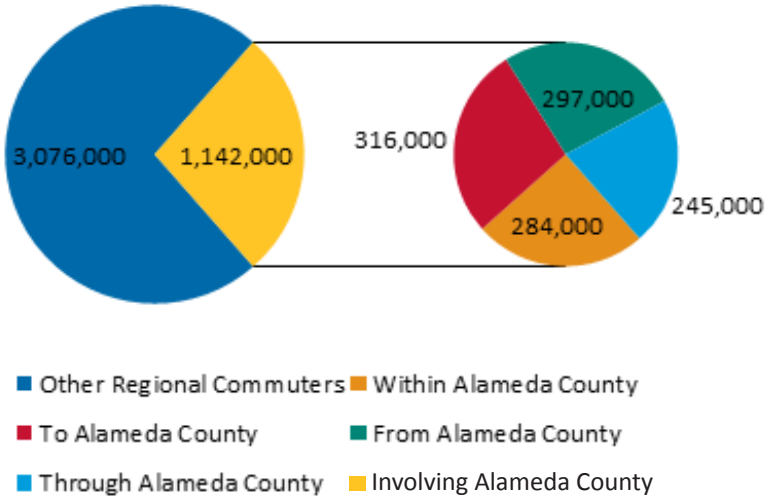
Commute Patterns

2

Origins and Destinations (2010)

- Alameda County plays a substantial role in accommodating the Bay Area's travel demand. Roughly 27 percent of regional commutes involve 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 (26 percent), and commute from other counties to jobs in Alameda County (28 percent).
- A significant share (21 percent) of commuting travel in Alameda County is pass-through travel.

Figure 5—Alameda County and regional commute flows in 2010



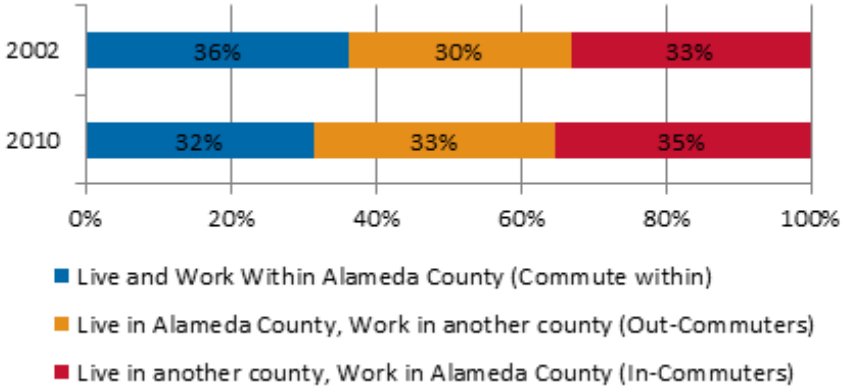
Source: U.S. Census Bureau Longitudinal Employment Household Dynamics product, OnTheMap application.
Notes: "Through Alameda County" commute flow computed by summing individual county origin-destination pairs that would require traveling through Alameda County. "Through Alameda County" and "Other regional commuters" includes travel into and out of mega-region.

Over the last decade, Alameda County commutes have become more regional in nature.

Long Term Trends in Commute Flows (2002 to 2010)

- The regional nature of commuting patterns in Alameda County increased between 2002 and 2010.
- Of workers with residences or jobs in Alameda County, the share that lives and works within the county declined from 36 percent to 32 percent during this period. In-commuting and out-commuting both increased between 2002 and 2010.

Figure 6—Composition of commuters with commutes involving Alameda County

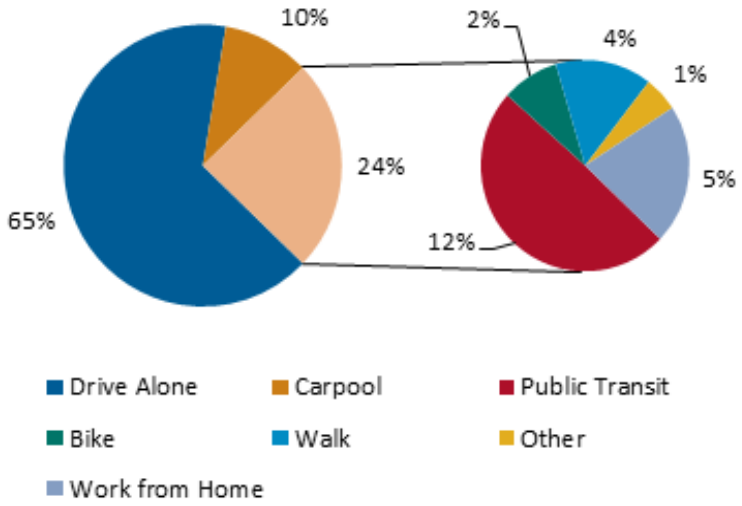


Source: U.S. Census Bureau Longitudinal Employment Household Dynamics product, OnTheMap application.

Journey to Work Commute Mode (2011)

- Roughly two-thirds of workers who reside in Alameda County commute by driving alone. 10 percent of Alameda County residents carpool to work.
- Approximately a quarter of workers use a non-driving mode. Transit accounts for roughly half of workers who do not drive and 12 percent of workers overall. Working from home is the next most common non-driving commute option.
- Walking and biking account for modest but important shares of work trips and are also critical as access and egress modes.

Figure 7—Journey to work mode share of Alameda County residents

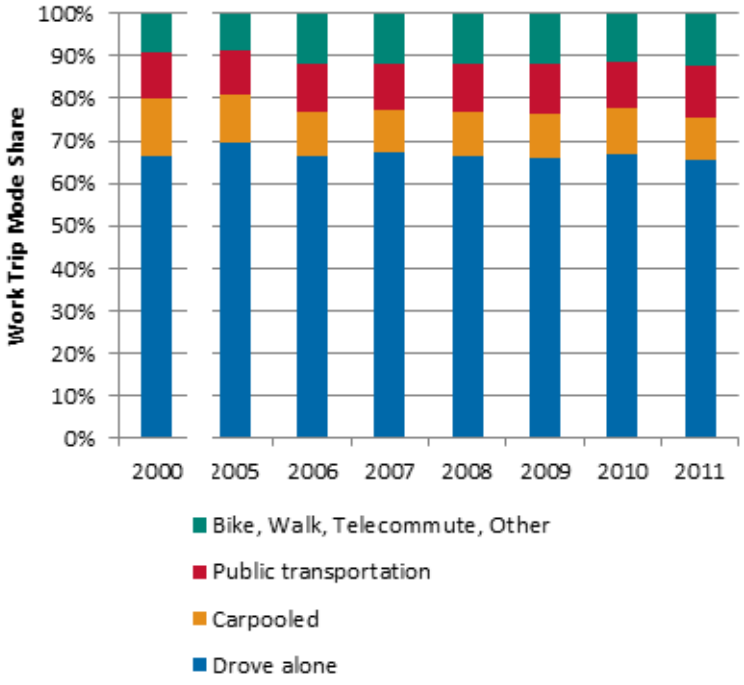


Source: American Community Survey, 2011 1-Year Estimate, Table B08006.
Notes: Based on the primary commute mode (the mode that comprises the longest leg of a trip). Based on the mode used the majority of week. Reflects workers who live in Alameda County (not necessarily workers who work in Alameda County).

Long Term Trends in Work Trip Mode Share (2000 to 2011)

- The drive alone mode share has declined only slightly over the last decade, from 66 to 65 percent, which likely reflects the relative maturity of Alameda County's transportation system and land use patterns.
- Carpooling saw the most dramatic change in commute mode share over the last decade, declining 4 percent.
- Working from home exhibited the largest increase in commute mode share, followed by BART and bicycling.
- Further analysis is needed to determine if these changes in mode share are due to workers changing their travel mode or replacement of workers within the workforce.

Figure 8—Trend in journey to work mode share of Alameda County residents



Source: American Community Survey, 2011 1-Year Estimate, Table B08006 and 2000 Census, Short Form 3, Table P030.
Notes: Based on the primary commute mode (the mode that comprises the longest leg of a trip). Based on the mode used the majority of week. Reflects workers who live in Alameda County (not necessarily workers who work in Alameda County).

Table 1—Changes in mode share of Alameda County workers

	Mode Share			Difference in Mode Share	
	2000	2010	2011	2011 vs. 2010	2011 vs. 2000
Carpool	14.2%	11.1%	10.3%	-0.8%	-3.9%
Drive Alone	66.4%	66.9%	65.5%	-1.5%	-0.9%
Bus	4.6%	3.9%	4.5%	0.7%	-0.1%
Taxi/Other	1.3%	0.9%	1.3%	0.4%	0.0%
Other Public Transport	0.8%	1.3%	1.1%	-0.1%	0.4%
Walk	3.3%	3.3%	3.7%	0.4%	0.4%
Bike	1.3%	1.4%	2.2%	0.7%	0.9%
BART	5.5%	6.0%	6.6%	0.6%	1.1%
Work from Home	3.6%	6.1%	5.3%	-0.8%	1.7%

WHAT ABOUT 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, which are conducted intermittently due to their time and complexity. The most recent household travel survey data for the Bay Area is from the Bay Area Travel Survey 2000. Data from the recently completed California Household Travel Survey is currently being compiled and may be analyzed as part of the Alameda CTC's upcoming modal plans.

Alameda County Residents vs. Alameda County Workers

- Workers employed in Alameda County may not live in Alameda County, and vice versa. Workers who commute into Alameda County are a critical to the performance of the county's transportation system.
- Workers who live in Alameda County drive alone less than workers who work in Alameda County (65 percent compared to 70 percent).

Figure 9—2011 journey to work mode share of Alameda County residents and workers

Source: American Community Survey, 2011 1-Year Estimate, Table B08006 and B08046.
Notes: Based on the primary commute mode (the mode that comprises the longest leg of a trip). Based on the mode used the majority of week. Reflects workers who live in Alameda County (not necessarily workers who work in Alameda County).

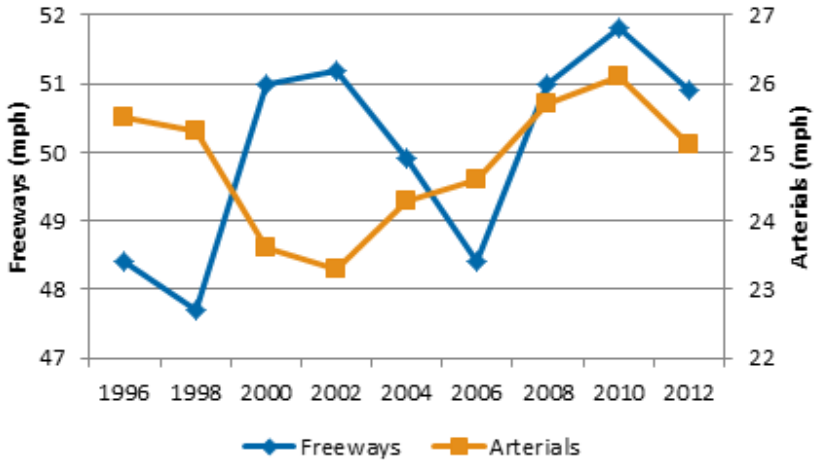
Roadways

3

Travel Speeds

- Average PM peak travel speeds on both freeways and arterials in Alameda County dropped by roughly 1 mph from 2010 to 2012.
- Freeway travel speeds generally appear to rise and fall with economic trends (e.g., rising during recession of 2009-2010 and falling as the economy recovers).
- Arterial speeds exhibit a less clear relationship with general economic conditions.

Figure 10—Average PM peak travel speeds



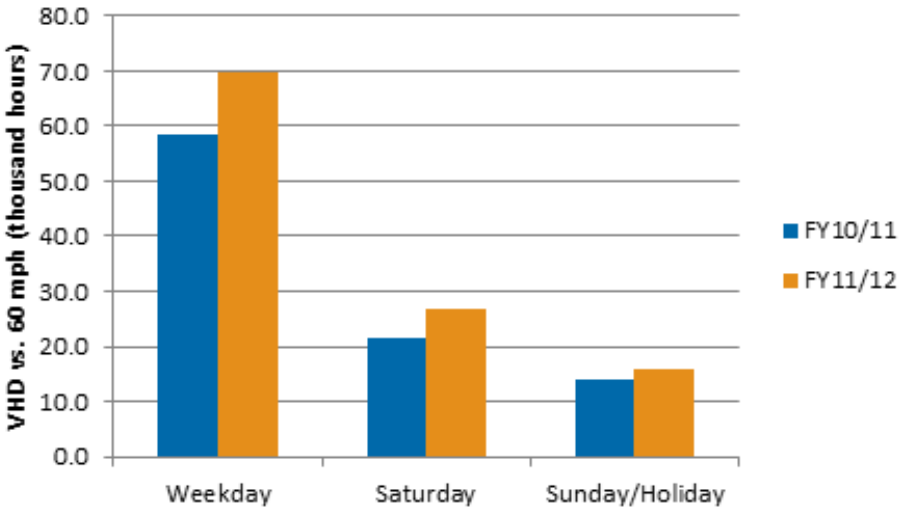
Source: Alameda CTC Level of Service Monitoring Reports.
Notes: Based on GPS floating car runs conducted during the Spring of each year on the Alameda County Congestion Management Program (CMP) freeway and arterial network.

The year 2012 appeared to mark a resurgence in demand for use of Alameda County's roadways after several years of weaker travel demand, amidst a recession and slow economic recovery.

Freeway Congestion

- Congestion on Alameda County's freeways increased in 2012 as more people commuted to work and economic activity increased. Average daily weekday Vehicle Hours of Delay (VHD) increased by nearly 20 percent from FY10-11 to FY11-12.
- Weekend and holiday congestion are major issues in Alameda County, given phenomena such as major events and recreation travel. Saturday average VHD increased by nearly 23 percent from FY10-11 to FY11-12. Saturday and Sunday congestion levels were about a third and a fifth of weekday levels, respectively, in FY11-12.
- Alameda County had 4 of the 10 most congested Bay Area freeway corridors in 2012.

Figure 11—Daily freeway vehicle hours of delay

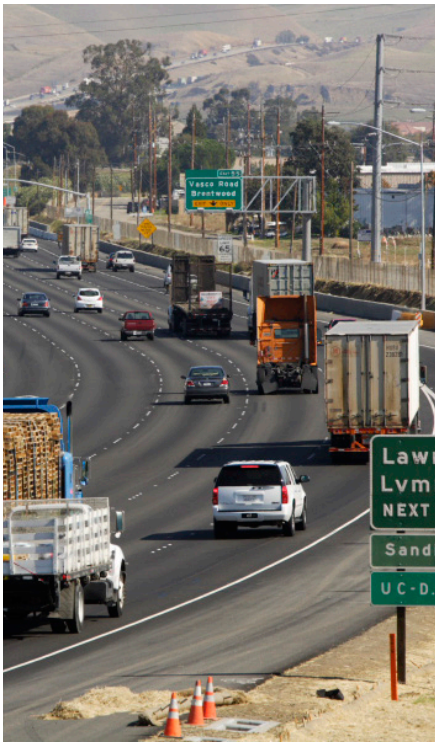


Source: Caltrans Mobility Performance Report using Performance Monitoring System (PeMS) database.

Table 2—Most-congested facilities in Caltrans District 4

Route	County	2011 Q2	2012 Q2
I-580	Alameda	1	1
SR-101	Santa Clara	2	2
I-880	Alameda	3	3
SR-101	San Mateo	4	4
I-80	Alameda	6	5
I-80	Solano	5	6
SR-101	Sonoma	10	7
SR-4	Contra Costa	11	8
SR-238	Alameda	13	9
SR-101	Marin	9	10
SR-24	Alameda	12	11
I-680	Alameda	20	12

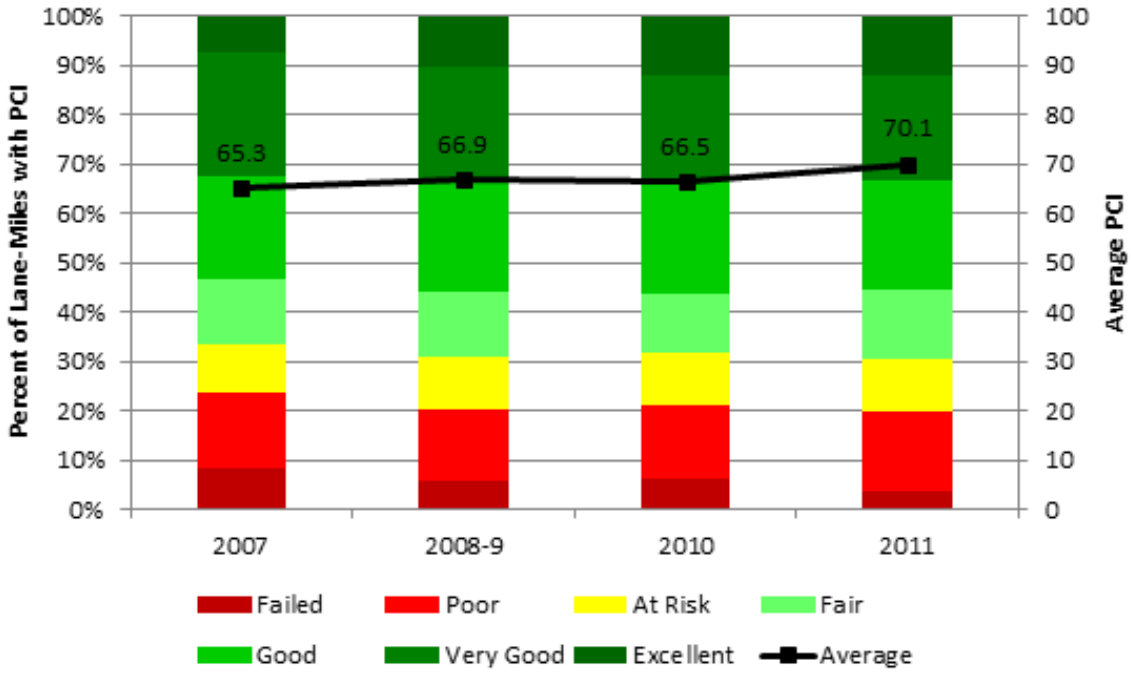
Source: Caltrans Mobility Performance Report using Performance Monitoring System (PeMS) database.
Notes: Ranking is based on total vehicle hours of delay (VHD) vs. 60 mph across all months and all time periods. Facility includes all lane-miles in both directions from countyline to countyline. Quarter 2 (Q2) is April-June.



Local Road State of Repair

- The Pavement Condition Index (PCI) on Alameda County's roadways increased to 70 in 2011, after hovering around 66 for the previous four years.
- Despite the increase in PCI, 30 percent of the centerline mileage in Alameda County has a PCI of "at risk" or worse, meaning it will deteriorate rapidly.
- Dublin has the best PCI in Alameda County at 83.7. San Leandro has the lowest PCI at 56.0. In general, the highest PCIs are found in East County and the lowest PCIs are found in North and Central County, which may reflect average age of roadways.
- Poor pavement condition affects the safety, comfort, and costs of road users of all types.

Figure 12—Pavement Condition Index in Alameda County



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

Table 3—Local average Pavement Condition Index (PCI)

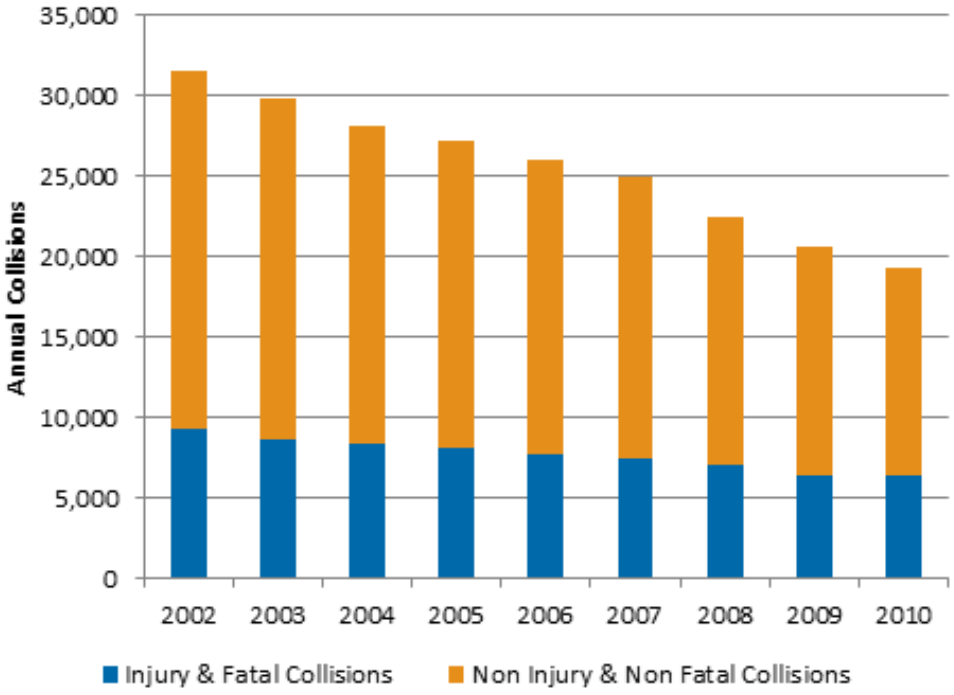
	2005	2006	2007	2008-9	2010	2011
Alameda	65.7	63.0	62.7	62.3	66.3	67.3
Alameda County	69.7	68.7	70.7	72.0	72.3	73.3
Albany	60.0	62.3	63.0	63.0	60.3	58.0
Berkeley	62.7	62.0	59.7	59.7	59.7	59.0
Dublin	79.3	79.7	80.0	80.7	82.3	83.7
Emeryville	73.3	76.3	78.7	76.0	76.7	77.7
Fremont	71.3	70.0	68.3	66.0	64.3	63.3
Hayward	66.3	67.7	68.0	68.7	69.0	69.0
Livermore	78.0	79.3	78.7	77.7	78.0	78.3
Newark	77.3	75.0	71.3	69.0	68.7	71.3
Oakland **	55.0	56.3	56.7	58.7	56.3	57.3
Piedmont	66.7	67.3	67.3	69.3	70.3	72.7
Pleasanton	70.7	74.0	75.0	76.3	77.0	77.0
San Leandro	63.0	62.0	60.3	58.3	57.0	56.0
Union City	76.0	75.5	75.3	76.3	78.0	79.0

Source: MTC's StreetSaver database.
Notes: Average PCI is based on weighted average of functional classifications, with weighting based on centerline-mile distance. The averages presented here are three-year rolling averages.

Safety

- Collisions in Alameda County have declined steadily over the last decade. Collisions decreased by 6 percent from 2009 to 2010, and by almost 50 percent from 2002 to 2010.
- While both injury and fatal and non-injury and fatal collisions have declined since 2002, the reduction has been slightly greater among non-injury and non-fatal collisions.

Figure 13—Roadway collisions in Alameda County



Source: CHP's Statewide Integrated Traffic Record System (SWITRS) database.
Notes: SWITRS database is continuously updated as collision reports are processed. The year 2010 is the most recent year for which updating is substantially complete.

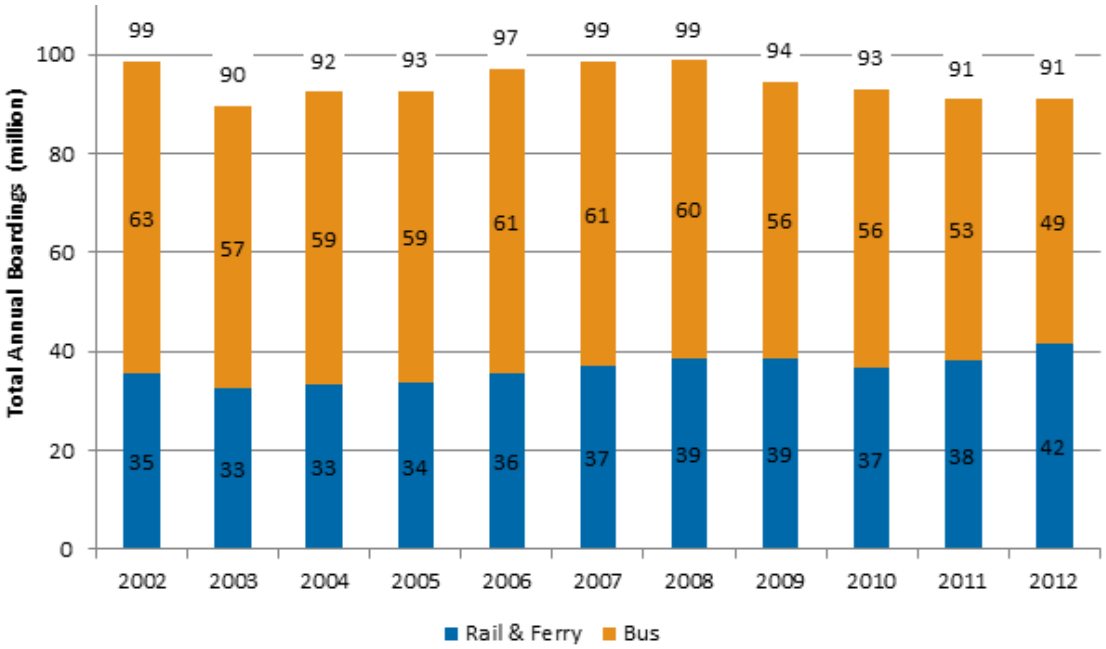
Transit

4

Ridership

- Total transit boardings in Alameda County increased slightly in 2012 from 2011, the first year of increase since 2008.
- Rail ridership increased 10 percent and ferry ridership increased 19 percent in Alameda County between 2011 and 2012. Bus ridership overall declined 6 percent in Alameda County during this period.
- Rail and ferry boardings have been increasing for several years, however this increase has been more than offset by the decline in bus ridership.
- Over the last decade, bus ridership has dropped from 64 percent to 54 percent of total transit boardings in Alameda County.

Figure 14—Total annual transit boardings in Alameda County



Source: FTA's National Transit Database (2002-2011) and special request from transit operators (2012).
Notes: Rail operators include BART and ACE. Ferry operator includes WETA. Bus operators include AC Transit, LAVTA, and Union City Transit. Multi-county bus operators prorated to Alameda County using share of route-miles in Alameda County. Boardings are unlinked passenger trips.

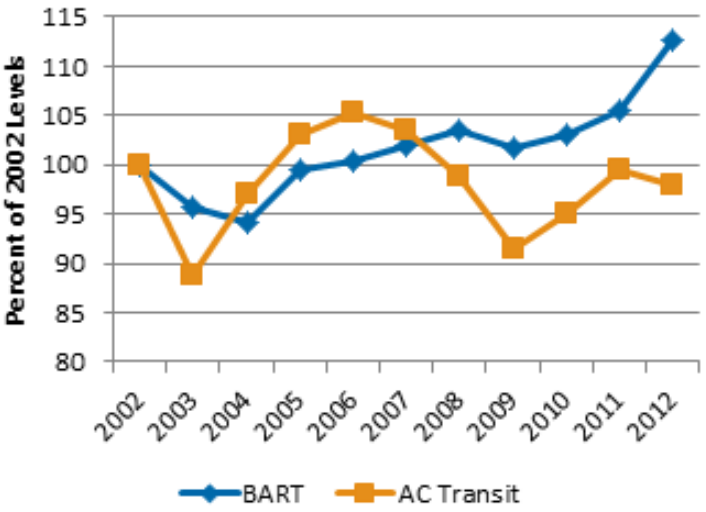
WHAT IS SERVICE UTILIZATION?

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). 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.

Service Utilization

- BART, Union City Transit, and ferry service saw increases in service utilization in 2012 which appear to be the continuation of longer run trends. BART's service utilization has improved almost every year since 2004 for a total increase of 15 percent during this period.
- AC Transit saw a dip in service utilization in 2012. In 2010 and 2011, even though ridership declined amidst service cuts, the decrease in revenue vehicle mile was greater than the drop in ridership, so overall service utilization ratio improved. In 2012, ridership dropped more than service was curtailed and this utilization declined.
- ACE saw an increase in service utilization in 2012 after two years of decline or stagnation. LAVTA saw a second consecutive year of decline in service utilization.

Figure 15—Change in boardings per revenue vehicle mile for large operators



Source for Figures 15 and 16: FTA's National Transit Database (2002-2011) and special request from transit operators (2012).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are unlinked trips.

Figure 16—Change in boardings per revenue vehicle mile for smaller operators

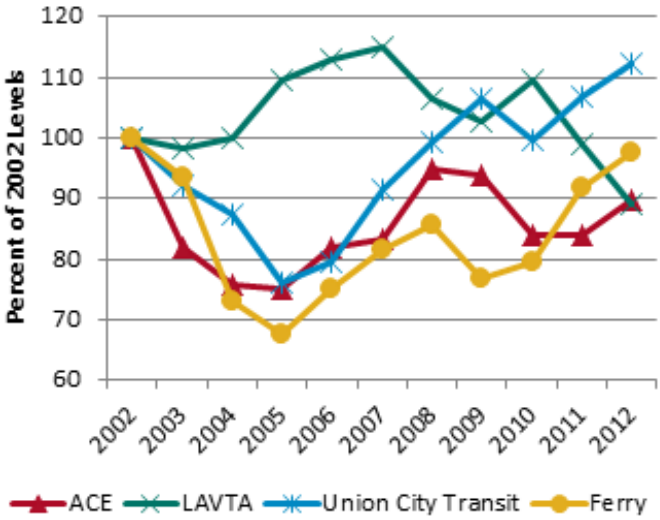


Table 4—Boardings per revenue vehicle mile for Alameda County transit operators

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BART	1.66	1.59	1.56	1.65	1.67	1.69	1.72	1.69	1.71	1.75	1.87
ACE	1.09	0.89	0.82	0.82	0.89	0.91	1.03	1.02	0.91	0.91	0.98
AC Transit	3.00	2.66	2.91	3.09	3.16	3.11	2.96	2.74	2.85	2.99	2.94
LAVTA	1.06	1.04	1.06	1.16	1.19	1.22	1.13	1.09	1.16	1.05	0.94
Union City	0.95	0.88	0.83	0.73	0.76	0.87	0.95	1.01	0.95	1.02	1.07
Ferry	9.07	8.48	6.62	6.15	6.80	7.41	7.77	6.96	7.22	8.32	8.86

Source: FTA's National Transit Database (2002-2011) and special request from transit operators (2012).
Notes: Figures are systemwide statistics (not within Alameda County). Boardings are unlinked passenger trips.

Service Interruptions

- BART saw a slight increase in time between service delays, and has generally held this metric flat over the longer term in spite of aging rail cars, track, and communications infrastructure.
- AC Transit saw a 17 percent decline in miles between mechanical failures in 2012 as compared to 2011.
- LAVTA and Union City Transit saw significant improvement in miles operated between mechanical failures in 2012.
- Over the longer term, all three bus operators have shown marked improvement in miles between mechanical failures.
- More frequent vehicle breakdowns and other equipment failures are frequently a product of aging equipment an infrastructure. AC Transit plans to unveil a new bus purchase in 2013 and BART is procuring new rail cars.

Table 5—Time or distance between service interruptions

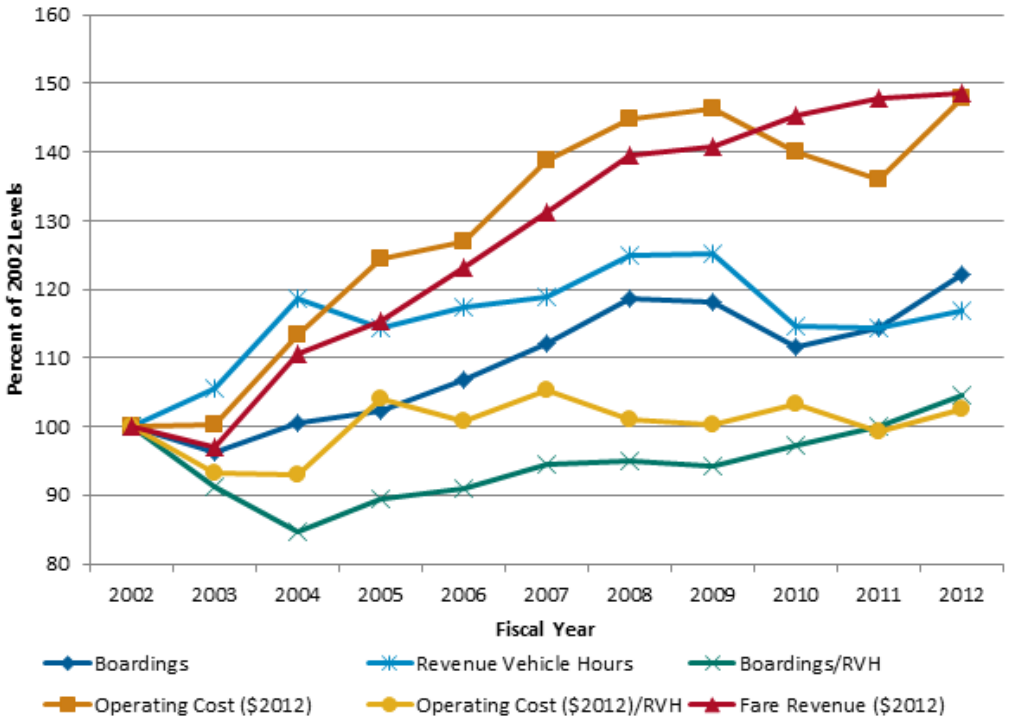
	2008	2009	2010	2011	2012	2012 vs. 2011	2012 vs. 2008
Rail	**Mean Time Between Service Delay**						
BART	3,007	2,683	2,796	2,995	3,216	7%	7%
ACE	658	546	438	388	N/A	N/A	N/A
Bus	**Average Miles Between Mechanical Failure**						
AC Transit	4,633	4,656	5,727	7,941	6,567	-17%	42%
LAVTA	N/A	4,904	4,837	6,353	13,110	106%	167%*
Union City Transit	5,363	3,880	4,902	12,268	16,594	35%	209%

Source: FTA's National Transit Database (2002-2011) and special request from transit operators (2012).
Notes: Figures are systemwide statistics (not within Alameda County). Miles between mechanical vehicle failure computed as total revenue vehicle miles divided by total mechanical failures (major and minor).
* Indicates percent change is computed for 2012 vs. 2009.

Operator Specific Trends

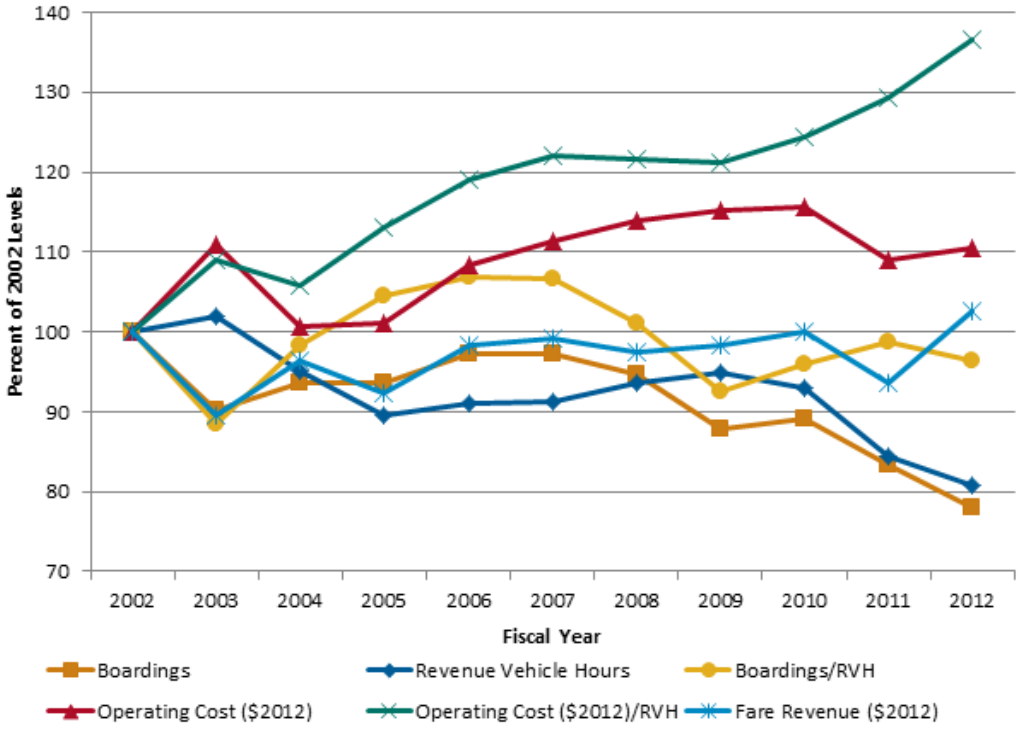
BART

- BART has seen strong ridership growth over the last decade. While the recession saw ridership stay flat in 2009 and dip in 2010, boardings have since recovered.
- The year 2012 was the operator's highest ridership year ever and saw several single-day ridership records set. Average daily ridership now tops 400,000.
- Service (revenue vehicle hours) was curtailed in 2010, and has been held at roughly the same level since, even as ridership has climbed.
- Operating expenses have grown over the long term, though on a per-unit basis they have stayed relatively flat.
- Fare revenues have increased more than boardings since 2002, even after adjusting for inflation (on a percentage basis).
- Higher fares combined with operating costs that have been contained mean that BART now achieves very healthy farebox recovery ratio of 72%—one of the highest in the nation.



AC Transit

- Ridership has experienced ups and downs over the last decade, largely corresponding to economic trends. However, ridership has not recovered from the recent recession. 2012 saw the lowest level of ridership and service operated for AC Transit over the last decade.
- Severe service cuts instituted in 2009 and 2010 likely play a role in declining ridership for AC Transit. These cuts have largely not been restored and total service operated has further dropped since 2010.
- Service utilization (boardings per revenue vehicle hour) dropped in 2012 after increasing in 2010 and 2011 as a result of service cutbacks.
- AC Transit has seen considerable growth in operating costs over the last decade. While the absolute amount spent on operating costs has dropped in some years (due to service cutbacks), the unit cost (operating expense per revenue vehicle hour) has grown in nearly every year, and is 37 percent higher than it was in 2002, even after adjusting for inflation.
- Despite steady growth in operating costs, AC Transit has maintained roughly the same farebox recovery ratio over the last decade. Service reductions together with fare increases have kept growth in fare revenue in line with growth in operating expenses.

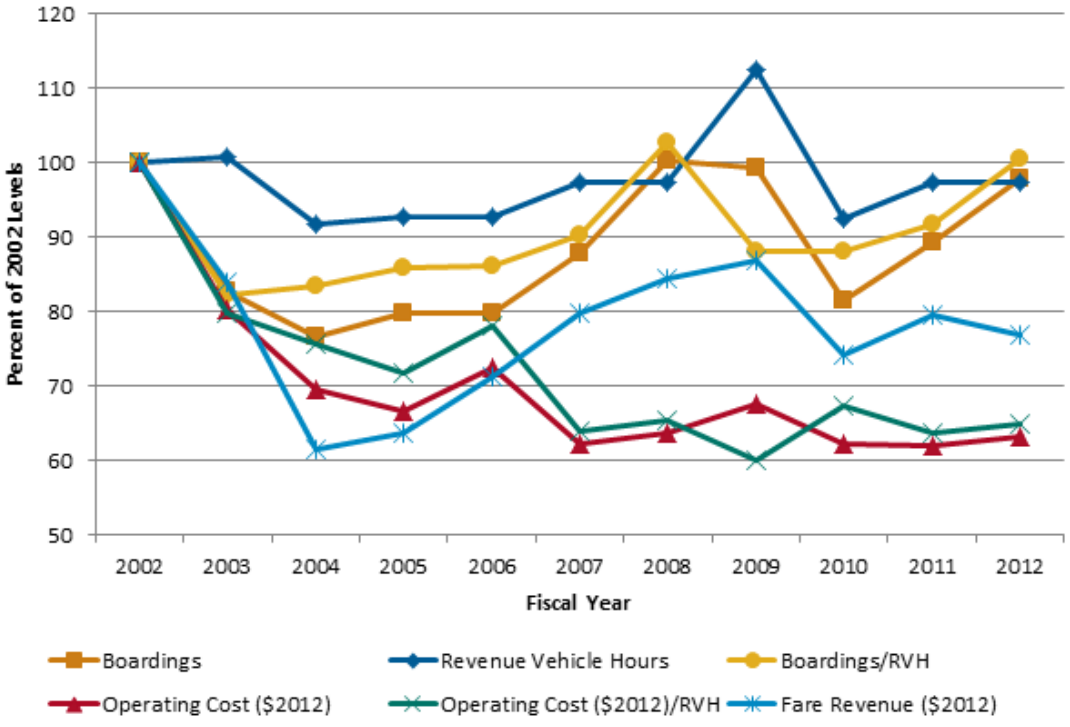


Altamont Corridor Express (ACE)

- ACE ridership has primarily increased and decreased in concert with the Silicon Valley economy. Ridership grew through 2008, weathering several years of housing bubble related recession in the Central Valley, but dropped significantly in 2010 as the financial crisis began to affect the South Bay job market. Ridership has since recovered and is now back to pre-Recession levels.

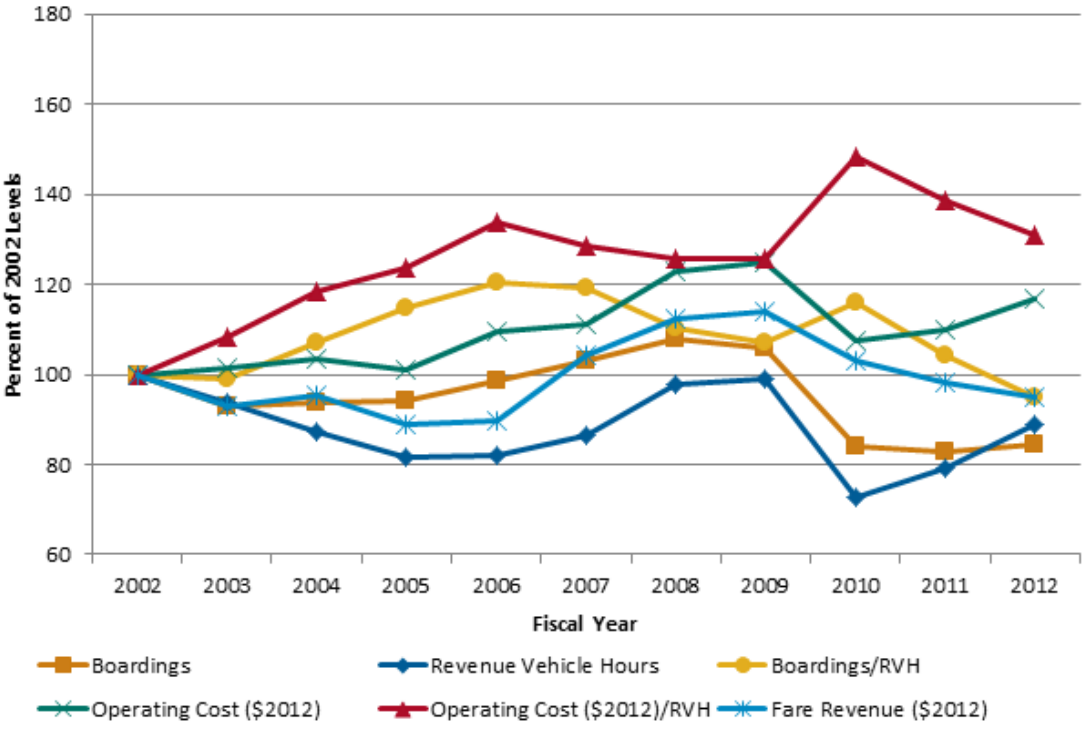
- The San Joaquin Railroad Commission (SJRRC) ran three ACE trains through most of the 2000s. Significant service was added in 2009, as the SJRRC received funds from Caltrans to operate a midday train as mitigation for construction of Interstate 205 in the Tracy area. When mitigation funds were exhausted, ridership was not high enough to sustain this service, bringing trains back down to three daily trains per direction. In FY11-12, the Rail Commission has explored adding a fourth daily train.

- The SJRRC managed to reduce and then maintain its unit operating costs during the last decade. Cost reductions in early years may be in part attributable to realizing efficiencies from accruing operating experience (ACE operations began in 2000). In more recent years, the SJRRC's cost containment success is due to the fact that operations are under contract, which allows for greater cost predictability for items like labor and maintenance.



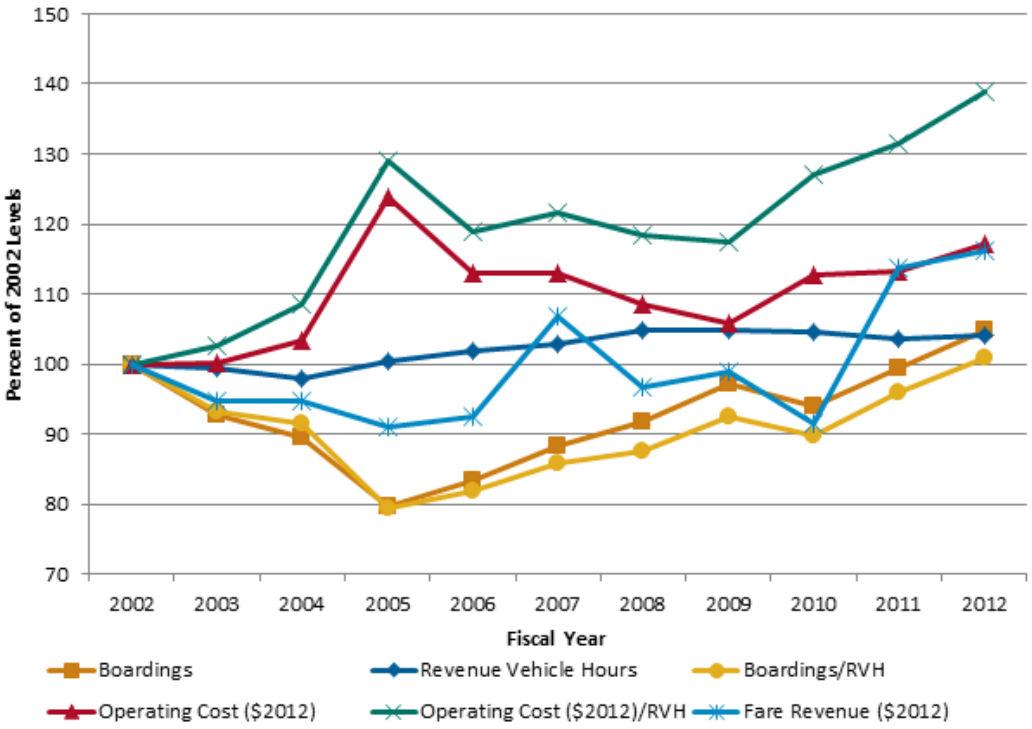
Livermore Amador Valley Transit Authority (LAVTA)

- LAVTA saw boardings drop during the Dot Com boom, grow steadily during the mid-2000s, and then drop off sharply during the Recession. 2012 was the first year that ridership began to recover, though it remains well below pre-Recession levels.
- After cutting service significantly during the Recession, LAVTA began to add back service in 2011 and 2012. The increase in service largely represents the addition of the Rapid line.
- LAVTA's costs were relatively stable during the mid-2000s. In 2010, when service was cut-back, the cost per revenue hour increased fairly dramatically, which may represent a loss of economies of scale. LAVTA's per-unit cost has dropped some in 2011 and 2012, as service has been added back. Nevertheless, the overall trend over the last decade has been an increase in the cost of supplying service.
- Fare revenues generally increased and decreased along with boardings over the last decade. In 2011 and 2012, fare revenues dropped slightly (even as boardings grew in 2012) which may represent more use of discounted rides and free ride passes that were given away with the opening of the Rapid.



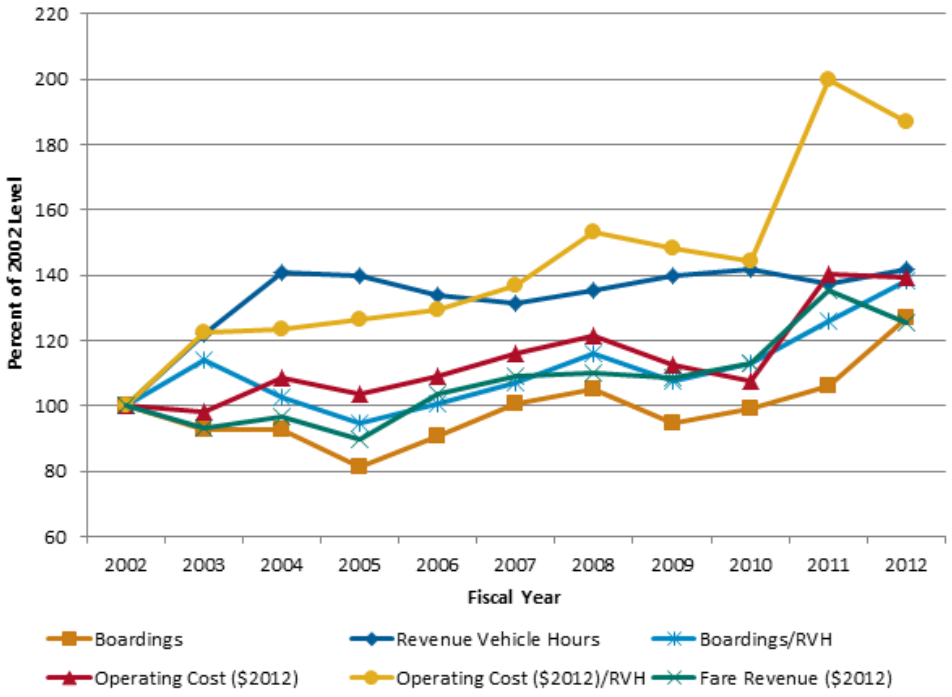
Union City Transit

- Union City Transit weathered the recession relatively well. Ridership began to recover in 2011, when many other operators around the region saw ridership stay low, or decline further. Student ridership had a significant effect on overall ridership levels during the recession, school bus service cutbacks led to more riders.
- Union City Transit has operated essentially the same level of service over the last 4 years, after slight increases in the mid-2000s.
- As a contract operator, the cost of supplying service corresponds to the terms with the concessionaire. Prior to 2009, Union City Transit had negotiated an almost 0% annual increase from its service provider, which enabled it to keep costs stable (and avoid making service cuts as many other operators in the region were forced to do). Since that time, a new agreement has been reached and costs have increased on an annual basis.
- Fare revenues have generally fluctuated along with ridership. In 2011, fare revenues grew significantly, largely due to significant new student riders who paid cash fares both ways. Union City Transit began selling student passes online in late 2011, which has increased the percentage of students using discounted fare instruments.



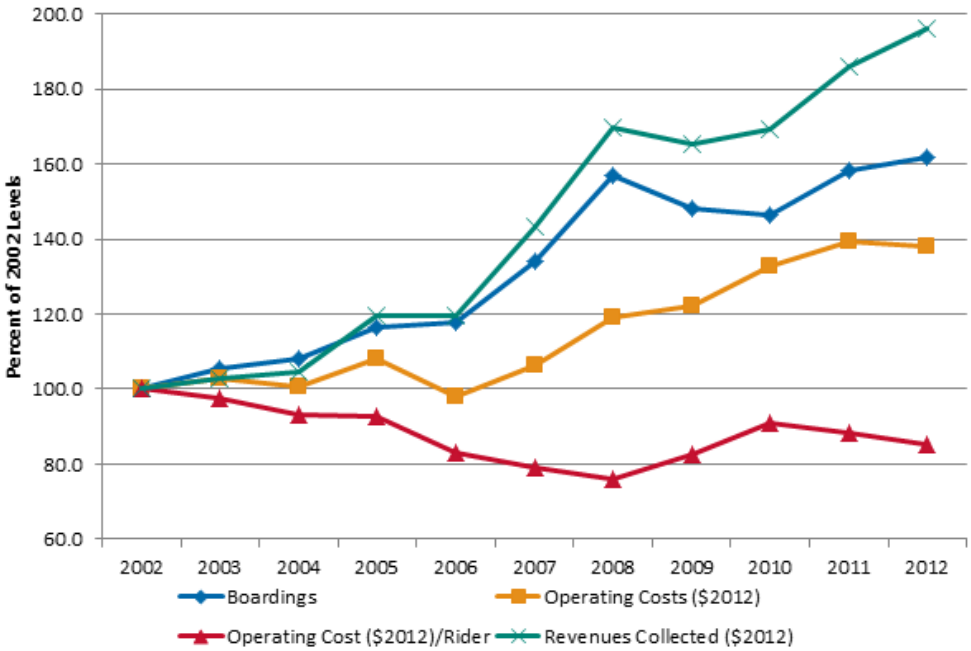
Water Emergency Transit Authority (WETA)

- Ferry boardings grew steadily in the mid-2000s, dropped off in 2009, and then began to recover in 2010. Ridership surpassed 2002's Dot Com boom levels in 2011, and grew even further in 2012. It should be noted that in 2012, a change in ridership counting was introduced, where ridership reported includes all passengers riding, as opposed to just ticket sales (excluding passengers who ride for free) in previous years.
- The level of service provided has remained generally flat since 2004. Service actually increased slightly during the first years of the recession. Service also increased in 2012 (partially due to the introduction of a new route between Jack London Square and South San Francisco).
- Utilization (boardings per revenue vehicle hour) increased in every year since 2005 except for 2009.
- WETA and its predecessors' operating costs climbed steadily on a per-unit basis through most of the 2000s. The sharp spike in costs seen in 2011 is partially attributable to a change in how the Harbor Bay service was accounted for after it became directly operated (it was previously a contracted service).



Capitol Corridor

- Capitol Corridor has seen dramatic growth in ridership over the last decade. Boardings did dip during the recession, but overall, ridership increased greatly from 2002 to 2012.
- Ridership increases may also be attributable to improved reliability, higher gas prices and marketing efforts (campaigns have attracted riders to weekend and off-peak times, and have focused on seniors and weekend discounts).
- Capitol Corridor managed to increase service between 2002 and 2006, from 12 daily trains to 32 daily trains, even while holding total annual operating costs relatively flat. Since that time, costs have increased, largely driven by fuel and insurance costs.
- Capitol Corridor's revenues have grown over the last decade, which is attributable to both ridership growth and fare increases. Since 2007, fares have been raised about 2-3% twice a year, to keep pace with fuel, insurance, and added staffing required by Amtrak.
- Reliability has improved mainly because of the near-elimination of delays caused by freight traffic. The Capitol Corridor JPA has worked with Union Pacific Railroad to reduce these delays by eliminating locations where the train must go slower due to track conditions, installing capital projects to eliminate dispatching bottlenecks, and negotiating incentive-payments for UPRR for consistent performance.



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Bicycling

5

Counts

- Counts provide valuable insight into levels of cycling 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 increased by 75 percent between 2002 and 2011 at a set of 9 locations in Alameda County monitored over this period.
- Counts of cyclists increased by 27 percent between 2010 and 2011 at a set of 62 locations in Alameda County monitored over this period. This more robust set of monitoring locations provides a more representative insight into the overall countywide trend in bicyclist volumes.
- Gender of cyclists has been tracked since 2008. During this period, the percent of women counted has increased from 18 percent to 30 percent.
- The finding that men comprise the majority of cyclists in Alameda County is consistent with many other cities and national data. Research suggests that increases in women cycling are a positive sign as they are less likely to bike than men when facilities are not sufficiently safe.

Figure 17—Bicyclists counted at 9 long-term monitoring locations

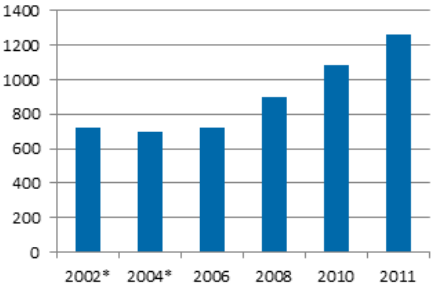


Figure 18—Bicyclists counted at 62 short-term monitoring locations

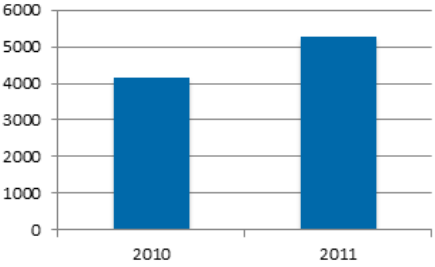
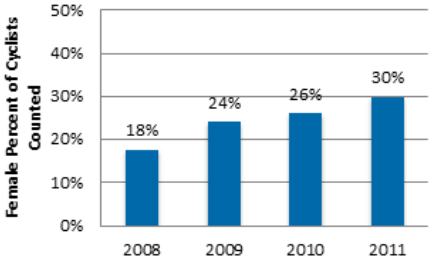


Figure 19—Gender of bicyclists counted



Source for Figures 17-19: Alameda CTC Bicycle and Pedestrian Count Program
Notes: Counts are for PM 2 hour peak period (4:00 p.m. – 6:00 p.m.).
* Indicates data were extrapolated from a three hour count period to a two hour count.

Collisions

- Injury and fatal collisions involving cyclists stayed essentially flat from 2009 to 2010, and are 15 percent higher than 2002 levels. Collisions involving cyclists have dropped slightly from a high in 2008.
- The number of collisions is not by itself an accurate representation of the trend in safety of conditions faced by cyclists. Cycling has shown a marked increase in Alameda County over the past half-decade, and the increase in number of bike collisions is likely attributable at least in part to a greater overall level of cycling. For instance, bike counts grew several times as fast as bike collisions between 2002 and 2010, which suggests a reduction in the collision rate.
- Improving bicycle safety remains a planning priority as safety concerns represent a barrier to participation in cycling for many potential bicyclists.

Figure 20—Injury and fatal collisions involving cyclists

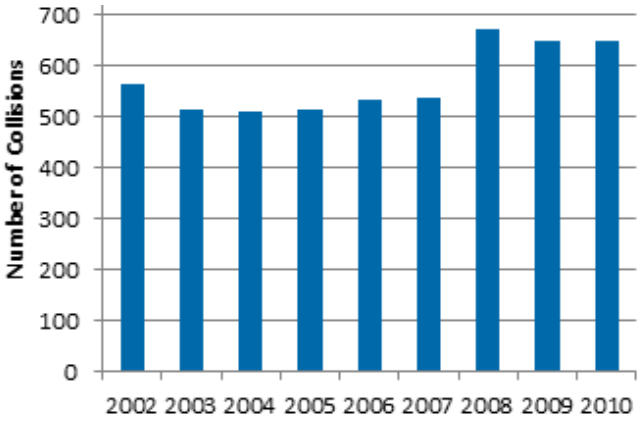
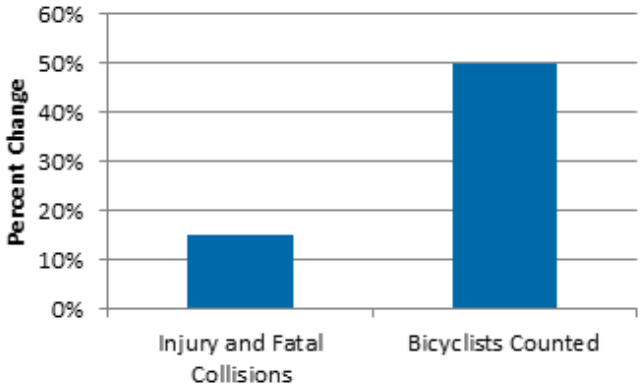


Figure 21—Comparison of changes in bicycle collisions and counts between 2002 and 2010

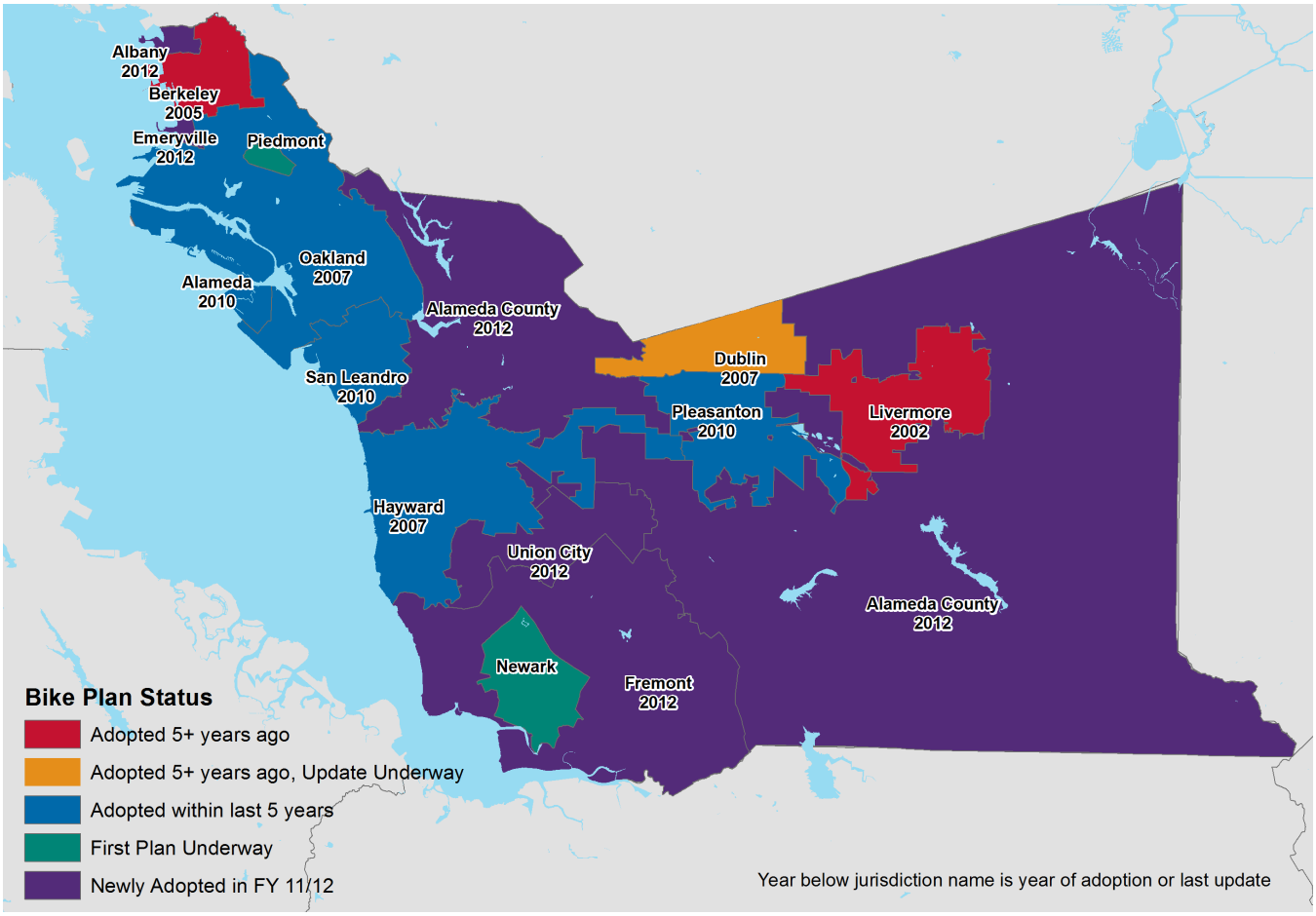


Sources for Figures 20-21: CHP's Statewide Integrated Traffic Record System (SWITRS) database and Alameda CTC Bicycle and Pedestrian Count Program.
Notes: SWITRS database is continuously updated as collision reports are processed. The year 2010 is the most recent year for which updating is substantially complete.

Local Master Plans

- The 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.
- Local master plans are also crucial because jurisdictions own the right of way within which bikeways are implemented. As such it is important that jurisdictions engage in the planning process including identifying target areas for improvements, funding sources, supportive programs, and ensuring public participation.
- During FY11-12, five jurisdictions completed or updated local bicycle master plans. Three other jurisdictions began or continued progress on plan development or an update during this period.
- With these updates eleven jurisdictions have plans that were completed or updated within the last five years, indicating that the plans are likely still aligned with local priorities and contain additional facilities and improvements to be implemented.

Figure 22—Status of local bike master plans



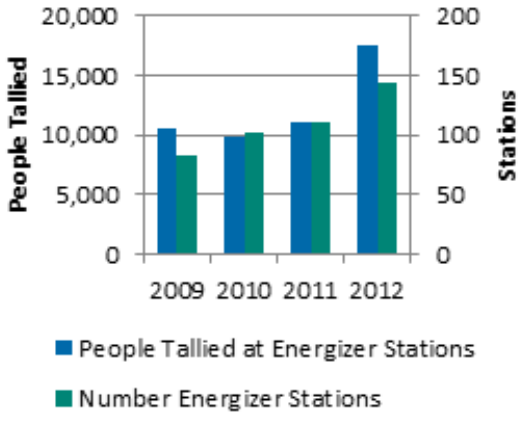
Network Completion

- The 2006 Alameda Countywide Bicycle Plan identified 16 high priority capital projects, which were identified by jurisdictions as their top priorities for implementation. As of June 30, 2012, four of the 16 projects had been completed, and three of these were newly completed in FY11-12. It should be noted that the high priority capital projects are frequently the most complex to implement.
- Three projects are partly or fully under construction (Lewelling Boulevard, Ohlone Greenway, and E. 12th Street), and three projects are scheduled to begin construction in FY12-13 (Buchanan Street, Iron Horse Trail, and Union City Boulevard).
- Beginning in the next Performance Report, the Alameda CTC will begin tracking mileage of countywide and local bike networks implemented in place of completion of high priority capital projects, reflecting the performance measures of the newly adopted 2012 Countywide Bicycle Plan.

Programs and Education

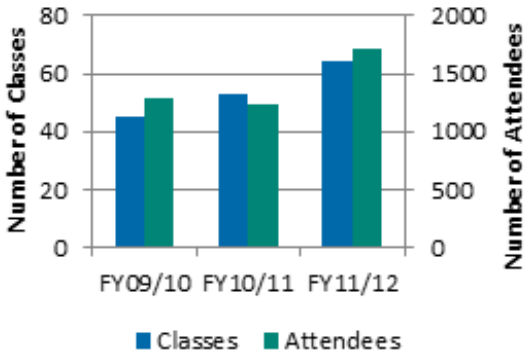
- In addition to infrastructure improvements, the Alameda CTC funds and supports a variety of programs designed to raise awareness about the feasibility and benefits of cycling as well as to educate cyclists about how to safely ride a bike and interact with other road users.
- Bike to Work Day is an annual event celebrating commuting to work by bike. The event includes energize stations with giveaway bags and refreshments, awards, elected officials riding, and other activities. Bike to Work Day has been an organized event in Alameda County since 1994. Energizer stations and people tallied have both increased greatly between 2009 and 2012.
- The Alameda CTC funds a Bicycle Safety Education program which has been in existence since 2009. The program includes a variety of types of classes that cater to different experience levels and include classes in Spanish and Chinese. Bike Safety Education classes offered have increased over the last three years, and attendance increased by 38% between FY10-11 and FY11-12.

Figure 23—Bike to Work Day energizer stations and participant tallies



Source: Bike to Work Day Final Reports.

Figure 24—Bicycle safety education classes provided and attendance



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

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Walking

6

Counts

- Counts provide valuable insight into levels of 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 47 percent between 2002 and 2011 at a set of 6 locations in Alameda County monitored intermittently over this period.
- Counts of pedestrians stayed essentially flat between 2010 and 2011 at a set of 62 locations in Alameda County monitored over this period.
- Between 2010 and 2011, South and East County saw considerable increases in observed pedestrian volumes; North and Central County saw marginal decreases during this period.

Figure 25—Pedestrians counted at 6 long-term monitoring sites

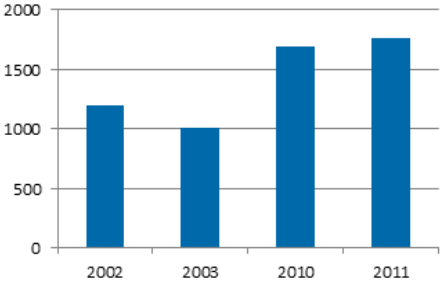


Figure 26—Pedestrians counted at 62 locations

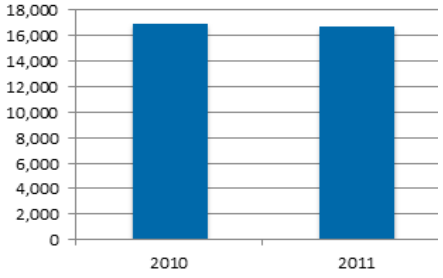
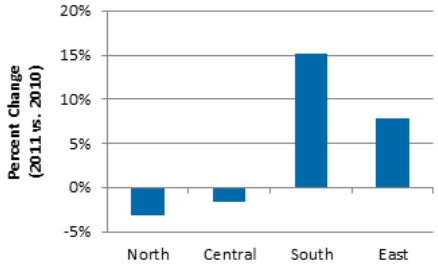


Figure 27—Percent change in pedestrian counts by planning area



Source for Figures 25-27: Alameda CTC Bicycle and Pedestrian Count Program.
Notes: Counts are for PM 2 hour peak period (4:00 p.m. – 6:00 p.m.).

Collisions

- Injury and fatal collisions involving pedestrians climbed slightly from 2009 to 2010, but are lower than 2002 levels.
- The slight decrease in collisions involving pedestrians has occurred at the same time as volumes of pedestrians counted have increased. This may imply an improvement in the collision rate involving pedestrians (the number of collisions per unit of exposure).

Figure 28—Injury and fatal collisions involving pedestrians

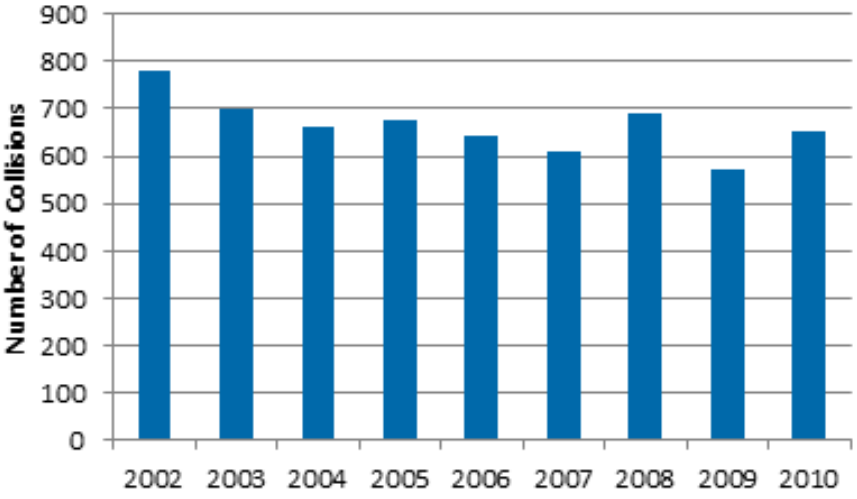
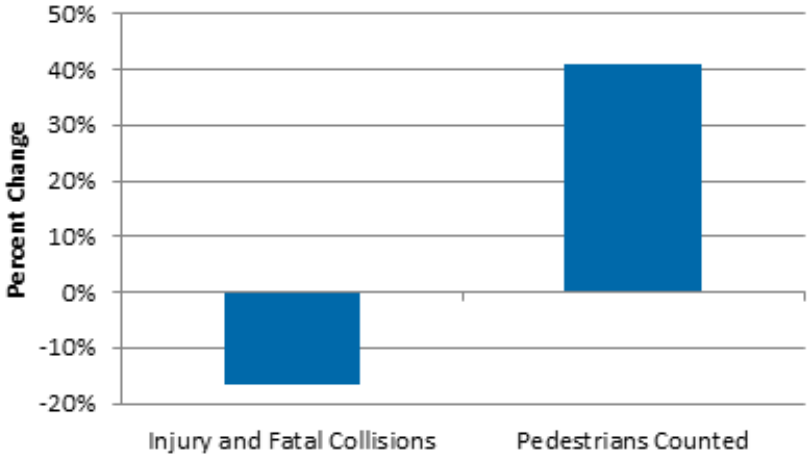


Figure 29—Comparison of changes in pedestrian collisions and counts between 2002 and 2010

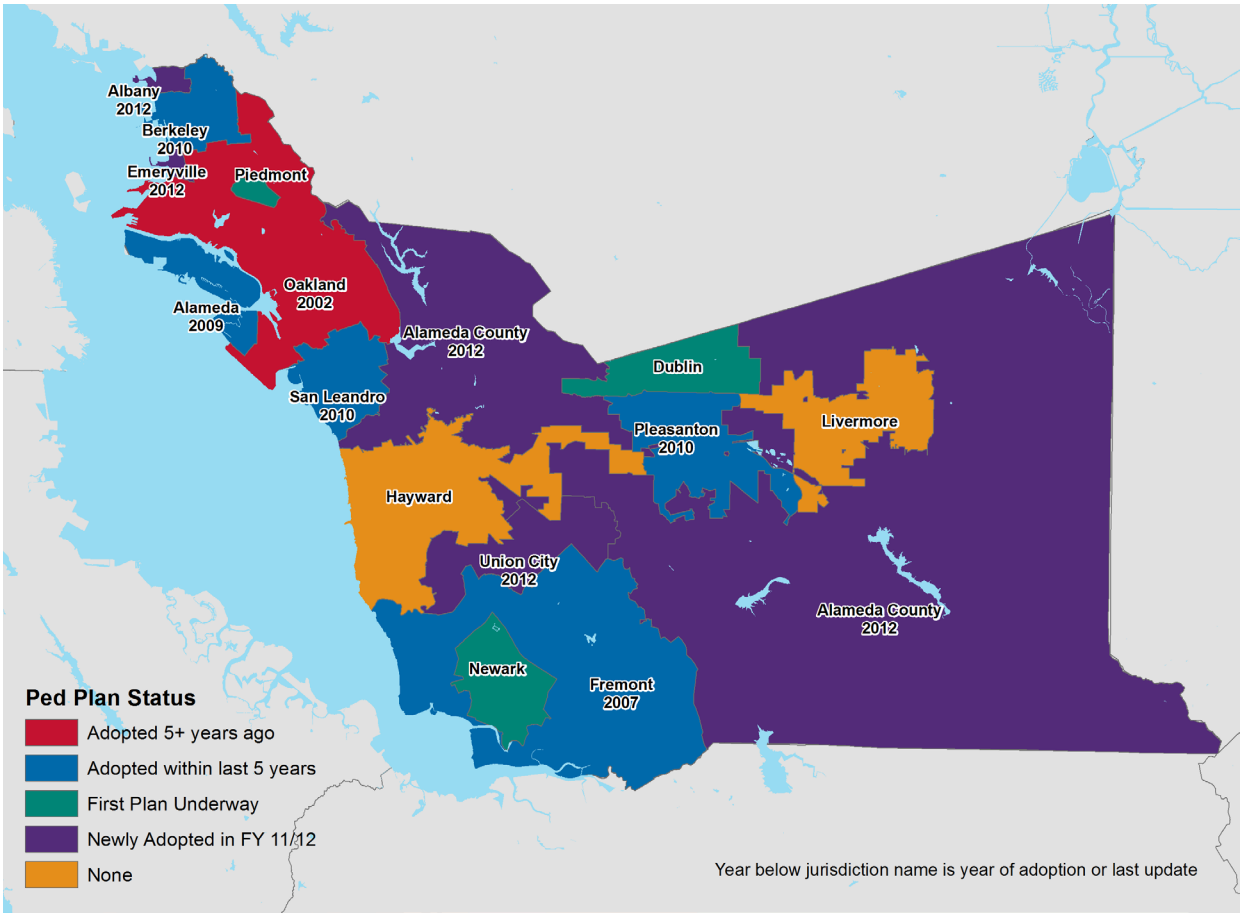


Sources for Figures 28 and 29: CHP's Statewide Integrated Traffic Record System (SWITRS) database and Alameda CTC Bicycle and Pedestrian Count Program.
Notes: SWITRS database is continuously updated as collision reports are processed. The year 2010 is the most recent year for which updating is substantially complete.

Local Master Plans

- The Alameda CTC assists jurisdictions in preparing local pedestrian master plans by providing funding. Local master plans designate improvements that support the Alameda CTC's Countywide Pedestrian Plan Areas of Countywide Significance.
- Local master plans are also crucial because jurisdictions own the right of way within which pedestrian improvements are implemented. As such it is important that jurisdictions engage in the planning process including identifying target areas for improvements, funding sources, supportive programs, and ensuring public participation.
- During FY11-12, four jurisdictions completed or updated local pedestrian master plans. Three other jurisdictions began or continued progress on plan development.
- With these updates, nine jurisdictions have plans that were completed or updated within the last five years, indicating that the plans are likely still aligned with local priorities and contain additional facilities and improvements to be implemented.

Figure 30—Status of local pedestrian master plans



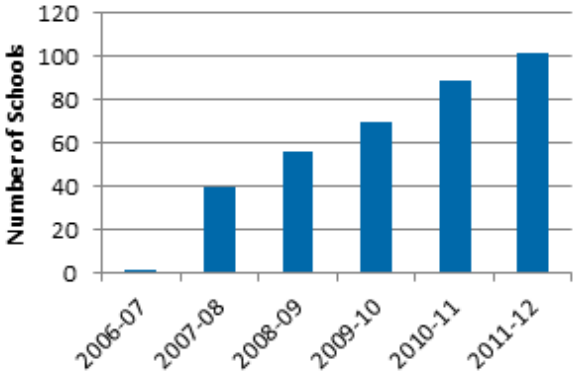
Network Completion and Enhancement

- The Alameda CTC tracks completion and enhancement of pedestrian infrastructure by asking local jurisdictions to report on pedestrian improvements completed in Areas of Countywide Significance.
- Areas of Countywide Significance are areas when pedestrian travel is multijurisdictional or regional in nature and include walksheds around and along high frequency transit, major commercial districts, and interjurisdictional trails.
- These areas are priority areas for improvements such as high visibility crosswalks, pedestrian countdown signals, wide sidewalks, curb ramps, and other infrastructure that bolsters safety, convenience, and segment completion.
- In FY11-12, 10 jurisdictions reported completing a total of 18 projects in areas of countywide significance. 10 jurisdictions reported completing at least one project.

Programs and Education

- The Alameda CTC funds several countywide programs designed to raise awareness about the feasibility and benefits of walking.
- Safe Routes to Schools refers to a variety of multi-disciplinary programs aimed at promoting walking and bicycling to school and improving pedestrian safety 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 is administered by the Alameda CTC and funded by federal funds and local Measure B sales tax funds.
- The Alameda County SR2S program began in 2006 as a pilot program in two schools, and has since expanded rapidly. The program was in over 100 schools during the 2011-12 school year including an initial pilot in several high schools.
- The Alameda CTC also funds the Step into Life campaign, which is a countywide walking campaign designed to inspire everyone living or working in Alameda County to walk for every day trips.

Figure 31—Alameda County Safe Routes to School participating schools



Source: Alameda County Safe Routes to School Program.

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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 that was added in the 2011 Performance Report. The measure is complex to compute and does not typically exhibit significant change on an annual basis. The suitability of reporting on this measure in an annual document will be reevaluated as part of the 2015 Alameda County Congestion Management Program document.
Low income households near transit	This measure is one of the "Liveable Communities" performance measures that was added in the 2011 Performance Report. The measure is complex to compute and does not typically exhibit significant change on an annual basis. The suitability of reporting on this measure in an annual document will be reevaluated as part of the 2015 Alameda County Congestion Management Program document.
CO_2 emissions	This measure is of the "Liveable Communities" performance measures that was added in the 2011 Performance Report. The measure is computed using the Alameda Countywide Travel Demand Model rather than a longitudinal data source, and therefore the suitability of reporting on this measure in an annual document will be reevaluated as part of the 2015 Alameda County Congestion Management Program document.
Fine particulate emissions	This measure is of the "Liveable Communities" performance measures that was added in the 2011 Performance Report. The measure is computed using the Alameda Countywide Travel Demand Model rather than a longitudinal data source, and therefore the suitability of reporting on this measure in an annual document will be reevaluated as part of the 2015 Alameda County Congestion Management Program document.
Travel time of key Origin-Destination pairs	Measure is reported on in 2012 LOS monitoring report.
Transit routing	Reported on in CMP document.
Transit frequency	Reported on in CMP document.
Coordination of transit service	Reported on in CMP document.
Transit capital needs and shortfall	Measure is based on Regional Transportation Plan financial analysis which is 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	Opportunities for reporting on measure as part of Alameda CTC's Annual Report are being explored.

Appendix B—Detailed Information on Data Sources

Measure	Data Source	Notes
Mode Share	American Community Survey, 1-Year Estimates	Based on a sample that is expanded to county-level population. Survey is conducted throughout the year. Journey to work mode is the mode used the majority of days during week for the longest portion of trip.
Freeway and Arterial Speeds	Alameda CTC Level of Service Monitoring Studies	Based on biennially conducted GPS-floating car runs. Data collection occurs from March-May.
Freeway Congestion (Vehicle Hours of Delay)	Caltrans Mobility Performance Report using Performance Monitoring System (PeMS)	Caltrans' Division of System Management and Planning monitors the performance of the State Highway system. Beginning in 2009, Caltrans adopted a new data collection methodology, transitioning from the use of floating car speed surveys (similar to the Alameda CTC LOS monitoring) to use of the Caltrans' Performance Monitoring System (PeMS). PeMS uses data collected automatically by Vehicle Detector Stations (VDS), or sensors built into the roadway infrastructure. VDS collect data on vehicle volumes and speeds over all travel lanes 24 hours a day, throughout the year. Caltrans has developed procedures to identify bad data points and impute missing values based on neighboring VDS and historical averages. The PeMS based data collection methodology offers greater statistical reliability from significantly larger sample sizes, improves accuracy of delay estimation, and enables analysis of non-peak and non-weekday travel periods.
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	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 (revenue years 2002-2011) and special request from transit operators (RY 2012)	
Transit Service Utilization (Boardings per Revenue Vehicle Hour)	FTA's National Transit Database (revenue years 2002-2011) and special request from transit operators (RY 2012)	
Transit Operating Cost per Revenue Vehicle Hour	FTA's National Transit Database (revenue years 2002-2011) and special request from transit operators (RY 2012)	Operating costs are escalated to 2012 dollars using the Consumer Price Index for the San Francisco Bay Area.

Appendix B, Continued—Detailed Information on Data Sources

Measure	Data Source	Notes
Bicycle/ Pedestrian Counts	Alameda CTC count program.	PM peak hour counts (4 p.m. – 6 p.m.) are presented in this report. Count program has included 63 locations since 2010. Some locations were included in predecessor count programs.
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	High Priority Projects completed from 2006 Countywide Bicycle Plan	
Pedestrian Network Completion	Projects completed in Areas of Countywide Significance from 2006 Countywide Pedestrian Plan	
Bicycle/ Pedestrian Program Participation	Semi-annual progress reports (Bike Safety Education) and Annual Reports (Bike to Work Day and Safe Routes to School)	

Appendix C1—Detailed Transit Operator Data: Summary of Performance Measures for BART

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Directional Route Miles	190	209	209	209	209	209	209	209	209	209	209
In Alameda County	97	97	97	97	97	97	97	97	97	97	97
Total Annual Revenue Passenger Car Miles (million)	58.4	58.9	62.4	60.0	62.1	64.3	67.0	67.8	63.2	63.3	63.4
In Alameda County	28.6	28.9	30.6	29.4	30.4	31.5	32.8	33.2	31.0	31.0	31.1
Total Annual Revenue Passenger Car Hours (million)	1.6	1.6	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8
In Alameda County	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9
Number of Active Train Cars	647	668	668	667	660	667	667	669	667	668	669
Average Age of Train Car	22.8	23.8	24.8	25.8	26.8	27.8	28.8	29.8	30.8	31.8	32.8
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (millions)	97.1	93.6	97.5	99.3	103.7	109.0	115.2	114.7	108.3	111.1	118.7
In Alameda County	34.6	31.9	32.6	32.9	34.9	36.3	37.8	37.8	36.0	37.4	40.5
Average Weekday Boardings (Unlinked Passenger Trips) (1000s)	329.5	313.6	325.0	329.2	343.0	361.8	384.2	379.0	357.5	367.5	391.8
In Alameda County	111.9	107.7	110.1	111.3	116.5	121.0	126.1	126.0	119.3	124.5	126.5
Total Annual Passenger Miles Traveled (millions)	1,176	1,148	1,228	1,256	1,307	1,368	1,449	1,442	1,391	1,443	1,546
Average Miles Per Trip	12.1	12.3	12.6	12.6	12.6	12.5	12.6	12.6	12.8	13.0	13.0
Service Utilization											
Average Percent Seats Occupied	30%	29%	30%	31%	32%	32%	32%	32%	34%	36%	39%
Boardings Per Revenue Passenger Car Mile Systemwide	1.66	1.59	1.56	1.65	1.67	1.69	1.72	1.69	1.71	1.75	1.87
Boardings Per Revenue Passenger Car Hour Systemwide	62.58	57.15	52.96	55.95	56.95	59.12	59.38	59.05	60.84	62.61	65.44

Appendix C1 Continued—Detailed Transit Operator Data: Summary of Performance Measures for BART

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 million)	$408.1	$401.7	$449.7	$485.6	$482.4	$510.1	$515.8	$512.0	$483.9	$462.9	$488.9
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$0.35	$0.35	$0.37	$0.39	$0.37	$0.37	$0.36	$0.36	$0.35	$0.32	$0.32
Operating Expense Per Rider ($/Board)	$4.2	$4.3	$4.6	$4.9	$4.7	$4.7	$4.5	$4.5	$4.5	$4.2	$4.1
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$7.0	$6.8	$7.2	$8.1	$7.8	$7.9	$7.7	$7.5	$7.7	$7.3	$7.7
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$262.9	$245.3	$244.1	$273.6	$265.0	$276.6	$265.8	$263.7	$271.8	$260.8	$269.6
Fare Revenues Generated ($2012 million)	$238.3	$231.2	$263.7	$274.8	$293.5	$312.9	$332.6	$335.7	$346.2	$352.2	$354.3
Farebox Recovery	58%	58%	59%	57%	61%	61%	64%	66%	72%	76%	72%

Source: National Transit Database (2002-2011) and BART (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Passenger Car Miles * Average Seats per Passenger Car) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C2—Detailed Transit Operator Data: Summary of Performance Measures for AC Transit

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Directional Route Miles	1,357	1,363	1,308	1,352	1,365	1,365	1,365	1,364	1,278	1,254	1,254
In Alameda County	1,194	1,200	1,151	1,190	1,201	1,201	1,201	1,200	1,124	1,104	1,104
Total Annual Revenue Vehicle Miles (million)	23.0	23.3	22.1	20.9	21.2	21.6	22.0	22.1	21.6	19.2	18.2
In Alameda County	20.2	20.5	19.5	18.4	18.7	19.0	19.4	19.4	19.0	16.9	16.1
Total Annual Revenue Vehicle Hours (million)	2.0	2.0	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.7	1.6
In Alameda County	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.4
Number of Active Buses	790	786	697	626	632	678	646	647	643	610	569
Average Age of Bus	12.1	8.6	5.8	5.6	7.0	7.5	8.3	7.7	7.9	8.4	8.8
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (millions)	68.9	62.1	64.5	64.4	67.0	67.0	65.2	60.5	61.4	57.3	53.6
In Alameda County	60.6	54.6	56.7	56.7	58.9	58.9	57.4	53.2	54.0	50.5	47.2
Average Weekday Boardings (Unlinked Passenger Trips) (thousands)	226.4	206.3	214.7	209.7	226.7	226.9	218.2	197.2	197.4	190.9	174.0
In Alameda County	199.3	181.5	188.9	184.6	199.5	199.6	192.1	173.5	173.8	168.0	153.0
Total Annual Passenger Miles Traveled (millions)	192	170	210	198	209	204	198	192	174	187	187
Average Miles Per Trip	2.8	2.7	3.3	3.1	3.1	3.0	3.0	3.2	2.8	3.3	3.5
Service Utilization											
Average Percent Seats Occupied	19%	17%	23%	23%	24%	24%	23%	22%	20%	25%	26%
Boardings Per Revenue Vehicle Mile Systemwide	3.00	2.66	2.91	3.09	3.16	3.11	2.96	2.74	2.85	2.99	2.94
Boardings Per Revenue Vehicle Hour Systemwide	34.48	30.51	33.91	36.05	36.84	36.75	34.86	31.88	33.08	34.01	33.23

Appendix C2 Continued—Detailed Transit Operator Data: Summary of Performance Measures for AC Transit

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 million)	$268.4	$297.8	$270.3	$271.3	$290.8	$299.0	$305.6	$309.0	$310.2	$292.8	$296.5
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$1.40	$1.75	$1.29	$1.37	$1.39	$1.46	$1.55	$1.61	$1.79	$1.56	$1.58
Operating Expense Per Rider ($/Board)	$3.9	$4.8	$4.2	$4.2	$4.3	$4.5	$4.7	$5.1	$5.1	$5.1	$5.5
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$11.7	$12.8	$12.2	$13.0	$13.7	$13.9	$13.9	$14.0	$14.4	$15.2	$16.2
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$134.4	$146.4	$142.2	$151.9	$160.0	$164.1	$163.4	$162.9	$167.1	$173.7	$183.7
Fare Revenues Generated ($2012 million)	$55.7	$49.9	$53.6	$51.3	$54.7	$55.2	$54.2	$54.8	$55.6	$52.1	$57.1
Farebox Recovery	21%	17%	20%	19%	19%	18%	18%	18%	18%	18%	19%

Source: National Transit Database (2002-2011) and AC Transit (2012).
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.
Average Percent Seats Occupied computed as (Total Revenue Vehicle Miles * Average Seats per Vehicle) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C3—Detailed Transit Operator Data: Summary of Performance Measures for ACE

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Directional Route Miles	172	172	172	172	172	172	172	172	172	172	172
In Alameda County	90	90	90	90	90	90	90	90	90	90	90
Total Annual Revenue Passenger Car Miles (thousand)	739	747	749	783	722	780	780	780	719	786	805
In Alameda County	387	391	392	410	378	408	408	408	376	411	419
Total Annual Revenue Passenger Car Hours (thousand)	20	20	19	19	19	20	20	23	19	20	20
In Alameda County	11	11	10	10	10	10	10	12	10	10	10
Number of Active Train Cars	5	25	25	29	29	30	30	30	34	34	34
Average Age of Train Car	3.8	4.2	4.6	5.6	6.6	7.4	8.4	9.4	9.4	10.4	11.0
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (thousand)	804	665	616	641	642	707	805	797	655	718	787
In Alameda County	265	220	203	212	212	234	266	265	235	254	332
Average Weekday Boardings (Unlinked Passenger Trips)	3,189	2,619	2,464	2,532	2,537	2,805	3,191	3,164	2,601	2,851	3,123
In Alameda County	463	864	800	800	829	852	1,053	1,048	922	1,011	1,319
Total Annual Passenger Miles Traveled (thousand)	36,610	31,231	29,520	33,279	30,173	33,613	37,756	35,757	29,364	32,938	35,965
Average Miles Per Trip	45.6	46.9	47.9	52.0	47.0	47.6	46.9	44.8	44.8	45.9	45.7
Service Utilization											
Average Percent Seats Occupied	44%	37%	33%	36%	36%	38%	43%	40%	35%	36%	38%
Boardings Per Revenue Passenger Car Mile Systemwide	1.09	0.89	0.82	0.82	0.89	0.91	1.03	1.02	0.91	0.91	0.98
Boardings Per Revenue Passenger Car Hour Systemwide	0.69	0.56	0.52	0.52	0.56	0.57	0.65	0.65	0.62	0.62	0.79

Appendix C3 Continued—Detailed Transit Operator Data: Summary of Performance Measures for ACE

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 thousand)	$19,422	$15,601	$13,496	$12,960	$14,067	$12,093	$12,384	$13,126	$12,092	$12,058	$12,273
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$0.53	$0.50	$0.46	$0.39	$0.47	$0.36	$0.33	$0.37	$0.41	$0.37	$0.34
Operating Expense Per Rider ($/Board)	$24.2	$23.4	$21.9	$20.2	$21.9	$17.1	$15.4	$16.5	$18.4	$16.8	$15.6
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$26.3	$20.9	$18.0	$16.5	$19.5	$15.5	$15.9	$16.8	$16.8	$15.3	$15.2
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$963.4	$768.5	$729.5	$692.2	$752.4	$615.4	$630.1	$578.8	$648.4	$613.4	$624.4
Fare Revenue Generated ($2012 thousand)	$5,549	$4,654	$3,417	$3,529	$3,948	$4,433	$4,683	$4,819	$4,113	$4,412	$4,263
Farebox Recovery	29%	30%	25%	27%	28%	37%	38%	37%	34%	37%	35%

Source: National Transit Database (2002-2011) and ACE (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Passenger Car Miles * Average Seats per Passenger Car) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C4—Detailed Transit Operator Data: Summary of Performance Measures for LAVTA

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Directional Route Miles	385	385	358	430	309	356	306	323	289	280	300
Total Annual Revenue Vehicle Miles (thousands)	1,956	1,850	1,828	1,680	1,706	1,756	1,984	2,017	1,500	1,637	1,862
Total Annual Revenue Vehicle Hours (thousands)	141	132	123	115	115	122	137	139	102	111	125
Number of Buses	73	81	115	76	74	74	76	68	68	88	89
Average Age of Bus	10.1	11.1	8.8	6.4	N/A	N/A	N/A	8.9	8.4	7.1	7.7
In Alameda County	11	11	10	10	10	10	10	12	10	10	10
Number of Active Train Cars	5	25	25	29	29	30	30	30	34	34	34
Average Age of Train Car	3.8	4.2	4.6	5.6	6.6	7.4	8.4	9.4	9.4	10.4	11.0
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (thousands)	2,070	1,922	1,936	1,944	2,037	2,136	2,234	2,195	1,740	1,713	1,751
Average Weekday Boardings (Unlinked Passenger Trips)	7,186	6,719	6,636	6,591	6,939	7,316	7,893	7,809	6,073	6,628	6,101
Total Annual Passenger Miles Traveled (thousands)	9,653	9,499	9,571	9,444	9,957	9,989	10,605	10,410	8,252	8,348	8,516
Average Miles Per Trip	4.7	4.9	4.9	4.9	4.9	4.7	4.7	4.7	4.7	4.9	4.9
Total Annual Passenger Miles Traveled (thousand)	36,610	31,231	29,520	33,279	30,173	33,613	37,756	35,757	29,364	32,938	35,965
Average Miles Per Trip	45.6	46.9	47.9	52.0	47.0	47.6	46.9	44.8	44.8	45.9	45.7
Service Utilization											
Average Percent Seats Occupied	14%	14%	15%	15%	16%	15%	15%	14%	15%	14%	15%
Boardings Per Revenue Vehicle Mile Systemwide	1.06	1.04	1.06	1.16	1.19	1.22	1.13	1.09	1.16	1.05	0.94
Boardings Per Revenue Vehicle Hour Systemwide	14.72	14.58	15.75	16.93	17.71	17.55	16.25	15.76	17.05	15.37	14.00

Appendix C4 Continued—Detailed Transit Operator Data: Summary of Performance Measures for LAVTA

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 thousand)	$10,814	$10,987	$11,191	$10,930	$11,843	$12,024	$13,283	$13,484	$11,632	$11,885	$12,619
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$1.12	$1.16	$1.17	$1.16	$1.19	$1.20	$1.25	$1.30	$1.41	$1.42	$1.48
Operating Expense Per Rider ($/Board)	$5.22	$5.72	$5.78	$5.62	$5.81	$5.63	$5.95	$6.14	$6.68	$6.94	$7.21
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$5.53	$5.94	$6.12	$6.50	$6.94	$6.85	$6.70	$6.68	$7.75	$7.26	$6.78
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$76.9	$83.3	$91.1	$95.1	$102.9	$98.8	$96.6	$96.8	$114.0	$106.6	$100.9
Fare Revenue Generated ($2012 thousand)	$2,150	$1,995	$2,049	$1,912	$1,924	$2,238	$2,418	$2,452	$2,214	$2,108	$2,044
Farebox Recovery	20%	18%	18%	17%	16%	19%	18%	18%	19%	18%	16%

Source: National Transit Database (2002-2011) and LAVTA (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Vehicle Miles * Average Seats per Vehicle) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C5—Detailed Transit Operator Data: Summary of Performance Measures for Union City Transit

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Directional Route Miles	44	45	45	49	48	54	48	60	60	60	60
Total Annual Revenue Vehicle Miles (thousands)	500	503	513	524	524	483	462	457	471	465	468
Total Annual Revenue Vehicle Hours (thousands)	38	38	37	38	39	39	40	40	40	39	39
Number of Buses	15	17	17	15	15	15	15	16	17	17	17
Average Age of Bus	5.7	6.2	7.2	7.3	8.3	9.3	10.3	9.6	5.8	6.8	7.8
In Alameda County	11	11	10	10	10	10	10	12	10	10	10
Number of Active Train Cars	5	25	25	29	29	30	30	30	34	34	34
Average Age of Train Car	3.8	4.2	4.6	5.6	6.6	7.4	8.4	9.4	9.4	10.4	11.0
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (thousands)	477	442	428	381	398	422	438	464	448	474	501
Average Weekday Boardings (Unlinked Passenger Trips)	1,650	1,524	1,482	1,319	1,335	1,464	1,518	1,637	1,567	1,793	1,780
Total Annual Passenger Miles Traveled (thousands)	1,989	1,880	1,223	1,187	1,205	1,276	1,402	1,418	1,450	N/A	N/A
Average Miles Per Trip	4.2	4.3	2.9	3.1	3.0	3.0	3.2	3.1	3.2	N/A	N/A
Total Annual Passenger Miles Traveled (thousand)	36,610	31,231	29,520	33,279	30,173	33,613	37,756	35,757	29,364	32,938	35,965
Average Miles Per Trip	45.6	46.9	47.9	52.0	47.0	47.6	46.9	44.8	44.8	45.9	45.7
Service Utilization											
Average Percent Seats Occupied	12%	11%	7%	6%	7%	8%	9%	9%	9%	N/A	N/A
Boardings Per Revenue Vehicle Mile Systemwide	0.95	0.88	0.83	0.73	0.76	0.87	0.95	1.01	0.95	1.02	1.07
Boardings Per Revenue Vehicle Hour Systemwide	12.63	11.78	11.57	10.05	10.33	10.85	11.05	11.70	11.34	12.13	12.74

Appendix C5 Continued—Detailed Transit Operator Data: Summary of Performance Measures for Union City Transit

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 thousand)	$2,617	$2,617	$2,704	$3,239	$2,956	$2,953	$2,841	$2,766	$2,948	$2,965	$3,067
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$1.07	$1.15	$1.84	$2.32	$2.14	$2.08	$1.88	$1.85	$1.95	N/A	N/A
Operating Expense Per Rider ($/Board)	$4.45	$4.89	$5.27	$7.22	$6.47	$6.30	$6.02	$5.64	$6.30	$6.09	$6.13
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$4.24	$4.30	$4.39	$5.24	$4.91	$5.50	$5.71	$5.73	$5.99	$6.21	$6.56
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$56.2	$57.6	$61.0	$72.5	$66.8	$68.4	$66.6	$66.0	$71.4	$73.8	$78.0
Fare Revenue Generated ($2012 thousand)	$389	$368	$368	$354	$360	$415	$376	$384	$356	$442	$452
Farebox Recovery	15%	14%	14%	11%	12%	14%	13%	14%	12%	15%	15%

Source: National Transit Database (2002-2011) and Union City Transit (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Vehicle Miles * Average Seats per Vehicle) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C6—Detailed Transit Operator Data: Summary of Performance Measures for WETA

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Supply											
Total Annual Revenue Vehicle Miles (thousands)	68.6	70	90	79	81	87	86	87	88	80	92
Total Annual Revenue Vehicle Hours (thousands)	7.2	6	6	6	7	7	7	6	6	6	7
Number of Ferries	4	5	5	5	5	5	5	6	9	8	7
Average Age of Ferry	8.6	12.2	13.2	14.2	15.2	16.2	17.2	15.2	11.1	11.5	9.6
Demand											
Total Annual Boardings (Unlinked Passenger Trips) (thousands)	573	532	532	465	521	577	604	543	569	609	728
Average Weekday Boardings (Unlinked Passenger Trips)	1,844	1,659	1,627	1,419	1,594	1,777	1,873	1,694	1,760	1,945	2,274
Total Annual Passenger Miles Traveled (thousands)	4,038	3,287	3,552	3,054	3,352	3,883	4,070	3,703	3,878	4,132	5,049
Average Miles Per Trip	7.0	6.2	6.7	6.6	6.4	6.7	6.7	6.8	6.8	6.8	6.9
Service Utilization											
Average Percent Seats Occupied	26%	21%	18%	16%	18%	20%	21%	21%	25%	27%	26%
Boardings Per Revenue Vehicle Mile Systemwide	9.1	8.5	6.6	6.1	6.8	7.4	7.8	7.0	7.2	8.3	8.9
Boardings Per Revenue Vehicle Hour Systemwide	79.7	90.7	81.9	75.5	80.1	85.3	92.3	85.5	90.0	100.5	110.2

Appendix C6 Continued—Detailed Transit Operator Data: Summary of Performance Measures for WETA

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial											
Total Annual Operating Expenses ($2012 thousand)	$4,895	$4,807	$5,310	$5,073	$5,337	$5,688	$5,950	$5,498	$5,262	$6,880	$6,811
Operating Expense Per Passenger Mile Traveled ($/Pax-Mi)	$0.98	$1.21	$1.25	$1.41	$1.39	$1.32	$1.36	$1.40	$1.30	$1.62	$1.35
Operating Expense Per Rider ($/Board)	$6.93	$7.46	$8.33	$9.26	$8.93	$8.86	$9.15	$9.58	$8.86	$10.99	$9.36
Operating Expense Per Revenue Vehicle Mile ($/RVM)	$62.84	$63.25	$55.12	$56.90	$60.73	$65.67	$71.17	$66.63	$63.98	$91.45	$82.89
Operating Expense Per Revenue Vehicle Hour ($/RVH)	$551.9	$676.5	$682.0	$698.7	$714.6	$756.4	$845.3	$819.4	$796.7	$1,104.3	$1,031.6
Fare Revenue Generated ($2012 thousand)	$2,676	$2,490	$2,584	$2,406	$2,772	$2,925	$2,940	$2,911	$3,024	$3,628	$3,352
Farebox Recovery	55%	52%	49%	47%	52%	51%	49%	53%	57%	53%	49%

Source: National Transit Database (2002-2011) and WETA (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Vehicle Miles * Average Seats per Vehicle) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

Appendix C7—Detailed Transit Operator Data: Summary of Performance Measures for Capitol Corridor

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Daily Trains from Oakland to Sacramento	18	18/20/22/24*	24	24	24/32**	32	32	32	32	32	32/30***
Daily Trains from San Jose to Sacramento	N/A	N/A	N/A	N/A	N/A	14	14	14	14	14	14
Train Revenue Miles (thousands)											1,209.8
Train Revenue Hours (thousands)											
Total Annual Ridership (millions)	1.08	1.14	1.17	1.26	1.27	1.45	1.69	1.60	1.58	1.71	1.75
Total Annual Operating Expenses ($2012 million)	$41.3	$42.5	$41.5	$44.7	$40.5	$44.0	$49.2	$50.6	$54.9	$57.7	$57.0
Operating Expense Per Rider	$38.25	$37.30	$35.65	$35.43	$31.79	$30.33	$29.05	$31.60	$34.77	$33.75	$32.63
Total Revenues Collected ($2012 million)	$15.0	$15.5	$15.8	$18.0	$18.0	$21.5	$25.5	$24.9	$25.5	$28.0	$29.5
System Operating Ratio	37%	38%	39%	43%	46%	48%	55%	47%	47%	48%	50%

Source: Capitol Corridor Annual Reports (2002-2011) and Capitol Corridor (2012).
Notes: Financial data adjusted for inflation using San Francisco Bay Area CPI.
Average Percent Seats Occupied computed as (Total Revenue Vehicle Miles * Average Seats per Vehicle) / Total Annual Passenger Miles Traveled.
Farebox recovery computed as Fare Revenues Generated / Total Annual Operating Expenses.

† Amtrak uses Federal Fiscal Year: Oct. 1 - Sep. 30.
* 18 trains beginning Oct. 2002, 20 trains beginning Oct. 27, 2002, 22 trains beginning Jan. 6, 2003, 24 trains beginning Apr. 28, 2003.
** Added 8 additional daily trains on August 28, 2006.
*** Decreased from 32 daily trains to 30 daily trains on Aug. 13, 2012.

Appendix D—Bicycle and Pedestrian Network Completion

Appendix D1—Implementation Progress of High Priority Projects from 2006 Alameda Countywide Bicycle Plan

Jurisdiction	Project	Type	Road	Limits	Length	Progress in FY11-12
ABAG	San Leandro Slough Bridge	New bike/ ped bridge	Bike/Ped Bridge	North and south ends of slough	0.1	Project completed prior to FY11-12.
Alameda	Alameda/ Doolittle/ Lewelling	To be determined	Atlantic/ Appezzato	Ferry Point to Tilden Way	3.6	Property was transferred to city prior to FY11-12. No progress during FY11-12.
Alameda County	Alameda/ Doolittle/ Lewelling	Class 2 bike lane	Lewelling	Hesperian to East 14th	1.4	Construction commenced, scheduled for completion in Fall 2012
Albany	Buchanan-Marin	Class 1 Bike Path	Buchanan Street	Buchanan Overcrossing to San Pablo Ave	0.6	Construction funds secured. Construction of segment from San Pablo Ave to Pierce St scheduled for late 2012.
Berkeley	N. Alameda County, I-580/ Foothill	Class 1 Bike Path	Ohlone Greenway	Albany/Berkeley city limits to Virginia	0.7	Construction still underway as part of BART seismic retrofit.
Berkeley	N. Alameda County, I-580/ Foothill	Class 3 Res. Street	Virginia	Acton/Ohlone Trail to Milvia	0.7	Project completed during FY11-12.
Dublin	Alamo Canal, I-580/I-680 Connector	Class 1 Bike Trail	Alamo Canal Trail	San Ramon Creek Trail to Alamo Canal Trail	0.2	Project completed during FY11-12.
EBRPD/ Union City/ Hayward	S. Alameda County, I-880 Corridor	Class 1 Bike Trail	Bay Trail	Eden Landing to Alameda Creek Bridge	3.0	Project on hold due to the proposed flood control levee project at the same location.
Emeryville	Emeryville bike/ped bridge	Class 1 overpass	New Overcrossing	Shellmound to Horton	0.3	Funding was secured and bid specifications completed prior to FY11-12. Project on hold pending court ruling on Redevelopment funding.
Fremont	Fremont-Santa Clara	Class 2 Bike Lane	Fremont Blvd.	South Grimmer to Santa Clara County limits	3.8	Bay Trail Class 1 Feasibility Study is ongoing for the segment between the South terminus of Fremont Boulevard to Santa Clara limits at Dixon Landing Road. The Study is estimated to be completed by March 2013.
Hayward	Central County, I-580/Foothill	Class 1 Bike Trail	Industrial/ Mission	SPRR/BART tracks to Woodland	0.3	No progress due to lack of funds. ROW acquisition is needed.
Livermore	Isabel Avenue Trail and Bike Lanes	Class 1/ Class 2	Isabel Ave	Jack London Blvd to Portola	3.0	Project completed during FY11-12.

Appendix D1 Continued—Implementation Progress of High Priority Projects from 2006 Alameda Countywide Bicycle Plan

Jurisdiction	Project	Type	Road	Limits	Length	Progress in FY11-12
Oakland	I-880 Corridor	Class 2 bike lane	12th St.	Oak/Lakeside to Fruitvale	2.7	Portion from Oak/Lakeside to 2nd Ave is in construction. Portion from 2nd Ave to Fruitvale Ave is at 65% design. Construction of 14th Ave to Fruitvale Ave is being programmed through Oakland's share of the 2010 federal LSR block grant.
Pleasanton	Iron Horse Trail	Class 1 bike trail	Iron Horse Trail	I-580 to Pleasanton City Limit	4.5	Project design and environmental reviews have been completed. Construction contract to be awarded in 2013 with project completion in 2014.
San Leandro	N. Alameda County, Bay Trail	Class 1 bike trail	Bay Trail	Marina Blvd to Fairway Drive	0.4	No Progress
Union City	S. Alameda County, I-880 Corridor	Class 1/ Class 2	Union City Blvd.	Horner to Alameda Creek Bridge	2.6	Federal funds were obtained to widen Union City Boulevard from Smith Street to Alvarado Blvd to install bike lanes. Construction anticipated to start in Fall 2012 and be completed within calendar year.

Appendix D2—Pedestrian Projects Completed in Areas of Countywide Significance

Jurisdiction	Project Name	Project Description	Location/ Roadway/ Trail	Project Limits	Area of Significance		
					Transit Area	Activity Center	Inter-Jurisdictional Trail
City of Alameda	Park Street Streetscape - Phase II	Includes the planting of new street trees (roughly two new trees for every one removed), the installation of decorative/historic street lights, bike racks, bus shelters, and parking meter kiosks.	Park St	Central Ave to San Jose Ave	AC Transit Line 51A	Downtown Alameda	
Alameda County	Washington Ave Streetscape Improvements	This project included new curb, gutter and sidewalk, textured crosswalks, improved street lighting; center median, and Class II bike lanes as well as Safe Routes to School Improvements at Grant Elementary School.	Washington Ave	San Leandro City Limits to Grant Ave	AC Transit Line 97		
Alameda County	Castro Valley Elementary Safe Routes to School Improvements	Install new sidewalks, textured crosswalks, bulb outs, street lighting, and pedestrian ramps	San Miguel Ave	Somerset Ave to Castro Valley Blvd	Castro Valley BART	Castro Valley CBD	
City of Albany	Buchanan/ Jackson Safe Routes to School Improvements	The improvements include a new traffic signal with protected left turn at Buchanan St and Jackson St, pedestrian count down signals, crosswalks at the intersection of the side streets with Buchanan St and Solano Ave to clearly mark the route to Ocean View School, and curb ramps at Solano Ave and Madison St.	Jackson St	Buchanan St to Solano Ave	AC Transit Line 72		
City of Berkeley	Berkeley Pedestrian Master Plan High Priority Project #31	Pedestrian intersection crossing improvement. Widen existing median island to improve pedestrian refuge.	Sacramento Street	Oregon St	AC Transit Line 72		
City of Berkeley	9th Street Bicycle Boulevard Extension Pathway Phase I	Construct on-street Class III Bicycle Boulevard and off-street Class I multi-use pathway to connect the 9th Street Bicycle Boulevard in Berkeley to the Doyle Street Greenway in Emeryville.	9th St/ Murray St/ Former Northwestern Pacific Railroad Right of Way	Potter St to 67th St			9th St Bicycle Boulevard Extension St/ Doyle Street Greenway
City of Fremont	Irvington Area Pedestrian Improvements Project.	Construct intersection pedestrian facility improvements such as ADA curb ramps, pedestrian countdown signals, accessible pedestrian signals, median and bulb-outs to help facilitate access and crossing along Fremont Boulevard	Fremont Blvd	Eugene St to Washington Blvd	AC Transit Line 210	Fremont - Irvington District	
City of Fremont	Pacific Commons, Planning Area 5, Tract Map 8049	Construct full street improvements such as sidewalk, roadway and curb ramps.	Christy St and Bunche Dr	Christy St from Curie St to Bunche Dr			

Appendix D2 Continued—Pedestrian Projects Completed in Areas of Countywide Significance

Jurisdiction	Project Name	Project Description	Location/ Roadway/ Trail	Project Limits	Area of Significance		
					Transit Area	Activity Center	Inter-Jurisdictional Trail
City of Hayward	Bellina St Sidewalk	Install new sidewalks	Bellina St	2nd Ave to 3rd Ave	AC Transit Line 60		
City of Hayward	Franklin St Sidewalk	Install new sidewalks	Franklin St	Harder Rd to Culp Rd	AC Transit Line 99		
City of Oakland	Oakland Waterfront Trail	Construct Bay Trail segment	Waterfront	Alameda Ave to High St	AC Transit Line 51A		SF Bay Trail Spine
City of Oakland	Oakland Waterfront Trail	Construct Bay Trail segment	Waterfront	Dennison St to Union Point Park			SF Bay Trail Spine
City of Oakland	Alice St Recreational Corridor	Rehabilitate and improve walkway	Alice St	10th St to 11th St	12th Street/City Center BART, AC Transit Lines 1, 18, 40, 51A, 72, 88	Downtown Oakland	
City of Oakland	Municipal Boathouse and Lakeside Dr	Renovation of Lake Merritt frontage and adjoining roadway, including paths, sidewalks, and traffic calming	Lakeside Dr	14th St to 19th St	12th Street/ City Center and 19th Street BART, AC Transit Lines 1, 18, 40, 51A, 72, 88	Downtown Oakland	SF Bay Trail Connector
City of Oakland	Lion Creek Crossings Park	Linear park in flood control channel, including trail and bridge crossing	Lion Creek (between 66th Ave and 69th Ave)	Lion Wy to San Leandro St	Coliseum BART, AC Transit Lines 1, 73		
City of Piedmont	Street Striping Project	Street & Pedestrian related pavement painting: Slow School Xing, Ped Xing, Slow Ped Xing	Oakland and Grand Ave. intersection		AC Transit Line 57		
City of San Leandro	Annual Sidewalk Repair, ADA Ramp and Pedestrian Improvement Program	Sidewalk Repair, Ramps and Accessible Pedestrian Signal Equipment	E 14th St, Bancroft Ave, Mac Arthur Blvd	North City Limit, South City Limit	Downtown San Leandro BART, AC Transit Lines 1, 40, 57, 97, 99	Downtown San Leandro	
City of Union City	Citywide sidewalk improvement campaign	Evaluation of sidewalk condition, repair/replacement of sidewalk, curb, and gutter; installation of ADA ramps; evaluated 53% of sidewalks and replaced 30%	Citywide	Citywide	Union City BART, AC Transit Lines 97 & 99	Union City Intermodal Station District & Union Landing Shopping Center	

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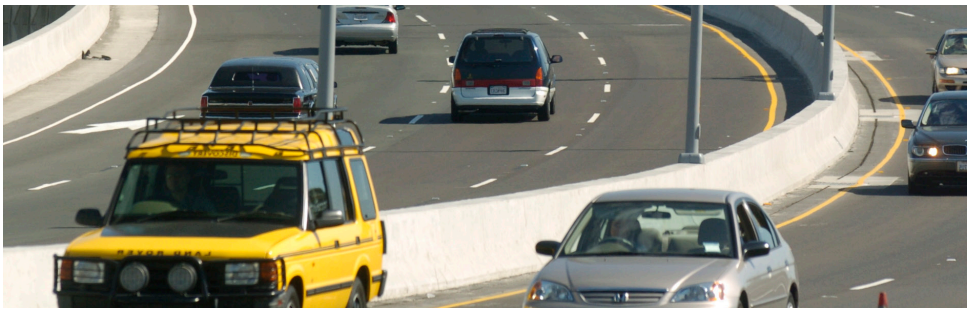

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