ALAMEDA County Transportation Commission

ACCMA ▪ 1333 Broadway, Suite 220 ▪ Oakland, CA 94612 ▪ PH: (510) 836-2560
ACTIA ▪ 1333 Broadway, Suite 300 ▪ Oakland, CA 94612 ▪ PH: (510) 893-3347

www.AlamedaCTC.org

Countywide Bicycle and Pedestrian Plans Working Group Meeting Agenda

Wednesday, September 22, 2010, 1:30 to 3:30 p.m.

Meeting Outcomes:

- Provide feedback on Pedestrian and Bicycle Plans Existing Conditions chapters
- Provide feedback on recommended outreach approach

1:30 – 1:40 p.m. Staff	**1. Welcome & Introductions**	
1:40 – 1:45 p.m. Staff	**2. Review of June 3, 2010 Meeting Notes** *02 BPPWG Meeting Notes 06-03-10.pdf* – **Page 1** *02A BPPWG Meeting Attendance 06-03-10.pdf* – **Page 5**	I
1:45 – 3:00 p.m. Victoria Eisen	**3. Review of Draft Existing Conditions Chapters** *03 Memo Existing Conditions Overview.pdf* – **Page 7** *03A Existing Conditions Chapters Purpose.pdf* – **Page 9** *03B Draft Ped Plan Existing Conditions Chapter.pdf* – **Page 11** *03C Draft Bicycle Plan Existing Conditions Chapter.pdf* – **Page 55** *03D Draft Existing Conditions Chapters Appendices.pdf* – **Page 91** *03E Comment Sheet.doc* – **Page 107**	I
3:00 - 3:20p.m. Victoria Eisen	**4. Countywide Plans Outreach Strategy** *04 Memo Outreach Strategy Overview.pdf* – **Page 109** *04A Outreach Opportunities.pdf* – **Page 111**	I
3:20 – 3:30 p.m.	**5. Announcements/Adjournment** *05 BPPWG Meeting Schedule&Purpose.pdf* – **Page 115**	

Key: A – Action Item; I – Information/Discussion Item; full packet available at www.alamedactc.org

Next Meeting:

Date: October 20, 2010
Time: 1:30 to 3:30 p.m.
Location: 1333 Broadway, Suite 300, Oakland, CA 94612

Location Information: Alameda CTC is located in Downtown Oakland at the intersection of 14th Street and Broadway. The office is just a few steps away from the City Center/12th Street BART station. Bicycle parking is available inside the building, and in electronic lockers at 14th and Broadway near Frank Ogawa Plaza (requires purchase of key card from bikelink.org). There is garage parking for autos and bicycles in the City Center Garage (enter on 14th Street between Broadway and Clay). Visit the Alameda CTC website for more information on how to get to the Alameda CTC: http://www.alamedactc.com/directions.html.

Public Comment: Members of the public may address the committee regarding any item, including an item not on the agenda. All items on the agenda are subject to action and/or change by the committee. The chair may change the order of items.

Accommodations/Accessibility: Meetings are wheelchair accessible. Please do not wear scented products so that individuals with environmental sensitivities may attend. Call (510) 893-3347 (Voice) or (510) 834-6754 (TTD) five days in advance to request a sign-language interpreter.

EISEN | LETUNIC
TRANSPORTATION, ENVIRONMENTAL AND URBAN PLANNING

MEMORANDUM

To	Rochelle Wheeler (ACTIA) and Diane Stark (ACCMA)
From	Victoria Eisen
Date	June 7, 2010
Project	Alameda Countywide Bicycle and Pedestrian Plan Updates
Subject	**June 3, 2010 Working Group Meeting Notes**

These notes reflect substantive comments, decisions and action items from the June 3, 2010 Working Group meeting. Bold section headings correspond to the agenda items in which each discussion occurred.

Timeline of Updates to Plan

Some members prefer to begin reviewing potential Priority Projects & Programs chapter content in the context of consultant recommendations rather than having a brainstorming session. It was suggested that EBBC be involved in this conversation. Further discussion revealed that the discussion really should begin during the development of the Vision/Goals and Current Practices chapters. The Working Group agreed that beginning the process of determining the bike network with a conversation about its purpose, and having that inform the goals of the Countywide Bicycle Plan is a good idea. An example would be focusing on bicycle access to public transit for longer trips, which would result in a more nodal countywide bicycle network. Consideration of current discussions at MTC's Regional Bicycle Committee regarding the fact that most bike trips are 1.5 miles or less was also encouraged.

Committee members also advocated for continuing to focus on connecting pedestrians and transit in the Pedestrian Plan, with a focus on who needs access to public transit and, more generally, issues around inequity and how they can inform both Plans' priorities. MTC's new Policy Advisory Council's work plan, which is investigating transportation inequities throughout the region, was suggested as a possible source of information on this topic, as was data being collected by Alameda County Department of Public Health and ACCMA's Community-Based Transportation Plans. The wisdom of depending more on public transit for countywide trips in an era of shrinking transit service was also discussed.

Other, non-transit-related examples of goals of the Plans that would influence their priorities are considering the types of projects and programs that available sources fund when developing priorities; prioritizing local projects over those with a countywide focus; focusing programs, perhaps over projects; and considering how potential projects are treated by the Countywide Transportation Plan model. Finally, it was pointed out that, beyond considering available funding and in what it can be invested, the Plans need also to function as

advocacy pieces that create a vision of bicycle and pedestrian transportation in Alameda County that will appeal to regional, statewide and federal funding sources. In conclusion, the Working Group requested two-to-three meetings on the topic of the purpose of the countywide bicycle and pedestrian networks.

Annotated Tables of Contents

In response to the draft tables of contents (TOC) distributed at the meeting, Working Group members expressed the hope that it's not set in stone. Questions were asked about the source of counts reflected in the draft, and if they could include non-traditional sources, such as the Team Bike Challenge, Bike-to-Work Day (BTWD) participation, the CMA's forthcoming BTWD evaluation and WalkScore; and how PDAs relate to the Plan's prioritization process. The consultant team was asked to compare the draft TOC to the questionnaire because some areas are in one, but not the other, such as enforcement; to add inequities to bicycle transportation to item 3m; and to ensure that access by both modes to schools is covered.

It was suggested that, to the extent feasible, look at how questions are posed for established surveys, so the data can be compared. Suggested sources include:

- Alliance for Bicycling and Walking Benchmark Survey
- League of American Bicyclists Bicycle-Friendly Communities application
- Twin Cities Walking Survey (sponsored by the Robert Woods Johnson Foundation)

Finally, it was suggested that the fear of personal safety and security be added to the institutional barriers discussion. Final comments on the annotated TOC are due to Rochelle and Diane by close of business Tuesday, June 8, 2010.

Questionnaire

Working Group members made the following specific comments (section numbers in parentheses):

1. (2.1) Add option for combined pedestrian/bicycle plans at top of section.
2. (2.1) Add safety/security as a non-physical barrier.
3. SWITRS data does not include crash reports collected by agencies such as U.C. Berkeley, East Bay Regional Parks District and BART, but it was suggested that one can ask SWITRS for this additional data, but one must be prepared to wait.
4. (2.2) Distinguish adopted policies from design guidelines and move the latter to section 4.
5. (2.2, 8.1, etc.) Wherever possible, replace open-ended questions with lists of options, plus an "Other" category, which respondents can fill in.
6. (8) Ask for all sources of funding for bicycle and pedestrian projects to show potential funders how difficult it is to complete a project.
7. (8.1) Separate request for bicycle and pedestrian data.
8. (8.1) Define fiscal years.

Final comments on the questionnaire are due to Rochelle and Diane by close of business Tuesday, June 8, 2010 with a goal of distributing the questionnaire on Monday, June 14.

Outreach
It was suggested to add Oakland as a participant to BPAC group #1 (in addition to their hosting of #2).

Next meeting
Date TBD.

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Alameda Countywide Bicycle and Pedestrian Plans Working Group - June 3, 2010 Meeting Attendance

Meeting Date: 6/3/2010	First Name	Last Name	Agency/Group Represented	Title
X	Eric	Anderson	City of Berkeley	Bike/Ped Coordinator
X	Naomi	Armenta	ACTIA - Paratransit/Seniors	
X	Connery	Cepeda	Caltrans	Assoc. Transp. Planner
X	Rene	Dalton	City of Fremont	Assoc. Transp. Engr.
X	Sean	Dougan	East Bay Regional Park District	
X	Brooke	DuBose	Fehr & Peers	Transportation Planner
X	Victoria	Eisen	Eisen|Letunic	Principal
X	Lee	Huo	Bay Trail/ABAG	Bay Trail Planner
X	Paul	Keener	Alameda County Public Works Agency	Sr. Transp. Planner
X	Nathan	Landau	AC Transit	
X	Lauren	Ledbetter	Alta Planning	AICP, Associate
X	Tess	Lengyel	ACTIA	
X	Mona	Mena	Alameda County Public Health Department	
X	Dale	Murai	Alameda County Public Health Department	
X	Jason	Patton	City of Oakland	Bicycle & Pedestrian Program Manager
X	Gail	Payne	City of Alameda (formerly ACTIA)	
X	Anh	Phan Nguyen	Caltrans/Ped Program	
X	Billy	Riggs	UC Berkeley	Principal Planner
X	Peter	Schultze-Allen	City of Emeryville	Env. Programs Analyst
X	Aleka	Seville	Alameda County - GSA	Sustainable Transp. Specialist
X	Janis	Stephen	City of Pleasanton	Assistant Engr. II
X	Beth	Walukas	ACCMA	
X	Rochelle	Wheeler	ACTIA	
X	Bart	Wright	Lohnes + Wright	Principal
X	Karl	Zabel	Hayward Area Recreational District	Operations & Dev. Sup.

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MEMORANDUM

Date: September 15, 2010

To: Bicycle and Pedestrian Plans Working Group

From: Diane Stark, Senior Transportation Planner
Rochelle Wheeler, Countywide Bicycle and Pedestrian Coordinator

Subject: **Bicycle & Pedestrian Plans Draft Existing Conditions Chapters**

Recommendations
It is recommended that the Bicycle and Pedestrian Plans Working Group provide input on the Draft Existing Conditions chapters of the Alameda Countywide Bicycle and Pedestrian Plans at its September 22 meeting, and, if desired, in writing before October 6.

Summary
Attached are: 1) a memo from the consultant summarizing the goals, sources of information and overview of the Existing Conditions chapters for the Bicycle and Pedestrian Plans, 2) the draft Existing Conditions chapters for both Plans plus the joint Appendices, and 3) a comment sheet to submit comments on the chapters. Working Group members are encouraged to use the comment sheet to submit written comments, but may also provide input via track changes or in an email. Written comments should be submitted to Diane Stark at dstark@accma.ca.gov or Rochelle Wheeler at rwheeler@actia2022.com by Wednesday, October 6, 2010.

Discussion
The Bicycle and Pedestrian Plans Working Group is one of three working groups or committees that will review the draft Existing Conditions Chapters prior to their incorporation into the draft Countywide Bicycle and Pedestrian Plans. The other committees are: the Alameda Countywide Bicycle and Pedestrian Advisory Committee (BPAC) and the Alameda CTC's Paratransit Advisory and Planning Committee (PAPCO).

Attachments
A. Memo from Eisen|Letunic regarding Existing Conditions Chapters of Bicycle and Pedestrian Plans
B. Draft Pedestrian Plan Existing Conditions Chapter
C. Draft Bicycle Plan Existing Conditions Chapter
D. Draft Existing Conditions Pedestrian/Bicycle Chapters Appendices
E. Comment sheet to provide comments on two chapters

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TRANSPORTATION, ENVIRONMENTAL AND URBAN PLANNING

MEMORANDUM

To	Diane Stark and Rochelle Wheeler, Alameda CTC
From	Victoria Eisen
Date	September 13, 2010
Project	Alameda Countywide Bicycle and Pedestrian Plan Updates
Subject	**Existing Conditions chapters**

The attached Existing Conditions chapters are the first completed draft sections of the Alameda Countywide Bicycle and Pedestrian Plans. This memo summarizes the goal of the chapters and how they were developed.

Goal of chapters

The Existing Conditions chapters set the context for the rest of the plans by describing the current state of walking and bicycling in Alameda County. The purpose of the chapters is to establish an inventory of key pedestrian- and bicycling-related conditions in the county, which will inform the development of subsequent sections of the plan, particularly the Vision and Goals, and Priority Projects and Programs chapters.

The Existing Conditions chapters tackle four questions that are central to understanding and planning for the needs of pedestrians and cyclists in Alameda County:

1. Who is walking and bicycling in Alameda County?
2. How many people are walking and bicycling?
3. Why are people walking and bicycling?
4. Where are people walking and bicycling?

In addition, the chapters include sections on pedestrian and bicycle safety, local planning efforts, support programs and advocacy efforts, and progress on implementation of the 2006 countywide plans.

Chapter development

The data and other information presented in the Existing Conditions chapters were gathered from a variety of sources. The consultant team obtained most data in three ways: through an online questionnaire sent to planners and engineers at Alameda County and each of the 14 cities; through phone or in-person interviews with stakeholders (including follow-up interviews to questionnaire respondents); and by accessing published data. Stakeholders included not only representatives of the 15 local jurisdictions, but also transit operators (including BART and AC Transit), countywide, regional and state agencies (including Alameda CTC), and advocates. In addition, Alameda CTC staff provided a number of documents and compilations of data, much of it gathered as part of Alameda CTC's annual update of their Performance Report.

The Existing Conditions chapters incorporate the most recent published data available for bicycle and pedestrian travel. The main sources used are:

- The 2000 Census and 2006-2008 American Community Survey (ACS)—both from the U.S. Census—for demographic statistics, including the number of people who commute to work, broken down by mode of transportation.
- MTC's year 2000 Bay Area Travel Survey (BATS2000), for data on walking and bicycling trips, broken down by purpose (2000 is the most recent year in which BATS was conducted).
- BART Station Profile studies from 1998 and 2008 conducted by the Bay Area Rapid Transit District to determine, among other things, how passengers access BART stations.
- The California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), a database of traffic collisions as reported to and collected by local police departments and other law enforcement agencies across the state.

Alameda Countywide Pedestrian Plan

DRAFT Existing Conditions Chapter

September 2010

Table of contents

Introduction

This chapter on existing conditions sets the context for the rest of the Alameda Countywide Pedestrian Plan by describing the current state of walking in Alameda County, and highlighting the trends and changes since the 2006 Plan was adopted. The chapter tackles four questions that are central to understanding and planning for the needs of pedestrians in the county:

- **Who is walking in Alameda County?** examines walking rates by key demographic characteristics.
- **How many people are walking?** looks at the number of walking trips and pedestrian commuters in the county.
- **Why are people walking?** explores the purposes of trips made on foot.
- **Where are people walking?** analyzes numbers and rates of walking trips in specific areas of the county, including transit and multi-use pathways.

In addition, the chapter includes sections on pedestrian safety; local pedestrian planning efforts, support programs and advocacy efforts; and progress on implementing the 2006 Countywide Pedestrian Plan.

The chapter incorporates data from the 2006 Countywide Pedestrian Plan; information gathered through a 2010 survey of local jurisdictions and interviews with local and regional planners, transit agency staff and pedestrian advocates; and the most recent data available for pedestrian travel, obtained principally from the following sources:

- The 2000 Census and 2006-2008 American Community Survey (ACS), for statistics on the number of people who walk to work. The ACS is an annual survey, also administered by the U.S. Census Bureau, that replaced the "long form" of the census. This report uses ACS data for the combined years 2006-2008 instead of for 2008 because three-year data is much more accurate than one-year data. The ACS does not provide data for Albany, Emeryville and Piedmont because those jurisdictions have populations under 20,000.
- The year 2000 Bay Area Travel Survey (BATS2000) from the Metropolitan Transportation Commission (MTC), for data on walking trips made for all purposes (2000 is the most recent year in which BATS was conducted). It is important to note that BATS significantly undercounts walking trips because it does not include trips to or from transit, a large percentage of which are made on foot.
- Station profile studies from 1998 and 2008 conducted by the Bay Area Rapid Transit District (BART) to determine, among other things, how passengers access BART stations.
- The California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), a database of traffic collisions as reported to and collected by local police departments and other law enforcement agencies across the state.

❶ Key findings

This chapter contains more than 40 pages of data and other information about the state of walking in Alameda County. As a way of making this information easier to absorb, below are some of the key findings from the chapter:

Who is walking in Alameda County?

- Women make just over half of all walking trips in Alameda County (52%). Men, however, are slightly more likely to take a trip on foot (11.5% of men's trips compared to 10.6% of women's).
- People under 39 and over 65 walk more than those in middle-age (ages 40-64).
- Children (ages 5-17) are more than twice as likely to walk as those aged 40-49 (15.9% versus 6.8%); also, children make between a quarter and a third of all walking trips in the county.
- As incomes go up, people make more trips per day but the percentage of trips made by walking decreases significantly. People in the lowest income group make well over twice as many of their trips on foot as the highest income group (17.3% against 7.4%).

How many people are walking?

- In Alameda County, as in the Bay Area as a whole, walking is the second most common means of transportation, after driving, representing 11% of all trips.
- In 2000, approximately 3.3 million trips were made primarily on foot every week in the county. This translates to more than 470,000 daily walk trips, or one for every three county residents.
- If walking trips to or from transit are included, the weekday number of walk trips in Alameda County increases by more than 410,000. This includes approximately 360,000 trips to AC Transit bus stops and almost 53,000 to BART stations.
- The number of pedestrian commuters increased by 14% from 2000 to 2006-2008, while the walk mode share for commute trips rose from 3.2% to 3.6%.

Why are people walking?

- The breakdown of walk trips in Alameda County by trip purpose is as follows: shopping, 27% of trips; social/recreation, 23%; school, 20%; and work, 6%. An additional 23% are "non home-based" trips—they begin and end someplace other than at home—of all purposes.
- Of all school trips—grade school through university—21% were made on foot; by comparison, walk trips constituted 11% of all shopping trips, 12% of social/recreation trips and 4% of work trips.
- Physical barriers and connectivity gaps prevent more people from walking more often. Significant barriers in Alameda County include auto and rail infrastructure such as highways, interchanges and railroads. Key gaps include missing segments along multi-jurisdictional paths and trails.

Where are people walking?

- More than half of all walking trips in the county take place in the North planning area (63%), far above its population share of 42%. The Central planning area, and especially the South and East planning areas, all have lower shares of the county's walking trips than of the county's population.
- The North planning area also has by far the highest percentage of people taking their trips on foot (16%); its share is almost three times higher than that of the East planning area (6%).
- Among the planning areas, as density and percentage of car-free households decreases, so does the walking share of trips, but as the median income increases, the walking share decreases.
- The five jurisdictions with the highest commute walk shares are all in the North planning area, as are the nine BART stations with the most walk access trips.

- The three stations with the greatest number of people walking to BART—Downtown Berkeley and Oakland's 12th and 19th Street—are the only ones in Alameda County that have no parking.
- Nationally, 30% of walk trips last five minutes (a quarter mile) or less, half are under ten minutes (half a mile) and 70% are under 15 minutes; only 8% are longer than 30 minutes (1.5 miles).

Pedestrian safety

- In 2000-2008, there was an average of 780 collisions per year in Alameda County involving pedestrians that resulted in at least serious or visible injuries, and an average of 25 fatalities.
- There was a significant decline in pedestrian fatalities from 2004 to 2007, from 29 to 18. This was followed in 2008 by a so-far unexplained significant spike to 34.
- Collisions are concentrated along two general axes: from central Berkeley to downtown Oakland; and from downtown Oakland to downtown Hayward, running through central San Leandro.
- Over the past nine years, pedestrians have made up 24% of all traffic fatalities in Alameda County; this is more than twice the county's walk mode share (11%).
- The North and East planning areas's shares of the county's pedestrian collisions are roughly in balance with their share of the county's walk trips. The Central area has a noticeably higher share of collisions while the South area has a noticeably lower share.
- The North area has the fewest collisions per pedestrian commuter while the Central area has the most. Seen this way, the North area appears safest for pedestrians, at least as far as traffic conditions.
- The afternoon/evening period accounted for only one-sixth of the collisions but almost half of the fatalities.
- In the collisions, drivers were found at fault more than twice as often as pedestrians (59% to 29%).

Support and advocacy

- Almost every local jurisdiction administers one or more pedestrian support programs in the areas of safety, law enforcement, education and encouragement. Nine cities and the County conduct safe routes to school activities, while five cities have a traffic calming program with dedicated funding.
- The main local development in recent years in pedestrian advocacy is the formation of Walk Oakland, Bike Oakland.

Funding needs

- Almost every local jurisdiction cites lack of funding as a major barrier to making pedestrian improvements. Jurisdictions have reported more than $130 million, combined, in funding needs.

Implementation of the 2006 plan

- Local jurisdictions have implemented 21 projects in public-transit areas of countywide significance; 15 projects in or near activity centers of countywide significance; and 11 projects as part of inter-jurisdictional trails of countywide significance.
- Two significant support programs at a multi-jurisdictional level have been put in place since 2006: the Tri-City Senior Walk Clubs and the Safe Routes to Schools (SR2S) Alameda County Partnership.
- Four cities have completed a pedestrian or pedestrian/bicycle plan and an additional two are in the process of developing one. Four cities (Piedmont, Hayward, Dublin and Livermore) remain without a plan. In addition, all jurisdictions have adopted ADA transition plans.
- By far the challenges most commonly encountered by local jurisdictions in implementing the priorities in the 2006 plan are insufficient funding and staff time and right-of-way constraints.

❷ Who is walking in Alameda County?

The simplest answer to this question is that everyone walks (including drivers, to and from their parked car). However, as might be expected, not everyone in Alameda County walks as much or as often. While men and women tend to walk about as often, more younger and older people walk than those in middle age, and more lower-income people walk than those with higher income.

By gender

Women and men have similar walking rates, with women making just over half of all walking trips. This split is almost the same as the overall gender split in Alameda County (51% women, 49% men). Interestingly, even though women make more of the overall walk trips, men are more likely to take a trip by foot than women (11.5% against 10.6%).

	Share of all walking trips	Walk trips as percentage of all trips
Women	52%	10.6%
Men	48%	11.5%

Source: BATS2000

What is "mode share"?

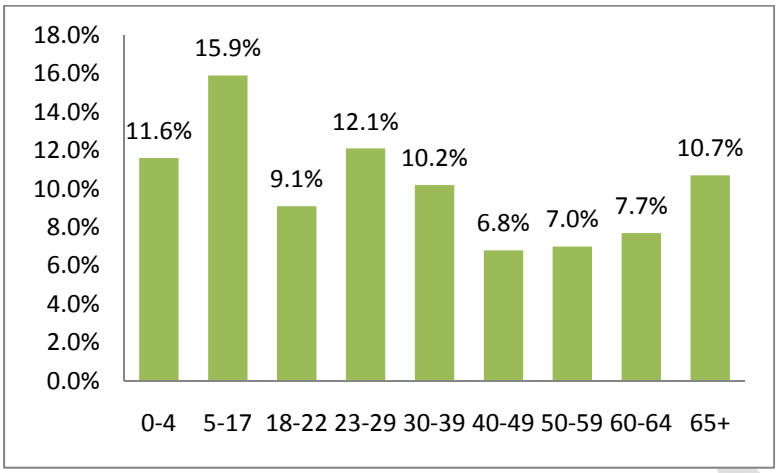
The term "mode share" is used frequently in this chapter. The term, also known as "mode split," refers to the percentage of trips or people using a particular form of transportation, such as walking, driving, transit or bicycling. A walk mode share (or walk share) of 10%, for example, means that 1 out of 10 trips is made on foot, or that 1 out of every 10 people travel on foot.

By age group

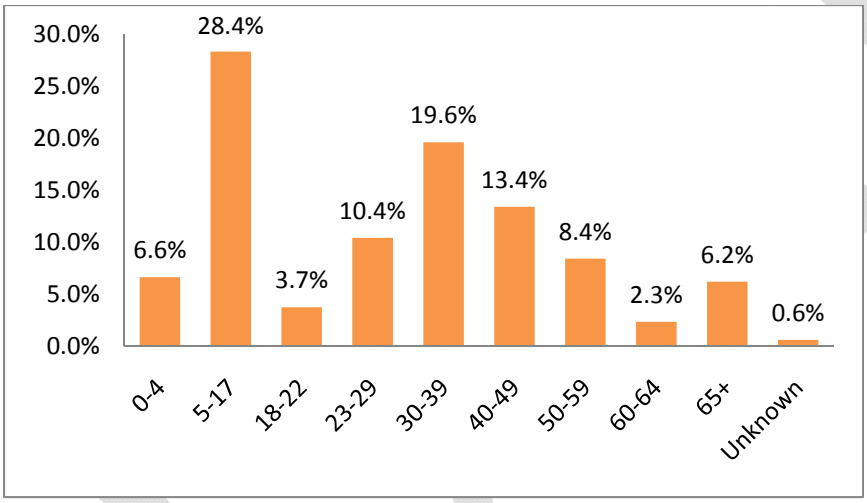
Walking rates vary much more across age groups than across gender:

- People under 39 and over 65 walk more than those in middle-age (ages 40-64).
- Children between ages 5 and 17 are more than twice as likely to walk as those between 40 and 49 (15.9% versus 6.8%). Also, they make between a quarter and a third of all walking trips in Alameda County.
- A possible implication of the data is the need to increase walking safety and convenience particularly for children and seniors (who are already walking in relatively large numbers) while focusing promotion and encouragement efforts primarily on middle-aged people (who are not).

Walk mode share by age group *(source: BATS2000)*



Percentage of walk trips by age group *(source: BATS2000)*



Walking and seniors

Alameda County is experiencing a "grayby" boom: its population of people 65 and older is expected to soar by 170% between 2005 and 2030. This cohort will place severe demands on the county's health system and, given that more than one in five seniors do not drive, also on transit and paratransit services. There will also be a demand for even better pedestrian infrastructure, since seniors walk at higher rates than most other adults.

Walking is part of the solution to these challenges. As a form of both physical activity and transportation, walking can help seniors maintain their physical and mental health, mobility, independence and social connections as they age. Being comfortable with walking can expand mobility options for seniors, as it can make using transit a viable option.

While seniors walk at higher rates than people between 30 and 64, there are obstacles that prevent many older people from walking: missing sidewalks, short crossing times at traffic lights, poor lighting,

lack of resting places, fears about personal security, and long distances to destinations are some common ones. Senior-oriented actions to overcome these obstacles include:

- **Engineering** changes to streets: retiming signals for slower walking speeds; pedestrian islands and corner bulb-outs to shorten crossing distances; and curb ramps, better lighting and seating areas.
- **Enforcement** of traffic laws to make streets safer and less intimidating to seniors.
- **Education,** especially about safety and the feasibility of walking for transportation, including to transit.
- **Encouragement** through programs that promote and support walking, such as social walking groups and clubs.

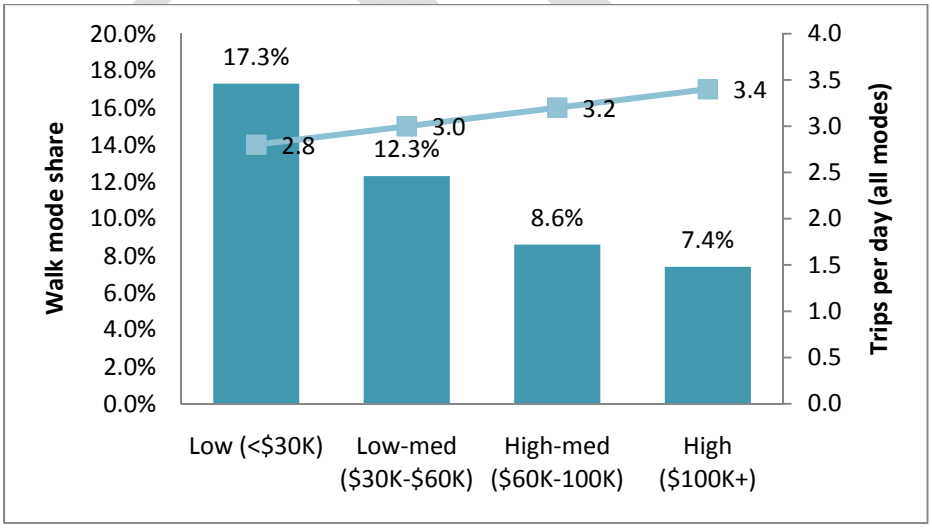
For further reading
"Promoting Active Transportation for Older Adults" (Alameda County Transportation Improvement Authority): http://www.localcommunities.org/lc/665/FSLO-1281569282-187665.pdf

By income level

Walking rates vary even more across income levels than across age groups or gender:

- People in the lowest income group make well over twice as many of their trips on foot as the highest income group (17.3% against 7.4%).
- As incomes go up, people make more trips per day and the percentage made by walking decreases significantly.
- As with the data on walking by age group, one implication is the need to increase walking safety and convenience particularly for low-income populations while focusing promotion and encouragement efforts primarily on higher-income populations.

Walk mode share by income level in Alameda County *(source: BATS2000)*



Walking and social equity

Low-income populations are particularly vulnerable with regard to transportation (see report referenced at the end of this write-up). Statistically, lower-income individuals are less likely to own cars and their finances are more likely to be stretched by transit costs. This limits their access, most critically to jobs but also to meeting other everyday needs. At the same time, low-income people tend to lack the time and money for activities that promote a healthy lifestyle, such as taking part in organized sports or joining a gym.

Walking can begin to address some of these challenges, since it improves health and is an affordable transportation option. In an attempt to reduce transportation inequities, MTC has identified "communities of concern"— generally defined as those having high concentrations of minority and low-income populations—throughout the Bay Area, to help identify transportation needs and solutions for these communities. There are seven such communities identified in Alameda County. Community-Based Improvement Plans have been conducted in each:

- Berkeley / Albany
- Alameda
- West / North Oakland
- Fruitvale / East Oakland
- Ashland / Cherryland / San Leandro
- Hayward / Union City
- Fremont / Newark

To be able to walk and to do so safely, these communities of concern, like all communities, must have safe sidewalks, street crossings, multi-use pathways and other pedestrian facilities and amenities. Safety is a special concern, as these communities may face disproportionate risks, real or perceived, from traffic or crime. Unlike other parts of the county, where walking can be a choice, people in communities of concern often must rely on walking, including to transit, to get around and are therefore even more impacted by poor and unsafe infrastructure.

For further reading

"Active Living and Social Equity: Creating Healthy Communities for All Residents" (International City/County Management Association): http://bookstore.icma.org/freedocs/Active%20Living%20and%20Social%20Equity.pdf

❸ How many people are walking?

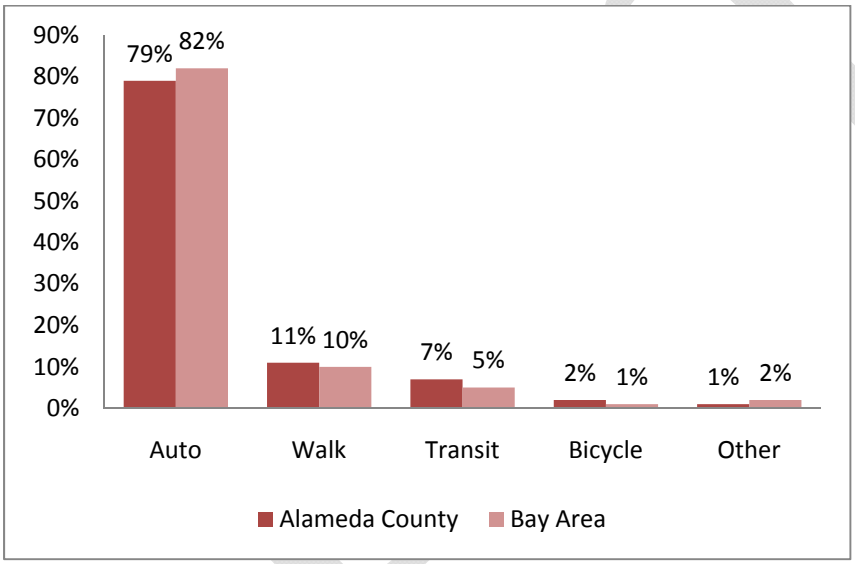
Walking trips

On average, Alameda County residents walk more than residents of the Bay Area as a whole, the state and even the nation. According to BATS2000, approximately 3.3 million trips were made primarily on foot every week in Alameda County in 2000 (see Appendix A for more detailed information). This translates to more than 470,000 daily walk trips, or one for every three Alameda County residents.

The figures above significantly undercount the number of walking trips. BATS does not include walking (or bicycling) trips to or from transit, since in those cases transit is considered the primary form of travel. If walking trips to/from transit are included, the weekday number of walk trips in Alameda County increases by more than 410,000. This includes approximately 360,000 trips to AC Transit bus stops (according to the agency's 2002 On-Board Transit Rider Survey) and almost 53,000 to BART stations (2008 Station Profile Study).

In Alameda County, as in the Bay Area as a whole, walking is the second most common means of transportation, after driving, representing 11% of all trips:

Mode share for all trips *(source: BATS2000)*



Commuting to work

More recent U.S. Census data is available about commute trips, allowing the opportunity to see trends since 2000, albeit on a very small percentage of all walk trips. Work commute trips represent only a quarter to a fifth of all trips, and of these, very few are made by walking (as compared to trips for shopping, school, etc).

According to the Census, approximately 3.6% of work commuters in Alameda County walked to work in 2006-2008, an increase from 3.2 % in 2000. While a modest uptick in absolute terms, it represents a

significant 14% increase in pedestrian commuters, compared to an increase of 2% for all commuters (see Appendix C for more detailed information):

Journey-to-work mode share *(sources: 2000 U.S. Census and 2006-2008 ACS)*

	Alameda County 2000	Alameda County 2006-2008	Bay Area 2006-2008	Bay Area 2006-2008
Drive alone	66.4%	66.5%	67.8%	67.8%
Carpool	13.8%	10.4%	10.4%	10.4%
Transit	10.6%	11.2%	10.0%	10.0%
Work at home	3.5%	5.0%	5.3%	5.3%
Walk	**3.2%**	**3.6%**	**3.6%**	**3.6%**
Bicycle	1.2%	1.5%	1.3%	1.3%
Other	1.2%	1.8%	1.6%	1.6%

Pedestrian counts

While useful in gauging long-term changes in walking rates, routine countywide pedestrian counts have not been done regularly in Alameda County to date, but this is changing. MTC conducted counts at twelve intersections throughout the county in 2002. In 2008 and 2009, UC Berkeley's Traffic Safety Center (now SafeTREC) and ACTIA collaborated on pedestrian and bicycle counts at 50 and 30 locations respectively. Of all of these intersections, nine locations overlapped, allowing the opportunity to see some limited trends. The number of pedestrians increased or stayed the same at five of the nine intersections. The results of the counts are in Appendix D.

In 2010, the Alameda CTC and MTC will count pedestrians at a combined 63 locations throughout the county, most of which have been counted in the past, providing further opportunity to see trends. It is hoped that this annual count effort will continue so that long-term countywide trends in pedestrian levels can be seen.

Continuous 24-hour automated counts are also being conducted by the Alameda CTC along some sidewalks and by the East Bay Regional Park District along their multi-use pathways. In the future, this data will also be available to see trends.

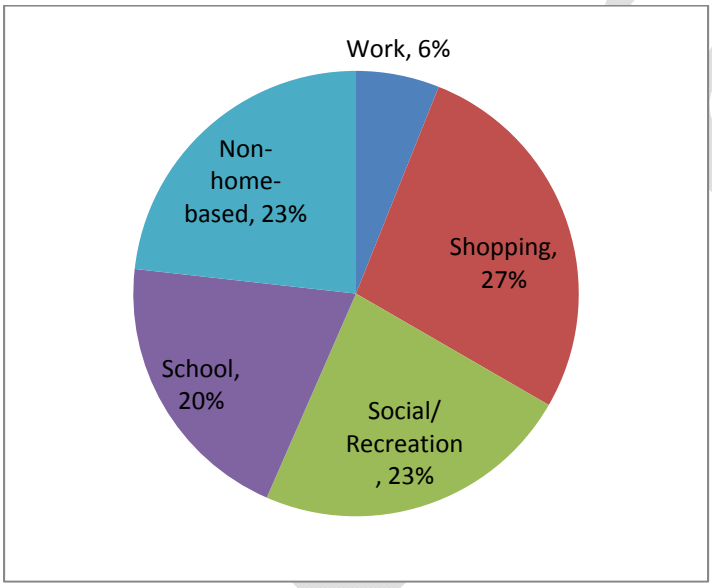
❹ Why are people walking?

Trips by purpose

MTC's BATS2000 provides information on the purpose of walk trips made by Alameda County residents (see Appendix A for more detailed information). The survey broke down all trips into those that start or end at home (called "home-based") and those that start and end somewhere else; for example, a lunch-time errand from the office (called "non-home-based"). Home based trips were further broken down into trips to or from work, shopping, social/recreation, or school (again, BATS does not include walking trips to or from transit).

- Most walk trips in Alameda County are for shopping (27%). This implies that many people live within walking distance of one or more stores.
- The least common reason for walking was going to work (6% of all walk trips), not surprisingly, since most people do not live within walking distance of their workplace.
- More people took walking trips starting or ending at their home than to or from other places (77% versus 23%). One possible explanation for this is that people are especially familiar with walking routes and walkable destinations near their home.

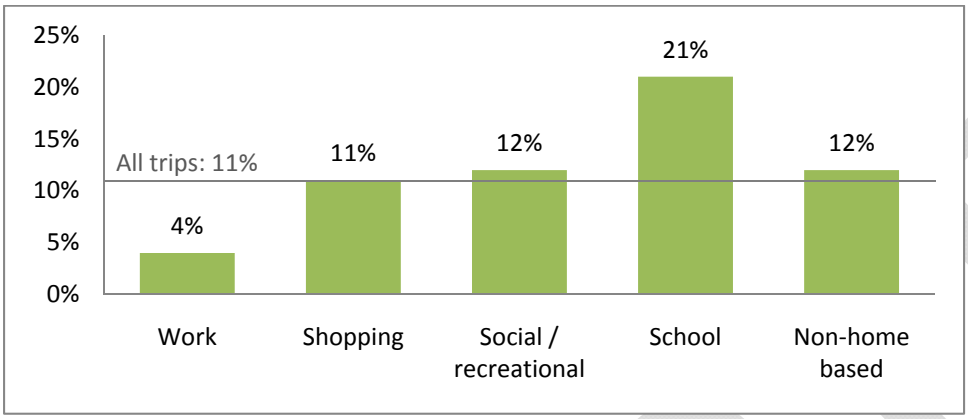
Walk trips by purpose in Alameda County *(source: BATS2000)*



Another way to look at why people are walking is to examine the percentage of all trips of a certain purpose that are made on foot. The leading purpose, by far, is school trips (grade school through university): more than a fifth (21%) of these were made on foot. This finding emphasizes the need to improve safety on routes to school. Lower percentages for other trip purposes argues more strongly for the need for promotional efforts to encourage people to walk to work and for errands.

- The percentages of shopping, social/recreational and non-home based trips made on foot (11-12%) were all roughly the same as the share of all walk trips (11%).
- Only 4% of work trips were made on foot (this compares closely to the 3.2% of pedestrian commuters reported by the 2000 Census).

Walk mode share by trip purpose in Alameda County *(source: BATS2000)*



Walking to school

As shown above, school trips are made on foot more often than other kinds of trips. This masks to some extent the fact that the percentage of children walking to school has dropped significantly in recent decades. Thirty years ago, two thirds of children nationwide walked to school; today, the rate is under 15%. Below is the percentage of walk trips to school in each of the four planning areas into which Alameda County is divided (see page 15 for an explanation of the planning areas):

- North planning area: 24%
- Central planning area: 14%
- South planning area: 23%
- East planning area: 19%

Walking to transit

It is hard to overestimate the important of transit to pedestrians. Transit services allow pedestrians to travel far beyond their typical range, enabling them to make trips that would be nearly impossible on foot alone. Many transit trips, especially by bus, involve walking. It is estimated that Alameda County residents make approximately 360,000 daily walk trips to AC Transit bus stops and almost 53,000 to BART stations.

The East Bay is fortunate to have relatively extensive transit service, provided by a number of agencies, or transit operators:

Operator	Service area	Stops or stations in the county	Daily ridership (systemwide)
Alameda-Contra Costa Transit District (AC Transit)	Alameda County (with the exception of the Tri-Valley), Contra Costa County and San Francisco	6,500 (both counties)	236,000
Altamont Commuter Express (ACE)	Tri-Valley and Fremont to the San Joaquin Valley and San Jose	1	3,700
Amtrak's Capitol Corridor	Berkeley, Emeryville, Oakland, Hayward, Fremont to Sacramento and San Jose	6	4,400
Bay Area Rapid Transit (BART)	Berkeley, Oakland, San Leandro, Hayward, Union City, Fremont, Castro Valley, and Dublin/Pleasanton to San Francisco and Contra Costa and San Mateo counties	19	350,000
Dumbarton Express	Union City, Fremont and Newark to San Mateo County	4	873
Emery Go Round	Emeryville	25	n/a
LAVTA (Wheels)	Dublin, Pleasanton and Livermore	500	4,500
Union City Transit	Union City	165	1,637
WETA (Alameda Harbor Bay Ferry)	Alameda (city) to San Francisco	1	625
WETA (Alameda/Oakland Ferry)	Oakland and Alameda (city) to San Francisco	2	1,500

While the East Bay is blessed with transit, operators are struggling in the face of funding shortfalls as a result of the ongoing economic downturn. In 2009 and 2010, the region's two largest introduced service cuts and fare increases. AC Transit raised fares 15-25 cents in 2009 and in 2010 instituted two rounds of service cuts, with a third one still possible. In 2009, BART reduced service at night and on weekends, raised fares and began a parking charge at eight additional station lots in the East Bay. Cutbacks in transit service are likely to result in fewer people taking fewer rides. Given the large number of walk trips made to AC Transit stops and BART stations, this could also result in fewer daily walk trips being made in Alameda County.

Paratransit

Paratransit provides a transportation option to people who, because of a disability or a disabling health condition, are unable to ride transit or to access a bus or train stop without the help of someone else. The main provider in Alameda County is East Bay Paratransit, a service established jointly by AC Transit and BART to meet requirements of the Americans with Disabilities Act (ADA). It provides transportation service in the North, Central and South planning areas and serves the Dublin/Pleasanton BART station in East County. The service transports riders from their origin to their destination in vans equipped with a wheelchair lift or in sedans. In addition, LAVTA and Union City Transit provide paratransit service within their respective service areas, while most cities in the county provide complementary, city-based service.

Paratransit service is very expensive: a study by San Francisco's program found that the average cost per paratransit trip among 11 programs around the country is almost $33. One way to reduce these costs—while promoting physical activity—is to remove physical barriers that prevent disabled people from walking to transit. This would encourage some people who are able to use regular transit services to do so.

For additional information
Access Alameda: www.accessalameda.org

Physical barriers and connectivity gaps

A different way to look at this section is, "Why aren't more people walking?" Some of the most common reasons—including lack of facilities, concerns about traffic safety and long distances—are at least in part related to the existence of physical barriers or connectivity gaps. Below is a list of significant barriers in Alameda County mentioned by local jurisdictions in the 2010 questionnaire. The majority of them are automobile and rail infrastructure—highways, railroads and interchanges:

North planning area
- Interstates 80, 580 and 880
- State Routes 24 and 13
- Railroad tracks in Albany, Berkeley, Emeryville and Oakland
- Freeway and railroad crossings (Albany specified the Gilman Street interchange)

Central planning area
- Interstates 580 and 880
- Railroad tracks
- San Leandro specified the I-880 interchanges at Davis Street, Marina Boulevard and Washington Avenue; and the Union Pacific Railroad Oakland Subdivision underpasses on Washington Avenue and San Leandro Boulevard

South planning area
- Interstates 880 and State Route 84
- Union Pacific railroad tracks

East Planning Area
- Interstates 580 and 680

Connectivity gaps refer to missing pedestrian connections or segments along pedestrian routes, such as multi-use paths. Major connectivity gaps in Alameda County cited by local jurisdictions include:

North planning area
- San Francisco-Oakland Bay Bridge
- Lake Merritt channel (Oakland)
- Oakland Estuary waterfront (Oakland)

Central planning area
- Bay Trail gap between south Fremont Boulevard and Dixon Landing Road (Fremont)

South planning area
- Creeks and canals

East Planning Area
- Along the Iron Horse Trail crossing Santa Rita Road, the intersection of Stanley Boulevard at Valley and Bernal avenues (Pleasanton)
- Arroyo Mocho Creek at Stoneridge Drive (Pleasanton)

- Intersection of the Alamo Canal and Tassajara Creek trails and I-580 (Dublin)

Walking and health

Our society is in the midst of a public health epidemic caused by physical inactivity. According to California Active Communities, "In California, physical inactivity is by a large margin the most prevalent chronic disease risk factor with more than 50% of adults reporting a sedentary lifestyle, contributing to an estimated 30,000 deaths each year." According to the Alameda County Public Health Department, over half the county's population (52%) is considered overweight or obese, while 22% of children are clinically obese.

Walking, as one of the most accessible forms of physical activity, promises multiple public health benefits. Physical activity helps prevent or control chronic diseases such as high blood pressure, heart disease, stroke, diabetes and certain cancers; helps maintain a healthy weight; and improves mood, lowers stress level and reduces depression. The study referenced at the end of this write-up found that states and cities with higher rates of walking and cycling had a higher percentage of adults who achieved recommended levels of physical activity and a lower percentage of obese or diabetic adults.

Unfortunately, many communities are generally not conducive to walking. Many parts of Alameda County were built in the post-World War II era, when cities were designed primarily with car drivers in mind. Strategies to improve walkability include creating:

- Compact, mixed-use neighborhoods.
- Pedestrian-oriented building and site design.
- Safe, convenient and attractive sidewalks, paths, intersections and crosswalks.
- Car-free zones, traffic calming in residential neighborhoods and reductions in traffic speeds.

For further reading

"Want a slimmer, healthier community? Try building more sidewalks, crosswalks and bike paths" (ScienceDaily): http://www.sciencedaily.com/releases/2010/08/100819162633.htm

❺ Where are people walking?

This section looks at the number of pedestrians and walk trips in terms by specific areas of the county, including the county's four planning areas, its 15 jurisdictions and its 19 BART stations.

Alameda County planning areas

For planning purposes, the Alameda County Transportation Commission divides the county into four planning areas, as follows:

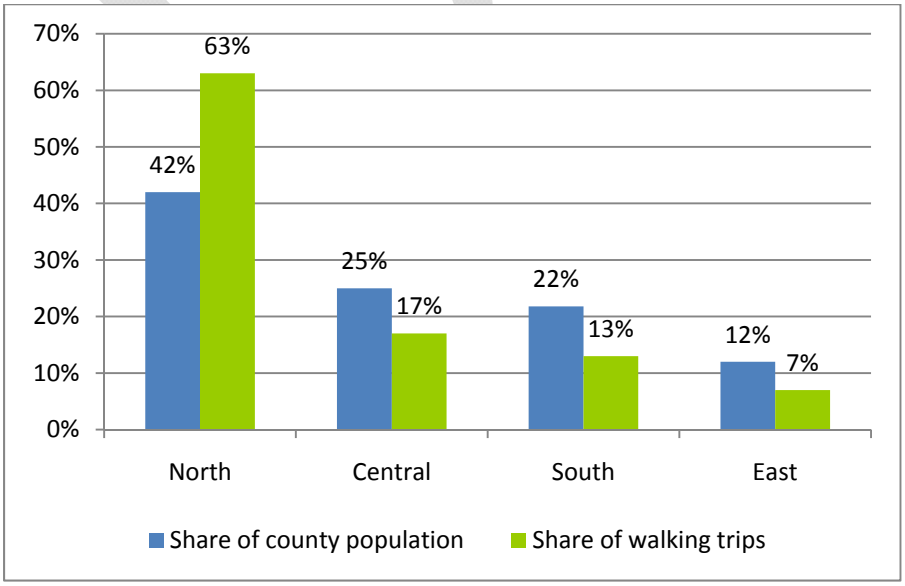
- **North County:** Alameda (city), Albany, Berkeley, Emeryville, Oakland and Piedmont
- **Central County:** Hayward and San Leandro, and surrounding unincorporated areas of the county
- **South County:** Fremont, Newark and Union City
- **East County:** Dublin, Livermore and Pleasanton, and surrounding unincorporated areas

By planning area

The chart below shows the percentage of walk trips that were made in each planning area. For comparison purposes, the chart also shows each planning area's share of the county's population.

- More than half of all walking trips in the county take place in the North planning area (63%), far above its population share of 42%. In large part, this can be explained by the existence of many dense, compact areas with gridded streets and local shopping districts, including the large UC Berkeley campus area.
- The Central planning area, and especially the South and East planning areas, all have lower shares of the county's walking trips than of the county's population. This can also be explained by aspects of the built environment, which in these areas is more car-oriented.

Share of county population and walking trips by planning area *(source: BATS2000, 2000 Census)*



Walking and the Built Environment

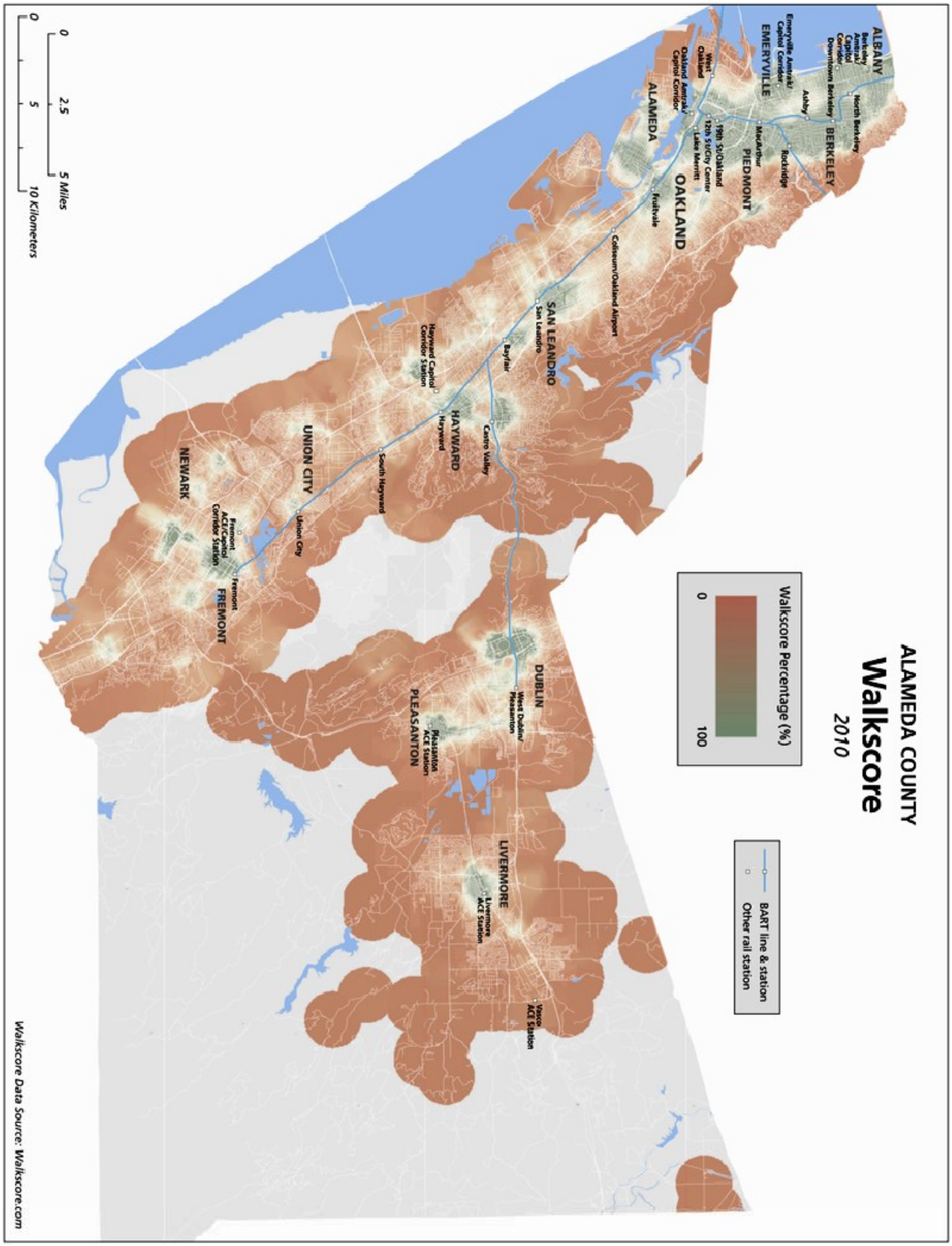
There are many factors that affect how often and how much people walk, from their age, income and health condition to hills and the weather. In addition, many aspects of the built environment have a strong effect on people's decision to walk. The following characteristics of the built environment are associated with higher walking rates:

- Higher-density neighborhoods, making for shorter distances between destinations
- Neighborhoods that integrate different activities (homes, jobs, shops and parks, for example)
- A grid street system, short blocks and narrower streets, with lower-speed traffic
- Buildings next to each other, with interesting facades and with entrances close to the street
- Fewer car-oriented features such as surface parking lots and drive-throughs
- Pedestrian facilities and amenities such as sidewalks, trails, stairways, crosswalks and street trees

The aspects listed above help explain much of the difference in the walking rates of the four county planning areas. For example, the North planning area, which has by far the highest share of walking trips, contains many dense, compact areas with gridded streets and local shopping districts. The Central planning area includes two pedestrian-scaled downtown districts and some neighborhoods that, in their urban fabric, resemble those in the North area; however, these are surrounded by neighborhoods characterized by long street blocks, cul-de-sacs and segregated land uses, and separated by wide, higher-speed arterials. The South planning area has a number of small, walkable districts at the sites of the original communities in the area but development patterns elsewhere are oriented toward the automobile; however, Fremont and Union City in particular are striving to create transit- and pedestrian-oriented communities. Lastly, the East planning area is the least dense of all; while it has two significant downtowns, the area is primarily characterized by low-density, car-oriented development patterns.

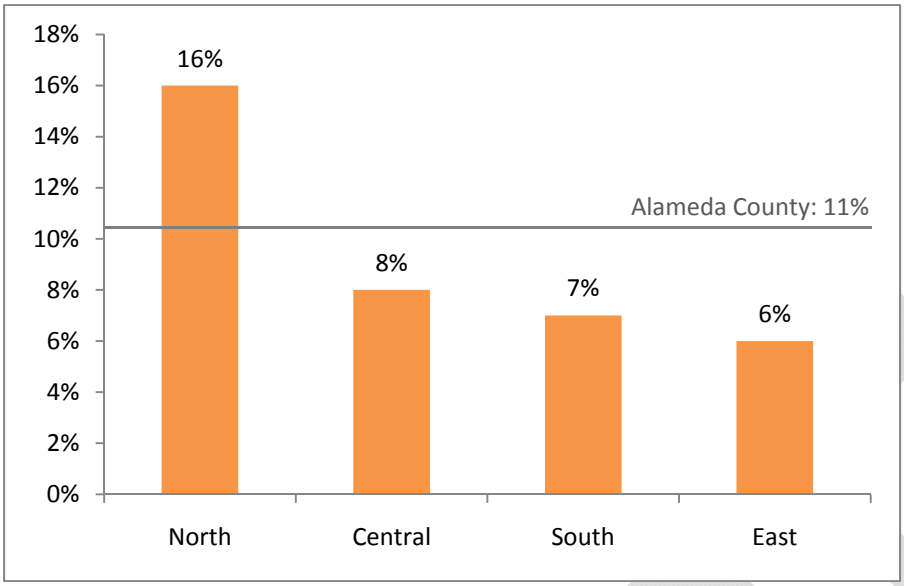
The map on the following page illustrates, with certain limitations, the walkability of different parts of Alameda County. It is based on a methodology developed by Walk Score (www.walkscore.com) that awards points based on the distance of an address to amenities (according to Walk Score, the number of nearby amenities is the leading predictor of whether people walk). As shown on the map, the most walkable areas in Alameda County are the central parts of the North planning area; the downtowns of San Leandro, Hayward, Fremont, Dublin, Pleasanton and Livermore; and several other nodes and activity centers throughout the county.

For further reading
"The Built Environment and Walking" (The Heart Foundation):
http://www.heartfoundation.org.au/SiteCollectionDocuments/Built_environment_position_statement_FINAL_LR%20for%20web.pdf


ALAMEDA COUNTY
Walkscore
2010
Walkscore Percentage (%)
0
100
BART line & station
Other rail station
ALBANY
BERKELEY
EMERYVILLE
PIEDMONT
OAKLAND
ALAMEDA
SAN LEANDRO
HAYWARD
UNION CITY
NEWARK
FREMONT
DUBLIN
PLEASANTON
LIVERMORE
0
2.5
5 Miles
0
5
10 Kilometers
Walkscore Data Source: Walkscore.com

Another way of looking at the data is what percentage of people are walking in each planning area:

Walk mode share by planning area *(source: BATS2000)*



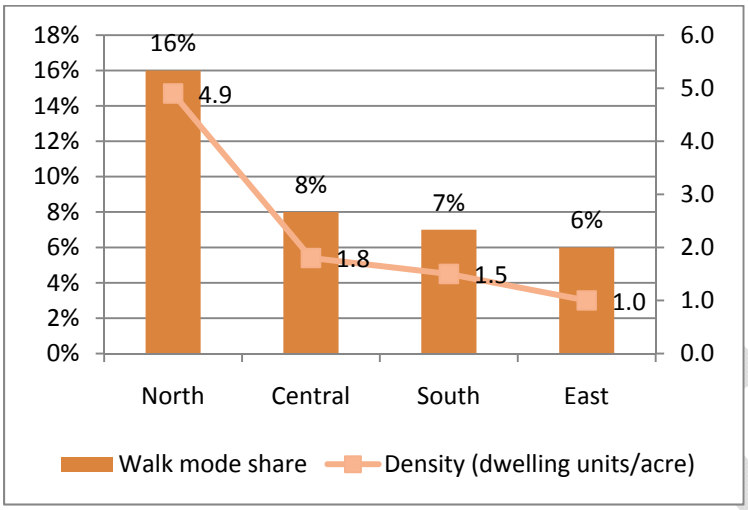
- The North planning area has by far the highest percentage of people taking their trips on foot (16%); its share is almost three times higher than that of the East planning area (6%).

Density, car-lessness and income

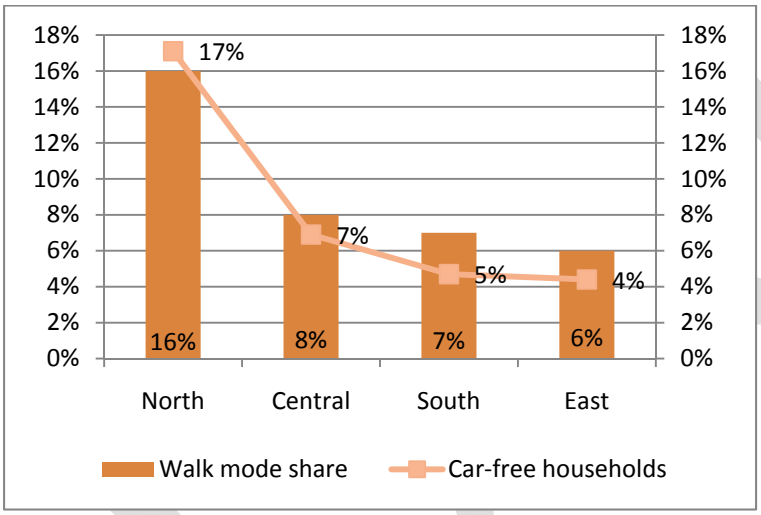
The following three charts help explain the differences in walk mode share among the four planning areas. They show the relationship between walk rates and, respectively, density (measured in dwelling units per acre), percentage of car-free households and median income.

- As density decreases, so does the walking share of trips.
- As the percentage of car-free households decreases, so does the walking share of trips.
- As the median income increases, the walking share of trips decreases.

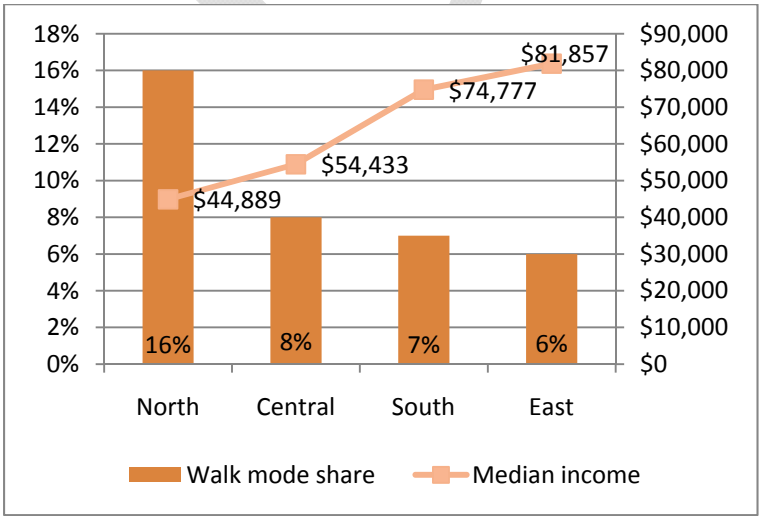
Walk mode share and density by planning area *(source: BATS2000)*



Walk mode share and percentage of car-free households by planning area *(source: BATS2000)*



Walk mode share and median income by planning area *(source: BATS2000)*



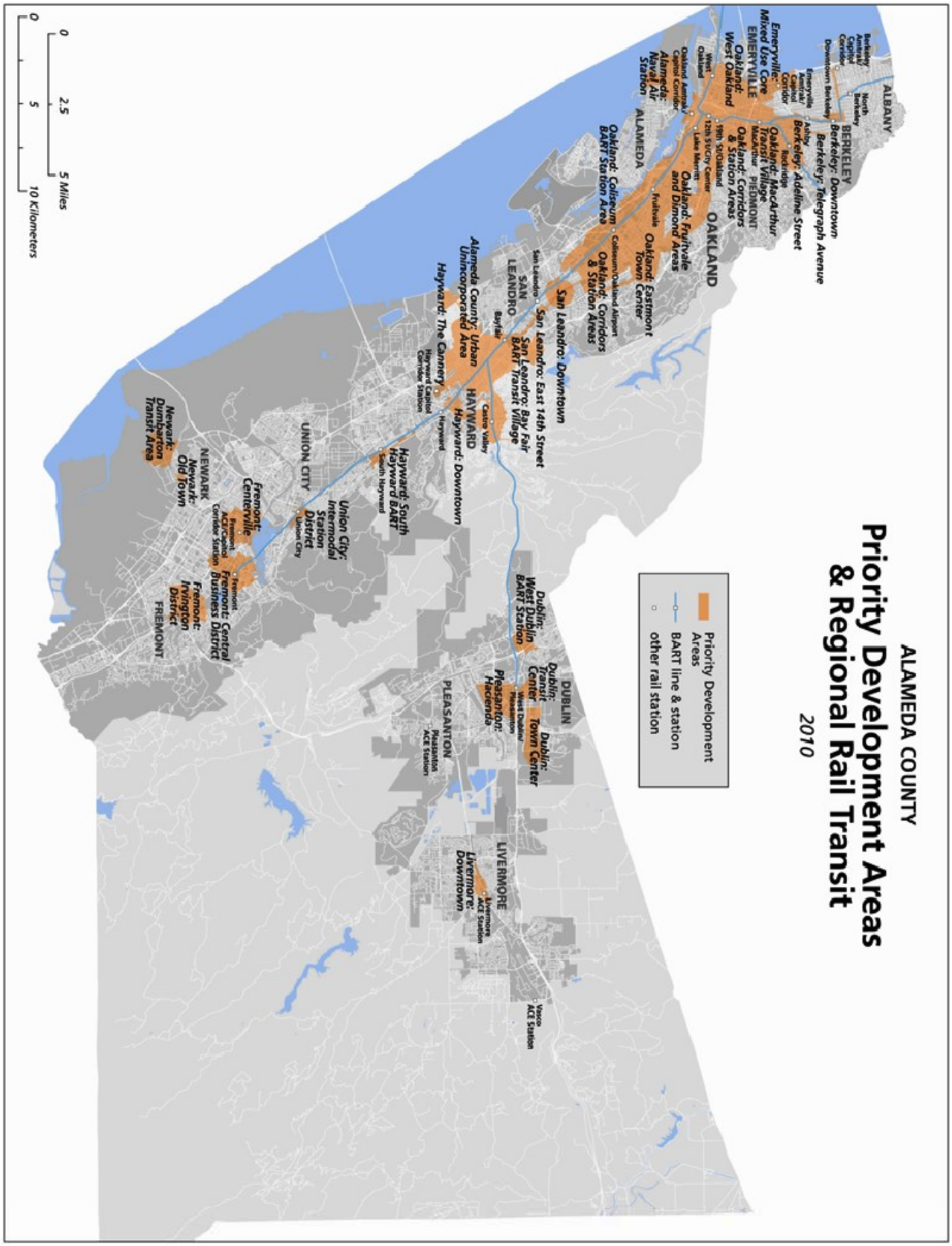
Priority Development Areas

If this section has shown where Alameda County residents are walking now, where will they be walking in the future? One likely answer is the county's Priority Development Areas (PDAs). PDAs are sites approved by the Association of Bay Area Governments (ABAG) within existing communities that are appropriate for infill development, with the objective of creating more housing near transit, jobs, shopping and services. PDAs have been designated by local governments and are eligible to receive extra regional and state funding for planning and capital projects. If successful, PDAs could accommodate half of the Bay Area's projected housing growth through the year 2035. The PDAs in Alameda County—shown on the map on the next page—are:

- Alameda County: Urban unincorporated area (Ashland, Castro Valley, Cherryland, Fairview and San Lorenzo)
- Berkeley: Adeline St., Downtown, San Pablo Ave., South Shattuck, Telegraph Ave., University Ave.
- Dublin: Dublin Transit Center, Town Center, West Dublin BART station area
- Fremont: Centerville, Central Business District, Irvington district
- Hayward: Downtown, South Hayward BART station area, the Cannery
- Livermore: Downtown
- Newark: Dumbarton Rail station area, Old Town
- Oakland: Corridors and station areas
- Pleasanton: Hacienda area
- San Leandro: Bay Fair BART station area, Downtown, East 14th Street
- Union City: Intermodal station district

Of the 19 BART stations in Alameda County, 17 are in a PDA (all except North Berkeley and Rockridge). PDA-related improvements are planned in the short-to-medium term (next five years) at 12 of those station areas, and at another two in the medium-to-long term (5-20 years). The only station areas/PDAs where no PDA-related improvements are currently planned are Bay Fair, Hayward and Castro Valley.

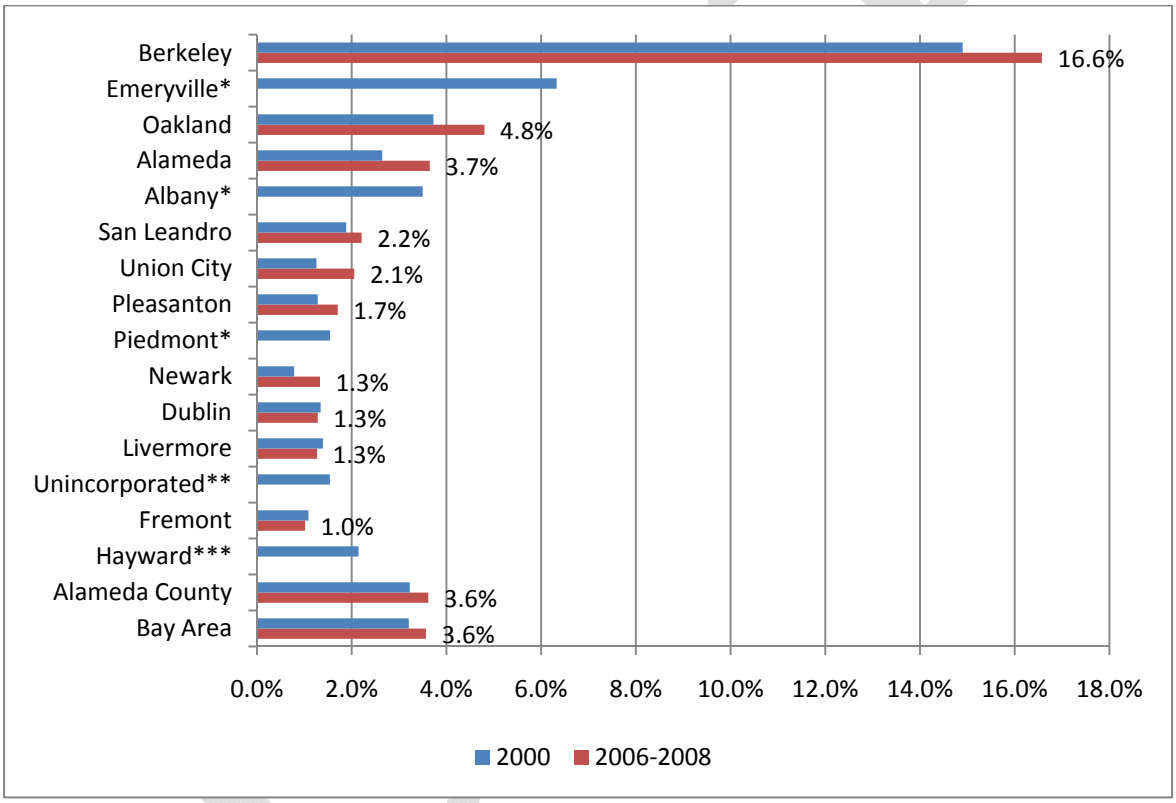
For more information
"Priority Development Area Showcase" (FOCUS): http://www.bayareavision.org/pda/


ALAMEDA COUNTY
Priority Development Areas & Regional Rail Transit
2010
Priority Development Areas
BART line & station
other rail station
0 2.5 5 Miles
0 5 10 Kilometers
ALBANY
BERKELEY
Berkeley: Downtown
Berkeley: Telegraph Avenue
Berkeley: Adeline Street
Emeryville: Mixed Use Core
EMERYVILLE
Oakland: West Oakland
Oakland: MacArthur Transit Village
Oakland: Corridors & Station Areas
PIEDMONT
ALAMEDA
Alameda: Naval Air Station
Oakland: Coliseum BART Station Area
OAKLAND
Oakland: Fruitvale and Diamond Areas
Oakland: Eastmont Town Center
Oakland: Corridors & Station Areas
San Leandro: Downtown
San Leandro: East 14th Street
San Leandro: Bay Fair BART Transit Village
SAN LEANDRO
Alameda County: Urban Unincorporated Area
Hayward: The Cannery
HAYWARD
Hayward: Downtown
Hayward: South Hayward BART
UNION CITY
Union City: Intermodal Station District
Newark: Dumbarton Transit Area
NEWARK
Newark: Old Town
Fremont: Centerville
Fremont: Central Business District
Fremont: Irvington District
FREMONT
Dublin: West Dublin BART Station
Dublin: Transit Center
Dublin: Town Center
DUBLIN
Pleasanton: Hacienda
PLEASANTON
LIVERMORE
Livermore: Downtown

By jurisdiction

The U.S. Census provides data on the mode share of commute-to-work trips for each of the 15 local jurisdictions in the county (14 cities and the County, which manages the unincorporated areas; see Appendix F for more detailed information). Although, as stated earlier, only six percent of all walk trips are made to work, this is the only trip purpose for which more recent data is available. The chart below shows the walk mode share in each jurisdiction, with a comparison of 2000 and 2006-2008 data. The change in the countywide percentage of those walking to work increased only very slightly (0.4%) in this time period. Seven jurisdictions saw a small increase in their walk mode share percentage, along with four where the numbers remained almost the same.

Commute-to-work walk mode share *(sources: 2000 Census and 2006-2008 ACS)*



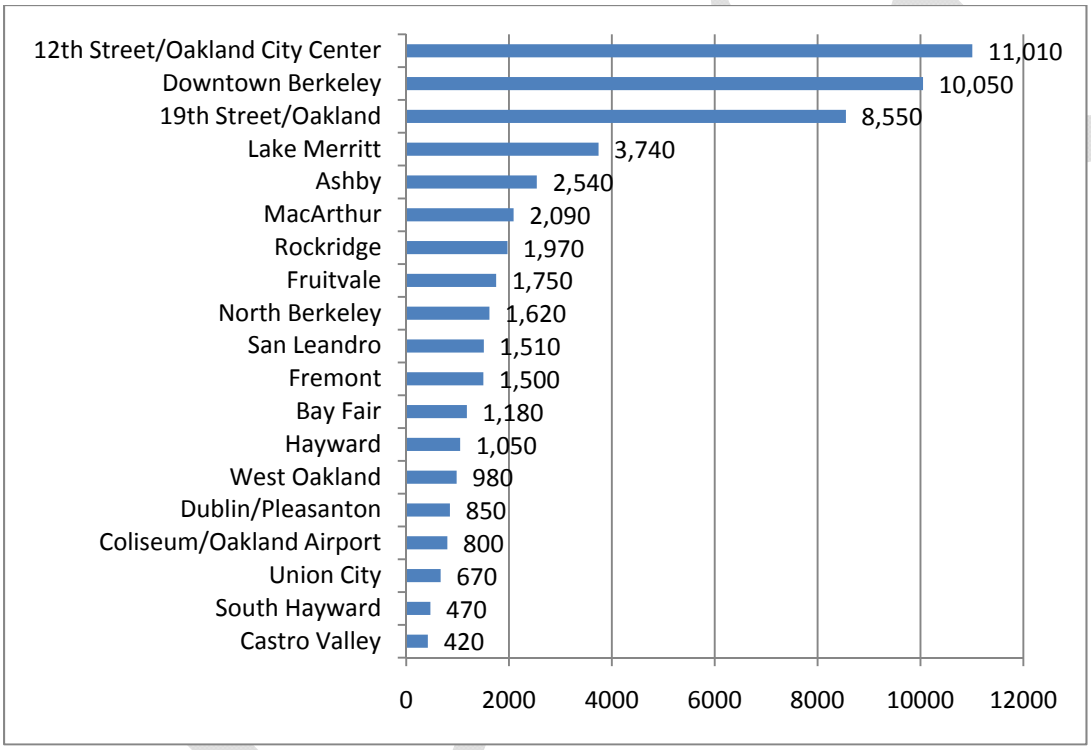
* The 2006-2008 ACS does not provide data for Emeryville, Albany or Piedmont. Figures for these cities are from 2000 only.
** The 2006-2008 figure cannot be determined without data from all the jurisdictions.
*** The 2006-2008 figure for Hayward, while reported in the appendices, is not shown here, as it appears to be incorrect. The 2006-2008 ACS indicates that the walk mode share in Hayward declined by more than half, this during a period when it increased or remained roughly unchanged in every other jurisdiction in the county.

- Berkeley has by far the highest walk share for commute-to-work trips (16.6%)—in large part because of people walking to the UC Berkeley campus—and saw the largest increase in the percentage of walking commuters. Hayward has the lowest walk share for commute trips (0.9%).
- The five jurisdictions with the highest commute walk shares—Berkeley, Emeryville, Oakland, Alameda and Albany—are all in the North planning area.
- Oakland, the largest city in Alameda County, has the third highest commute walk share of the 15 jurisdictions (4.8%).
- Alameda County's commute walk share is the same as the Bay Area's as a whole (3.6%).

To BART stations

Many walk trips are made to and from transit stations; however, because the walk portion is almost always shorter in duration than the transit portion, these trips are not reported in the BATS walking data that was summarized earlier by planning area. BART periodically conducts station profile studies to obtain information on, among other things, the way that passengers reach its stations. In 2008, the year of their most recent study, 52,570 walk trips were made each day to all BART stations in Alameda County. The chart below shows the number of daily walk trips by station (see Appendix H for more detailed information; trips numbers have been rounded to the nearest 10):

Daily walk trips to BART stations in Alameda County *(source: BART's 2008 Station Profile Study)*

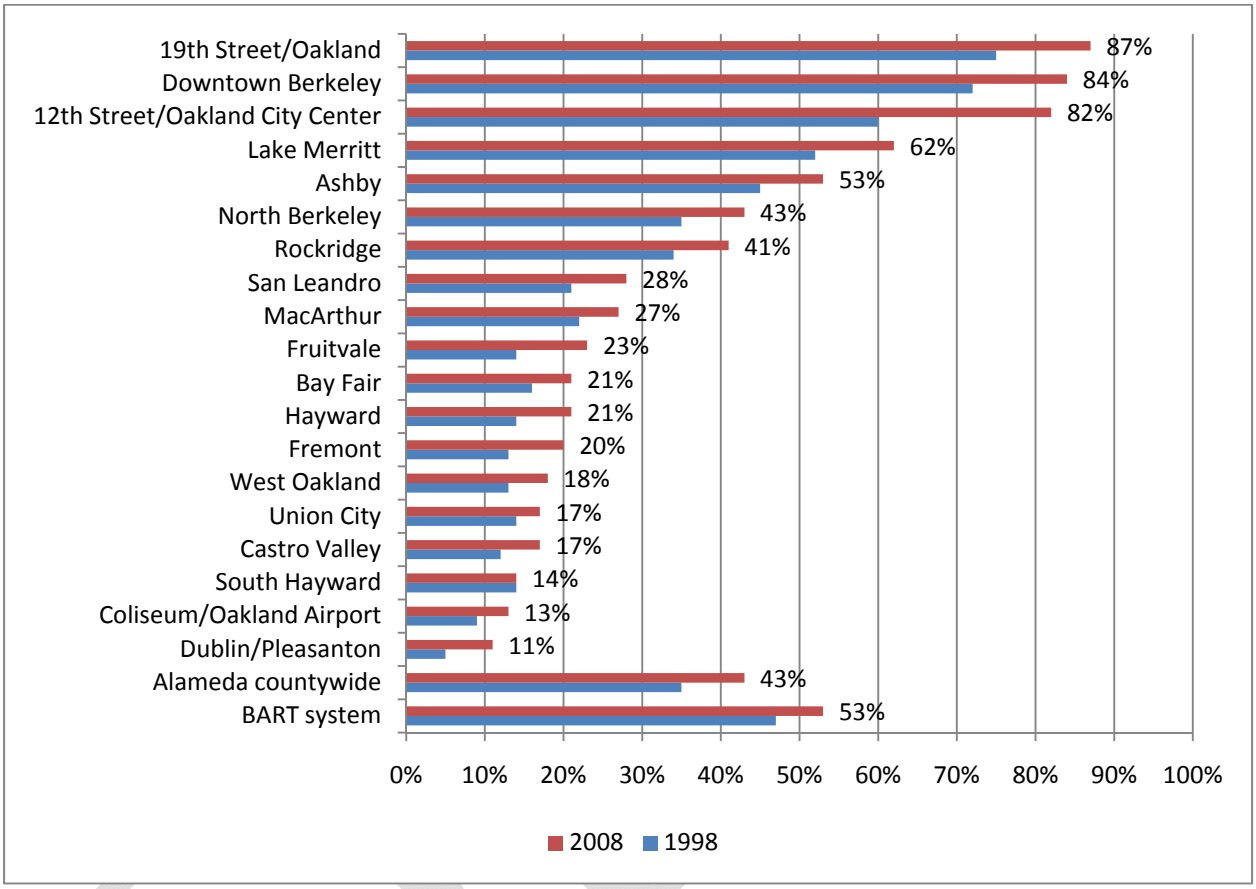


- The top nine stations with the most walk access trips are all in the North planning area.
- The three stations in the downtowns of Oakland and Berkeley—four, if Lake Merritt is included—have, by far, the most walk access trips; combined, they represent 56% of all walk access trips to Alameda County BART stations (33,350 daily trips).
- The three stations with the greatest number of people walking to BART—12th Street/Oakland City Center, Downtown Berkeley and 19th Street/Oakland—are the only ones in Alameda County that have no parking.

The following chart looks at the BART walk access data in a different way. The bars shows the walk mode share of all trips to each station. Overall, walk access to BART stations in Alameda County increased by 8% between 1998 and 2008, higher than for the BART system as a whole (which increased

by 6%). Every station in the county saw an increase in walk access, except for South Hayward, which remained the same.

Daily walk trips to BART stations in Alameda County *(sources: BART's 1998 and 2008 Station Profile Study)*



As a percentage of all trips to BART:

- The top seven stations with the highest share of walk access trips in 2008 are all in the North planning area.
- In 2008, five stations out of all 19—the three in downtown Oakland and Berkeley, plus Lake Merritt and Ashby—had walk access shares higher than 50% and equal to or higher than for the BART system as a whole; seven stations had walk access shares of 20% or lower.
- In terms of percentage points, the greatest increases in walk access share from 1998 to 2008 were at the 12th Street/Oakland City Center station (up by 22 percentage points), followed by the 19th Street/Oakland and Downtown Berkeley stations (12 percentage points); the lowest were at South Hayward (0 points), Union City (3 points) and Coliseum/Oakland Airport (4 points). In the remaining 13 stations, the increase was between 5 and 10 percentage points.
- In relative terms, the most dramatic increase in walk access share was at the Dublin/Pleasanton station, where it more than doubled, from 5% to 11%.

Duration of walking trips

Walking trips tend to be relatively short, in terms of both time and distance. According to the 2009 National Household Travel Survey—a project of the Federal Highway Administration—almost 30% of walk trips nationally last five minutes or less; assuming an average walking speed of 3 miles per hour, this translates to a quarter mile or less. Half of walk trips are under ten minutes (half a mile), while 70% are under 15 minutes (three-quarters of a mile). Only 8% of walk trips are over 30 minutes (1.5 miles) long. This data underscores the importance of creating communities that reduce the distance that people must travel. This can done most effectively through denser, more compact development patterns and by integrating land uses.

Duration of walking trips *(source: National Household Travel Survey, 2009)*

Minutes	Approx. distance (miles)	Percent of trips
0-5	0-0.25	29.70%
5.1-10	0.25-0.5	20.90%
10.1-15	0.5-0.75	20.50%
15.1-20	0.75-1	7.10%
20.1-25	1-1.25	3.70%
25.1-30	1.25-1.5	9.20%
30.1-45	1.5-2.25	5.30%
45.1-60	2.25-3	1.30%
> 60	> 3	1.30%

Major multi-use pathways and trails

Many walk trips, whether for recreation or transportation, take place on multi-use pathways. Alameda County is fortunate to have hundreds of miles of multi-use paths and trails spread throughout the county. In addition to local facilities, the county has a network of inter-jurisdictional multi-use pathways, of which the most significant, in terms of length and connections across county borders, are:

- **East Bay Greenway:** This was originally envisioned by Urban Ecology—a Bay Area non-profit that advocates for neighborhood revitalization and regional sustainability—as a multi-use path underneath BART's elevated structure running southeast for 12 miles from 18th Avenue in Oakland to the Hayward BART station. However, a larger vision emerged from the East Bay Regional Park District's most recent Master Plan update (2007), which showed the path connecting north to the Ohlone Greenway in Berkeley and Albany (and further north in Contra Costa County), and to the south along the UPRR right-of way in Fremont. The total length from county line to county line is estimated to be about 37 miles, with only the northern portions along the Ohlone Greenway completed. The initial implementation of the original 12 mile project is being led by the Alameda County Transportation Commission, with assistance from Urban Ecology.

- **Iron Horse Trail:** The existing multi-use path extends between the cities of Concord, in Contra Costa County, and Dublin and includes a one-mile segment in Pleasanton. The pathway follows an

abandoned Southern Pacific Railroad right-of-way. When complete, it will extend from Suisun Bay (Contra Costa County) to Livermore and the San Joaquin county border, a distance of approximately 53 miles, connecting 12 cities. The alignment length through Alameda County is 25.5 miles, of which 5.8 miles is existing and 19.7 miles is proposed (see Appendix J for specific mileage information).

- **San Francisco Bay Trail:** This 500-mile trail system will, when complete, ring San Francisco and San Pablo bays. The system includes 119 miles along the Alameda County shoreline and another 64 miles connecting this "spine" to other pathways, trails and points of interest. Of this ultimate 183-mile alignment, approximately 122 miles are in place, including 11 miles completed since the 2006 Countywide Pedestrian Plan (see Appendix K for mileage information). Long continuous segments exist in Albany, Berkeley, Emeryville, Oakland, Alameda, San Leandro and Hayward.

Trail mileage *(source: Urban Ecology, EBRPD, San Francisco Bay Trail Project)*

Trail	Existing mileage	Proposed (unbuilt) mileage	Total mileage
East Bay Greenway	0.0	49.0	49.0
Iron Horse Trail	5.8	19.7	25.5
San Francisco Bay Trail	121.8	61.4	183.2

Below are other trails of countywide significance, as defined in the 2006 Pedestrian Plan, including their location and development status:

- Coyote Hills to Ardenwood (EBRPD trail #9; Fremont; proposed)
- Ardenwood to Quarry Lakes (EBRPD trail #10; Fremont; proposed)
- Tassajara Creek (EBRPD trail #33; East planning area; proposed)
- Shadow Cliffs to Morgan Territory (EBRPD trail #8C; between Stanley Rd [Iron Horse Trail] and Las Positas College only; East planning area; proposed).
- Shadow Cliffs to Iron Horse (trail #29 in EBRPD's 2007 Master Plan map; East planning area; proposed)
- Ohlone Greenway Trail (Albany and Berkeley; partly complete)
- Jack London/Arroyo Mocho Trail (Livermore to Pleasanton; partly complete)
- Emeryville Greenway (Berkeley to Emeryville; proposed)

❻ Pedestrian safety

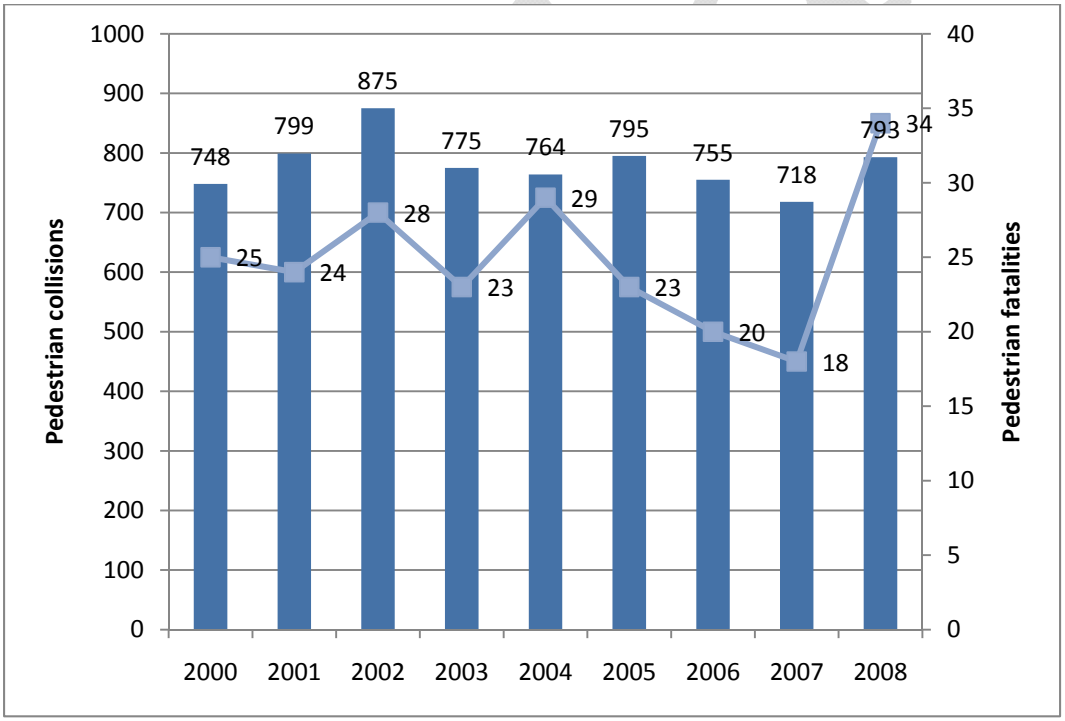
Collisions, fatalities and injuries

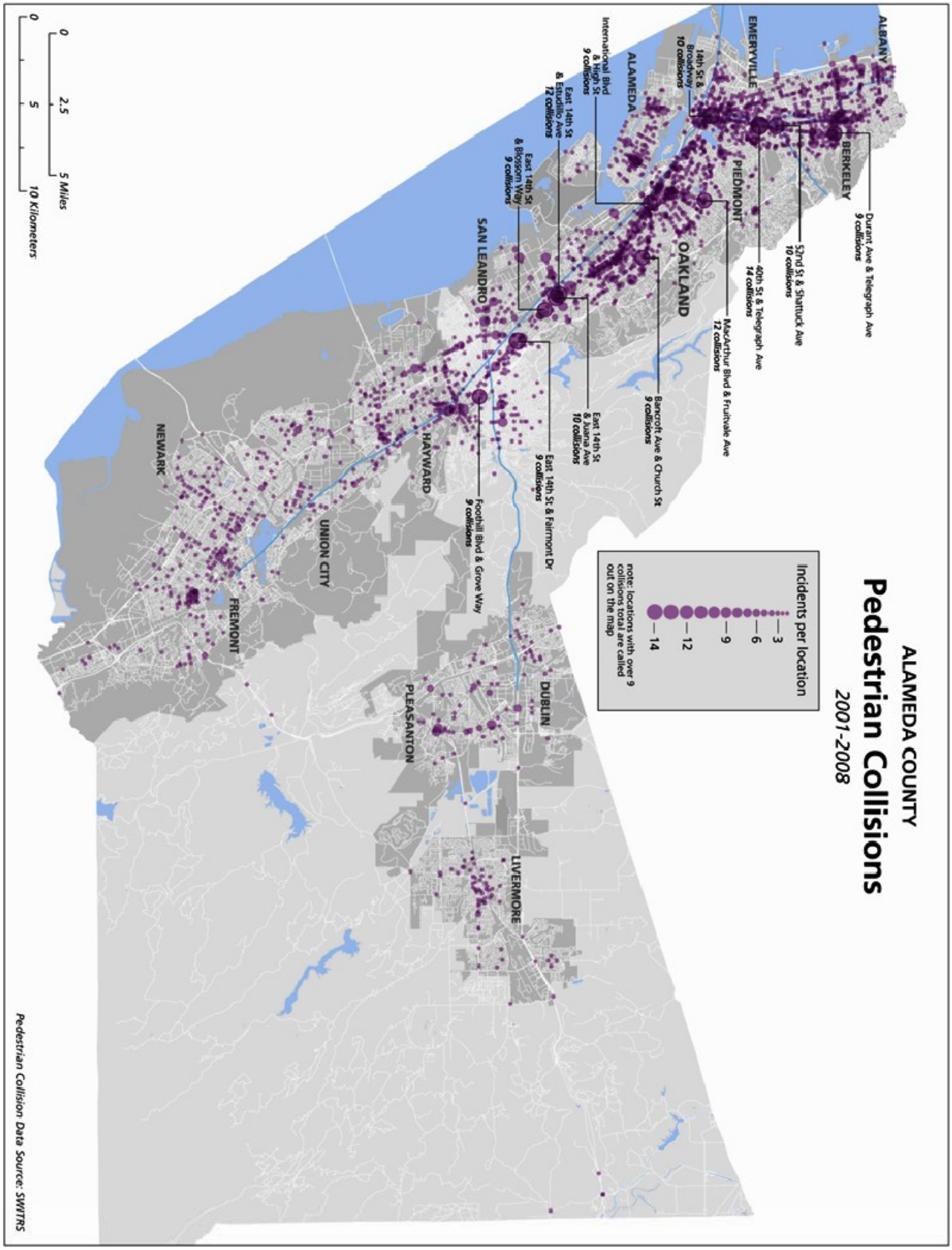
Over the past nine years, there has been an average of 780, collisions per year in Alameda County involving pedestrians that resulted in at least serious or visible injuries and an annual average of 25 fatalities (see appendices L and M for more detailed information).

- The number of collisions has remained relatively stable during the 2000-2008 time period. With the exception of a peak in 2002 (875) and a slight dip in 2007 (718), the number has fluctuated within the narrow range of 748 and 799.
- The number of pedestrians fatalities each year was relatively stable between 2000 and 2005 (23-29).
- There was a significant decline in pedestrian fatalities from 2004 to 2007, by more than a third (from 29 to 18). Regrettably, this was followed by a so-far unexplained significant spike in fatalities 2008, as the number of fatalities almost doubled (34).

Yearly average, 2000-2008	
Pedestrian-vehicle collisions	780
Pedestrian fatalities	25

Pedestrian collisions and fatalities in Alameda County *(source: SWITRS)*




ALAMEDA COUNTY
Pedestrian Collisions
2001-2008
Incidents per location
3
6
9
12
14
note: locations with over 9 collisions total are called out on the map
Durant Ave & Telegraph Ave 9 collisions
52nd St & Shattuck Ave 10 collisions
40th St & Telegraph Ave 14 collisions
MacArthur Blvd & Fruitvale Ave 12 collisions
Bancroft Ave & Church St 9 collisions
East 14th St & Juana Ave 10 collisions
East 14th St & Fairmont Dr 9 collisions
Foothill Blvd & Grove Way 9 collisions
East 14th St & Blossom Way 9 collisions
East 14th St & Estudillo Ave 12 collisions
International Blvd & High St 9 collisions
14th St & Broadway 10 collisions
ALBANY
BERKELEY
EMERYVILLE
PIEDMONT
OAKLAND
ALAMEDA
SAN LEANDRO
HAYWARD
NEWARK
UNION CITY
FREMONT
DUBLIN
PLEASANTON
LIVERMORE
0 2.5 5 Miles
0 5 10 Kilometers
Pedestrian Collision Data Source: SWITRS

Collision hotspots

The map on the previous page shows the location of all traffic collisions involving pedestrians in Alameda County from 2001 to 2008. As shown on the map, the collisions are concentrated along two general axes: from central Berkeley to downtown Oakland; and from downtown Oakland to downtown Hayward, running through central San Leandro.

The information on the map is confirmed by the table below, which lists the thoroughfares that have experienced 40 or more collisions. Of the 13 roads on the list, four are on the central Berkeley-downtown Oakland axis: San Pablo Avenue, Martin Luther King Jr. Way, Shattuck Avenue and Telegraph Avenue. Another eight are on the downtown Oakland-downtown Hayward spine: Interstate 880, International Boulevard, Foothill Boulevard, State Route 185, MacArthur Boulevard, Bancroft Avenue, Hesperian Boulevard and State Route 238.

Pedestrian collisions by primary road *(source: SWITRS)*

Road	Jurisdiction(s)	Number of collisions
International Boulevard	Oakland	144
State Route 185 (East 14th Street)	San Leandro, Hayward, unincorporated county	82
Foothill Boulevard	Oakland	81
Interstate 880	Oakland, San Leandro, Hayward, Fremont	73
MacArthur Boulevard	Oakland, San Leandro	70
Telegraph Avenue	Berkeley, Oakland	70
Martin Luther King Jr. Way	Berkeley, Oakland	53
Hesperian Blvd.	San Leandro, Hayward, unincorporated county	52
Bancroft Avenue	Oakland, San Leandro	51
San Pablo Avenue	Albany, Berkeley, Emeryville, Oakland	51
Shattuck Avenue	Berkeley, Oakland	49
Fremont Boulevard	Fremont	42
State Route 238	Fremont, Hayward, Union City	40

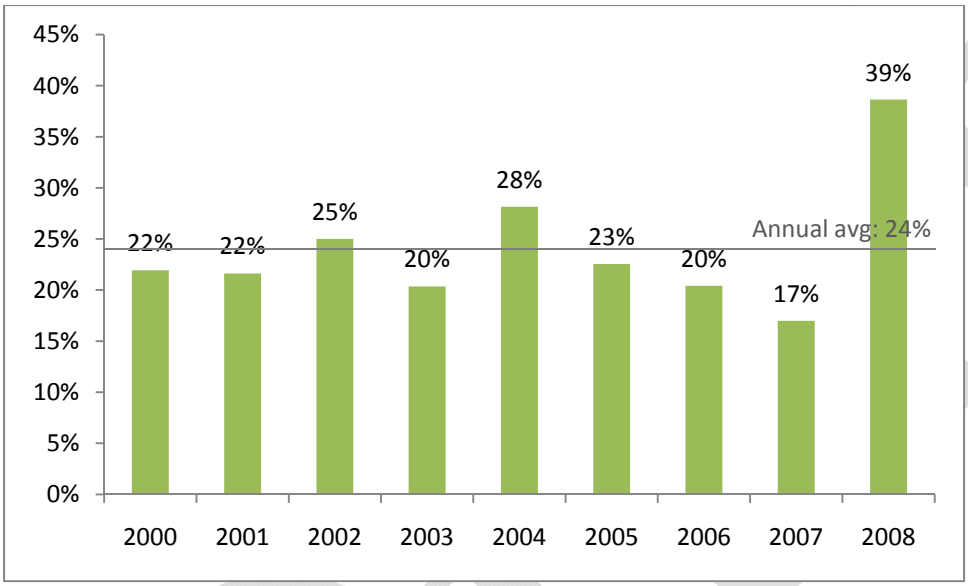
Collision numbers versus rates

When considering pedestrian collisions (or fatalities), it is important to remember that absolute numbers do not tell the whole story. If over time more people walked while the number of collisions remained the same, then the *rate* of collisions (as measured per pedestrian or per walk trip) would decrease.

Pedestrians' share of fatalities

Because they do not travel in the safety of a car, bus or train, pedestrians, along with bicyclists, are the most vulnerable users of the transportation system. For this reason, pedestrians (and also bicyclists) make up a disproportionate percentage of traffic fatalities and injuries. This is true in most communities around the country, and Alameda County is no exception. The following chart shows the pedestrian share of all traffic fatalities in the county. These percentages follow the same pattern as the absolute number of pedestrian fatalities described previously.

Pedestrians as percentage of all traffic fatalities in Alameda County *(source: SWITRS)*



- Over the past nine years, pedestrians have made up 24% of all traffic fatalities in Alameda County; this is more than twice the county's walk mode share (11%).
- With the exception of a minor spike in 2004 (28%), the pedestrian share of fatalities remained within a narrow range of 20-25% between 2000 and 2006.
- The lowest share of pedestrian fatalities was in 2007 (17%) while the highest was the very next year (39%).

Personal security

In the discussion of traffic collisions, it is easy to overlook another important component of safety: the effect on walking of real or perceived threats to personal security. Crime is a powerful deterrent against walking, particularly at night, in isolated areas, in areas with high crime rates, and among certain groups of people including women, seniors and the disabled. Like concerns about traffic safety, crime concerns can lead to a vicious cycle of fewer people on the street making people feel less safe and resulting in even fewer people walking. Making design and maintenance improvements — including pedestrian-level lighting, landscaping that is low to the ground, walkways near other activities and a well-maintained environment—go a long way toward alleviating fears.

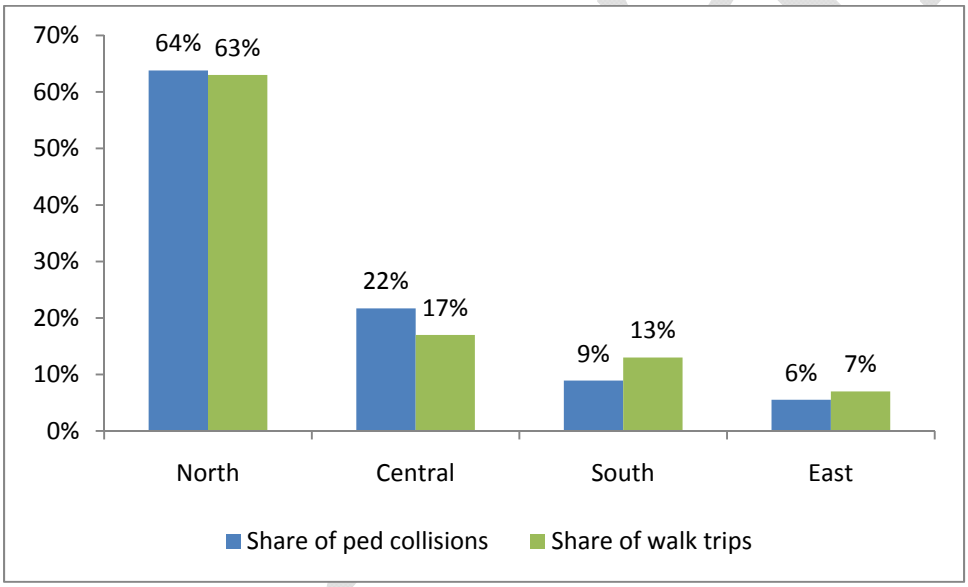
Unfortunately, data on crime against pedestrians is difficult to obtain and compile. Such statistics are collected by nearly 20 individual police departments in Alameda County and there is no reporting standard or central repository for this information.

By planning area

The following table shows each planning area's share of the county's pedestrian collisions from 2004 to 2008 (blue bars) and walk trips (green bars) (see Appendix M for more detailed information).

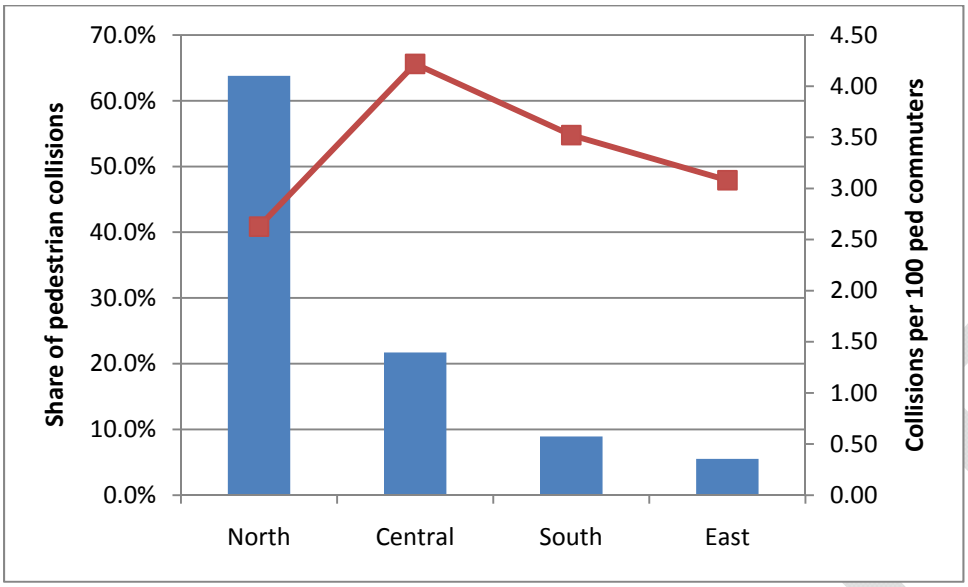
- In the North and East planning areas, their shares of the county's pedestrian collisions is roughly in balance with their share of the county's walk trips.
- During the 2000-2003 period, the North had a higher share of collisions that of trips (66% to 63%). The East's share of pedestrian collisions was only half its share of walk trips (4% against 8%).
- The Central area has a noticeably higher share of collisions than of walk trips. This was also true in 2000-2003 but to a lesser extent (19% to 16%).
- The South area has a noticeably lower share of collisions than of walk trips. This was also true in 2000-2003 though to a lesser extent (11% to 13%).

Share of pedestrian collisions and walk trips by planning area *(sources: SWITRS, BATS2000)*



Yet another method of trying to examine collision rates, rather than just absolute numbers, is to chart collisions per 100 pedestrian commuters against each planning area's share of collisions (commute trips represent only a minority of trips; however, there is more data about commuters than about other travelers).

Share of pedestrian collisions and collisions per 100 pedestrian commuters *(sources: SWITRS, 2000 Census, 2006-2008 ACS)*



- The North planning area, while having by far the highest share of pedestrian collisions, has the fewest collisions per 100 pedestrian commuters. Seen this way, the North area is safer for pedestrians than it appears based solely on absolute numbers, at least as far as traffic conditions.
- The Central planning area has the most collisions per 100 pedestrian commuters.

By time of day

Time of day provide another lens through which to view pedestrian collisions and fatalities. In the 2004-2008 period, approximately one third of collisions occurred in the morning and another third in the afternoon; the remaining third was divided almost evenly between the morning and afternoon/evening. The most striking observation is that whereas the afternoon/evening period saw only one-sixth of collisions, it accounted for almost half of the fatalities. Additional analysis is necessary to determine the reason for this discrepancy.

TIME OF DAY (2004-2008)	Collisions	Percent of total	Fatalities	Percent of total
Morning (6-10 am)	674	18%	17	13%
Midday (10 am-3 pm)	1,223	33%	19	15%
Afternoon/evening (4-8 pm)	622	17%	62	47%
Night (8 pm-6 am)	1,175	32%	33	25%
Total	**3,694**		**131**	

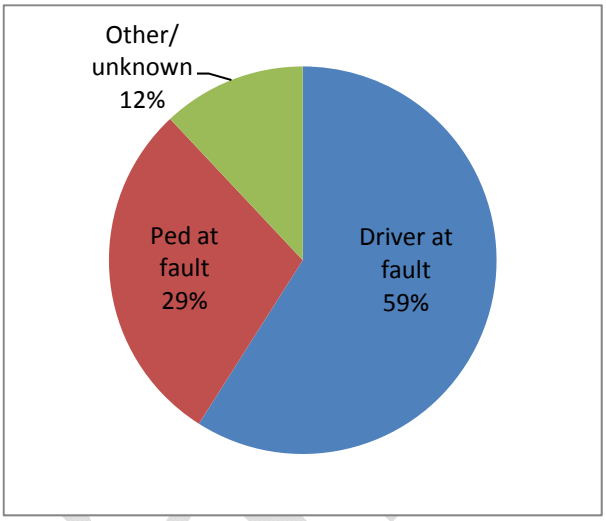
By party at fault

There are other useful ways to analyze collision data involving pedestrians. The table below breaks down driver-pedestrian collisions in Alameda County by party at fault and violation of the Vehicle Code, based on SWITRS data:

- The driver was found at fault more than twice as often as the pedestrian (59% compared to 29%).
- This split is similar to that during the 2000-2004 period. Then the driver was at fault also 59% of the time, while the pedestrian was at fault 33% of the time.
- By far the most common code infraction was drivers' violation of the pedestrian right-of-way. This accounted for more than 4 in 10 violations.

Code violations in vehicle-pedestrian collisions, 2004-2008 *(source: SWITRS)*

DRIVER AT FAULT	**59%**
Pedestrian right-of-way*	41%
Unsafe Speed	6%
Improper Turning	5%
Unsafe Starting or Backing	4%
Driving under the influence	1%
Improper Passing	1%
Other	1%
PEDESTRIAN AT FAULT	**29%**
Pedestrian violation	27%
Auto right-of-way**	2%
Other/unknown/not stated	**12%**



* Driver failing to stop for or yield to a pedestrian, for example in a crosswalk

** Pedestrian failing to stop for or yield to a driver, for example at a green light for the driver

❼ Support and advocacy

Local support programs

The focus in pedestrian planning is often on building capital projects. However, support programs are also important because they increase the safety and utility of those projects. Local jurisdictions in Alameda County administer a broad range of pedestrian support programs to complement their facility-building efforts. These programs may be grouped under the categories of safety, law enforcement, education, promotion or encouragement, safe routes to school and traffic-calming. Below is a summary of jurisdictions now sponsoring various types of programs (based on responses received from 14 jurisdictions):

Safety

- **Walking audit**: Alameda County, Albany, Piedmont and, new since 2006, Berkeley and San Leandro.
- **Pedestrian safety education campaign**: Alameda County, Berkeley (new), Dublin, Fremont and San Leandro.

Law enforcement

- **Pedestrian/bicycle traffic safety officers:** Alameda County.
- **Pedestrian/bicycle enforcement activities:** Eleven jurisdictions: Alameda County, Albany, Berkeley (new), Dublin, Emeryville (new), Fremont, Hayward, Livermore, Oakland, Pleasanton and San Leandro (new). These activities include "crosswalk stings," in which a plain-clothes police officer crosses the street and another officer gives warnings or tickets to drivers who fail to yield.

Education

- **Inform motorists on pedestrian/bicycle laws:** Albany, Berkeley, Dublin (new) and San Leandro.
- **Traffic curriculum:** Albany (new), Berkeley (new), Fremont, Dublin (new) and San Leandro.

Promotion/encouragement

- **Walks and tours:** Albany, Berkeley (new), Fremont, Hayward, Oakland, Piedmont (new) and Pleasanton.
- **Walking maps:** Berkeley (new), Emeryville and Oakland.

Safe Routes to School (SR2S)

- Berkeley, Emeryville, Fremont, Hayward, Oakland and San Leandro have applied for and received grant funding for SR2S programs; Pleasanton, Livermore and Union City applied for funding but did not receive it.
- Alameda County, Albany, Berkeley, Hayward, Livermore, Oakland, Piedmont and San Leandro participate in the countywide SR2S program through Transform.
- Newark and Emeryville do not have SR2S programs.

Traffic calming

- Five jurisdictions (Berkeley, Emeryville, Newark, Pleasanton and San Leandro) have a substantial traffic-calming program, with a dedicated funding source.
- Five jurisdictions (Alameda County, Albany, Fremont, Livermore and Oakland) have a traffic-calming program but with no dedicated funding source.
- Four jurisdictions (Dublin, Hayward, Piedmont and Union City) do not have a traffic-calming program.

Multi-jurisdictional programs

In addition to the local programs, there are two multi-jurisdictional support programs of note:

- Safe Routes to Schools (SR2S) Alameda County Partnership (www.transformca.org/sr2s). This program reaches students at more than 60 public elementary schools. It is led by TransForm, a local non-profit dedicated to improving transit and creating walkable communities.
- Tri-City Senior Walk Clubs, providing social and recreational opportunities for seniors in Fremont, Newark and Union City. Club participants follow a 20-week curriculum that encourages walking and promotes its health benefits, teaches awareness of pedestrian safety and personal security, and trains participants to identify and advocate for pedestrian improvements in their neighborhoods. (www.actia2022.com/files/managed/Document/293/A090026_S_Tri_City_Senior_Walk_Clubs_102209.pdf)

Advocacy efforts

Pedestrian advocacy seeks to encourage government to improve the walking environment and to encourage more people to walk more often. While bicycle advocacy has surged in the past 20 years, pedestrian advocacy is small, but growing. A likely reason for this difference is that everyone walks to some extent, and therefore few people identify themselves as "pedestrians," requiring special attention and support. That said, pedestrian advocacy has grown in Alameda County since 2006.

The main development in the past five years is the formation of Walk Oakland, Bike Oakland (www.walkoaklandbikeoakland.org). In 2010, the group organized Oaklavía (http://oaklavia.org), the closure to car traffic of several blocks in downtown Oakland for strolling, bicycling and other recreational activities. The event, which occurred on Sunday, June 27, from 10 a.m. to 2 p.m., is the first example of a "ciclovia" or "Sunday Streets" event to occur in Alameda County.

Other advocacy efforts active in the county, include:

- Pedestrian or pedestrian/bicycle advisory committees for several cities (including Berkeley, Oakland, Emeryville and Fremont), Alameda CTC and MTC.
- Walkable Neighborhoods for Seniors (sponsored by United Seniors of Oakland and Alameda County; www.usoac.org/wn4s/index.htm)
- Pedestrian Friendly Alameda (active in the city of Alameda; www.pedfriendly.org)
- Albany Strollers and Rollers (http://sites.google.com/site/albanystrollersandrollers/)

❽ Funding needs

As described in the next section, on implementation of the 2006 Pedestrian Plan, almost every local jurisdiction cites lack of funding as a major barrier to making pedestrian improvements. In that context, funding needs for pedestrian projects is an important existing condition that will help determine the countywide priorities.

As part of developing this update to the Countywide Pedestrian Plan, local jurisdictions were asked to estimate their *foreseeable* funding need for pedestrian projects. Some jurisdictions provided information on their current funding deficits for pedestrian projects, and others provided annual maintenance funding needs. Roughly half the jurisdictions responded, and their answers varied widely:

- **Dublin:** $84,000 annually to repair sidewalks.
- **Livermore:** $7.4 million annually for 10 years to clear the backlog of sidewalk projects, and $2.7 million annually after that; $1.86 million annually for three years to remove the backlog of traffic control maintenance and $420,000 annually after that.
- **Newark:** Approximately $2 million.
- **Oakland:** $12,000,000, for a variety of streetscape improvement projects and maintenance activities.
- **Piedmont:** $100,000.
- **Pleasanton:** $6,289,841.
- **San Leandro:** $6,450,000 (East Bay Greenway, $2.7 million; East 14th South Area streetscape, $2 million; accessibility improvements at railroad crossings, $750,000; West Juana Avenue streetscape, $450,000; Bancroft Avenue and 136th Avenue crossing improvements, $550,000).
- **Union City:** $5.3 million ($3 million to upgrade all curb ramps to ADA standard; $2 million to install and repair sidewalk segments; and $300,000 to improve pedestrian-related features at traffic signals).

⑨ Implementation of the 2006 plan

The 2006 Countywide Pedestrian Plan laid out priorities, goals and near-term next steps for implementing the plan. Although progress on implementation is sometimes difficult to track, much has been accomplished since the county's first pedestrian plan was adopted.

Capital projects

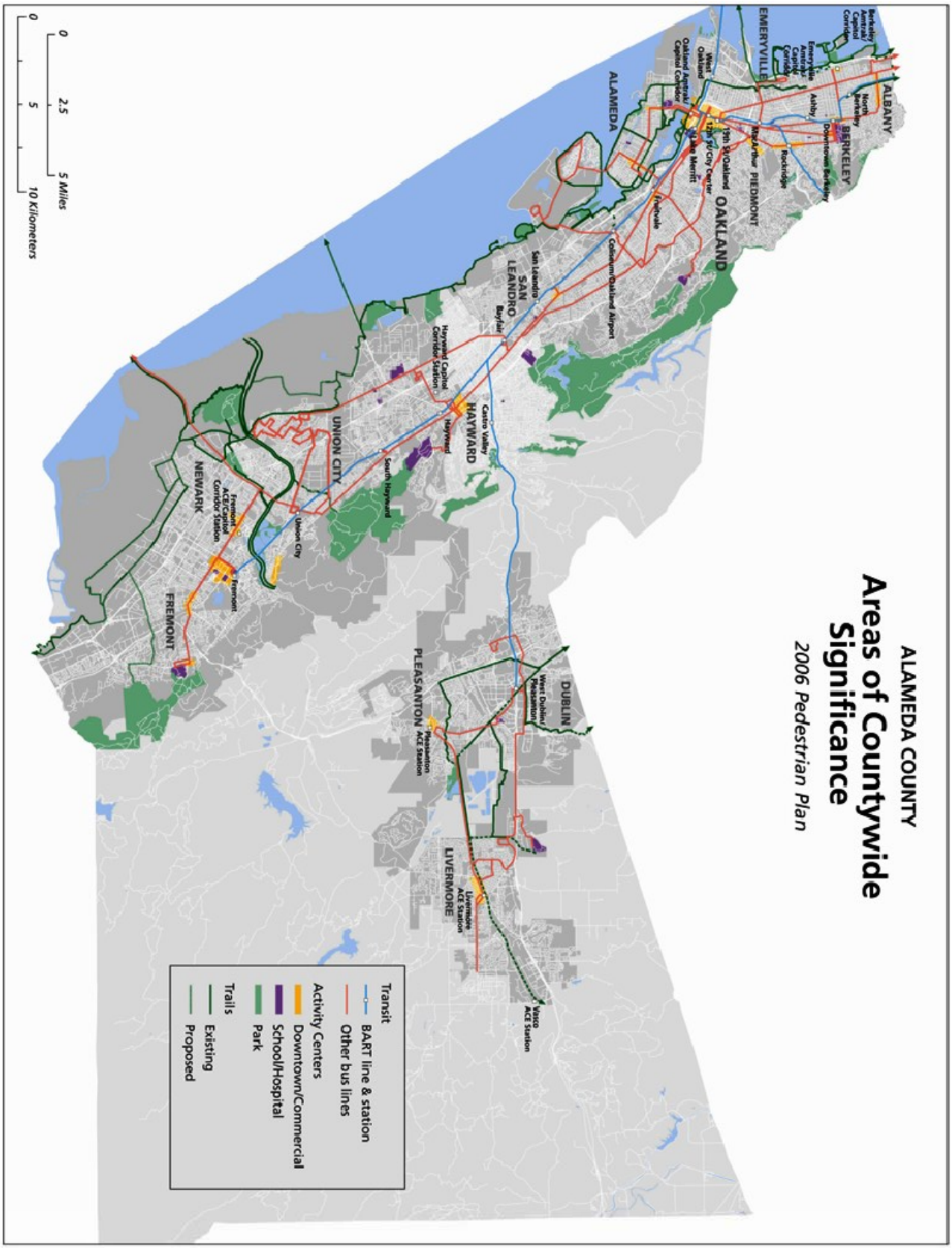
Three areas of countywide significance were established for capital projects in the 2006 plan: access to major transit, access to major activity centers, and inter-jurisdictional trails (see map on next page; projects can be located in more than one of these three areas). In 2010, local jurisdictions were polled on what had been accomplished during the previous five fiscal years (2005/06 to 2009/10) in these areas of countywide significance. Varying levels of responses were received, making this list of projects more than likely incomplete (see Appendix P for a detailed list of implemented projects):

- Although only six (out of fifteen) jurisdictions reported on implemented projects, it is likely that all jurisdictions made at least some capital improvements in an area of countywide significance, since these areas are so broad.
- One jurisdiction, Oakland, reported a majority of the projects (22 out of 37).
- The break-down by city and number projects is as follows: Alameda (city), 2; Livermore, 5; Oakland, 22; Pleasanton, 2; San Leandro, 4; and Union City, 2.
- 21 projects were located in public-transit areas of countywide significance, that is, within a half mile of rail stations, ferry terminals or major bus routes.
- 15 projects were in or near activity centers of countywide significance (areas within downtowns and major commercial districts, and near shopping centers, post-secondary educational institutions, hospitals and medical centers, major public venues, government buildings and regional parks).
- 11 projects were inter-jurisdictional trails of countywide significance. These included 6 for the Bay Trail (which completed approximately 9 miles of alignment) and 4 for the Iron Horse Trail.

Support programs

Two significant support programs at a multi-jurisdictional level have been put in place since 2006:

- Tri-City Senior Walk Clubs: began in July 2009, and is funded through a bicycle/pedestrian grant award from ACTIA and Bicycle and Pedestrian Pass-through funds out of Alameda County's half-cent transportation sales tax (Measure B), which is now administered by the Alameda CTC.
- Safe Routes to Schools (SR2S) Alameda County Partnership: began as a pilot project in Oakland in 2006 before expanding countywide as a partnership between TransForm, the Alameda County Public Health Department and many other local agencies and organizations. The program is funded in large part with a grant from Measure B.


ALAMEDA COUNTY
Areas of Countywide Significance
2006 Pedestrian Plan
ALBANY
BERKELEY
EMERYVILLE
PIEDMONT
OAKLAND
ALAMEDA
SAN LEANDRO
HAYWARD
UNION CITY
NEWARK
FREMONT
DUBLIN
PLEASANTON
LIVERMORE
Transit
BART line & station
Other bus lines
Activity Centers
Downtown/Commercial
School/Hospital
Park
Trails
Existing
Proposed
0 2.5 5 5 Miles
0 5 10 Kilometers

In addition, the following programs have been initiated by local jurisdictions since 2006:

Safety
- Walking audit: Berkeley, Emeryville, San Leandro
- Pedestrian safety education campaign: Berkeley

Law enforcement
- Pedestrian/bicycle safety training course for law enforcement officers: Berkeley
- Pedestrian/bicycle enforcement activities: Emeryville, San Leandro
- Share pedestrian/bicycle police resources with other cities: Oakland
- Involved law enforcement in planning, operation and construction of facilities: Berkeley, Oakland

Education
- Inform motorists of pedestrian/bicycle laws: Dublin
- Traffic curriculum at schools and community centers: Albany, Berkeley, Dublin

Promotion/encouragement
- Giveaways: Berkeley, Dublin, Oakland
- Historic walking tours: Berkeley, Piedmont
- Walking maps: Berkeley

Local planning efforts

Pedestrian plans at the local level are important because it is local jurisdictions that are responsible for planning, designing, constructing and maintaining pedestrian facilities. For this reason, one of the strategies in the 2006 Countywide Plan was to "ensure that all Alameda County jurisdictions have adopted a current pedestrian plan by 2012." At that time, just four cities and the County had adopted local pedestrian or pedestrian/bicycle plans, and three pedestrian plans were underway. Since 2006, four additional cities completed stand-alone pedestrian or combined pedestrian/bicycle plans and two are in the process of developing a plan (Albany and Newark). The main developments since 2006 are summarized below (see Appendix R for more information):

- Three cities that were in the process of developing stand-alone pedestrian plans—Alameda, Berkeley and Fremont—completed and adopted them.
- Additionally, Pleasanton began and has completed a pedestrian/bicycle plan.
- Albany is now in the process of developing a pedestrian plan, while Newark is preparing a pedestrian/bicycle plan.
- Four cities—Piedmont, Hayward, Dublin and Livermore—remain without a pedestrian or pedestrian/bicycle plan.
- In addition, all jurisdictions have adopted ADA transition plans; these are plans describing any structural or physical changes needed to make a public entity's programs and services accessible (the 2006 plan did not report on this).

Status of local pedestrian plans

Jurisdiction	2006	2010
North Planning Area		
Alameda (City of)	Underway	✓
Albany		Underway
Berkeley	Underway	Updated Since 2006
Oakland	✓	✓
Piedmont		
Emeryville	✓	Update Underway
Central Planning Area		
San Leandro	✓	Update Underway
Hayward		
Unincorporated	✓	Update Underway
South Planning Area		
Fremont	Underway	Update Underway
Newark		Underway
Union City	✓	Update Underway
East Planning Area		
Pleasanton		✓
Dublin		
Livermore		Underway
Total	5	9

Progress on "Next Steps" from 2006 plan

The 2006 Pedestrian Plan identified eight priority implementation activities for the five years following adoption of the plan, or the 2006-2010 period. These "next steps" were primarily the responsibility of ACTIA, although it was expected that several would require partnering with local jurisdictions and other agencies. Below is a summary of the progress that ACTIA made on the eight priority activities.

1. Prioritize funding investments of countywide significance

- Along with the ACCMA, incorporated the priorities from the 2006 plan into the criteria for countywide discretionary pedestrian and bicycle funding, so as to focus the countywide funds on the plan priorities.
- Became a partner in the national Active Transportation legislative effort to bring an additional $25-75 million per community for pedestrian, bicycle and access to transit improvements.
- Along with the ACCMA, worked with MTC to implement their Routine Accommodation policy within the county.

2. Elevate importance of pedestrian planning

- Funded three local pedestrian master plans with bicycle/pedestrian funding from Measure B.
- Initiated this update to the Countywide Pedestrian Plan.
- Incorporated the priorities from the 2006 plan into the updates to the 2008 Countywide Transportation Plan and the 2009 Regional Transportation Plan.

3. Support programs shown to be effective

- Funded the establishment and continued operation of the countywide Safe Routes to Schools program, begun in 2007.
- Funded the expansion of TravelChoice, an individualized marketing program, into Berkeley; and also the development of the next iteration of the program, called TravelChoice New Residents, which is aimed at new housing developments.

4. Strengthen the link between walking and public transit

- Continues to coordinate with the county's transit agencies, which includes participating on project Technical Advisory Committees as requested.
- Funded multiple transit access projects with countywide discretionary bicycle/pedestrian funding, such as streetscape improvements near BART stations, pedestrian wayfinding signage near rail stops and the proposed East Bay Greenway.

5. Raise awareness of the nexus between walking and public health

- Has continued to collaborate with the public health department on grants, planning efforts and information-sharing.
- Along with the ACCMA, funded the completion of segments of the Bay Trail, along with feasibility studies on two segments of the Iron Horse Trail.
- Funded two efforts to implement the East Bay Greenway: a feasibility study of the Union Pacific Railroad right-of-way as a future trail, and the environmental review and implementation strategy for the first phase of the Greenway.

6. Create an ongoing pedestrian technical advisory committee

- Launched the Pedestrian Bicycle Working Group (2007), which continues to meet 2-4 times per year.

7. Invest in education and training

- Organized a half-day Bicycle and Pedestrian Conference (2009).
- Began hosting the monthly webinars of the Association of Bicycle and Pedestrian Professionals (2008).
- Updated the Toolkit for Improving Walkability in Alameda County (2009).

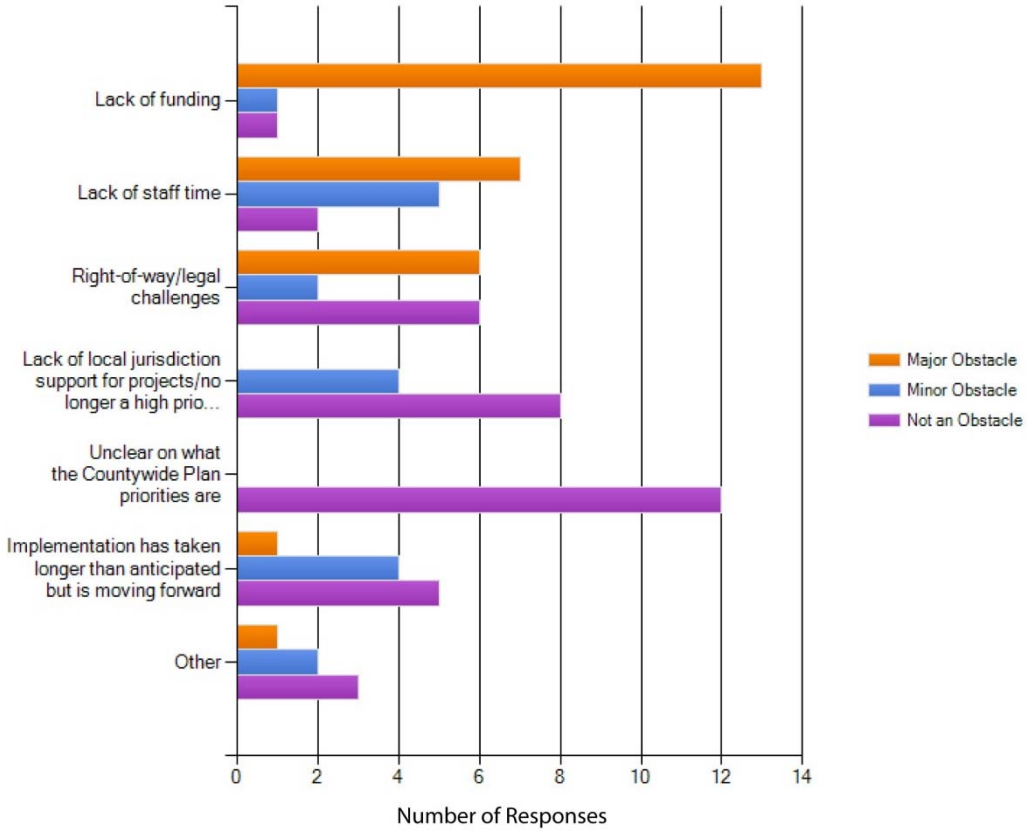
8. Develop technical tools

- Held information-sharing sessions at the Pedestrian Bicycle Working Group meetings on a variety of technical topics, but no specific tools have been developed to date.

Challenges encountered

In the 2010 local agency questionnaire (to which 14 jurisdictions have responded to date), local jurisdictions were asked to identify challenges they have encountered in implementing the priorities identified in the 2006 Countywide Pedestrian Plan. The most commonly cited implementation challenges by far were insufficient funding and staff time and right-of-way constraints:

Implementation challenges encountered by local jurisdictions



- Perhaps not surprisingly, every jurisdiction (except Dublin) cited inadequate funding for projects as a major challenge.
- Also not surprisingly, given budget cuts at the local level, the following jurisdictions identified inadequate staff time, and lack of staff resources in general, as major obstacles to implementation: Oakland, San Leandro, Hayward, Newark and Pleasanton.
- Significant right-of-way challenges were reported by San Leandro, Fremont, Pleasanton and Dublin.
- Additionally, Oakland suggested the need for better coordination with resurfacing projects; Pleasanton—which is dealing with projects adjacent to waterways—mentioned lack of interagency coordination as a significant challenge; and San Leandro, Hayward and Newark cited lack of community or jurisdictional support as minor challenges.

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Alameda Countywide Bicycle Plan

DRAFT Existing Conditions Chapter

September 2010

Table of contents

0 Introduction

"Existing Conditions"—the opening chapter of the Alameda Countywide Bicycle Plan—sets the context for the rest of the plan by describing the current state of bicycling in Alameda County. The chapter tackles four questions that are central to understanding and planning for the needs of cyclists in the county:

- **Who is bicycling in Alameda County?** examines bicycling rates by key demographic characteristics.
- **How many people are bicycling?** looks at the number of bike trips and commuters in the county.
- **Why are people bicycling?** explores the purposes of trips made by bike.
- **Where are people bicycling?** analyzes numbers and rates of bicycling trips in specific areas of the county.

In addition, the chapter includes sections on bicycle safety; local bicycle planning efforts, support programs and advocacy efforts; and implementation of the 2006 Countywide Bicycle Plan.

The chapter incorporates the most recent data available for bicycle travel, obtained especially from the following sources:

- The 2000 Census and 2006-2008 American Community Survey (ACS), for statistics on the number of people who bike to work. The ACS is an annual survey, also administered by the U.S. Census, that replaced the "long form" of the census. This report uses ACS data for the combined years 2006-2008 instead of for 2008 because three-year data is much more accurate than one-year data. The ACS does not provide data for Albany, Emeryville and Piedmont because those jurisdictions have populations under 20,000.
- The year 2000 Bay Area Transportation Survey (BATS2000) from the Metropolitan Transportation Commission (MTC), for data on bicycle trips made for all purposes (2000 is the most recent year in which BATS was conducted). It is important to note that BATS significantly undercounts bicycling trips because it does not include trips to or from transit, many of which are made by bike.
- Station profile studies from 1998 and 2008 conducted by the Bay Area Rapid Transit District (BART) to determine, among other things, how passengers access BART stations.
- The California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS), a database of traffic collisions as reported to and collected by local police departments and other law enforcement agencies across the state.

❶ Key findings

This chapter contains more than 30 pages of data and other information about the state of bicycling in Alameda County. As a way of making this information easier to absorb, below are some of the key findings from the chapter:

Who is bicycling in Alameda County?

- Women make only one third of all bicycling trips, or just under half as many as men. Women's bike mode share is less than half that of men (0.9% against 2.1%).
- The bicycling rate is highest among people aged 18-29; excluding the 0-4 age group, the lowest rate is among those 65 years of age and older.
- People in the lowest income group have the highest bike mode share (1.8%) whereas those with the highest incomes bike the least.

How many people are bicycling?

- In 2000 (the latest year for which such data is available), approximately 593,000 bike trips were made every week in Alameda County, or almost 85,000 trips daily. This represented 2% of all trips.
- If biking trips to or from transit are included, the weekday number of bike trips in the county increases by almost 77,000; this includes 57,000 to AC Transit stops and 20,000 to BART stations.
- The bike mode share in Alameda County (2%) is double that of the Bay Area (1%).
- The number of bike commuters increased by 21% from 2000 to 2006-2008 (compared to an increase of only 2% for all commuters), while the bike mode share for commute trips rose from 1.2% to 1.5%.

Why are people bicycling?

- The breakdown of bike trips in Alameda County by trip purpose is as follows: social/recreational (34%), work (19%), shopping (19%) and school (9%). An additional 19% are "non home-based" trips—they begin and end someplace other than at home—of all purposes.
- The bike mode share was highest for social/recreational trips (3%) and lowest for shopping (1%).
- Significant physical barriers to bicycling in the county include auto and rail infrastructure such as highways, interchanges and railroads. Key gaps include missing segments along multi-jurisdictional paths and trails.

Where are people bicycling?

- A full three quarters of all bicycle trips in the county are in the North planning area, well over its population share of 42%. Very few people are bicycling in Central and South county; those areas account for almost 50% of the population but for only 13% of the county's bike trips.
- The North planning area has the highest bicycling mode share (3%), while the Central area has the lowest (0.5%). Berkeley has by far the highest percentage of commuters on bike (6.6%).
- The bike access share for BART stations in the county increased by almost a third from 1998 to 2008 (from 3% to 4%). In 1998, only one station had a bike access share higher of 5% or greater; in 2008, five did: Ashby, Fruitvale, North Berkeley, MacArthur and Lake Merritt.
- The seven top stations with the highest share of bike access trips in 2008 are in the North planning area. The three stations with the lowest bike access share include 12th Street and both of the stations in the South planning area.
- Nationally, almost 60% of bike trips are under 15 minutes (roughly 3 miles). Only 7% of bike trips are over an hour (12 miles) long.

Bicycle safety

- In 2000-2008, there was an average of 581 collisions per year in Alameda County involving bicyclists that resulted in at least serious or visible injuries, and an average of almost three fatalities.
- Most of the collisions occur along an arc from central Berkeley to downtown Oakland.
- Over the past eight years, bicyclists have made up 2.4% of all traffic fatalities in Alameda County; this is roughly consistent with the county's bike mode share (2%).
- The North planning area has a much lower share of the county's bike collisions than of bike trips. The Central area has a much higher share, the South has a somewhat higher share and the East has the same share.
- The North area has the fewest collisions per 100 bike commuters, while the South area has the most.
- The afternoon/evening period accounted for only 10% of the collisions but had, by far, the highest percentage of fatalities (64%).

Support facilities

- Four cities have bicycle parking ordinances: Oakland, Hayward, Pleasanton and Union City. Almost all jurisdictions have installed at least some bicycle racks or lockers.
- BART provides racks at all its stations in the county; lockers at all stations except 12th Street and 19th Street in Oakland and Downtown Berkeley; and bike stations at Downtown Berkeley and Fruitvale.
- Oakland and Emeryville have bike-route signage programs.

Planning, programs and advocacy

- Albany, Hayward, Oakland and Union City updated their bicycle or bicycle/pedestrian plan since 2006, while Dublin and Pleasanton adopted their first plan, as did the County (for the unincorporated areas). Other than Newark, which is in the process of developing a combined bicycle/pedestrian plan, only one city—Piedmont—remains without a bicycle plan.
- In addition to jurisdictions, the University of California at Berkeley has a campus bicycle plan.
- Almost every local jurisdiction administers one or more bicycle support programs in the areas of safety, law enforcement, education and encouragement. Nine cities and the County conduct safe routes to school activities, while five cities have a traffic calming program with dedicated funding.
- A key development in bicycle advocacy has been the formation of Walk Oakland, Bike Oakland.

Funding needs

- Almost every local jurisdiction cites lack of funding as a major barrier to making bicycle improvements. Jurisdictions have reported approximately $145 million, combined, in funding needs.

Implementation of the 2006 plan

- Seven jurisdictions reported implementing projects on the countywide bicycle network: Albany, Fremont, Hayward, Livermore, Oakland, Pleasanton and Union City.
- Countywide support programs implemented since 2006 include the Safe Routes to Schools (SR2S) Alameda County Partnership; bicycle safety classes offered by the East Bay Bicycle Coalition and BikeAlameda; expanded Bike to Work Day (BTWD) events and the "Get Rolling" advertising campaign in support of BTWD.
- By far the challenges most commonly encountered by local jurisdictions in implementing the priorities in the 2006 plan are insufficient funding and staff time and right-of-way constraints.

❷ Who is bicycling in Alameda County?

To answer this question, it helps to examine some key demographic characteristics of bicyclists, namely gender, age group and income level. The data show, for example, that men ride bikes much more often than women, and young adults more often than other age groups.

By gender

In Alameda County, as in the U.S. as a whole, far fewer women ride bikes than men:

	Share of all biking trips	Share of the population	Bike mode share
Women	33%	51%	0.9%
Men	67%	49%	2.1%

Source: BATS2000

- Women make only one third of all bicycling trips, or just under half as many as men. This split is significantly different than the overall gender split in Alameda County (51% women, 49% men).
- Women's bike "mode share" (bicycling trips as a percentage of all trips) is less than half that of men (0.9% against 2.1%).

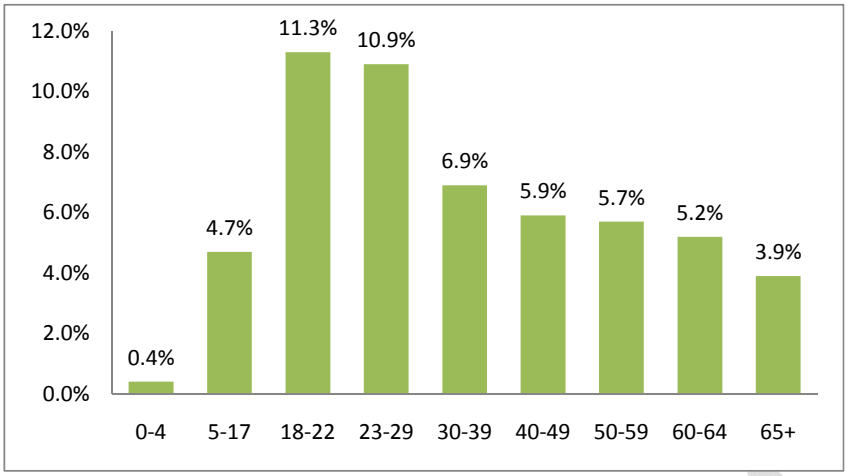
What is "mode share"?

The term "mode share" is used frequently in this chapter. The term, also known as "mode split," refers to the percentage of trips or people using a particular form of transportation, such as walking, driving, transit or bicycling. A bike mode share (or bike share) of 5%, for example, means that 1 out of 20 trips is made by bike, or that 1 out of every 20 people travels by bike.

By age group

Bicycling rates vary even more across age groups than across gender. The bicycling rate is highest among people aged 18-29 and—excluding the 0-4 age group—it is lowest among the oldest group, those 65 years of age and older.

Bike mode share by age group in Alameda County *(source: BATS2000)*

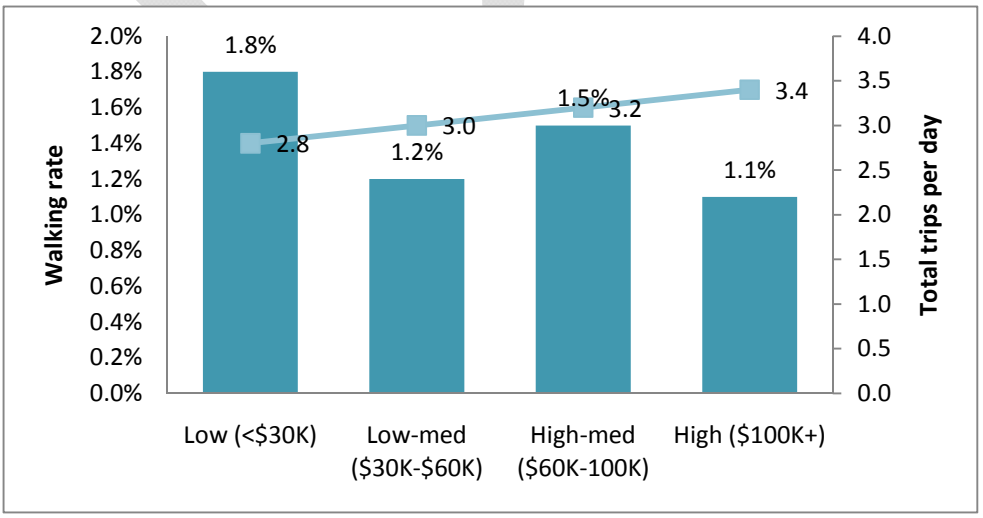


- The bicycling rate is highest among people aged 18-29 and lowest among both younger and older groups. The rate drops by more than one third between the 23-29 and 30-39 age groups, then declines steadily with each successive age group.
- Excluding the 0-4 age group, the lowest bicycling rate is found among the oldest cohort, those 65 years of age and older. Their bicycling rate is just about a third the rate of the 18-22 age group.

By income level

Bicycling rates are relatively consistent among people at different income levels. The chart below shows the bike mode share in Alameda County by income group (left axis; on the right axis are total trips made per person per day). It shows that as income goes up, total trips made per person per day increase steadily, while the bike mode share exhibits a general downward trend.

Bike mode share by income level in Alameda County *(source: BATS2000)*



- Of all the income quartiles, people in the lowest quartile have the highest bike mode share (1.8%); followed by those in the "high-med" range (1.5%). Those with the highest incomes bike the least.
- In absolute terms, the percentage of people in the lowest-income group who bike (1.8%) is only slightly higher than in the highest-income group (1.1%, or a difference of only 0.7%). In relative terms, though, it is significant: a person in the lowest-income group is more than 60% more likely to ride a bike than a person in the highest-income group (1.8% is 64% higher than 1.1%).

Bicycling and social equity

Low-income populations are particularly vulnerable with regard to transportation (see report referenced at the end of this write-up). Statistically, lower-income individuals are less likely to own cars and their finances are more likely to be stretched by transit costs. This limits their access, most critically to jobs but also to meeting other everyday needs. At the same time, low-income people tend to lack the time and money for activities that promote a healthy lifestyle, such as taking part in organized sports or joining a gym.

For low-income populations, bicycling may be a lifeline, since it is a particularly healthy and affordable transportation option. (As mentioned earlier, low-income individuals are slightly more reliant on biking for their trips.) For this reason, such populations have an especially urgent need for a dense network of safe on-street bike lanes and off-street trails and paths, and other bicycling facilities and amenities, and safe places to lock bicycles. Safety is a special concern, as individuals may face disproportionate risks, real or perceived, from traffic or crime (including theft). As local governments try to design bikeable communities, they will need to make extra effort to ensure that low-income populations have access to the same, if not greater, choices and opportunities for bicycling as the general population.

In an attempt to reduce transportation inequities, MTC has identified "communities of concern"—generally defined as having high concentrations of minority and low-income populations—throughout the Bay Area, for various planning purposes. There are seven such communities in Alameda County:

- Berkeley / Albany
- Central and East Alameda
- West / North Oakland
- Fruitvale / East Oakland
- Ashland / Cherryland / San Leandro
- Northwest Hayward / Union City
- Fremont / Newark

For further reading

"Active Living and Social Equity: Creating Healthy Communities for All Residents" (International City/County Management Association):
http://bookstore.icma.org/freedocs/Active%20Living%20and%20Social%20Equity.pdf

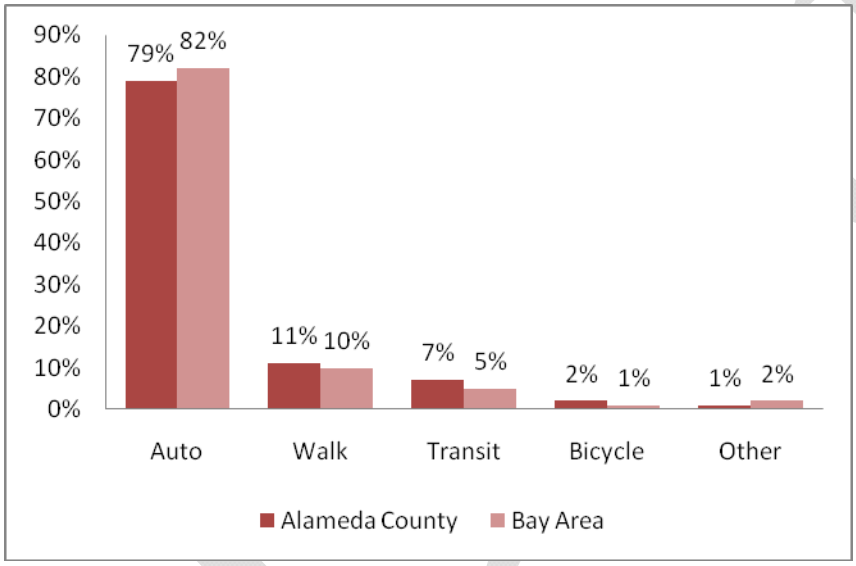
❸ How many people are bicycling?

Bicycle trips

On average, Alameda County residents bicycle more than residents of the Bay Area as a whole, the state and even the nation. According to BATS2000, approximately 593,000 biking trips were made every week in Alameda County in 2000, or almost 85,000 trips every day. This represented 2% of all trips (see Appendix B for more detailed information).

It should be noted that these figures significantly undercount the number of bicycle trips. BATS does not include bicycling (or walking) trips to or from transit, since in those cases transit is considered the primary form of travel. If bicycle trips to/from transit are included, the weekday number of bike trips in Alameda County increases by almost 77,000. This includes nearly 57,000 daily bike trips to AC Transit bus stops (according to the agency's 2002 On-Board Transit Rider Survey) and approximately 20,000 to BART stations (2008 Station Profile Study).

Mode share for all trips *(source: BATS2000)*



- In Alameda County, as in the Bay Area as a whole, bicycling represents a small share of all trips (though growing, based on information from . However, , though growing, share of all trips.
- The bike mode share in Alameda County (2%) is double that of the Bay Area (1%).

Bicycle commuters to work

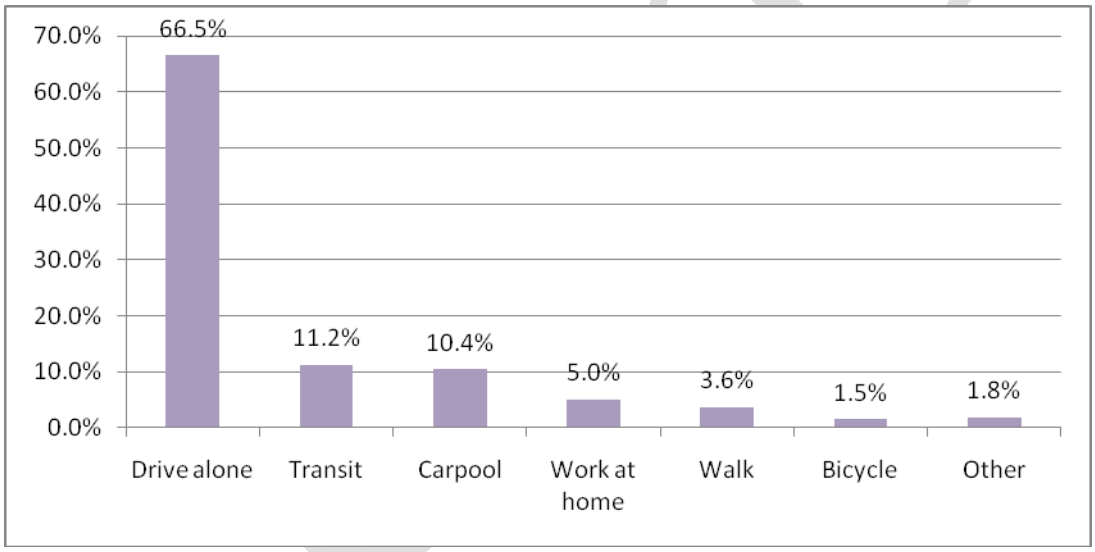
More recent U.S. Census data is available about commute trips, allowing the opportunity to see trends since 2000, albeit on a very small percentage of all bike trips. Work commute trips represent only a quarter to a fifth of all trips, and of these, very few are made by bike. According to the Census, approximately 1.5% of work commuters in Alameda County biked to work in 2006-2008, an increase of .3% from those that biked to work in 2000 (see Appendix C for more detailed information):

Journey-to-work mode share *(sources: 2000 U.S. Census and 2006-2008 ACS)*

	Alameda County 2000	Alameda County 2006-2008	Bay Area 2006-2008
Drive alone	66.4%	66.5%	67.8%
Carpool	13.8%	10.4%	10.4%
Transit	10.6%	11.2%	10.0%
Work at home	3.5%	5.0%	5.3%
Walk	3.2%	3.6%	3.6%
Bicycle	1.2%	1.5%	1.3%
	8,385	10,132	
Other	1.2%	1.8%	1.6%

- The bike mode share increased from 1.2% to 1.5% from 2000 to 2006-2008. While this is a modest uptick in mode share, it represents a significant increase of 21% in the number of bicycle commuters, from 8,385 to 10,132. (By comparison, the number of all commuters countywide increased by just 2% during the same period.)
- The bike mode share in Alameda County is somewhat higher than for the Bay Area as a whole (1.3%).

Journey-to-work mode share in Alameda County, 2006-2008 *(source: 2006-2008 ACS)*



Bicycle counts

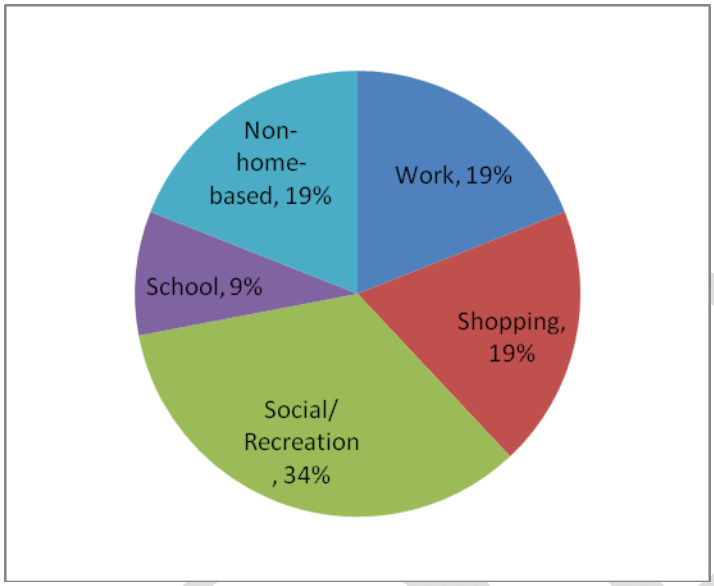
Routine bicycle counts are potentially useful in gauging changes in bicycling rates over time on particular facilities. The Alameda County CMA has been conducting bicycle counts every two years since 2002 at a dozen intersections around the county. While changes vary widely among locations, the numbers show a strong and consistent increase in the total number of bicyclists observed (the results of the counts are in Appendix E). In addition, the UC Berkeley Traffic Safety Center has begun conducting bicycle counts alongside its pedestrian counts; this will provide additional valuable data for determining trends in bicycle ridership.

❹ Why are people bicycling?

Trips by purpose

MTC's BATS2000 provides information on the purpose of bike trips made by Alameda County residents (see Appendix B for more detailed information). The survey broke down all trips into those that start or end at home (called "home-based") and those that start and end somewhere else; for example, a lunch-time errand from the office (called "non-home-based"). Home based trips were further broken down into trips to or from work, shopping, social/recreation, or school (again, BATS does not include biking trips to or from transit).

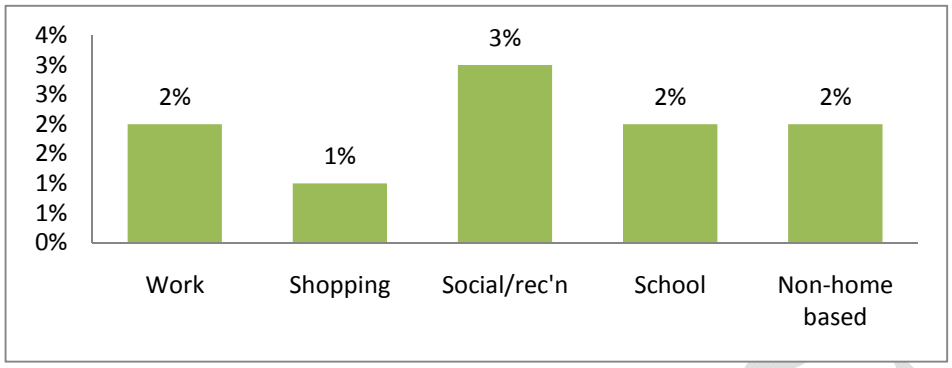
Bike trips by purpose in Alameda County *(source: BATS2000)*



- The most common purpose of bike trips in Alameda County, by a wide margin, was social/recreational (34%). The least common purpose was going to school (9%). Trips to work, shopping trips and non-home-based trips were all equally common (19%).
- Home-based bike trips were more than four times as common as non-home-based trips (81% against 19%).

Another way to look at the same numbers is by examining the percentage of people who rode bikes for each trip purpose:

Bike mode share by trip purpose in Alameda County *(source: BATS2000)*



- The bike mode share was highest for social/recreational trips (3%), not surprising given the number of people who enjoy going on recreational bike rides; it was lowest for shopping trips (1%), perhaps because shopping by bike requires panniers, or other means for carrying items, which some people do not have on their bikes.
- The bike mode share was approximately the same for work, school and non-home-based trips (2%).

Bicycling and transit

Transit allows bicyclists to travel beyond their typical range, enabling them to make trips that might be impractical by bike alone. The East Bay is fortunate to have relatively extensive transit service, provided by a number of agencies, or "operators," shown in the table below. As recently as 15 years ago, bicycle parking at transit stations and on-board bike access was still a rarity in the Bay Area. Today, however, every operator in Alameda County accommodates bikes on board their vehicles and just about every major transit station in the county has dozens of bicycle racks and lockers

Bike access on transit

Operator	Service area	Stops or stations in the county	Daily ridership	Bicycle access on vehicles
Alameda-Contra Costa Transit District (AC Transit)	Alameda County (with the exception of the Tri-Valley), Contra Costa County and San Francisco	6,500 (both counties)	236,000	• Bike racks on buses (by 2011, some racks will hold 3-bikes) • On Transbay buses, bikes may be stored in the cargo bays • Folding bikes allowed inside at all times; other bikes, at the driver's discretion
Altamont Commuter Express (ACE)	Tri-Valley and Fremont to the San Joaquin Valley and San Jose	1	3,700	Each train has a bike car, with additional space provided on regular coach cars
Amtrak's Capitol Corridor	Berkeley, Emeryville, Oakland, Hayward, Fremont to Sacramento and San Jose	6	4,400	Bike racks on most coach cars; bikes may also be stowed in the undercarriage

Bay Area Rapid Transit (BART)	Berkeley, Oakland, San Leandro, Hayward, Union City, Fremont, Castro Valley, and Dublin/Pleasanton to San Francisco and Contra Costa and San Mateo counties	19	350,000	Bikes allowed on trains in off-peak times and directions
Dumbarton Express	Union City, Fremont and Newark to San Mateo County	4	873	Bike racks on buses; bikes also permitted inside at the driver's discretion
Emery Go Round	Emeryville	25	n/a	Bike racks on buses; bikes also permitted inside at the driver's discretion
LAVTA (Wheels)	Dublin, Pleasanton and Livermore	500	4,500	Bike racks on buses; bikes also permitted inside at the driver's discretion
Union City Transit	Union City	165	1,637	Bike racks on buses
WETA (Alameda Harbor Bay Ferry)	Alameda (city) to San Francisco	1	625	Bike racks on board
WETA (Alameda/Oakland Ferry)	Oakland and Alameda (city) to San Francisco	2	1,500	Bike racks on board

There have been several significant developments related to bicycling and transit since 2006:

- In 2009, AC Transit published a bicycle parking study identifying its bus stops that have a high latent demand for bicycle parking and including guidelines for local jurisdictions on the design and installation of secure and accessible parking at those locations.
- BART has installed a bike station (attended bicycle parking service that provides additional services and amenities for cyclists, including bike repair) at the Fruitvale station. The bike station at the Downtown Berkeley station was moved above ground and expanded in 2010.
- Oakland installed electronic lockers, or e-lockers—which are rented on an hourly basis—at the 12th Street and 19th Street stations in Oakland. BART installed e-lockers at all its other stations in Alameda County except Downtown Berkeley.

On the other hand, operators are struggling in the face of funding shortfalls as a result of the ongoing economic downturn. The region's two largest operators have instituted recent service cuts and fare increases. AC Transit raised fares 15-25 cents last year and this year instituted two rounds of service cuts, with a third one still possible. Last year, BART reduced service at night and on weekends, raised fares and began a parking charge at eight more station lots in the East Bay. Cutbacks in transit service are likely to result in fewer people taking fewer rides. Given that many bike trips are to AC Transit stops and BART stations, this could also result in fewer daily bike trips being made in Alameda County.

Physical barriers and connectivity gaps

A different way to look at this section is, "Why aren't more people bicycling?" Some of the most common reasons—including lack of facilities, concerns about traffic safety and long distances—are at least partly related to the existence of physical barriers or connectivity gaps. Below is a list of significant barriers in Alameda County mentioned by local jurisdictions in the 2010 questionnaire. The majority of them are automobile and rail infrastructure—highways, railroads and interchanges:

North planning area

- Interstates 80, 580 and 880
- State Routes 24 and 13
- Railroad tracks in Albany, Berkeley, Emeryville and Oakland
- Freeway and railroad crossings (Albany specified the Gilman Street interchange)

Central planning area

- Interstates 580 and 880
- Railroad tracks
- San Leandro specified the I-880 interchanges at Davis Street, Marina Boulevard and Washington Avenue; and the Union Pacific Railroad Oakland Subdivision underpasses on Washington Avenue and San Leandro Boulevard

South planning area

- Interstates 880 and State Route 84
- Union Pacific railroad tracks

East Planning Area

- Interstates 580 and 680

Connectivity gaps refer to missing bicycle connections or segments along bicycle routes, such as multi-use paths. Major connectivity gaps in Alameda County cited by local jurisdictions include:

North planning area

- San Francisco-Oakland Bay Bridge
- Lake Merritt channel (Oakland)
- Oakland Estuary waterfront (Oakland)

Central planning area

- Bay Trail gap between south Fremont Boulevard and Dixon Landing Road (Fremont)

South planning area

- Creeks and canals

East Planning Area

- Along the Iron Horse Trail crossing Santa Rita Road, the intersection of Stanley Boulevard at Valley and Bernal avenues (Pleasanton)
- Arroyo Mocho Creek at Stoneridge Drive (Pleasanton)
- Intersection of the Alamo Canal and Tassajara Creek trails and I-580 (Dublin)

Bicycling and health

Our society is in the midst of a public health epidemic caused by physical inactivity. According to California Active Communities, "In California, physical inactivity is by a large margin the most prevalent chronic disease risk factor with more than 50% of adults reporting a sedentary lifestyle, contributing to an estimated 30,000 deaths each year." According to the Alameda County Public

Health Department, over half the county's population (52%) is considered overweight or obese, while 22% of children are clinically obese.

Bicycling, as an enjoyable form of physical activity, promises multiple public health benefits. Physical activity helps prevent or control chronic diseases such as high blood pressure, heart disease, stroke, diabetes and certain cancers; helps maintain a healthy weight; and improves mood, lowers stress level and reduces depression. The study referenced at the end of this write-up found that states and cities with higher rates of walking and cycling had a higher percentage of adults who achieved recommended levels of physical activity and a lower percentage of obese or diabetic adults.

Unfortunately, many communities are generally not conducive to bicycling. Too often they have been designed primarily with car drivers in mind. An important strategy for improving bikeability is to provide a safe and interconnected network of on-street bike lanes, bike boulevards, and off-street paths and trails that connect homes to jobs, shops, schools, transit, parks and other key destinations. Other measures to improve bikeability include:

- Abundant and well-designed bicycle parking at destinations favored by cyclists.
- Convenient access to transit stations and stops, as well as onto buses, trains and ferries.
- Traffic calming in residential neighborhoods and reductions in traffic speeds.
- Compact, mixed-use neighborhoods, to reduce distances for cyclists.

For further reading
"Want a slimmer, healthier community? Try building more sidewalks, crosswalks and bike paths" (ScienceDaily): http://www.sciencedaily.com/releases/2010/08/100819162633.htm

❺ Where are people bicycling?

This section looks at the number of bicyclists and bike trips in terms by specific areas of the county, including the county's four planning areas, its 15 jurisdictions and its 19 BART stations.

Alameda County planning areas

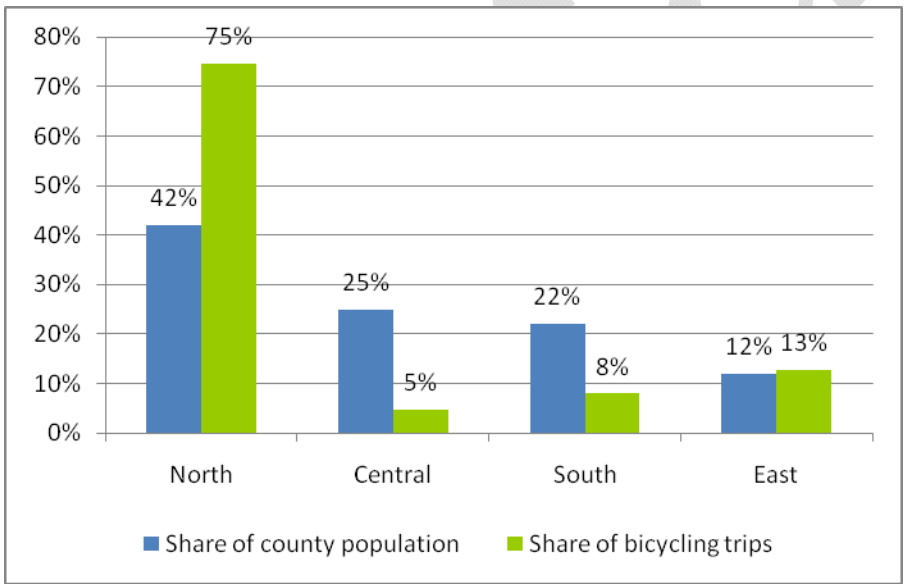
For planning purposes, the Alameda County Transportation Commission divides the county into four planning areas, as follows:

- **North County:** Alameda (city), Albany, Berkeley, Emeryville, Oakland and Piedmont
- **Central County:** Hayward and San Leandro, and surrounding unincorporated areas of the county
- **South County:** Fremont, Newark and Union City
- **East County:** Dublin, Livermore and Pleasanton, and surrounding unincorporated areas

By planning area

The chart below shows the percentage of bike trips that were made in each planning area. For comparison purposes, the chart also shows each planning area's share of the county's population:

Share of county population and bicycling trips by planning area *(sources: BATS2000, 2000 Census)*



- A full three quarters of all bicycle trips in the county are in the North planning area (75%), well over its population share of 42%.
- The East planning area is the only other area with a higher share of the county's bicycling trips (13%) than its share of the population (12%).
- Very few people are bicycling in Central and South county. While almost 50% of the county's population lives in these two areas, only 13% of all of the county's bicycle trips take place here.
- Additional analysis is necessary to determine why the reason for the large changes in Pleasanton and Newark WHY is this true, especially for Central County which is slightly less suburban than the south and east and poorer?

Bicycling and the Built Environment

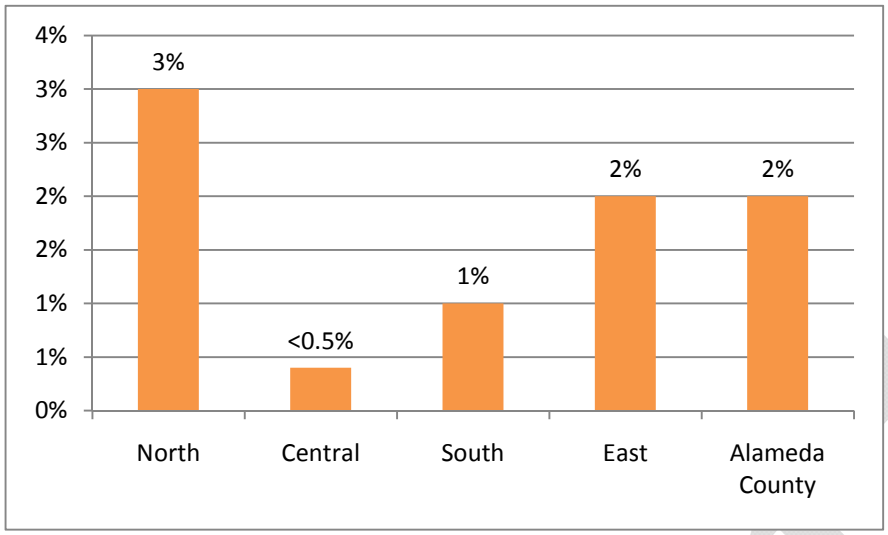
There are many factors that affect how often and how much people bicycle, from their age and health conditions to hills and the weather. In addition, many aspects of the built environment have a strong effect on people's decision to bike. The following characteristics are associated with higher bicycling rates and help explain some of the difference in the bicycling rates of the four county planning areas:

- Interconnected bicycle facilities such as on-street bike lanes, bike boulevards, and off-street paths and trails
- Safe parking racks at destination
- A grid street system, short blocks and narrower streets, with lower-speed traffic
- Higher-density neighborhoods, especially ones that integrate different activities (homes, jobs, shops and parks, for example); in these neighborhoods, distances between destinations are shorter

Related reading
"The Built Environment and Walking" (The Heart Foundation):
http://www.heartfoundation.org.au/SiteCollectionDocuments/Built_environment_position_statement_FINAL_LR%20for%20web.pdf

Another way of looking at the data is the bike mode share in each planning area:

Bike mode share by planning area *(source: BATS2000)*

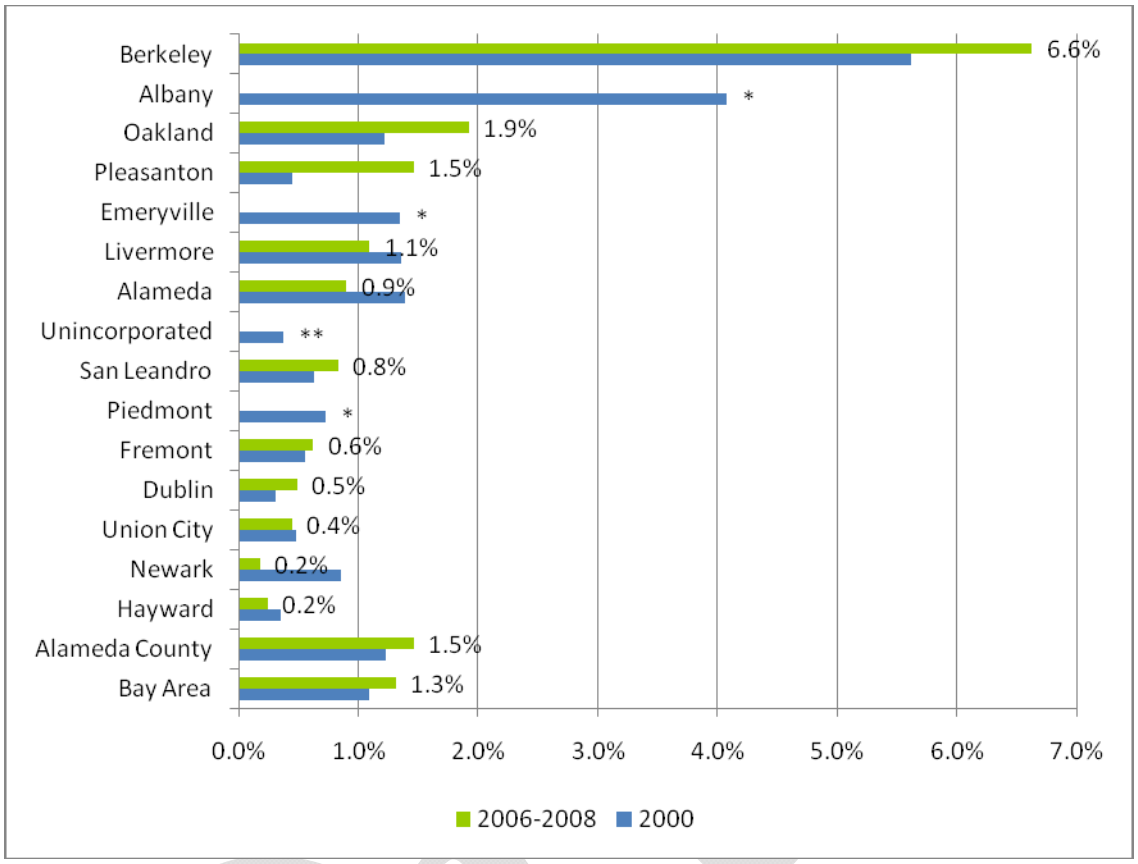


- The North planning area has the highest bicycling mode share (3%), while the Central area has the lowest (0.5%). In absolute terms, this range is small (2.5%); however, in relative terms, it is significant: the bike mode share in the North area is six times greater than in Central county.
- The North planning area has a higher bicycling mode share than Alameda County's as a whole, while the East planning area's mode share is comparable to the county's. The mode share in the South planning area is approximately half the county's, while that in the Central planning area is less than a quarter.
- The high rate of bicycling in the North planning area can be attributed to several factors, including older, compact communities with street grids, short blocks and more integrated land uses, as well as a large student population at UC Berkeley.
- Additional analysis is needed to determine why the rate of bicycling is so much lower in the Central planning area than in the South and especially the East. The three areas have similar weather and topography. Moreover, there are several factors to suggest that the biking rate should be higher in the Central area: it is slightly less suburban than the other two areas, for example, and has a lower median household income.

By jurisdiction

The U.S. Census provides data on the mode share of commute-to-work trips for each of the 15 local jurisdictions in the county (14 cities and the County, for the unincorporated areas). The chart below shows the bike mode share in each jurisdiction (the numbers next to the bars reflect the change in percentage points, where available, in the mode share from 2000 to 2006-2008; see Appendix G for more detailed information).

Commute-to-work bike mode share *(sources: 2000 Census and 2006-2008 ACS)*



* The 2006-2008 ACS does not provide data for Emeryville, Albany or Piedmont. Figures for these cities are from 2000 only.
** The 2006-2008 figure cannot be determined without data from all the jurisdictions.

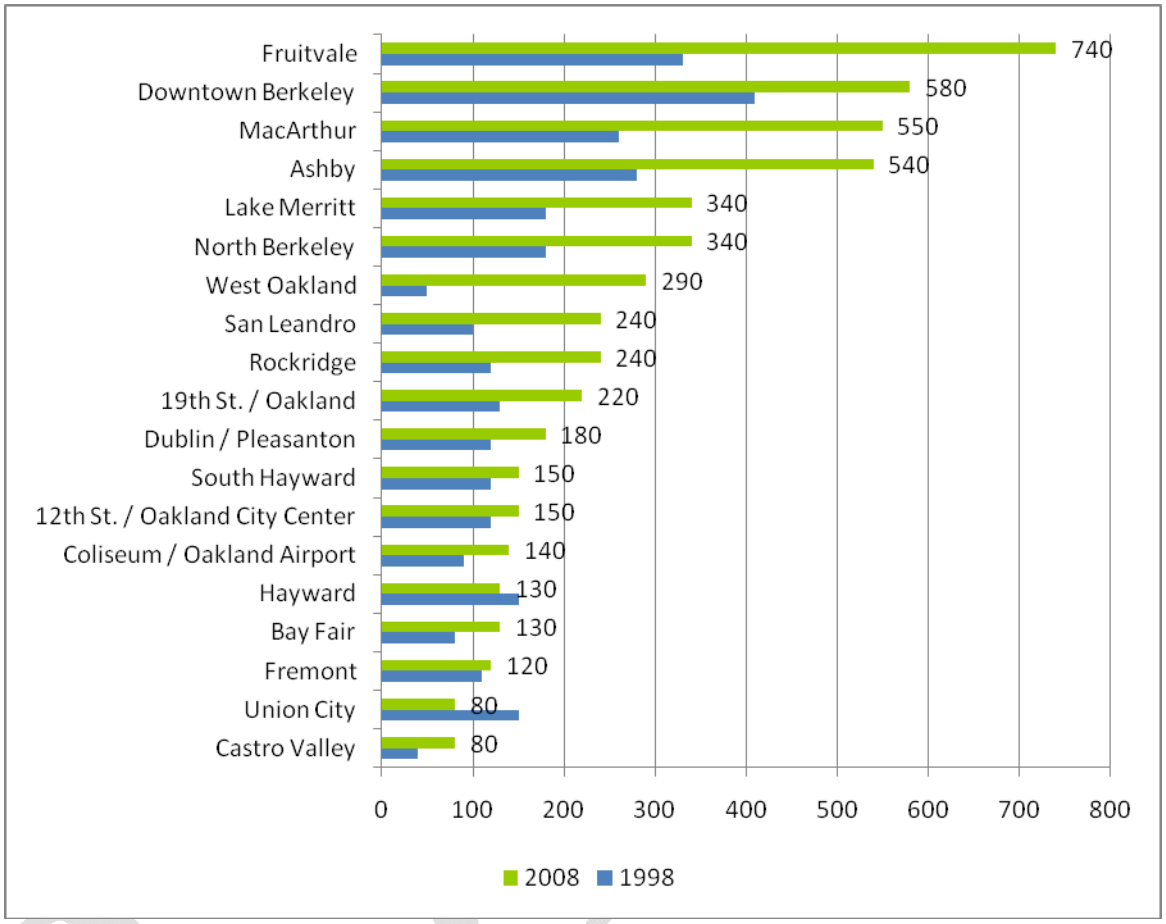
- Alameda County's bike mode share of commute-to-work trips is slightly higher than Bay Area's as a whole (1.5% against 1.3%). While the county share increased by 0.3 percentage points from 2000 to 2006-2008, seven of the 15 jurisdictions saw no increase or a drop in the percentage of bike commuters .
- The North planning area has four of the five jurisdictions in the county with the highest bike share: Berkeley, Albany, Oakland and Emeryville.
- Berkeley has by far the highest percentage of commuters on bike (6.6%), while Hayward and Newark have the lowest (0.2%).
- The biggest increase in the bike mode share occurred in Berkeley (up by 18%, from 5.5% to 6.5%) and Pleasanton (up by 200%, from 0.5% to 1.5%). Five jurisdictions saw declines, with the largest occurring in Newark (-0.7%). Additional analysis is necessary to determine the reason for the large changes in Pleasanton and Newark.

To BART stations

BART periodically conducts station profile studies to obtain information on, among other things, the way that passengers reach its stations. The chart below shows the number of daily bicycle trips to

stations in Alameda County according to BART's latest study, conducted in 2008 (see Appendix I for more detailed information; trips numbers have been rounded to the nearest 10):

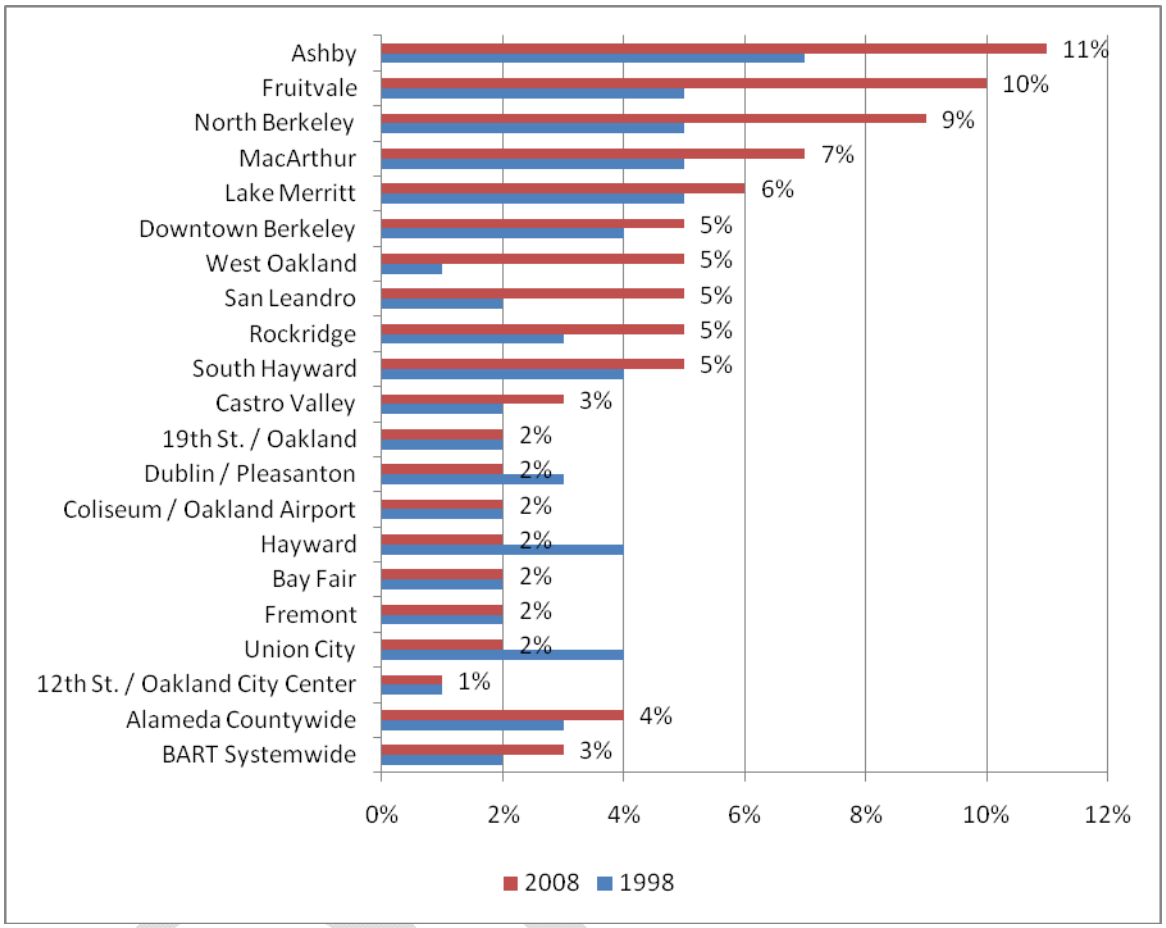
Daily bike trips to BART stations in Alameda County *(source: BART's 1998 and 2008 Station Profile Study)*



- The top seven stations with the most bike trips to BART are in the North planning area.
- The five stations with the fewest bike access trips include three out of the five stations in the Central planning area and both of the stations in the South planning area.

The following chart looks at the bike access data in a different way. The bars shows the bike access share of all trips to each station:

Bike access share to BART stations in Alameda County *(sources: BART's 1998 and 2008 Station Profile Study)*



- The bike access share for stations in Alameda County increased by almost a third from 1998 to 2008 (3% to 4%).
- In 2008 the bike access share for stations in Alameda County was a third higher than for the BART system as a whole (4% against 3%).
- The seven top stations with the highest share of bike access trips in 2008 are in the North planning area. The three stations with the lowest bike access share include 12th Street/Oakland City Center and both of the stations in the South planning area.
- In 1998, only one station (Ashby) had a bike access share higher of 5% or greater; in 2008, five did: Ashby, Fruitvale, North Berkeley, MacArthur and Lake Merritt.
- Between 1998 and 2008, the bike access share increased in eleven of the nineteen stations, remained constant in five and decreased in three (Dublin/Pleasanton, Hayward and Union City). In terms of percentage points, the greatest increases in bike access share were at the Fruitvale station (up by five points), followed by the Ashby, North Berkeley and West Oakland stations (four points).
- In relative terms, the most dramatic increase in bike access share was at the West Oakland station, where it quintupled, from 1% to 5%; the biggest decrease was at the Hayward and Union City stations, where it dropped by half (2% to 1%).

Duration of bicycle trips

Bicycle trips tend to be relatively short, in terms of both time and distance. According to the 2009 National Household Travel Survey—a project of the Federal Highway Administration—almost 40% of bike trips nationally last ten minutes or less; assuming an average bicycling speed of 12 miles per hour, this translates to two miles or less. Almost 60% of bike trips are under 15 minutes (3 miles), while 85% are under 30 minutes (6 miles). Only 7% of bike trips are over an hour (12 miles) long. This data underscores the feasibility of bicycle trips for distances of under 5-10 miles, and the potential of bicycling to replace short car trips.

Duration of bicycle trips *(source: National Household Travel Survey, 2009)*

Minutes	Approx. distance (miles)	Percent of trips
0-5	0-0.25	10.50%
5.1-10	0.25-0.5	26.90%
10.1-15	0.5-0.75	21.10%
15.1-20	0.75-1	12.20%
20.1-25	1-1.25	2.50%
25.1-30	1.25-1.5	12.50%
30.1-45	1.5-2.25	7.80%
45.1-60	2.25-3	1.60%
> 60	> 3	4.90%

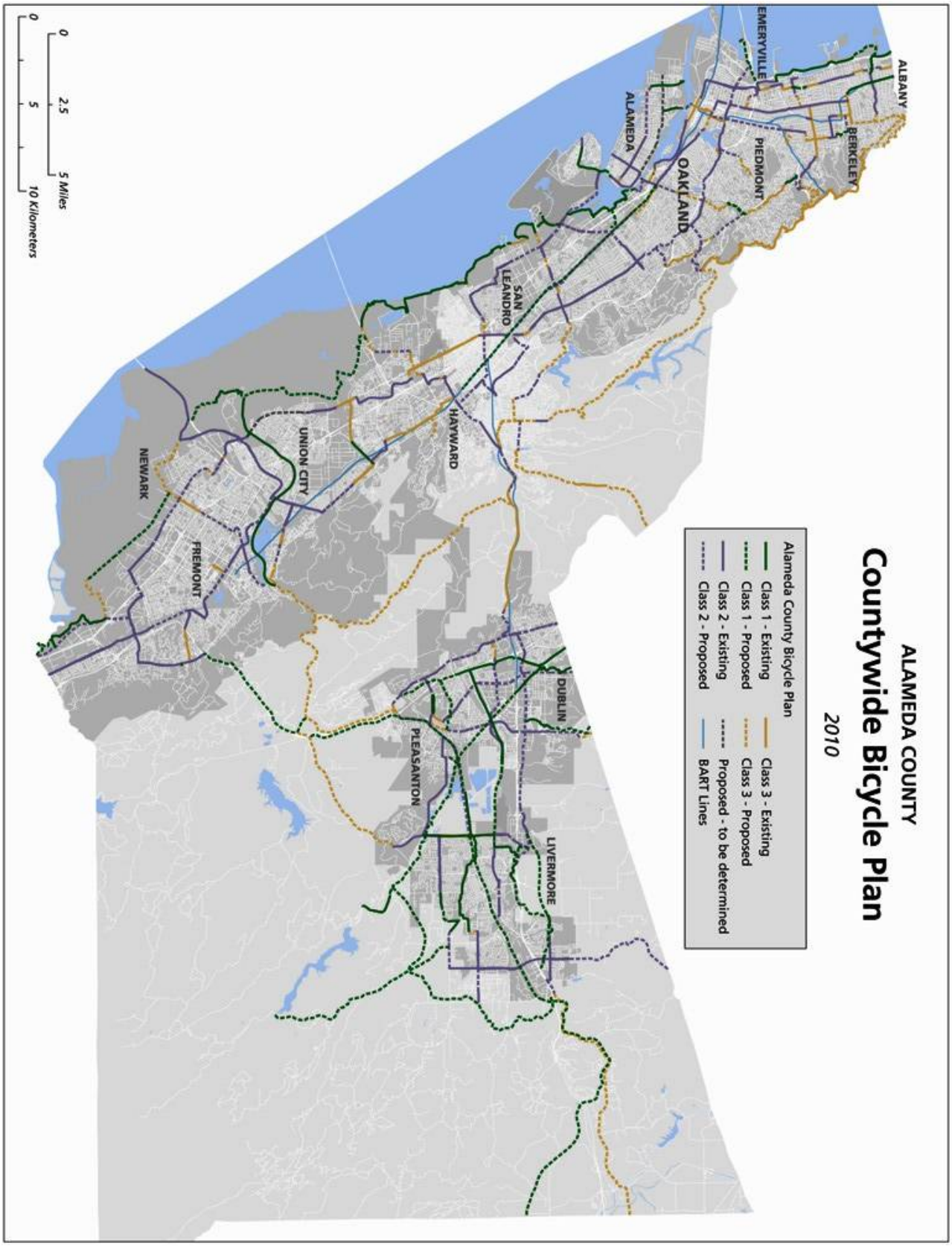
Major pathways and trails

Many bike trips, whether for recreation or transportation, take place on multi-use pathways. Alameda County is fortunate to have hundreds of miles of paved multi-use paths and trails, which serve both recreational and transportation purposes (see map of the countywide bicycle network on the next page). In addition to local facilities, the county has a growing network of inter-jurisdictional and countywide multi-use pathways, of which the most significant ones are:

- **East Bay Greenway:** This was originally envisioned as a multi-use path underneath BART's elevated structure running southeast for 12 miles from 18th Avenue in Oakland to the Hayward BART station. However, a larger vision emerged from the East Bay Regional Park District's most recent Master Plan update (2007), which showed the path connecting north to the Ohlone Greenway in Berkeley and Albany (and further north in Contra Costa County), and to the south along the UPRR right-of way in Fremont. The total length from county line to county line is estimated to be about 37 miles, with only the northern portions along the Ohlone Greenway completed.

- Iron Horse Trail: Existing multi-use path between the cities of Concord, in Contra Costa County, and Dublin that follows an abandoned Southern Pacific Railroad right-of-way. When complete, it will extend from Suisun Bay (Contra Costa County) to Livermore and the San Joaquin county border, a distance of approximately 53 miles, connecting 12 cities. The alignment length through Alameda County is 25.5 miles, of which 5.8 miles is existing and 19.7 miles is proposed (see Appendix J for mileage information).

- San Francisco Bay Trail: 500-mile trail system that, when complete, will ring San Francisco and San Pablo bays. The system includes 119 miles along the Alameda County shoreline and another 64 miles connecting this "spine" to other pathways, trails and points of interest. Of this ultimate 183-mile alignment, approximately 122 miles is in place, including 11 miles completed since the 2006 plan (see Appendix K for mileage information). Long continuous segments exist in Albany, Berkeley, Emeryville, Oakland, Alameda, San Leandro and Hayward.


ALAMEDA COUNTY
Countywide Bicycle Plan
2010
Alameda County Bicycle Plan
Class 1 - Existing
Class 1 - Proposed
Class 2 - Existing
Class 2 - Proposed
Class 3 - Existing
Class 3 - Proposed
Proposed - to be determined
BART Lines
ALBANY
BERKELEY
EMERYVILLE
PIEDMONT
ALAMEDA
OAKLAND
SAN LEANDRO
HAYWARD
UNION CITY
NEWARK
FREMONT
DUBLIN
PLEASANTON
LIVERMORE
0
2.5
5 Miles
0
5
10 Kilometers

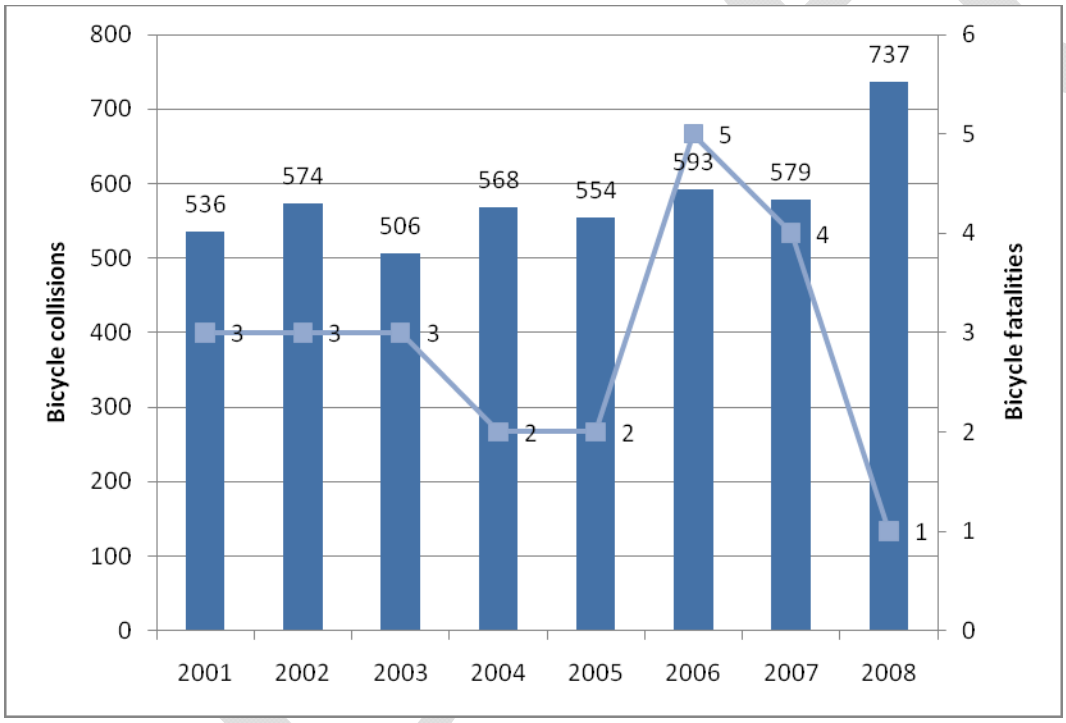
❻ Bicycle safety

Collisions, fatalities and injuries

Over the past eight years, an average of 581 bicyclists injured or killed per year in traffic collisions in Alameda County, including an average of just under three fatalities per year (see Appendix N for more detailed information).

Yearly average, 2000-2008	
Bicycle-vehicle collisions	581
Bicycle fatalities	3

Bicycle collisions and fatalities in Alameda County *(source: SWITRS)*



- Since 2001, between one and five people have been killed per year while riding bicycles in Alameda County. In 2008, there was only fatality, even as injuries spiked to an eight-year high.
- With the exception of a dip in 2003, the number of bicycle injuries remained relatively stable between 2001 and 2007, fluctuating within a narrow range of 536-593. The number increased sharply in the latest year, so far without explanation, by 27% (579 to 737).

Collision numbers versus rates

When considering bicycle collisions (or fatalities), it is important to remember that absolute numbers do not tell the whole story. If over time more people biked while the number of collisions remained the same, then the *rate* of collisions (as measured per bicyclist or per bike trip) would decrease.

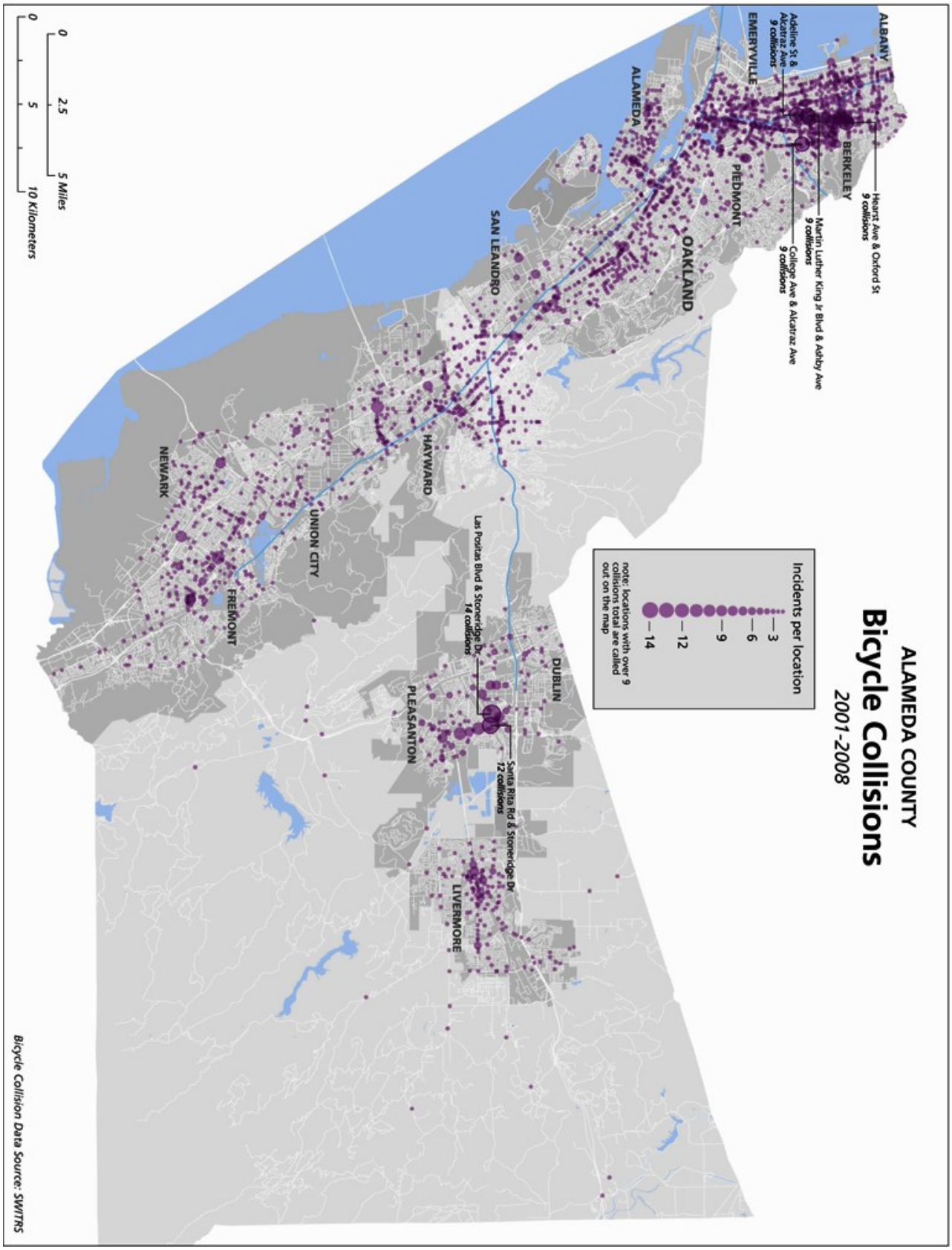
Collision hotspots

The map on the next page shows the location of all traffic collisions involving bicyclists in Alameda County from 2001 to 2008. As shown on the map, most of the collisions occur along an arc from central Berkeley to downtown Oakland. There are smaller concentrations of collisions in Albany, eastern Alameda (city), along International Boulevard in Oakland, central Pleasanton and downtown Livermore.

The information on the map is confirmed by the table below, which lists the thoroughfares that have experienced 30 or more collisions. Of the seven roads on the list, the four with the most collisions extend from Berkeley to Oakland.

Bicycle collisions by primary road *(source: SWITRS)*

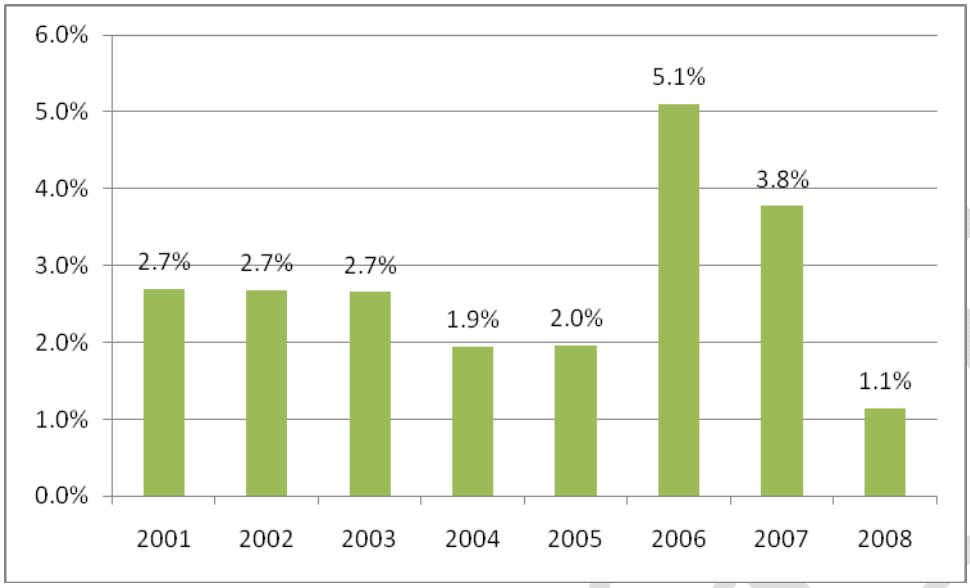
Road	Jurisdiction(s)	Number of collisions
Telegraph Avenue	Berkeley, Oakland	59
Shattuck Avenue	Berkeley, Oakland	57
College Avenue	Berkeley, Oakland	56
Martin Luther King Jr. Way	Berkeley, Oakland	44
Fremont Boulevard	Fremont	41
International Boulevard	Oakland	38
State Route 185 (East 14th Street)	San Leandro, Hayward, unincorporated county	31


ALAMEDA COUNTY
Bicycle Collisions
2001-2008
Incidents per location
3
6
9
12
14
note: locations with over 9 collisions total are called out on the map
ALBANY
BERKELEY
EMERYVILLE
PIEDMONT
ALAMEDA
OAKLAND
SAN LEANDRO
HAYWARD
NEWARK
UNION CITY
FREMONT
DUBLIN
PLEASANTON
LIVERMORE
Heart Ave & Oxford St
9 collisions
Martin Luther King Jr Blvd & Ashby Ave
9 collisions
College Ave & Alcatraz Ave
9 collisions
Adeline St & Alcatraz Ave
9 collisions
Las Positas Blvd & Stoneridge Dr
14 collisions
Santa Rita Rd & Stoneridge Dr
12 collisions
0
2.5
5 Miles
0
5
10 Kilometers
Bicycle Collision Data Source: SWITRS

Bicyclists' share of fatalities

The chart below shows bicyclists' share of all traffic fatalities in the county (again, see Appendix N):

Bicyclists as percentage of all traffic fatalities in Alameda County *(source: SWITRS)*



- Over the past eight years, bicyclists have made up 2.4% of all traffic fatalities in Alameda County; this is roughly consistent with the county's bike mode share (2%).
- Between 2000 and 2004, bicyclists' share of fatalities remained within a narrow range of 1.9-2.7%. Similar to the absolute fatality numbers, the percentage increased substantially in 2006, to 5.1%, but in 2008 dropped to its lowest level in eight years (1.1%).

Personal security

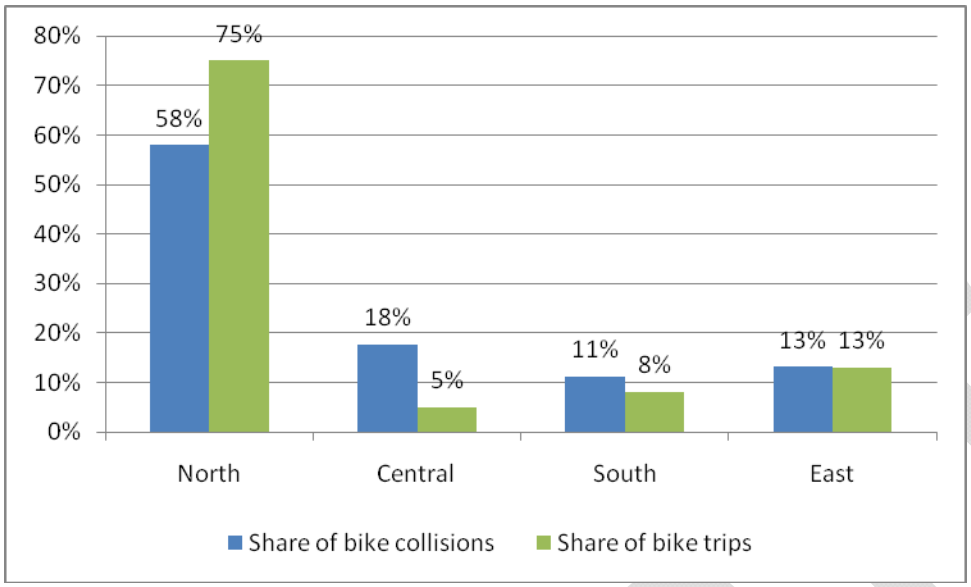
In the discussion of traffic collisions, it is easy to overlook a related issue: the effect on bicycling of real or perceived threats to personal security. Crime is a powerful deterrent against bicycling, particularly at night or in isolated areas and in areas with high crime rates. Like concerns about traffic safety, crime can lead to a vicious cycle of fewer cyclists on the street making riders feel less safe and resulting in even fewer people biking. Design and maintenance solutions—including better lighting, landscaping that is low to the ground, paths and trails located near other activities and a well-maintained environment—can go a long way toward alleviating fears.

Unfortunately, data on crime against bicyclists is difficult to obtain and compile. Such statistics are collected by nearly 20 individual police departments in Alameda County and there is no reporting standard or central repository for this information.

Collisions by planning area

Examining collisions by planning area provides interesting insights (see Appendix O for more detailed information). The following table shows the share of each of the four planning areas of bicycle collisions from 2004 to 2008 and bike trips:

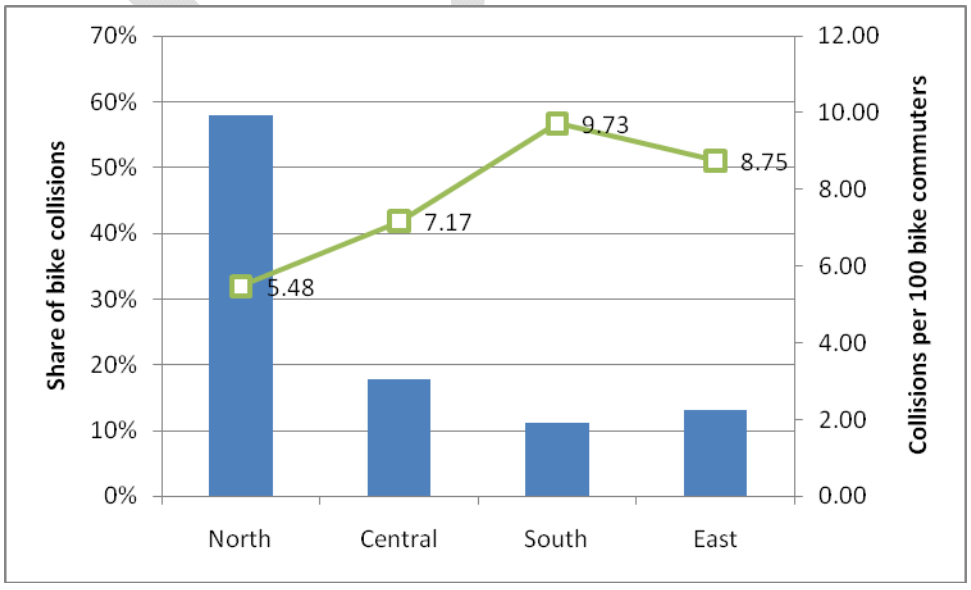
Share of bicycle collisions, population and bike trips by planning area *(sources; SWITRS, 2000 Census, 2006-2008 ACS)*



- The North planning area has a much lower share of the county's collisions than of bike trips (58% to 75%). The Central area has a much higher share, the South has a somewhat higher share and the East has the same share. This could be seen as indicating that the North planning area is the safest for cyclists, and that it proves the "safety in numbers" theory—that the higher the number of bicyclists, the safer they will be (generally because motorists are expecting them on the road and know how to safely share the road).

Yet another picture appears when charting collisions per 100 bike commuters against each planning area's share of collisions:

Share of bicycle collisions and collisions per 100 bike commuters *(sources; SWITRS, 2000 Census, 2006-2008 ACS)*



- The North planning area, while having by far the highest share of bicycle collisions, also has the fewest collisions per 100 bike commuters. This indicates that from the perspective of an individual bicyclist, the area is the safest in the county, at least as far as traffic conditions.
- The South planning area has the most collisions per 100 bike commuters, and a collision rate significantly higher than in the North planning area (9.73 against 5.48).

By time of day

Time of day provide another lens through which to view bicycle collisions and fatalities. In the 2004-2008 period, more than 40% of collisions, but only 7% of fatalities, occurred at night. Most strikingly, the afternoon/evening period saw the fewest collisions (10%), yet it also saw by far the highest percentage of fatalities (64%). Additional analysis is necessary to determine the reason for this discrepancy.

TIME OF DAY (2004-2008)	Collisions	Percent of total	Fatalities	Percent of total
Morning (6-10 am)	585	19%	4	29%
Midday (10 am-3 pm)	816	27%	0	0%
Afternoon/evening (4-8 pm)	311	10%	9	64%
Night (8 pm-6 am)	1,305	43%	1	7%
Total	3,017		14	

❼ Support facilities

While bikeways are the central element of a bicycle network, they are not the only component. There are several kinds of support facilities—namely bicycle parking, showers and lockers, and signage—that increase the utility of a bicycle network and promote the viability of bicycling as a transportation mode.

Bicycle parking

- Four cities have bicycle parking ordinances: Oakland, Hayward, Pleasanton and Union City. Several other jurisdictions have imposed parking conditions for certain projects as part of the development-approval process.
- Only one city—Oakland—has a bicycle-rack installation program, although most other jurisdictions have installed racks in public places on a case-by-case basis. In addition, Oakland provides technical support to businesses that wish to install bicycle parking on their property.
- Almost all jurisdictions have installed at least some bicycle racks; seven have single-use bicycle lockers; Oakland and Fremont have shared-use electronic lockers (eLockers); Oakland, Emeryville and San Leandro have secured bike-parking cages; and Emeryville has an indoor bike room.
- Oakland's bike parking ordinance requires attended bike parking at certain large events.
- BART provides racks at all its stations in Alameda County and lockers at all stations except 12th Street/Oakland City Center, 19th Street/Oakland and Downtown Berkeley. In addition, there are two bike stations, one at Downtown Berkeley, with 268 spaces, and the other at Fruitvale (250 spaces).

Showers and lockers

- Only one city—Oakland—has an ordinance requiring shower and locker facilities as part of certain new development projects. Pleasanton and San Leandro have occasionally required these facilities on a case-by-case basis, as part of the development-approval process, while UC Berkeley has a policy to include them in all new buildings beyond a certain size.

Wayfinding signage

- Oakland and Emeryville have bike-route signage programs. Several other cities are considering adopting comprehensive wayfinding signage guidelines, based on those developed by Oakland in 2009.
- Berkeley and Emeryville install bicycle boulevards signage with wayfinding and mileage information.
- Local agencies and the East Bay Regional Park District also place signage along inter-jurisdictional trails, such as the Bay Trail and Iron Horse Trail.

❽ Planning, support programs and advocacy

Local planning efforts

Bicycle plans at the local level are important because it is local jurisdictions that are responsible for planning, designing, constructing and maintaining bicycle facilities. As of the adoption of the 2006 Countywide Bicycle Plan, 10 of the 15 jurisdictions in the county had adopted bicycle plans. In 2010, the number rose to 14 of the 15 jurisdictions with a completed bicycle plan or one underway. Below are the main developments since 2006 in this area (see Appendix R for more information):

- Dublin and Pleasanton adopted their first (combined) bicycle/pedestrian plans, while the County adopted a stand-alone bicycle plan for the unincorporated areas.
- Several cities updated their bicycle or bicycle/pedestrian plans: Albany, Hayward, Oakland and Union City.
- Other than Newark, which is in the process of developing a combined bicycle/pedestrian plan, only one city—Piedmont—remains without a bicycle plan.
- In addition to jurisdictions, the University of California at Berkeley has a campus bicycle plan.

Status of local bicycle plans

Jurisdiction	2006	2010
North Planning Area		
Alameda (City of)	✓	✓
Albany	✓	Update Underway
Berkeley	✓	✓
Oakland	✓	Updated Since 2006
Piedmont		
Emeryville	✓	Update Underway
Central Planning Area		
San Leandro	✓	Update Underway
Hayward	✓	Updated Since 2006
Unincorporated	Underway	Update Underway
South Planning Area		
Fremont	✓	Update Underway
Newark		Underway
Union City	✓	Update Underway
East Planning Area		
Pleasanton		✓
Dublin		✓
Livermore	✓	Update Underway
Total	10	12

Local support programs

The focus in bicycle planning is often on building capital projects. However, support programs are also important because they increase the safety and utility of those projects. Local jurisdictions in Alameda County administer a broad range of bicycle support programs to complement their infrastructure-building efforts. These programs may be grouped under the categories of safety, law enforcement, education, promotion or encouragement, safe routes to school and traffic-calming. Below is a summary

of jurisdictions now sponsoring various types of programs (based on responses received from 14 jurisdictions):

Safety

- **Bicycle Audit:** San Leandro (newly implemented, since 2006).
- **Bicycle Safety Education Campaign:** Albany (new), Dublin, Fremont, Pleasanton (new) and San Leandro.

Law enforcement

- **Bicycle/pedestrian traffic safety officers:** Alameda County.
- **Pedestrian/bicycle enforcement activities:** Eight jurisdictions, including San Leandro and Emeryville, where the programs are new.

Education

- **Inform motorists on bicycle/pedestrian laws:** Albany, Dublin (new) and San Leandro.
- **Traffic curriculum (schools, community centers):** Albany (new), Fremont, Dublin (new) and San Leandro.

Promotion/encouragement

- **Bike to Work Day:** Eleven jurisdictions, including Dublin and Livermore, where the programs are new.
- **Bicycle races:** Alameda County, Albany, Emeryville (new) and Fremont.
- **Giveaways:** More than half of jurisdictions (including Oakland and Dublin since 2006) give away bicycle-related items such as helmets, lights, reflectors and water bottles.
- **Bike maps:** All except Alameda County, Newark, Piedmont and Union City. The map programs in Dublin, Livermore and Pleasanton are new since 2006.

Safe Routes to School (SR2S)

- Emeryville, Fremont, Hayward, Oakland and San Leandro have applied for and received grant funding for SR2S programs; Pleasanton, Livermore and Union City applied for funding but did not receive it.
- Alameda County, Albany, Hayward, Livermore, Oakland, Piedmont and San Leandro participate in the countywide SR2S program through Transform.
- Newark and Emeryville do not have SR2S programs in their schools.

Traffic calming

- Four jurisdictions (Berkeley, Emeryville, Newark, Pleasanton and San Leandro) have a substantial traffic-calming program, with a dedicated funding source.
- Five jurisdictions (Alameda County, Albany, Fremont, Livermore and Oakland) have a traffic-calming program but with no dedicated funding source.
- Five jurisdictions (Dublin, Hayward, Piedmont and Union City) do not have a traffic-calming program.

Countywide support programs

In addition to the local programs, there are two multi-jurisdictional support programs of note:

- Safe Routes to Schools (SR2S) Alameda County Partnership (www.transformca.org/sr2s). This program reaches students at more than 60 public elementary schools. It is led by TransForm, a local non-profit dedicated to improving transit and creating walkable communities.
- Bicycle safety classes for all ages, offered on a regular basis by both the East Bay Bicycle Coalition and BikeAlameda.
- Bike to Work Day has grown significantly in recent years. In 2008-2010, it was supported by a "lifestyle" advertising campaign under the tagline, "Get Rolling."

Advocacy efforts

Bicycle advocacy seeks to encourage government to improve the bicycling environment and to encourage more people to bike more often. Bicycle advocacy has surged nationwide in the past 10 years, particularly in the Bay Area.

Alameda County has five bicycle advocacy groups, including one, the East Bay Bicycle Coalition (www.ebbc.org), that works in all parts of the county. The main change in advocacy since 2006 is the formation of Walk Oakland, Bike Oakland (www.walkoaklandbikeoakland.org), a new advocacy group focused solely on the largest city in the county. In 2010, the group organized Oaklavía (http://oaklavia.org), the closure to car traffic of several blocks in downtown Oakland for strolling, bicycling and other recreational activities. The event, which occurred on Sunday, June 27, from 10 a.m. to 2 p.m., is the first example of a "ciclovia" or "Sunday Streets" event to occur in Alameda County.

Three other advocacy groups active in the county include:

- Bicycle-Friendly Berkeley Coalition (www.bfbc.org)
- BikeAlameda (www.bikealameda.org)
- Albany Strollers and Rollers (www.bfbc.org)

In addition, bicycle or bicycle/pedestrian advisory committees advise government agencies on bicycling and walking issues, and exist in several cities (Berkeley, Oakland, Emeryville and Fremont) and at Alameda CTC and BART.

⑨ Funding needs

As described in the next section, on implementation of the 2006 Bicycle Plan, almost every local jurisdiction cites lack of funding as a major barrier to making bicycle improvements. In that context, funding needs for bicycle projects is an important existing condition that will help determine the countywide priorities.

As part of updating the Countywide Bicycle Plan, we asked local jurisdictions to estimate their *foreseeable* funding need for bicycle projects. Roughly half the jurisdictions responded, and their answers varied widely:

- **Dublin:** $4.2 million for projects in the Bikeways Master Plan.
- **Fremont:** $42 million, for both bicycle and pedestrian projects.
- **Newark:** Approximately $4 million for both bicycle and pedestrian projects.
- **Oakland:** $27 million for projects in the Bicycle Master Plan and $8 million for a bicycle/pedestrian bridge over Lake Merritt Channel.
- **Pleasanton:** $29.7 million for bicycle projects in the Pedestrian and Bicycle Master Plan.
- **San Leandro:** $23.2 million for both bicycle and pedestrian projects in the Bicycle and Pedestrian Master Plan.
- **Union City:** $6 million (for lane reconfiguration on Union City Boulevard)

⑩ Implementation of the 2006 plan

Capital projects

As part of updating the Countywide Bicycle Plan, jurisdictions were surveyed on projects they have completed since 2006 on the countywide bicycle network (see Appendix Q for the list of projects):

- Seven jurisdictions reported implementing projects: Albany, Fremont, Hayward, Livermore, Oakland, Pleasanton and Union City.
- Albany and Oakland reported four projects each; Livermore, three projects; Fremont, Pleasanton and Union City, two projects; and Hayward, one project.
- Alameda, Berkeley, Dublin, Emeryville, Newark, Piedmont and San Leandro did not report any projects on the countywide network.

Countywide support programs

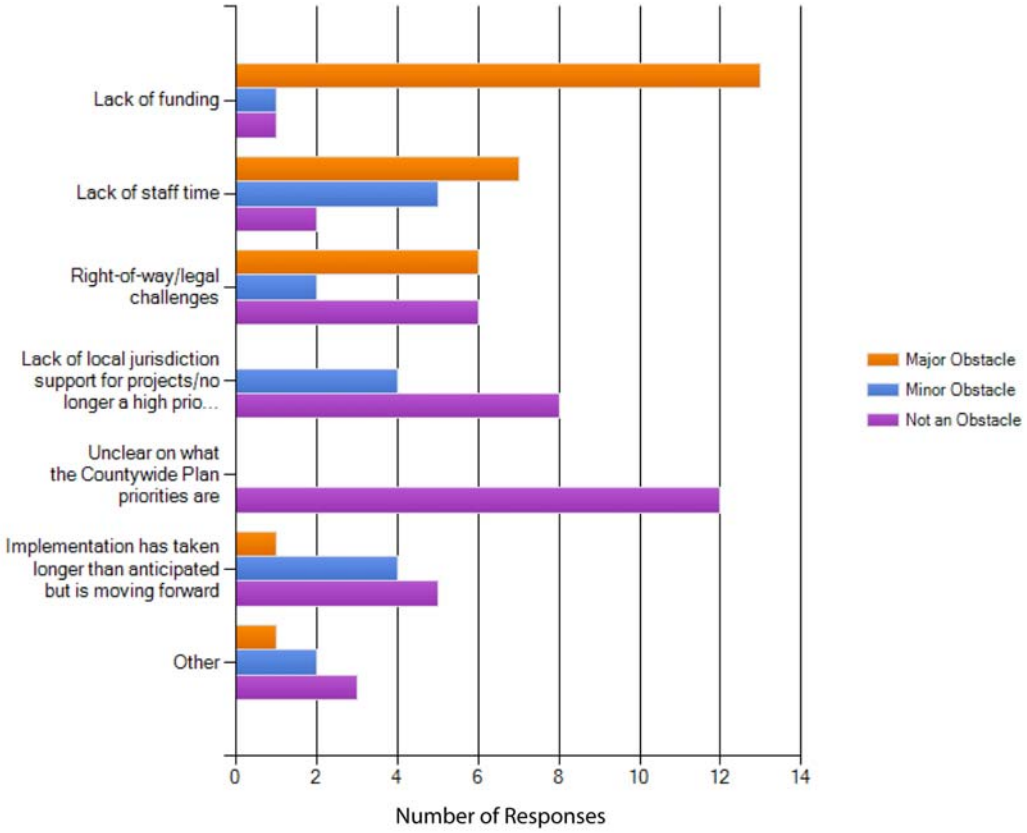
The previous section identified safety, law enforcement, education, promotion and other support programs at the local level for bicycling, and pointed out which ones have been instituted since the adoption of the 2006 Bicycle Plan. In addition, the previous section highlighted countywide support programs that have been put in place since 2006:

- Safe Routes to Schools (SR2S) Alameda County Partnership: began as a pilot project in Oakland in 2006 before expanding countywide as a partnership between TransForm, the Alameda County Public Health Department and many other local agencies and organizations. The program is funded in large part with a grant from Measure B.
- Bicycle safety classes for all ages, offered on a regular basis by both the East Bay Bicycle Coalition and BikeAlameda.
- While Bike to Work Day is not a new program, it has grown significantly in recent years. In 2008-2010, it was supported by a "lifestyle" advertising campaign under the tagline, "Get Rolling." Ads appeared at BART stations, on the back of AC Transit buses, in bus shelters, on street pole banners, at kiosks and in the East Bay Express (weekly newspaper).

Challenges encountered

In the 2010 local agency questionnaire (to which 14 jurisdictions have responded to date), local jurisdictions were asked to identify challenges they have encountered in implementing the priorities identified in the 2006 Bicycle Plan. The most commonly cited implementation challenges by far were insufficient funding and staff time and right-of-way constraints:

Implementation challenges encountered by local jurisdictions



- Perhaps not surprisingly, every jurisdiction (except Dublin) cited inadequate funding for projects as major challenges.
- The following jurisdictions identified inadequate staff time, and lack of staff resources in general, as major obstacles to implementation: Oakland, San Leandro, Hayward, Newark and Pleasanton.
- Significant right-of-way challenges were reported by San Leandro, Fremont, Pleasanton and Dublin.
- Additionally, Oakland suggested the need for better coordination with resurfacing projects; Pleasanton—which is dealing with projects adjacent to waterways—mentioned lack of interagency coordination as a significant challenge; and San Leandro, Hayward and Newark cited lack of community or jurisdictional support as minor challenges.

Alameda Countywide Pedestrian and Bicycle Plans

Appendices: Existing Conditions

September 2010

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A. Weekly walk trips *(source: BATS2000)*

Planning Area (PA)	Home-based trips				Non home-based	Total
	Work	Shopping	Social/rec	School		
North	146,513	494,446	484,673	358,564	607,914	2,092,109
% walk trips	7%	16%	17%	24%	19%	16%
% walk trips by purpose	7%	24%	23%	17%	29%	100%
% walk trips by PA	78%	54%	63%	53%	78%	63%
Central	17,235	211,538	155,369	83,579	90,248	557,969
% walk trips	1%	10%	11%	14%	8%	8%
% walk trips by purpose	3%	38%	28%	15%	16%	100%
% walk trips by PA	9%	23%	20%	12%	12%	17%
South	15,359	112,900	80,760	172,141	42,106	423,265
% walk trips	1%	6%	6%	23%	4%	7%
% walk trips by purpose	4%	27%	19%	41%	10%	100%
% walk trips by PA	8%	12%	11%	25%	5%	13%
East	8,683	91,072	46,288	63,338	38,193	247,575
% walk trips	1%	9%	5%	19%	4%	6%
% walk trips by purpose	4%	37%	19%	26%	15%	100%
% walk trips by PA	5%	10%	6%	9%	5%	7%
Alameda County	187,791	909,955	767,090	677,621	778,461	3,320,919
% walk trips	4%	11%	12%	21%	12%	11%
% walk trips by purpose	6%	27%	23%	20%	23%	100%
% walk trips by PA	100%	100%	100%	100%	100%	100%
Bay Area	923,513	3,889,222	3,010,910	2,301,215	3,618,875	13,743,736
% walk trips	4%	10%	10%	29%	12%	10%
% walk trips by purpose	7%	28%	22%	17%	26%	100%

B. Weekly bicycle trips *(source: BATS2000)*

Planning Area (PA)	Home-based trips				Non home-based	Total
	Work	Shopping	Social/rec	School		
North	83,983	76,939	155,761	21,390	104,593	442,665
% bike trips	4%	3%	5%	1%	3%	3%
% bike trips by purpose	19%	17%	35%	5%	24%	100%
% bike trips by PA	75%	69%	76%	42%	91%	75%
Central	5,546	2,179	17,519	820	1,997	28,060
% bike trips	0%	0%	1%	0%	0%	0%
% bike trips by purpose	20%	8%	62%	3%	7%	100%
% bike trips by PA	5%	2%	9%	2%	2%	5%
South	10,568	14,282	10,793	8,840	2,817	47,300
% bike trips	1%	1%	1%	1%	0%	1%
% bike trips by purpose	22%	30%	23%	19%	6%	100%
% bike trips by PA	9%	13%	5%	17%	2%	8%

East	12,460	17,879	19,643	19,955	5,114	75,050
% bike trips	2%	2%	2%	6%	1%	2%
% bike trips by purpose	17%	24%	26%	27%	7%	100%
% bike trips by PA	11%	16%	10%	39%	4%	13%
Alameda County	112,556	111,278	203,715	51,005	114,521	593,076
% bike trips	2%	1%	3%	2%	2%	2%
% bike trips by purpose	19%	19%	34%	9%	19%	100%
% bike trips by PA	100%	100%	100%	100%	100%	100%
Bay Area	408,030	539,255	481,574	221,651	302,680	1,953,190
% bike trips	2%	1%	2%	3%	1%	1%
% bike trips by purpose	21%	28%	25%	11%	15%	100%

C. Journey-to-work mode share *(sources: 2000 Census, 2006-2008 ACS)*

	2000				2006-2008			
	Alameda County		Bay Area		Alameda County		Bay Area	
Drive alone	450,496	66.4%	2,248,095	68.0%	460,186	66.5%	2,293,205	67.8%
Carpool	93,652	13.8%	426,500	12.9%	72,023	10.4%	351,877	10.4%
Transit	72,174	10.6%	321,053	9.7%	77,343	11.2%	339,570	10.0%
Work at home	23,941	3.5%	132,735	4.0%	34,303	5.0%	178,928	5.3%
Walk	**21,919**	**3.2%**	**106,063**	**3.2%**	**25,044**	**3.6%**	**120,692**	**3.6%**
Bicycle	**8,385**	**1.2%**	**36,003**	**1.1%**	**10,132**	**1.5%**	**44,518**	**1.3%**
Other	8,343	1.2%	35,602	1.1%	12,768	1.8%	53,697	1.6%
Total	678,910		3,306,051		691,799		3,382,487	

D. Pedestrian count trends *(sources: MTC, 2002; UC Berkeley Traffic Safety Center, 2008 and 2009)*

Jurisdiction	Street 1	Street 2	2002	2008	2009	Change between counts
Oakland	Broadway	12th Street	--	3,577	2,032	(43%)
Oakland	Doolittle Drive	Airport Access Road	--	9	10	11%
Hayward	Mission Blvd.	Jefferson Street	--	171	110	(36%)
Fremont	Paseo Padre Pkwy	Mowry Avenue	--	229	174	(24%)
Albany	Solano Avenue	Masonic Avenue	--	514	351	(32%)
Hayward	Winton Avenue	Amador Street	94	--	292	211%
Berkeley	San Pablo Avenue	Virginia Street	103	--	101	(2%)
Dublin	Dublin Blvd.	Scarlett Dr./Iron Horse Trail	25	--	30	20%
San Leandro	Bancroft Avenue	Estudillo Avenue	118	--	130	10%

E. Bicycle count trends *(sources: LOS Monitoring Report, 2009; CMA Performance Report 2008-2009)*

	Jurisdiction	Location	2002	2004	2006	2008	Change 2002-2008
1	Alameda	Atlantic Avenue and Webster Street	36	56	60	76	111%
2	Berkeley	Milvia Street and Hearst Avenue	405	392	356	438	8%
3	Emeryville	San Pablo Avenue and 40th Street	142	168	173	196	38%
4	Fremont	Paseo Padre Pkwy and Mowry Ave.	60	52	22	16	(73%)
5	Hayward	Mission Blvd and Jefferson Street	11	23	39	25	127%
6	Livermore	East Street and Vasco Road	86	109	106	93	8%
7	Newark	Thornton Avenue and Willow Street	5	12	11	13	160%
8	Oakland	Telegraph Avenue and 27th St	136	79	144	222	63%
9	Piedmont	Grand Avenue and Oakland Ave.	30	21	41	46	53%
10	Pleasanton	Hopyard Road and Stoneridge Dr.	32	19	5	32	0%
11	Alameda County	Hesperian and Lewelling Blvd	27	25	36	68	152%
12	Alameda County	Redwood Road and Grove Way	26	--	--	--	n/a
13	Alameda County	Redwood Road and Castro Valley Blvd.	--	26	36	45	73%*

* Change 2004-2008

F. Walk mode share by jurisdiction *(sources: 2000 Census, 2006-2008 ACS)*

	2000			2006/2008			
Jurisdiction	Total commuters	Pedestrian commuters	Walk mode share	Total commuters	Pedestrian commuters	Walk mode share	Relative change in walk mode share
Alameda	37,327	988	2.6%	37,452	1,367	3.7%	38%
Albany	8,568	300	3.5%	Not reported			n/a
Berkeley	54,674	8,147	14.9%	51,793	8,584	16.6%	11%
Dublin	14,336	193	1.3%	21,176	272	1.3%	(5%)
Emeryville	4,155	263	6.3%	Not reported			n/a
Fremont	100,215	1,091	1.1%	100,260	1,022	1.0%	(6%)
Hayward	61,696	1,325	2.1%	63,005	593	0.9%	(56%)
Livermore	37,874	529	1.4%	39,713	505	1.3%	(9%)
Newark	19,994	157	0.8%	20,265	270	1.3%	70%
Oakland	170,503	6,355	3.7%	166,258	7,987	4.8%	29%
Piedmont	5,116	79	1.5%	Not reported			n/a
Pleasanton	33,269	428	1.3%	34,730	593	1.7%	33%
San Leandro	36,928	697	1.9%	41,346	914	2.2%	17%
Unincorporated	63,798	984	1.5%	Not available without data from all jurisdictions			
Union City	30,457	383	1.3%	31,400	645	2.1%	63%
Alameda County	678,910	21,919	3.2%	691,799	25,044	3.6%	12%
Bay Area	3,306,051	106,063	3.2%	3,382,487	120,692	3.6%	11%

G. Bicycle mode share by jurisdiction *(sources: 2000 Census, 2006-2008 ACS)*

	2000			2006/2008			
Jurisdiction	Total commuters	Bicycle commuters	Bike mode share	Total commuters	Bicycle commuters	Bike mode share	Relative change in bike mode share
Alameda	37,327	519	1.4%	37,452	337	0.9%	-0.5%
Albany	8,568	349	4.1%	Not reported			n/a
Berkeley	54,674	3,071	5.6%	51,793	3,433	6.6%	1.0%
Dublin	14,336	45	0.3%	21,176	104	0.5%	0.2%
Emeryville	4,155	56	1.3%	Not reported			n/a
Fremont	100,215	556	0.6%	100,260	623	0.6%	0.1%
Hayward	61,696	218	0.4%	63,005	154	0.2%	-0.1%
Livermore	37,874	515	1.4%	39,713	434	1.1%	-0.3%
Newark	19,994	172	0.9%	20,265	36	0.2%	-0.7%
Oakland	170,503	2,085	1.2%	166,258	3,201	1.9%	0.7%
Piedmont	5,116	37	0.7%	Not reported			n/a
Pleasanton	33,269	150	0.5%	34,730	509	1.5%	1.0%
San Leandro	36,928	232	0.6%	41,346	345	0.8%	0.2%
Unincorporated	63,798	235	0.4%	Not available without data from all jurisdictions			
Union City	30,457	145	0.5%	31400	141	0.4%	0.0%
Alameda County	678,910	8,385	1.2%	691,799	10,132	1.5%	0.2%
Bay Area	3,306,051	36,003	1.1%	3,382,487	44,518	1.3%	0.2%

H. Walk access share to BART stations *(sources: BART's 1998 and 2008 Station Profile Study)*

	1998		2008				
Station	Number	Walk share	Number	Walk share	Change in number	Percent change	Relative change in walk share
North planning area							
North Berkeley	1,140	35%	1,620	43%	480	42%	23%
Downtown Berkeley	7,770	72%	10,050	84%	2,280	29%	17%
Ashby	1,750	45%	2,540	53%	790	45%	18%
Rockridge	1,340	34%	1,970	41%	630	47%	21%
MacArthur	1,260	22%	2,090	27%	830	66%	23%
19th Street/Oakland	5,330	75%	8,550	87%	3,220	60%	16%
12th Street/Oakland City Center	6,670	60%	11,010	82%	4,340	65%	37%
West Oakland	470	13%	980	18%	510	109%	38%
Lake Merritt	2,110	52%	3,740	62%	1,630	77%	19%
Fruitvale	960	14%	1,750	23%	790	82%	64%
Coliseum/Oakland Airport	460	9%	800	13%	340	74%	44%
Central planning area							
San Leandro	940	21%	1,510	28%	570	61%	33%
Bay Fair	710	16%	1,180	21%	470	66%	31%

Castro Valley	220	12%	420	17%	200	91%	42%
Hayward	640	14%	1,050	21%	410	64%	50%
South Hayward	370	14%	470	14%	100	27%	0%
South planning area							
Union City	470	14%	670	17%	200	43%	21%
Fremont	640	13%	1,500	20%	860	134%	54%
East planning area							
Dublin/Pleasanton	220	5%	850	11%	630	286%	120%
Alameda countywide	33,450	35%	52,750	43%	19,300	58%	23%
BART system	136,153	47%	192,884	53%	56,731	42%	13%

I. Bicycle access share to BART stations *(sources: BART's 1998 and 2008 Station Profile Study)*

	1998		2008				
Station	Number	Bike share	Number	Bike share	Change in number	Percent change	Relative change in mode share
North planning area							
North Berkeley	180	5%	340	9%	160	89%	80%
Downtown Berkeley	410	4%	580	5%	170	41%	25%
Ashby	280	7%	540	11%	260	93%	57%
Rockridge	120	3%	240	5%	120	100%	67%
MacArthur	260	5%	550	7%	290	112%	40%
19th Street/Oakland	130	2%	220	2%	90	69%	0%
12th Street/Oakland City Center	120	1%	150	1%	30	25%	0%
West Oakland	50	1%	290	5%	240	480%	400%
Lake Merritt	180	5%	340	6%	160	89%	20%
Fruitvale	330	5%	740	10%	410	124%	100%
Coliseum/Oakland Airport	90	2%	140	2%	50	56%	0%
Central planning area							
San Leandro	100	2%	240	5%	140	140%	150%
Bay Fair	80	2%	130	2%	50	63%	0%
Castro Valley	40	2%	80	3%	40	100%	50%
Hayward	150	4%	130	2%	-20	-13%	(50%)
South Hayward	120	4%	150	5%	30	25%	25%
South planning area							
Union City	150	4%	80	2%	-70	-47%	(50%)
Fremont	110	2%	120	2%	10	9%	0%
East planning area							
Dublin/Pleasanton	120	3%	180	2%	60	50%	(33%)
Alameda countywide	**3,020**	3%	**5,240**	4%	**2,220**	74%	33%
BART system	5,752	2%	10,230	3%	**4,478**	78%	50%

J. Iron Horse Trail mileage in Alameda County *(source: EBRPD; 2009)*

Segment	Existing	Proposed (unbuilt)	Total
Unincorporated county	2.1	11.0	13.1
Dublin	2.5	--	2.5
Livermore	--	6.5	6.5
Pleasanton	1.2	2.2	3.4
Total	**5.8**	**19.7**	**25.5**

K. San Francisco Bay Trail mileage in Alameda County *(source: San Francisco Bay Trail Project; 2010)*

Component	Existing	Proposed (unbuilt)	Total	Description
Spine	75.6	43.3	118.9	Main Bay Trail alignment, intended as a continuous recreational and commuter corridor encircling the Bay and linking the shoreline of all nine Bay Area counties.
Connector	23.8	9.3	33.1	Connectors link the Bay Trail to inland recreation sites, residential neighborhoods, employment centers and public transit facilities, or provide restricted access to environmentally sensitive areas.
Spur	22.4	8.8	31.2	Spurs provide access from the spine to points of recreational, natural, historic and cultural interest along the waterfront.
Total	**121.8**	**61.4**	**183.2**	

L. Pedestrian fatalities and injuries *(source: SWITRS)*

Year	Pedestrian fatalities	Pedestrian injuries	Total	Traffic fatalities	Pedestrian share of fatalities
2000	25	723	748	114	22%
2001	24	775	799	111	22%
2002	28	847	875	112	25%
2003	23	752	775	113	20%
2004	29	732	764	103	28%
2005	23	771	795	102	23%
2006	20	735	755	98	20%
2007	18	700	718	106	17%
2008	34	756	793	88	39%
Total	224	6791	7022	947	24%

M. Pedestrian collisions *(sources: SWITRS, 2000 Census, 2006-2008 ACS)*

Jurisdiction	Collisions (2004-2008)	Share of collisions	Pedestrian commuters (2006-2008)*	Share of pedestrian commuters	Annual collisions per 100 ped commuters	Annual collisions per 100 ped commuters (2000-2003)
North	2,440	64%	18,580	72%	2.63	3.35
Oakland	1,642	43%	7,987	31%	4.11	5.58
Berkeley	497	13%	8,584	33%	1.16	1.56
Albany	53	1%	300	1%	3.53	2.67
Piedmont	14	0%	79	0%	3.54	2.85
Emeryville	47	1%	263	1%	3.57	3.14
Alameda	187	5%	1,367	5%	2.74	4.02
Central	830	22%	3,936	15%	4.22	5.06
Unincorporated	185	5%	1,669	6%	2.22	4.47
Hayward	305	8%	1,353	5%	4.51	5.51
San Leandro	340	9%	914	4%	7.44	5.02
South	341	9%	1,937	8%	3.52	5.32
Fremont	238	6%	1,022	4%	4.66	5.43
Newark	40	1%	270	1%	2.96	6.85
Union City	63	2%	645	2%	1.95	4.37
East	211	6%	1,370	5%	3.08	3.09
Dublin	33	1%	272	1%	2.43	3.50
Livermore	68	2%	505	2%	2.69	3.69
Pleasanton	110	3%	593	2%	3.71	2.16
Total	3,825		25,823		2.96	3.71

* Year 2000 for Albany, Emeryville, Piedmont and unincorporated areas

N. Bicycle fatalities and injuries *(source: SWITRS)*

Year	Bicycle fatalities	Bicycle injuries	Total	Traffic fatalities	Bicyclists' share of fatalities
2001	3	533	536	111	2.7%
2002	3	571	574	112	2.7%
2003	3	503	506	113	2.7%
2004	2	566	568	103	1.9%
2005	2	552	554	102	2.0%
2006	5	588	593	98	5.1%
2007	4	575	579	106	3.8%
2008	1	736	737	88	1.1%
Total	23	4624	4647	947	2.4%

O. Bicycle collisions *(sources: SWITRS, 2000 Census, 2006-2008 ACS)*

Jurisdiction	Collisions (2004-2008)	Share of collisions	Bike Commuters (2006-2008)*	Share of bike commuters	Collisions per 100 bike commuters
North	2,017	58%	7,364	67%	5.48
Oakland	980	28%	3,201	29%	6.12
Berkeley	755	22%	3,433	31%	4.40
Albany	39	1%	300	3%	2.60
Piedmont	28	1%	37	0%	15.14
Emeryville	29	1%	56	1%	10.36
Alameda	186	5%	337	3%	11.04
Central	617	18%	1,721	16%	7.17
Unincorporated	218	6%	1,222	11%	3.57
Hayward	211	6%	154	1%	27.40
San Leandro	188	5%	345	3%	10.90
South	389	11%	800	7%	9.73
Fremont	260	7%	623	6%	8.35
Newark	60	2%	36	0%	33.33
Union City	69	2%	141	1%	9.79
East	458	13%	1,047	10%	8.75
Dublin	35	1%	104	1%	6.73
Livermore	171	5%	434	4%	7.88
Pleasanton	252	7%	509	5%	9.90
Total	3,481		10,932		6.37

* Year 2000 for Albany, Emeryville, Piedmont and unincorporated areas

P. Implementation progress on the 2006 Countywide Pedestrian Plan *(source: Alameda County Transportation Commission)*

Jurisdiction	Projects completed in FY 2005/06–2009/10 Name	Description	Location/Roadway /Trail	Limits (From, To)	Area(s) of countywide significance Transit Area	Activity Center	Inter-Jurisdictional Trail
Alameda	Webster Street Streetscape	plaza areas and transit stations along Webster Street; ped-friendly street lights; bike racks; trash cans	Webster Street	Pacific Avenue to Santa Clara Avenue	Line 51A, Line O, Line W	Webster Street Business Area	
Alameda	Park Street Streetscape	plaza areas and transit stations along Park Street; ped-friendly street lights; bike racks; trash cans	Park Street	Lincoln Avenue to Encinal Avenue	Line 51A, Line 21, Line 20, Line 31	Park Street Business Area	
Livermore	First Street Streetscape Improvements		Livermore, CA, Downtown Core-First Street	From Maple Street to South L Street		Downtown Livermore Core	
Livermore	Downtown Center Transit Connection	This project will install a new pedestrian crosswalk at the future regional performing arts theater's entrance, build a new walkway connection from mid–block of South Livermore Avenue to the Bankhead Theater and Park Plaza, landscape and furnish the existing walkway west of Bankhead Theater, improve the Railroad Avenue crossing, and install landscaped walkway along the east side of the Livermore Valley Center Parking Garage	Livermore, CA, Downtown Core-Railroad and Livermore Avenues	Livermore Transit Center, crossing Railroad Ave, through Bankhead Plaza, crossing Livermore Avenue	Livermore Transit Center	Downtown Livermore Core	
Livermore	Station Square	This is a development project to build townhomes along Railroad Avenue between M and N Street. As part of the development a 0.10 mile portion of the Iron Horse Trail was built between M and Station Street	Iron Horse Trail	M Street to N Street			Iron Horse Trail
Livermore	Heritage Estates	This development project, at the corner of Murietta Blvd and Stanley Blvd., built a 0.2 mile stretch of Iron Horse Trail.	Iron Horse Trail	From Murrieta/Stanley to 0.20 miles east			Iron Horse Trail
Livermore	Arroyo Mocho Trail Extension	This project built a 0.43 mile extension of the Arroyo Mocho Trail that made a connection to Concannon Blvd.	Arroyo Mocho Trail	Starting at 0.13 miles south of Concannon Blvd/Livermore Ave. and heading approximately NW 0.43 miles.			Arroyo Mocho Trail
Oakland	Safe Routes to School Cycle 4	install bulbout and traffic signal	Foothill Blvd	9th Ave, 10th Ave, 40th Ave	AC Transit		
Oakland	73rd Ave/Garfield Ave Traffic Signal	install traffic signal	73rd Ave	Garfield Ave	AC Transit	Eastmont Mall	
Oakland	International Blvd/7th Ave Traffic Signal	install traffic signal	International Blvd	7th Ave	AC Transit		
Oakland	International	install traffic signal	International Blvd	4th Ave	AC Transit		

	Blvd/4th Ave Traffic Signal						
Oakland	14th Ave/E 29th St Traffic Signal	install traffic signal	14th Ave	E 29th St		Highland Hospital	
Oakland	San Pablo Ave/65th St Traffic Signal	install traffic signal	San Pablo Ave	65th St	AC Transit		
Oakland	Broadway/28th St Traffic Signal	install traffic signal	Broadway	28th St	AC Transit		
Oakland	Laurel Streetscape	Construct Bulb-outs, reconstruct crosswalks, plant trees, install street furniture and relocate street lights.	MacArthur Blvd	35th Ave to High St	AC Transit		
Oakland	Broadway Sidewalk Project, Phase 2	18,606 sf sidewalk replacement including waterproofing over existing basement vaults; new street trees & street furniture	Broadway	14th St vicinity	AC Transit, 12th St BART	Oakland Downtown	
Oakland	Telegraph Ave Streetscape Improvements, Phase 1	Construct bulbout and install new street lights on the west side of Telegraph Ave between 18th Street and 20th Street. Retrofit streetlights on the east side of Telegraph between 20th and 19th Street. Install new and modify existing traffic signal between 19th and 18th Street.	Telegraph Ave	18th St to 20th St	AC Transit, 19th St BART	Oakland Downtown, Paramount Theater	
Oakland	Broadway Phase 3	8,575 sf SW replacement incl. Waterproofing over ex. Basement vaults; 17,602 sf of replaced regular SW, extended curb areas, bus pads, & new street trees & street furniture	Broadway	17th St to 20th St	AC Transit, 19th St BART	Oakland Downtown, Paramount Theater	
Oakland	Tunnel Rd Hazard Mitig. Project	Storm Drain Improvements incl. new inlet, new pipe, new pipe outfall, roadway improvements incl. AC dike to channel roadside drainage, replacement of def. guardrails, and new traffic safety signs. This project will improve bicyclist/ped/vehicle safety.	Tunnel Rd	between Caldecott Ln and Charing Cross Rd			
Oakland	West Oakland Bay Trail	Work includes striping, curb ramps, sidewalk construction on 4 blocks, and about 59 trees to be planted.	2nd St and 3rd St	Union St to Broadway			Bay Trail
Oakland	40th St MacArthur Transit Hub	Installation of bike lanes, traffic signal lights and streetlights, construction of ADA ramps and bulbouts, installation of decorative lighting, plastering and painting under the BART Station and I-24, grinding, repaving and striping.	40th St	Martin Luther King Jr Wy to Telegraph Ave	AC Transit, MacArthur BART		
Oakland	Revive Chinatown	Pedestrian Improvements including bulbouts; scramble intersections; pedestrian-scale lighting; high visibility crosswalks; modification of traffic signals; pedestrian signal heads/countdown timers; street furniture; bilingual signage; and Alameda wayfinding signage.	Oakland Chinatown	Broadway to Harrison St and 7th St to 10th St	AC Transit, Lake Merritt BART, 12th St BART	Oakland Downtown	
Oakland	Oakland Bay Trail: Mandela Parkway	Realign Mandela; lighting, landscaping, sidewalk improvements, new bike lanes	Mandela Parkway	Union St			Bay Trail

Oakland	Coliseum Transit Hub Streetscape	Streetscape improvements including new medians, traffic signals, ornamental lighting, landscaping, and bus stop relocation.	San Leandro St	66th Ave to 73rd Ave	Coliseum BART, Coliseum Amtrak	Network Associates Coliseum, Oakland Arena	
Oakland	Historic Restoration of the E. 18th Street Pier Overlook	Reconstruct the Historic East 18th Street Pier Overlook	E 18th St	Lakeshore Ave			Bay Trail
Oakland	Union Point Park	Improvement for a new 6-acre park along the waterfront. Park elements include Union Point Hill, Picnic Area, Children's Play area, Cermony Circle, lawn/open space, two parking lots, restroom, waterfront trail walkway, and public art pier into the Estuary.	Embarcadero	between Dennison St and E 7th St			Bay Trail
Oakland	Alameda Ave, Oakland Waterfront Trail	Demolish the existing waterside street improvements to provide for a new curb & gutter & multi-use path with amenities from Fruitvale Avenue south along the water's edge on Alameda Avenue. Bicycle lanes to continue to Howard Street (provided via grant funding). Trail to connect to proposed trail behind 3675 Alameda Avenue	Alameda Ave	Fruitvale Ave			Bay Trail
Oakland	66th Ave Gateway	Construct an outlook at the Zhone Way/66th Ave. & Oakport intersection along the existing waterfront trail in the Martin Luther King, Jr. Regional Shoreline park.	66th Ave	Oakport St			Bay Trail
Oakland	Rockridge Greenbelt	Improvements to creek area, new path of travel and ADA improvements to play areas	Temescal Creek	Claremont Ave to Hudson St		Department of Motor Vehicles	
Pleasanton	Iron Horse Trail	Class I Trail	Iron Horse Trail	Santa Rita Road to Mohr Avenue			Iron Horse Trail
Pleasanton	Iron Horse Trail	Class I Trail	Iron Horse Trail	Mohr Avenue to Valley Avenue/Busch Road			Iron Horse Trail
San Leandro	West Estudillo Pedestrian Connection	Construction of an enhanced pedestrian corridor that links the San Leandro BART station to the downtown area and the bus shelter on East 14th Street.	West Estudillo Avenue	From San Leandro Boulevard to East 14th Street	AC Transit International Blvd/E 14th: Downtown Oakland to Hayward	San Leandro BART Station	
San Leandro	Downtown Lighting and Pedestrian Improvements	Design and construction of streetscape improvements in the downtown area consistent with the conceptual study prepared in 2002. The streetscape improvements include street lighting, street furniture, sidewalk improvements, landscaping and irrigation.	Downtown Area	The area is bound by Davis Street on the north, East 14th Street on the east, Parrot Street on the south, and Hays Avenue on	AC Transit International Blvd/E 14th: Downtown Oakland to Hayward	San Leandro Downtown	

				the west.		
San Leandro	Safe Route to School Lighted Crosswalk	installation of solar powered lighted crosswalk and accessories, roadside signs, striping, pedestrian push buttons and fittings, concrete flat work	Roadway crossings at four elementary schools	Pedestrian crossings on Bancroft Avenue, northern leg of Corvallis Street at Oberlin Avenue, northern leg of Bancroft at Blossom Way, and Dowling Boulevard.	AC Transit Bancroft/Foothill/ Shattuck/Telegrap h: San Leandro-East Oakland-Emeryville	
San Leandro	MacArthur Boulevard Streetscape	Construction of bulb-outs, street trees, road reconstruction, site furnishings and sidewalk improvements.	MacArthur Boulevard	From Bridge Road to Dowling Boulevard and from Lewis Avenue to Durant Avenue	AC Transit MacArthur/40th: San Leandro to Berkeley	
Union City	ADA Wheelchair Ramps project	Installed ramps at street intersections, including along all bus routes.	Along bus routes	At various street intersections, including along Union City Transit's bus routes 1A, 1B and 2.	Union City Transit, AC Transit	
Union City	Union City Intermodal Station	Installed bike lanes, bike lockers and wheelchair ramps at the reconfigured BART Station parking lot which is being modified to serve heavy trains, along with BART and transit buses. The modifications included providing access to the BART Station from Decoto Road as well by building a 375 ft. long roadway which is also fitted with bike lanes, ramps and sidewalk.	Union Square and Decoto Road.	In the vicinity of BART Station		Union City BART Station which is located just north of and within a 5-minute walk from Market Place shopping Center, just completed Avalon Bay high-rise apartment complex and the TOD located just north of the Station which has already started construction on a multi-story low-income residential development.

Q. Implementation progress on the 2006 Countywide Bicycle Plan *(source Alameda County CMA)*

Jurisdiction	Projects completed in FY 2005/06–2009/10
North Planning Area	
Alameda	None
Albany	Buchanan Avenue Path Marin Avenue Road Diet (2005) Ohlone Greenway curb ramps and lighting Portland/Washington Realignment
Berkeley	None
Emeryville	None
Oakland	Lakeshore Ave Bikeway (E 18th St-I-580) (2009) Bancroft Ave Bike lanes (66th-82nd Aves) (2008) Lakeside Dr (14th St-19th St) (2009) Alameda Ave Bike Path (2007)
Piedmont	None
Central Planning Area	
Unincorporated	None
Hayward	Class I bike path public ROW Valle Vista to Industrial parkway
San Leandro	None
South Planning Area	
Fremont	Traffic Signal Bicycle Detection Improvements project (2006) Citywide Bicycle Parking Facilities Project (2010)
Newark	None
Union City	11th Street Enhancement (includes bike lanes, signage) (2007) Intermodal Station Project (bike racks, signage, etc.) (2009)
East Planning Area	
Dublin	None
Livermore	Trail Segment H-1, City Project No. 2003-16 (2007) Arroyo Mocho Trail Extension E-1, City Project 2002-16 (2007) Livermore to Pleasanton Trail Segment T14, City Project 2006-47 (current 2010)
Pleasanton	Valley Avenue Bike Trail (Case Av to Sunol Bl) (2009) Marilyn Murphy Kane Trail (Bernal Av to Castlewood) (2009)

R. Local plans

Jurisdiction	Pedestrian plan	Bike plan	Combined ped/bike plan	ADA transition plan	Policies to bring facilities in line with ADA
North Planning Area					
Alameda (City of)	✓	✓		✓	
Albany	Underway	✓		✓	Use Community Development Block Grant funds for curb ramps; City Engineer has standards for ADA enhancements
Berkeley	✓	✓		✓	
Oakland	✓	✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate

					program for existing facilities
Piedmont				✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities; ADA expert consultant
Emeryville			✓	✓	
Central Planning Area					
San Leandro			✓	✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities
Hayward		✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities; wheelchair ramp retrofits
Unincorporated Areas	✓	✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities
South Planning Area					
Fremont	✓	✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities
Newark			Underway	✓	ADA upgrades with other projects; ADA standards for new facilities
Union City		✓	✓	✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities; As requested by residents
East Planning Area					
Pleasanton		✓	✓	✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities
Dublin		✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities
Livermore		✓		✓	ADA upgrades with other projects; ADA standards for new facilities; separate program for existing facilities;

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Comments on: Alameda Countywide Bicycle and Pedestrian Plan Updates – DRAFT EXISTING CONDITIONS CHAPTERS

Comments Due By: **Wednesday, October 6, 2010** to Rochelle Wheeler, rwheeler@actia2022.com AND Diane Stark, dstark@accma.ca.gov

Date Reviewed:

Prepared By:

Agency:

Plan (B=Bike P=Ped)	Page #	Review Comments	Review Action *(staff use)*			Responses *(staff use)*

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ALAMEDA County Transportation Commission

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ACTIA ▪ 1333 Broadway, Suite 300 ▪ Oakland, CA 94612 ▪ PH: (510) 893-3347
www.AlamedaCTC.org

MEMORANDUM

Date: September 15, 2010

To: Bicycle and Pedestrian Plans Working Group

From: Diane Stark, Senior Transportation Planner
Rochelle Wheeler, Countywide Bicycle and Pedestrian Coordinator

Subject: **Bicycle & Pedestrian Plans Outreach Strategy**

Recommendations
It is recommended that the Bicycle and Pedestrian Plans Working Group (PWG) provide input on the Outreach Strategy for the updates to the Alameda Countywide Bicycle and Pedestrian Plans at its September 22 meeting, and, if desired, in writing before October 6.

Summary
Attached is a memo from Eisen|Letunic summarizing the outreach strategy for updates to the Countywide Bicycle and Pedestrian Plans. It is requested that any written comments be submitted to Diane Stark at dstark@accma.ca.gov or Rochelle Wheeler at rwheeler@actia2022.com by Wednesday, October 6, 2010.

Discussion
The Bicycle and Pedestrian Plans Working Group reviewed an earlier version of the outreach strategy at its June 3, 2010 meeting. However, there was little time for a full discussion, and the Working Group suggested that this item be brought to its next meeting for further discussion. The same earlier version of the outreach strategy was presented to the Alameda Countywide Bicycle and Pedestrian Advisory Committee (BPAC) for their input in June 2010. The attached version of the strategy is updated to reflect comments from both the PWG and the BPAC. A list of the specific areas where feedback is being requested is included at the end of the memo.

Attachments
A. Memo from Eisen|Letunic regarding Outreach Opportunities

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EISEN | LETUNIC
TRANSPORTATION, ENVIRONMENTAL AND URBAN PLANNING

MEMORANDUM

To	Diane Stark and Rochelle Wheeler, Alameda CTC
From	Victoria Eisen
Date	September 22, 2010
Project	Alameda Countywide Bicycle and Pedestrian Plan Updates
Subject	**Deliverable 1.8: Outreach opportunities**

Purpose

The purpose of using various techniques to solicit input for the Alameda Countywide Bicycle and Pedestrian Plans is threefold:

1. **Consistency.** Coordinating with representatives of Alameda County's 15 jurisdictions is the best way to ensure that the Countywide Plans are as consistent with and conflict as little as possible with local plans.
2. **Two heads are better than one.** By engaging multiple committees and individuals in meetings and other gatherings, we are providing myriad opportunities to identify creative approaches to the challenges facing existing bicyclists and pedestrians, and to attract more people to these modes.
3. **Education/ownership.** The more people who know about and participate in the development of these plans, the more the plans will reflect the goals and needs of cyclists and pedestrians throughout Alameda County.

Recommendations

It is recommended that outreach to inform the development of the countywide bicycle and pedestrian plans consist of the following components:

1. **Primary advisors.** Outreach efforts for updating the Alameda Countywide Bicycle and Pedestrian Plans should continue to be primarily focused on gathering input from stakeholders (via a questionnaire distributed during the summer) and the following committees:
   - Plans Working Group, a broad and inclusive group convened expressly for this project, which will meet up to 11 times to review and provide input on the updates.
   - Alameda CTC's Bicycle and Pedestrian Advisory Committee (BPAC) at up to seven meetings
   - Alameda CTC's Paratransit Advisory Planning Committee (PAPCO) at up to three meetings
   - Alameda CTC's Technical Advisory Committee (ACTAC) at three meetings
   - Alameda CTC Board and one of its committees will review the final draft plans

2. **Local BPACs.** In order to allow residents and others most familiar with bicycling and walking conditions in their local jurisdictions to have an opportunity to provide input into the Plans, without adding a burdensome number of new meetings to the project timeline and budget, it is recommended that presentations be made to the following five groupings of local Bicycle and Pedestrian Advisory Committees:

    - **Berkeley**/*Albany*/*Emeryville*/*Oakland*
    - **Oakland**/*Alameda*/Piedmont
    - **San Leandro**/Hayward/*Unincorporated Areas*
    - **Fremont**/*Newark*/Union City
    - **Pleasanton**/*Dublin*/Livermore

    (Bold indicates host BPAC where meeting would take place; italics indicates guest cities with established or temporary BPACs; and plain text indicates jurisdictions without BPACs that would be invited to send local advocates or other interested people. Jurisdiction staff would be requested to use their existing distribution lists to alert local BPAC members and other interested parties of these meetings. Local advocacy groups would be invited, such as WalkOakland/BikeOakland and Bike Alameda, to relevant meetings.

    Countywide BPAC members suggest that local BPACs will be most interested at the following two stages: defining the plans' vision and goals, and identifying priority bicycle and pedestrian programs and projects.
3. **Other countywide transportation events and meetings.** Alameda CTC holds quarterly transportation forums in locations throughout the county, and in 2011, will likely begin to hold outreach meetings for the update of the Countywide Transportation Plan. Both of these processes provide an opportunity for people in Alameda County to learn that the countywide bicycle and pedestrian plans are being updated and, via the media described below, learn how they can participate.
4. **Advocacy and other groups.** Upon request and as feasible, it is advisable for Alameda CTC staff to continue making presentations to advocacy and other organizations. This effort could include reaching out to populations perceived to be underrepresented by the outreach described above. The countywide BPAC suggested that senior citizens may be one example, perhaps via senior centers.

Beyond meeting presentations and discussions, it is further recommended that the following **media** be used to communicate about the plans update process:

1. **Project webpage:** Create a link to a new page on the websites of ACTIA, ACCMA and the Alameda CTC that would be the central repository of information on the update process. This could include Working Group agenda packets, draft chapters, opportunities to provide input and updates on the project status.
2. **Informational postcard.** Create a postcard with a summary of the update process, opportunities for input and a link to the project webpage. Distribute the postcard at

outreach events in which Alameda CTC staff participate throughout the year, including during discussions of the Countywide Transportation Plan update, quarterly transportation forums, community events, and the like.

Outreach Ideas Considered, but not Recommended

General public meetings to specifically discuss the Countywide Plan Updates are not recommended because it is our experience developing other countywide plans that it is difficult to attract more than a handful of participants to meetings convened particularly to discuss countywide plans. It is also often very difficult for members of the public to understand the distinction between local and countywide plans, resulting in heightened expectations of what a countywide plan could accomplish in a particular jurisdiction.

Forms of social media are also not recommended to elicit input for the Countywide Bicycle and Pedestrian Plans because these sorts of communications from individuals are not vetted in a larger group setting and may conflict with local priorities expressed in local plans and/or a committee context.

Feedback needed at September 22 Working Group meeting

At the September 22, 2010 meeting, we will discuss the recommendations proposed in this memo. In particular, we would like feedback on the following:

1. Do the Plans Working Group (PWG), Bicycle and Pedestrian Advisory Committee (BPAC) and Paratransit Advisory and Planning Committee (PAPCO) concur with the groups recommended for outreach? Should other groups be added?
2. Do PWG, BPAC and PAPCO concur with the media recommended to be developed to augment this outreach (webpage and postcard)?
3. At what stage of the Plans development would PWG, BPAC and PAPCO suggest presentations be made to local BPACs? Should presentations be made once or twice to each local BPAC grouping?
4. Assuming resources are available to meet with each grouping of local BPACs just once, we request the Working Group's feedback on what stage of the plans development process would be best for each BPAC to have its presentation.

I look forward to incorporating these committees' feedback into a final Outreach approach.

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Alameda County Transportation Commission

Bicycle and Pedestrian Plans Working Group

Meeting Schedule and Purpose

Created: July 27, 2010
Revised: September 14, 2010

Meetings held on Wednesdays from 1:30pm to 3:30pm

	Meeting Date	Meeting Purpose
1	October 21, 2009	• Input on Plan Updates Request for Proposals Scope of Work
2	June 3, 2010	• Introduce consultant team • Review approach and timeline • Input on Tables of Contents • Input on Local Agency Questionnaire • Input on Outreach
3	**September 22, 2010**	• **Input on Existing Conditions Draft Chapters** • **Outreach Strategy**
4	October 20, 2010	• Input on Evaluation of Current Practices Draft Chapters • Preliminary discussion of proposed approaches to Priority Projects/Programs (Vision/Goals)
5	November/December 2010, date TBD	• Vision/Goals Draft Chapters
6	February 2011, date TBD	• Priority Projects/Programs (mid-task direction)
7	March 2011, date TBD	• Priority Projects/Programs Draft Chapters
8	June 2011, date TBD	• Implementation (mid-task direction)
9	July 2011, date TBD	• Implementation Draft Chapters
10	September 2011, date TBD	• Executive Summaries/Introductions (mid-task direction)
11	October 2011, date TBD	• Executive Summaries/Introductions Draft Chapters
12	December 2011, date TBD	• Full Draft Plans