



ALAMEDA COUNTY TRANSPORTATION COMMISSION
2013 Performance Report





A presentation to PPLC
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April 14, 2014

Purpose of Performance Report

2

- Track trends and progress towards goals in transportation plans
 - *Countywide Transportation Plan*
 - *Countywide Bicycle and Pedestrian Plans*
 - *Congestion Management Program statute*
- Identify needs for more extensive analysis
- System-level monitoring
 - *Complemented by other more focused monitoring efforts (e.g. LOS monitoring, modal plans)*

Scope of Performance Report

3



Commute Patterns

General population and employment trends
Commute flows
Commute mode share



Roadways

Freeway delays
Freeway speeds
Local road pavement condition
Collisions



Transit

Ridership
Service utilization
Cost-effectiveness
Service interruptions & fleet age
On-time performance & speed
All 7 operators, fixed route only



Bicycling and Walking

Collisions
Counts
Network/project completion from local jurisdiction summaries
Master plan completion
Program participation

Data Sources:

Existing or publically available data

Previous fiscal year (FY12/13) or most recent available plus historic trends

Key Findings

4

- **Demand for travel on the rise:** Alameda County had largest percentage increase in population in California in 2013 and saw job growth for third consecutive year
- **Uneven employment recovery:** Alameda County employment rate lags the overall Bay Area
- **Regionally essential:** More than 25% of all Bay Area commuters touch Alameda County
- **More regional commute patterns:** Alameda County residents increasingly work in other counties; Alameda County workers increasingly commute from other counties
- **Balanced commute modes:** 36% of Alameda County workers use transit, walking biking, telecommute, or carpool, while 64% drive alone
- **More multimodal:** share of Alameda County workers using transit, walking, biking, and telecommuting up 5% since 2000

Key Findings, cont.

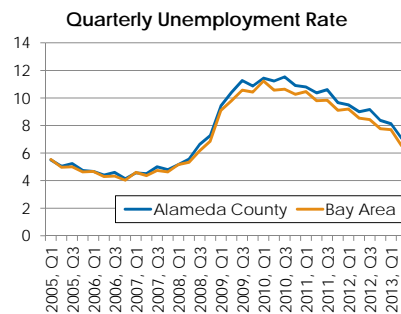
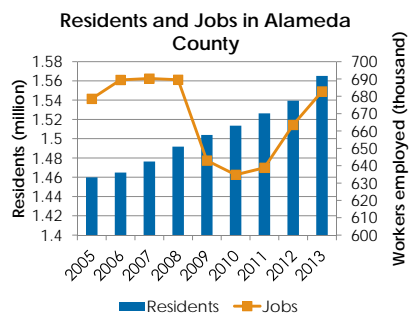
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- **Freeway congestion up:** Severe congestion increased by over 20% on freeways last year
- **Local road state of repair unchanged:** Average local road condition not improving greatly and 20% of roads are poor or failed
- **Overall safety improvements:** Roadway collisions are down over last decade
- **Transit ridership climbing but challenges loom:** Ridership is up overall and for most operators but aging assets, crowding, and dense urban operating conditions (for buses) pose challenges
- **Walking and biking:** counts are on the rise, collision rates declining, and network buildout continues

Commute Patterns: Population and Jobs

6

Population and job recovery both continued in 2013



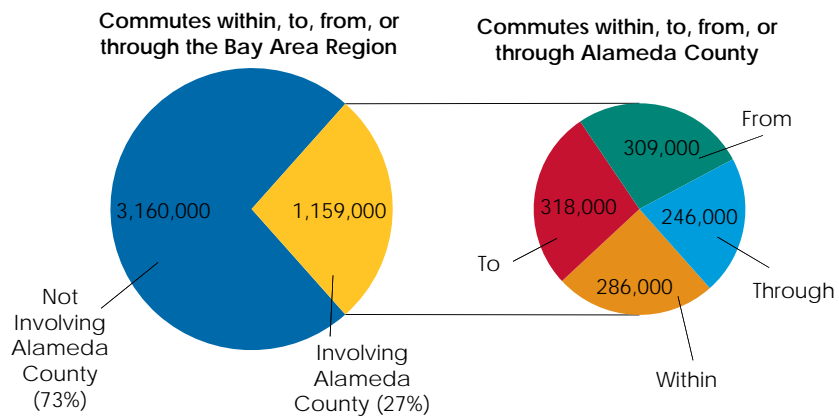
Alameda County employment rate lags region

Source: Department of Finance Estimates, Bureau of Labor Statistics Local Area Employment data

Commute Patterns: Worker Flows

7

Alameda County plays critical role supporting regional commute travel.



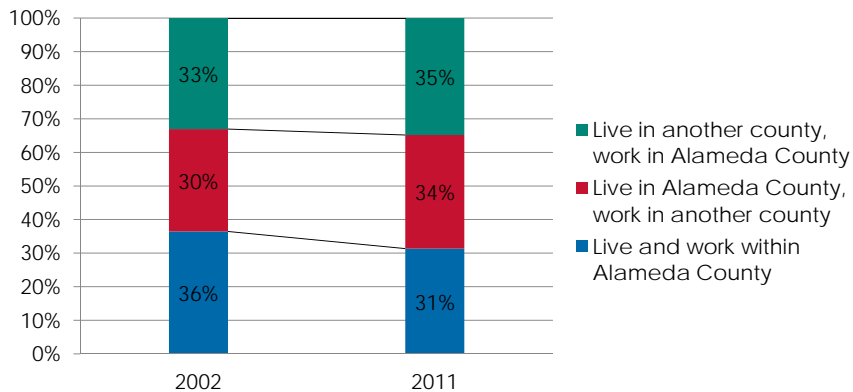
Source: Census Bureau Longitudinal Employment-Household Dynamics data

Commute Patterns: Worker Flows

8

Alameda County commutes became more regional in nature over last decade.

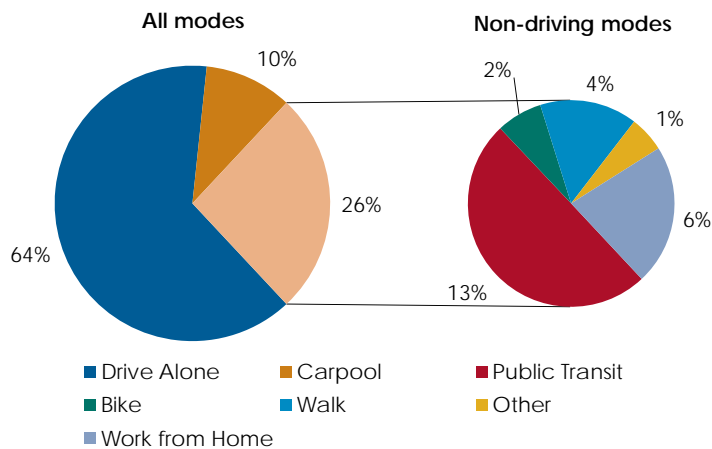
Origin-Destination pairs of workers who live or work in Alameda County



Commute Patterns: Journey-to-work Mode Share

9

Workers living in Alameda County use a diverse mix of transportation modes to commute to work

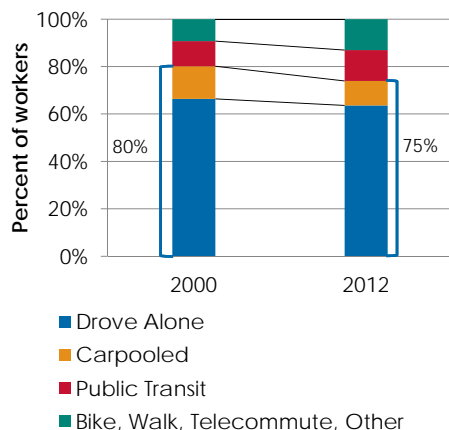


Source: American Community Survey 2012 1-Year Estimate

Commuting Patterns: Journey-to-work Mode Share

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Alameda County commutes became more multimodal over last decade



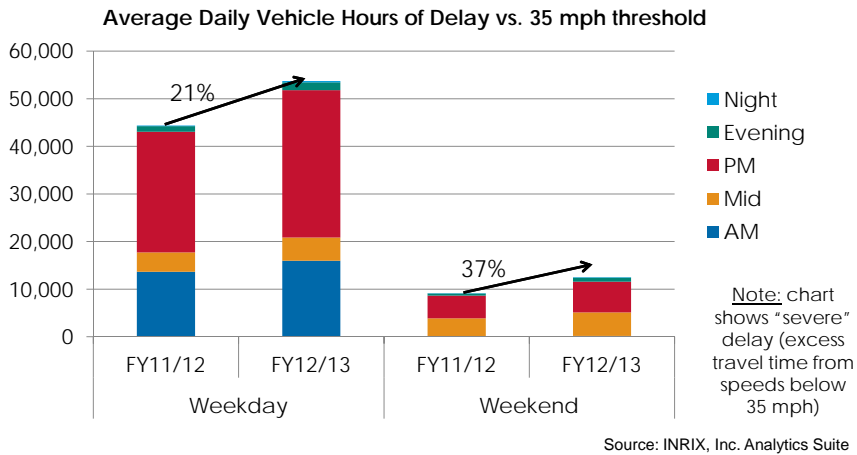
- Combined share of solo-driving and carpooling dropped by 5 percent
- Working from home is fastest-growing mode
- Public transit, walking, and biking mode share all increased
- Biking mode share nearly doubled

Source: Census 2000 and American Community Survey 2012 1-Year Estimate

Roadways: Freeway Delay

11

Average daily freeway delay increased by 22 percent overall from FY11/12 to FY12/13



Roadways: Pavement Condition Index

12

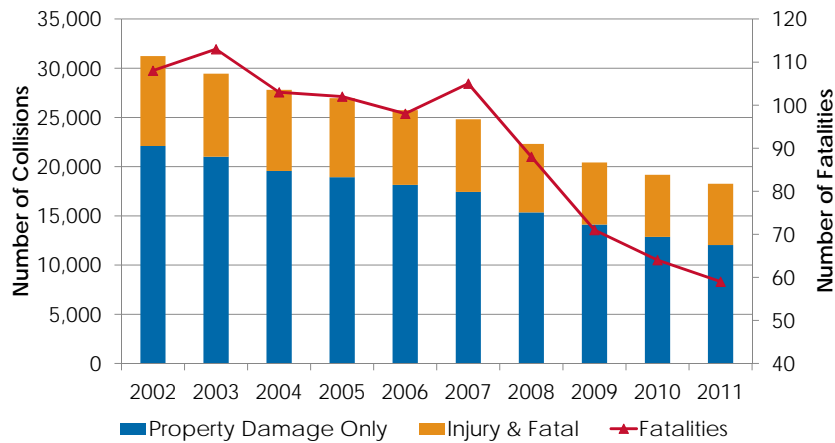
Average PCI declined slightly and is flat over last 5 years; one in five roads is "failed" or "poor"



Roadways: Collisions

13

Collisions continued a long-term downward trend in 2011; injury and fatal collisions down 32 percent since 2002.

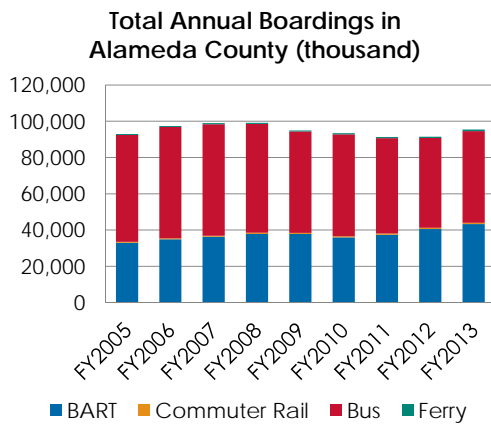


Source: Statewide Integrated Traffic Reporting System

Transit: Ridership

14

Total annual boardings in Alameda County increased by 4 percent in FY12/13 over FY11/12



- BART accounted for two-thirds of ridership growth
- Bus boardings up after declining in four of five previous years amid major service cuts
- Ferry boardings increased while commuter rail declined
- Long-term shift from bus to BART

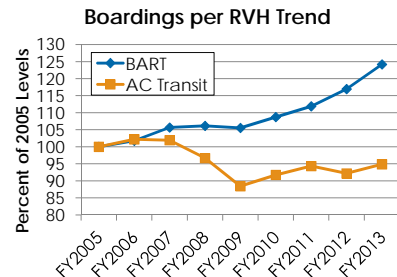
Source: National Transit Database (2005-2012) and preliminary NTD filings (2013)

Transit: Service Utilization

15

Most transit operators saw improvement or minimal change in service utilization in FY2012-13

- Service utilization is measured by boardings per revenue vehicle hour (RVH)
- BART saw large increase in service utilization and carries nearly 15 passengers per RVH more than in 2005
- AC Transit improved service utilization in FY2013 and has improved this metric in 3 of last 4 years



Transit Operator	FY2005	FY2012	FY2013	Percent Change vs. FY2012	Percent Change vs. FY2005
BART	55.95	65.44	69.49	6%	24%
ACE	34.22	38.97	39.82	2%	16%
AC Transit	36.05	33.23	34.20	3%	-5%
LAVTA	16.93	14.00	13.86	-1%	-18%
Union City	10.05	12.74	12.52	-2%	25%
WETA	75.46	110.22	107.25	-3%	42%

Source: National Transit Database (2005-2012) and preliminary NTD filings (2013)

Transit: Other Trends

16

Cost Efficiency

- Most operators have seen increasing in cost per rider and/or cost per Revenue Vehicle Hour since 2005

State of Good Repair

- Frequency of service interruptions declined for all operators in FY12/13
- Fleets of most operators are in midlife on average
 - *Union City Transit (relatively new fleet) and BART (very old fleet) are exceptions*
 - *AC Transit unveiled first shipment of new bus purchase in late FY12/13 and BART procuring new cars*

Service Quality

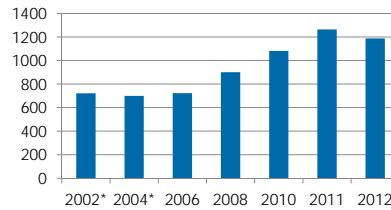
- Experiences improving on-time performance were mixed
 - *AC Transit achieves lower on-time performance but must contend with dense, congested urban conditions*
- AC Transit has seen steady decline in commercial speed (speed accounting for delays) since 2005

Bicycling and Walking: Counts

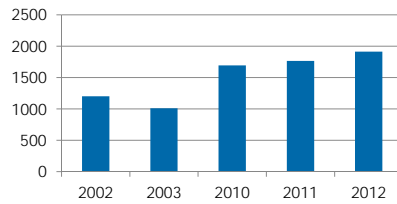
17

Data collected through the Alameda CTC bicycle and pedestrian count program suggest that levels of cycling and walking are growing and that the diversity of cyclists is increasing

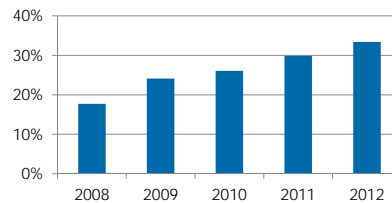
Number of Bicyclists Counted (9 long-term monitoring locations)



Number of pedestrians counted (6 long-term monitoring locations)



Female Percent of Cyclists Counted



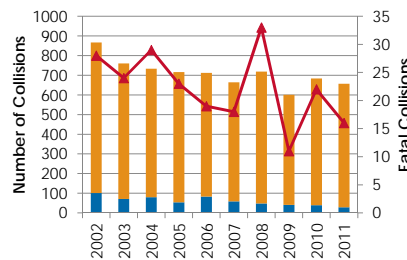
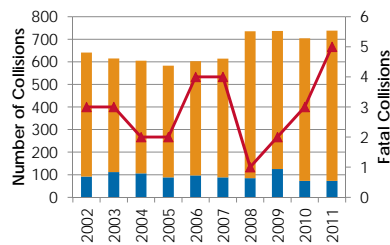
Source: Alameda CTC Bicycle and Pedestrian Count Program

Bicycling and Walking: Collisions

18

Collisions involving bicyclists have increased, however bicycle counts have increased faster.

Collisions involving pedestrians have declined even as counts of pedestrians have increased



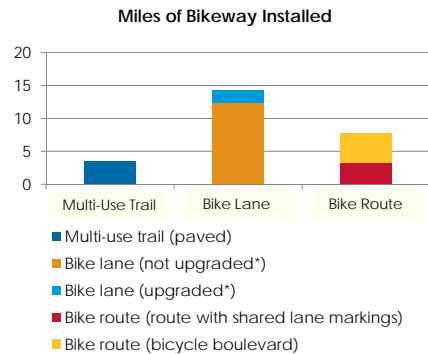
■ Injury & Fatal
■ Property Damage Only
▲ Fatal Collisions

	Changes from 2002 to 2011	Injury/Fatal Collisions	Counts
Biking		+21%	+75%
Walking		-18%	+47%

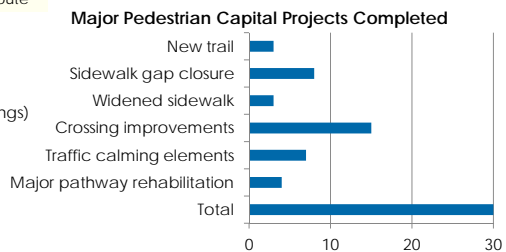
Sources: Statewide Integrated Traffic Reporting System, Alameda CTC Bicycle and Pedestrian Count Program

Bicycling and Walking: Network Completion

19



Jurisdictions reported installing more than 25 miles of bikeways and completing more than 30 major pedestrian capital projects FY12/13



Source: Survey of Local Jurisdictions



Note: categories defined by Alameda CTC staff based on responses from local jurisdictions staff. A project may fall in multiple categories. Chart does not include improvements including signal timings or detection to improve crossing safety, curb ramp installations, or installation of standalone traffic calming elements (e.g. single speed bump)

Alameda CTC Performance Monitoring: What's Next?

20

- Explore ways to integrate data requests with Compliance Reports
- Coordinate with regional agencies on collection of land use data (e.g. development approvals) and evaluation of land use/transportation coordination measures
- Identify new performance measures as part of Goods Movement, Arterials, and Transit plans
 - *System-level to Facility-level*
- Evaluate investments in relation to performance

Questions?

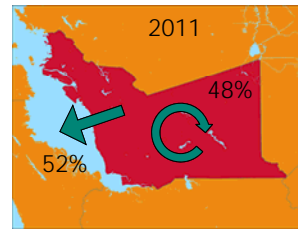
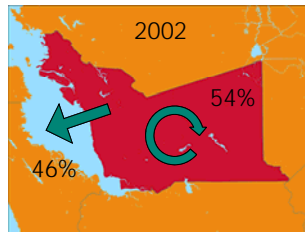
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Commute Patterns: Worker Flows

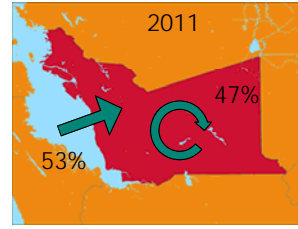
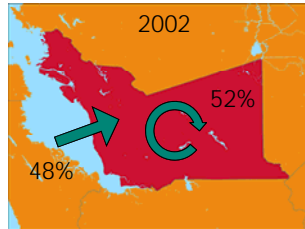
23

Alameda County commutes became more regional in nature over last decade.

Where Alameda County Workers Seek Employment



Where Alameda County Businesses Find Workers

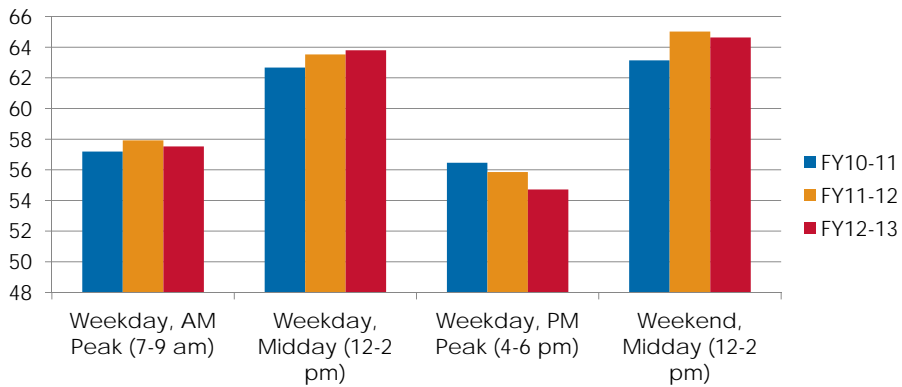


Roadways: Freeway Travel Speeds

24

Average speeds declined in weekday AM and PM peaks and weekend midday from FY11/12 to FY12/13

Average Freeway Speed



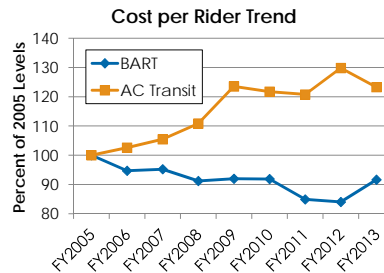
Transit: Cost Efficiency

25

Cost containment is a critical challenge facing transit operators

- Cost efficiency is one of many service planning considerations for transit operators; operators achieve different costs per rider based on different technologies and service structures
- BART has generally managed to contain cost per rider though it saw an increase in FY2013
- AC Transit has seen longer term increases in cost per rider, though this metric declined in FY2013

Source: National Transit Database (2005-2012) and preliminary NTD filings (2013)



Transit Operator	Cost per Rider (\$2013)				
	FY2005	FY2012	FY2013	Percent Change vs. FY2012	Percent Change vs. FY2005
BART	\$5.01	\$4.21	\$4.59	9%	-8%
ACE	\$20.74	\$15.86	\$16.03	1%	-23%
AC Transit	\$4.32	\$5.61	\$5.32	-5%	23%
LAVTA	\$5.76	\$7.36	\$7.14	-3%	24%
Union City	\$8.73	\$6.26	\$6.64	6%	-24%
WETA	\$11.19	\$9.57	\$15.03	57%	34%

Transit: Service Interruptions & Fleet Age

26

All transit operators reduced the frequency of service interruptions in FY2013

	FY2009	FY2010	FY2011	FY2012	FY2013
Rail	Mean Time Between Service Delay (Hours)				
BART	2,683	2,796	2,995	3,216	3,758
ACE	546	438	388	2,438	359
Bus	Average Distance Between Mechanical Failure (Miles)				
AC Transit	4,656	5,727	7,941	6,556	8,244
LAVTA	4,904	4,837	6,353	15,249	17,397
Union City	3,880	4,902	11,402	13,749	16,505

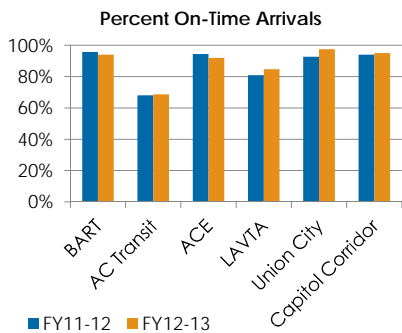
Transit Operator	Average Age (yrs)	Typical Useful Life
BART	33.8	34.8
ACE	13.5/12.1	30/40
AC Transit	7.6	15
LAVTA	8.7	15
Union City	4.4	12
WETA	12.6	15

The fleets of most operators are midway through their useful lives on average

Source: National Transit Database (2005-2012) and preliminary NTD filings (2013)

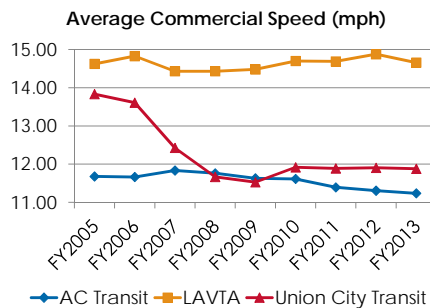
Transit: On-Time Performance & Commercial Speed

27



Bus operators generally saw declines in average commercial speed (speed accounting for delays) in FY12/13; different operating conditions lead to differences in performance across operators

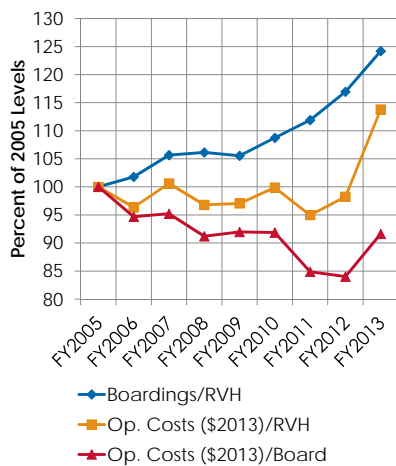
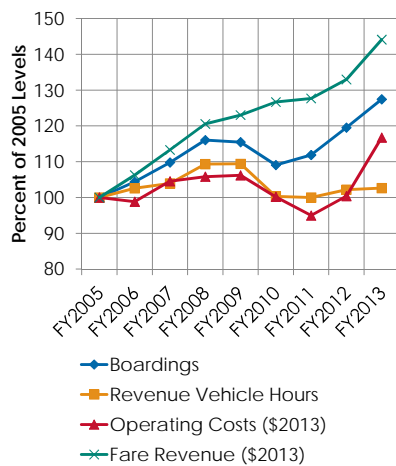
Experiences improving on-time performance were mixed; different operating conditions lead to differences in performance across operators.



Source: National Transit Database (2005-2012) and preliminary NTD filings (2013)

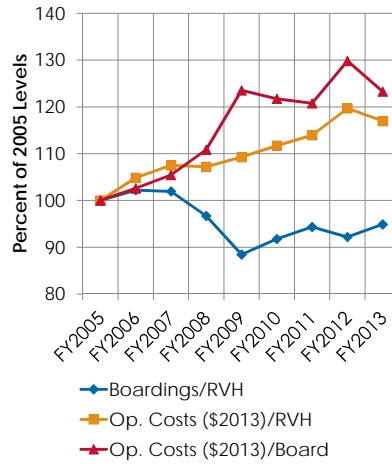
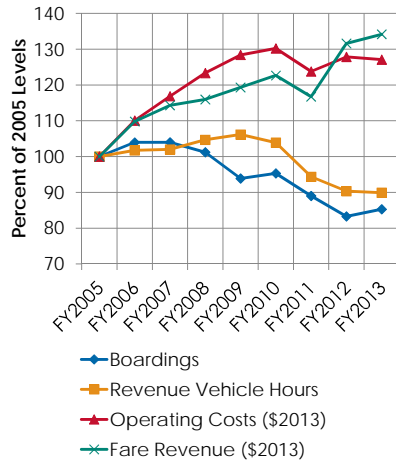
Transit: BART Trends

28



Transit: AC Transit Trends

29

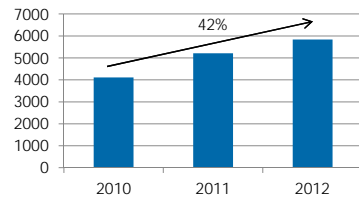


Bicycling: Counts

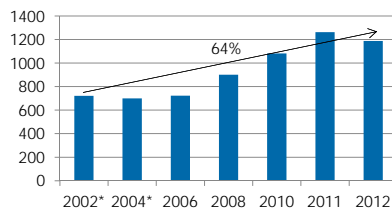
30

Data collected through the Alameda CTC bicycle and pedestrian count program suggest that levels of cycling are growing and that the diversity of cyclists is increasing

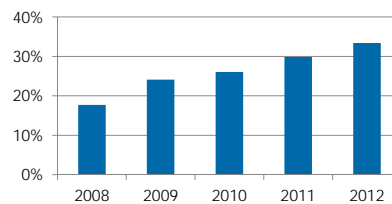
Number of Bicyclists Counted (61 locations countywide)



Number of Bicyclists Counted (9 long-term monitoring locations)



Female Percent of Cyclists Counted

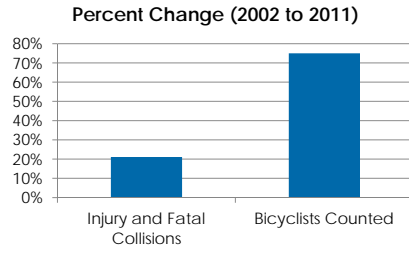
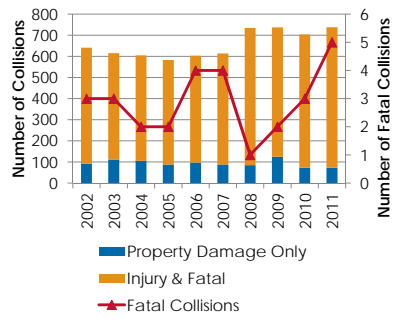


Source: Alameda CTC Bicycle and Pedestrian Count Program

Bicycling: Collisions

31

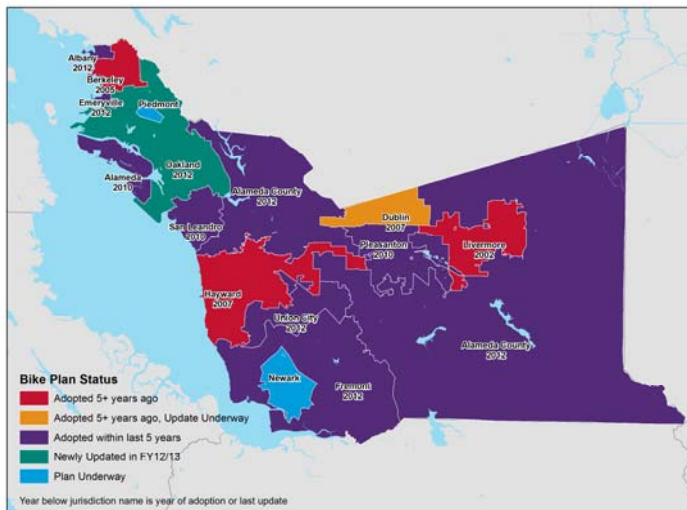
Collisions involving bicyclists have increased, however bicycle counts have increased faster.



Sources: Statewide Integrated Traffic Reporting System, Alameda CTC Bicycle and Pedestrian Count Program

Bicycling: Local Master Plan Completion

32



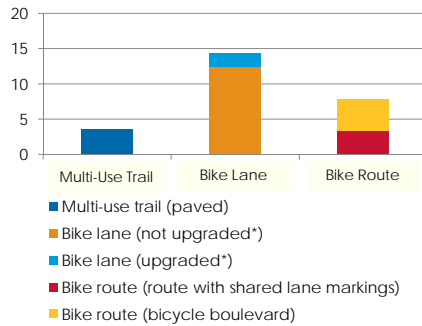
At the conclusion of FY12/13, nine jurisdictions had local master plans that were adopted within the last five years, and three more have a plan or update underway.

Bicycling: Network Completion

33

Jurisdictions reported installing more than 25 miles of bikeways in FY12/13, and several reported installing upgraded bicycle lane facilities that improve separation and visibility of cyclists

Miles of Bikeway Installed by Facility Type

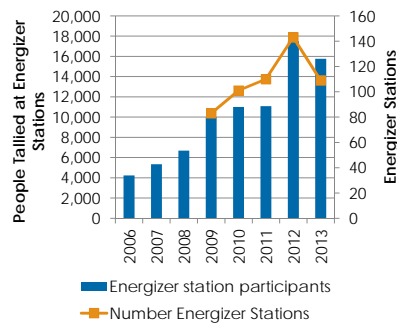
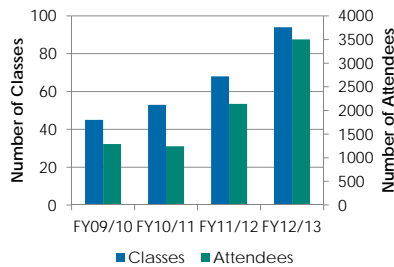


Source: Survey of Local Jurisdictions

Bicycling: Programs and Education

34

Bicycle safety education classes, attendance, and attendance per class have all increased in consecutive years.



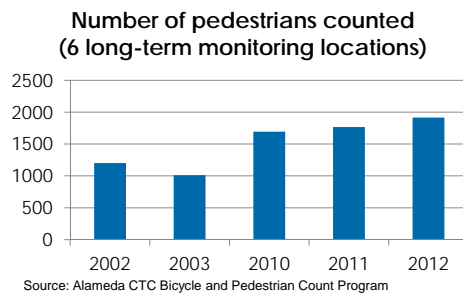
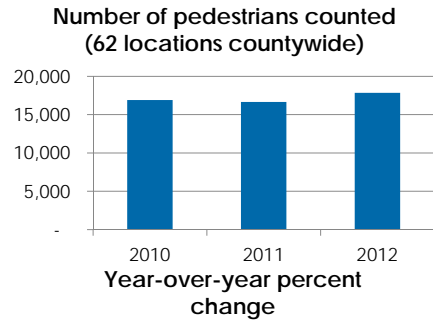
Bike to Work Day energizer stations and participants tallied have grown since 2006.

Sources: Bicycle Safety Education Grant Program Progress Reports, Bike to Work Day Annual Report

Walking: Counts

35

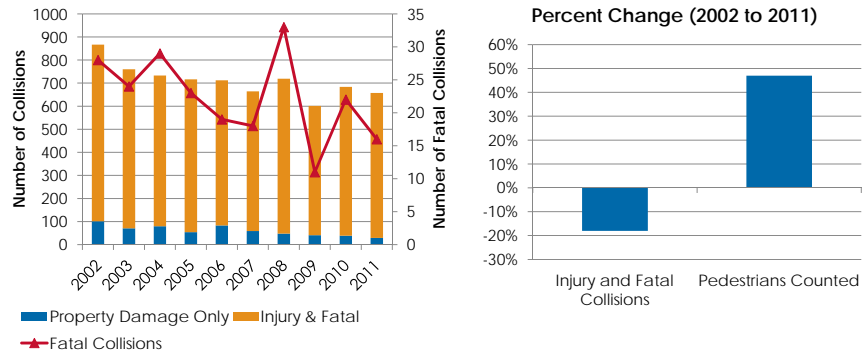
Count data collected through the Alameda CTC count program suggests that walking increased in 2012 and has increased over the long-term



Walking: Collisions

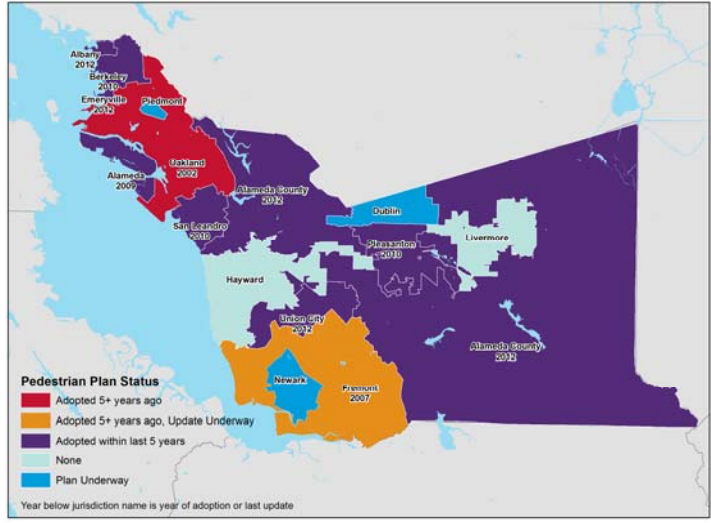
36

Collisions involving pedestrians have declined by nearly one-fifth even as pedestrian counts have increased by nearly fifty percent.



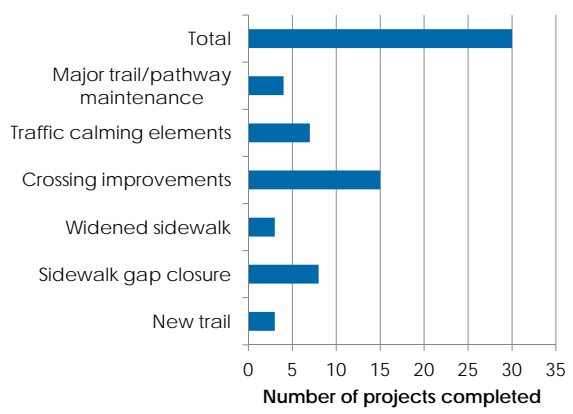
Walking: Local Master Plan Completion

At the conclusion of FY12/13, eight jurisdictions had local master plans that were adopted within the last five years, and four more have a plan or update underway.



Walking: Network Completion

Jurisdictions reported completing 30 major pedestrian capital projects in FY12/13.



Note: categories defined by Alameda CTC staff based on responses from local jurisdictions staff. A project may fall in multiple categories. Chart does not include improvements including signal timings or detection to improve crossing safety, curb ramp installations, or installation of standalone traffic calming elements (e.g. single speed bump)

Source: Survey of Local Jurisdictions

Walking: Programs and Education

39

Safe Routes to School has expanded rapidly into 147 schools countywide.

