2011 Bicycle Count Report

City of San Francisco

December 2011

SFMTA | Municipal Transportation Agency

The San Francisco Municipal Transportation Agency (SFMTA) 2011 Bicycle Count Report is a collaborative planning document developed by the Sustainable Streets Division. The effort was led by Peter Brown, Project Manager, under the direction of Timothy Papandreou, Deputy Director of Planning. Preparation of this report was made possible by the San Francisco County Transportation Authority through a grant of Proposition K Local Transportation Sales Tax funds. The Metropolitan Transportation Commission was helpful in sharing the data from their annual regional bicycle counts and the San Francisco Bicycle Coalition provided invaluable feedback and keen photography.

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SFMTA - About us

The San Francisco Municipal Transportation Agency (SFMTA) is responsible for the planning, implementation, regulation, maintanence and operation of the multimodal transportation system in the City and County of San Francisco. The city's transportation system includes transit, paratransit, streets, bicycle and pedestrian facilities, parking, traffic controls, and taxi services.

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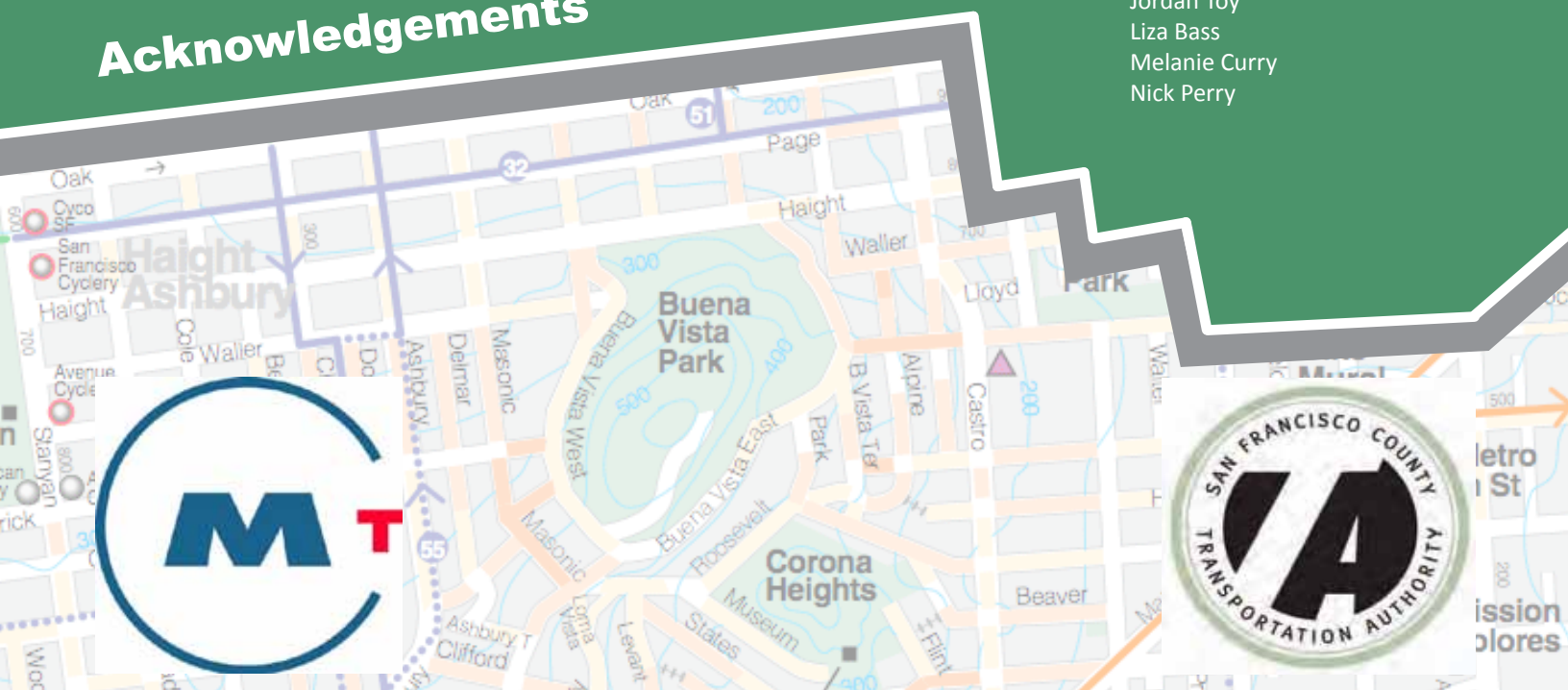

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Executive Summary

In 2006, the San Francisco Municipal Transportation Agency (SFMTA) began conducting annual citywide bicycle counts to measure bicycle ridership trends. One thing is certain, more and more San Franciscans are riding bicycles every year. The increased bicycle ridership indicates a healthier city, a reduction in auto dependency, and a much needed movement towards sustainable transportation.

The bicycle counts inform bicycle planning efforts in the city, provide the data needed to evaluate the efficacy of the bicycle network, and help identify locations where additional infrastructure improvements may be needed. [1]

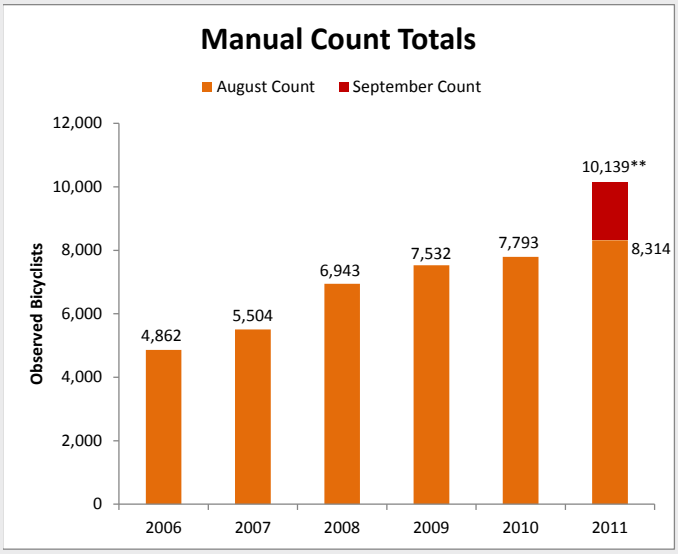
SFMTA is committed to growing bicycle ridership, providing new infrastructure, and improving the safety of bicycling in San Francisco. This report is a key part of this commitment as it analyzes the results of the 2011 bicycle count and discusses the factors that affect the data. Count data from the city's newly-installed automatic bicycle counters is also shown and the Metropolitan Transportation Commission (MTC) regional manual bicycle counts in San Francisco demonstrate an 8.5% increase over 2010, similar to the SFMTA observed 7%.

In an effort to improve accuracy and create a comparable data set, 2011 is a departure year from the methodology used since 2006. Changes were made in order to align with the bicycle counting standards set by the National Bicycle and Pedestrian Documentation Project (NBPDP).[2] For instance, NBPDP counts are conducted in September when schools are back in session and summer vacations have ended. San Francisco can now compare count data with nationwide cities who also conduct bicycle counts during the same time frame. Per national bicycle count methodology, count shifts were expanded from 1.5 to 2 hours during the evening peak commute time (4:30-6:30 p.m.).

Additionally, a dozen locations with little cycling activity over the past five years were not counted, and 18 new locations were added to capture "before" data for planned bicycle facilities and for popular routes such as the Golden Gate Bridge. Corridor and intersection counts better capture bicycling movements in the city than the previously used cordon count. Automated bicycle counters replaced manual counts at nine locations. These changes create a new baseline for future bicycle count efforts.

Key Findings in San Francisco Bicycling for 2011

- ***Since 2006, counts have increased an impressive 71% and are up 7% since 2010.***
- ***A sample of 10,139 riders (September) were manually counted in the peak 90 minutes; approximately 75,000 bike trips occur each day out of 2.2 million total trips across all modes***
- ***SFMTA survey data in 2011 indicate that 3.5% [3] of all trips in San Francisco are made by bicycle, a 75% increase in mode share since 2000 when bicycling was 2% of daily trips***
- ***Late September has 18% more riders than early August***
- ***94% of riders use bicycle facilities as designed***



The count trend since 2006 during the 5:00 p.m. - 6:30 p.m. peak continues to rise.

* These counts represent a sample of, not total daily ridership

** Approximately 18% of the 2011 increase (shown in red) is attributed to shifting the count from early August to late September (see Appendix C).

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2011 Bicycle Count Results

SFMTA Manual Counts

The September 2011 bicycle count results are shown in the table to the right. The green column shows the raw counts for all locations between 4:30 and 6:30 p.m. The blue column displays the 1.5 hours count totals from 5 to 6:30 p.m. for comparison with past years' data. The black cells are new 2011 bike count locations, the white cells are locations that have been counted since 2006.[4] The manual bicycle counts were done across all movements across an entire intersection.

A consistent increase in cycling was observed at most of the manual count locations in 2011. Bicycle counts have risen from 4,862 in 2006 to 10,139 in 2011 during the 5-6:30 p.m. peak. Adjusting for the September time frame, a 71% increase has occurred in just 5 years. In just the last year, the 2011 counts at comparable locations with 2010 show a seven percent increase. In a recent "Think Bike" visit to San Francisco, Dutch bicycling experts emphasized that their research demonstrates a simple reason why people are choosing to bike; riding is fun.

By the Numbers

- **75,000** daily bicycle riders in San Francisco, as estimated by area transportation models and mode share surveys
- **17,047** riders counted during the last two weeks of September 2011 at selected locations throughout the city.
- **13,320** riders counted during the 5:00-6:30 p.m. peak in 2011
- **10,139** riders counted at locations used between 2006-2011 in September, a 30% increase over the August 2010 counts
- **8,314** riders* are estimated had the counts occurred in early August instead of late September, a 7% increase over 2010
- **7,793** riders were counted during the 5:00-6:30 peak in 2010

* 8,314 is 82% of the actual Septemeber count of 10,139. See Appendix C.

Locations	New for 2011 / Counted 2006 - 2011	4:30 pm - 6:30 pm	5:00 pm - 6:30 pm
11th and Howard		578	462
11th and Market		1,396	1,173
14th and Folsom		346	284
14th and Market/Church		500	407
16th and Mission		270	217
17th and Valencia		1,059	862
17th/Castro and Market		156	127
19th and Holloway		99	76
19th and Lincoln		66	55
19th Ave and Sloat		61	47
2nd and Folsom		241	205
2nd and Market		816	654
2nd and Townsend		233	199
5th and Market - AM (8-9am)		750	-
5th and Market - MIDDAY (1-2pm)		226	-
5th and Market - PM		1,134	952
5th and Townsend		609	530
7th and 16th		222	191
7th and Kirkham		98	77
7th and Lincoln		68	61
8th and Townsend		502	432
8th Ave and Clement		95	77
Broadway and Columbus		165	138
Broadway and Embarcadero		745	615
Cervantes and Marina		625	531
Cesar Chavez and Harrison		74	64
Embarcadero and Townsend		651	569
Fell and Scott		534	420
Golden Gate and Masonic		105	75
Golden Gate Bridge		378	328
Market and Valencia		1,274	1,083
McAllister and Polk		497	400
Mission and Cortland		117	92
Mission and Ocean		42	31
Page and Scott		1,240	1,053
Page and Stanyan		138	103
Parnassus Ave (in front of UCSF)		16	11
Polk and Grove		373	285
Polk and Sutter		336	263
Portola and O'Shaughnessy [5]		30	24
San Bruno and Paul		14	14
Stockton and Sutter		168	133
OBSERVED CYCLISTS		17,047	13,320

2011 Manual Bicycle Counts by Location (4:30p.m. - 6:30p.m.)

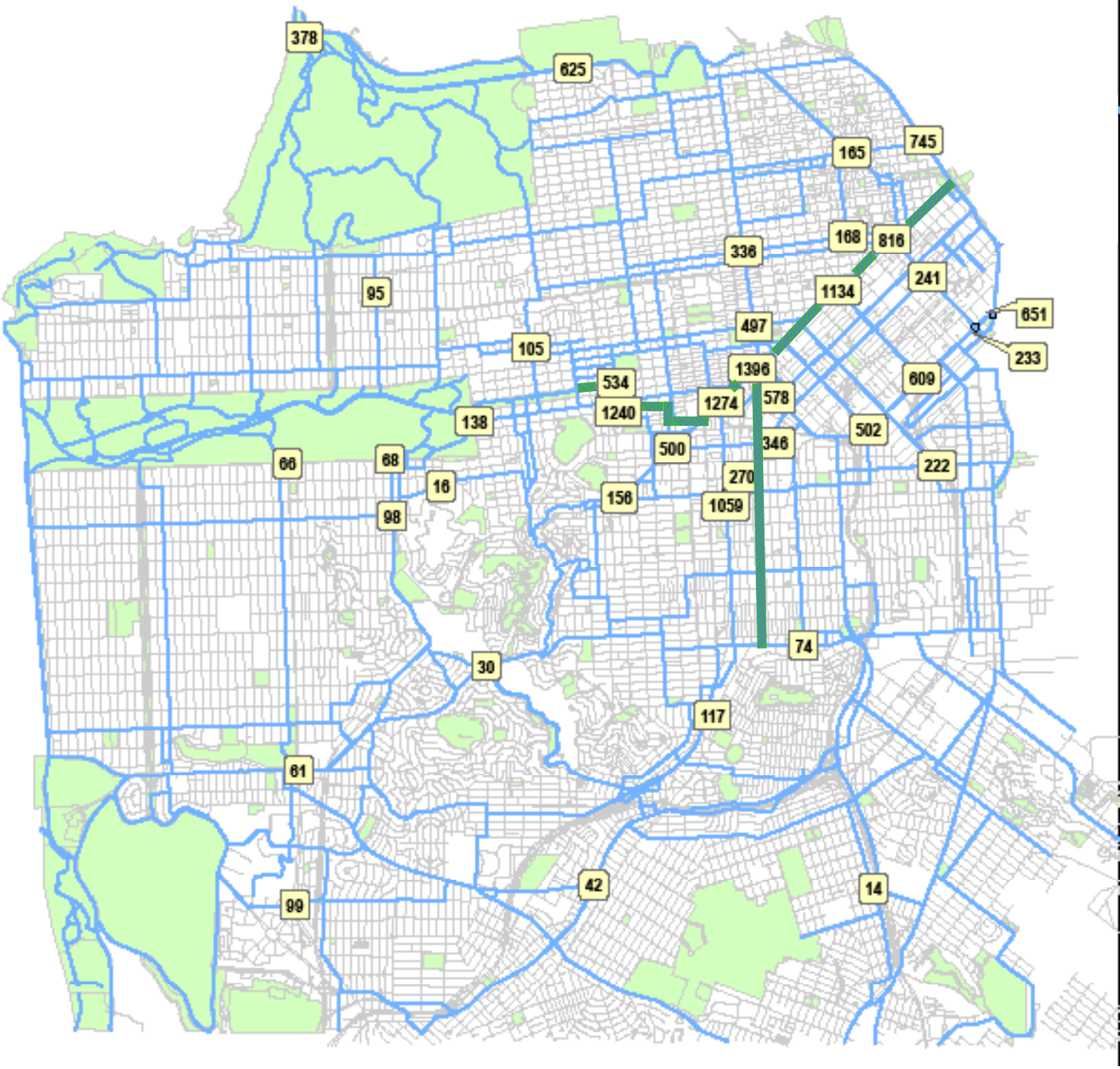
Arterials

San Francisco Bicycle Network

1 2 miles

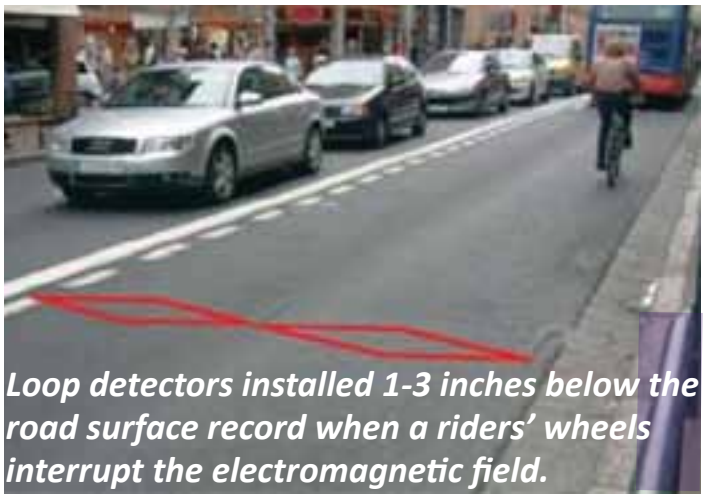
N

Regardless of mode of travel, the downtown Financial District continues to be a major trip generator and the bicycle counts demonstrate this. More people are riding throughout the city, especially down Market Street, along the Wiggle and to and from the Mission. More San Franciscans are realizing it is a fast, fun, inexpensive and convenient way to move about the city.



SFMTA Automatic Counts

The manual bicycle counts allow identification of bicycling trends, however, they only produce a "snapshot" of bicycling at a small number of intersections in San Francisco. In order to address the limitations of the manual counts and to provide sample data on ridership throughout the city, the SFMTA has begun installing automated bicycle counters at key locations in the bicycle network. Automated bicycle counters provide continuous streams of ridership data over any 24 hour period in a cost-effective manner. Automated count data for nine important intersections (some are bidirectional) during the study period are shown in the table below. Data for September 20, 2011 is more comprehensive and displays average ridership at 16 locations, including some lesser traveled routes in the graph below. It demonstrates the daily pattern of ridership, the morning peak, midday and evening lulls, and the height of the afternoon peak.



Loop detectors installed 1-3 inches below the road surface record when a riders' wheels interrupt the electromagnetic field.

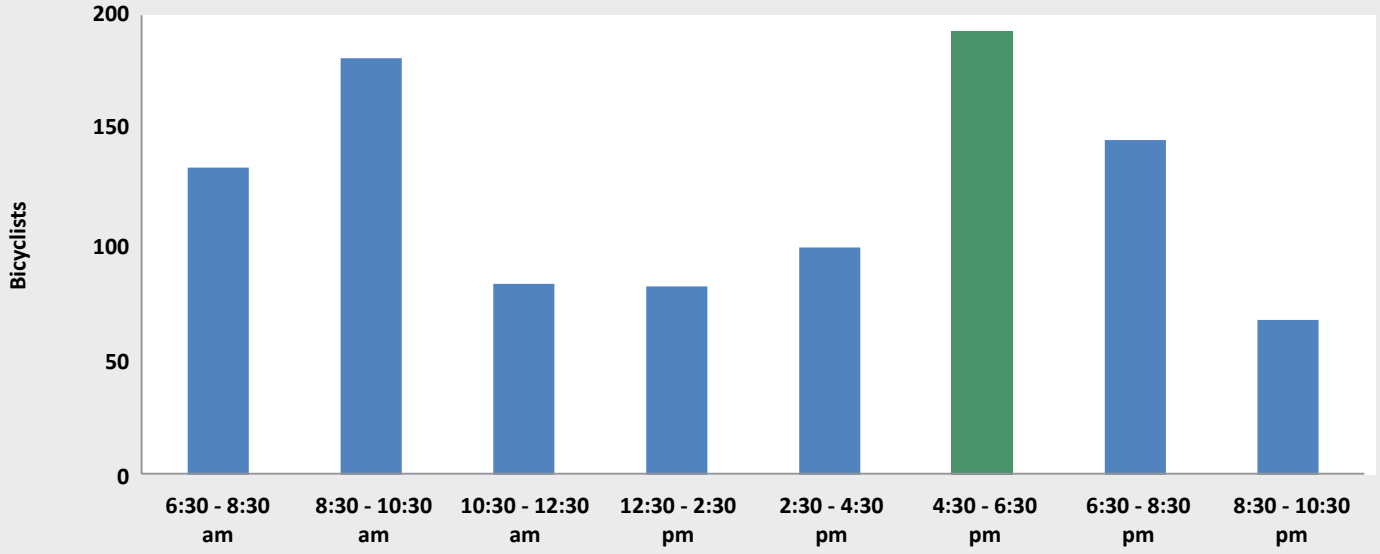
Average Peak Hour Counts in Late September

4:30 pm - 6:30 pm (9 locations)

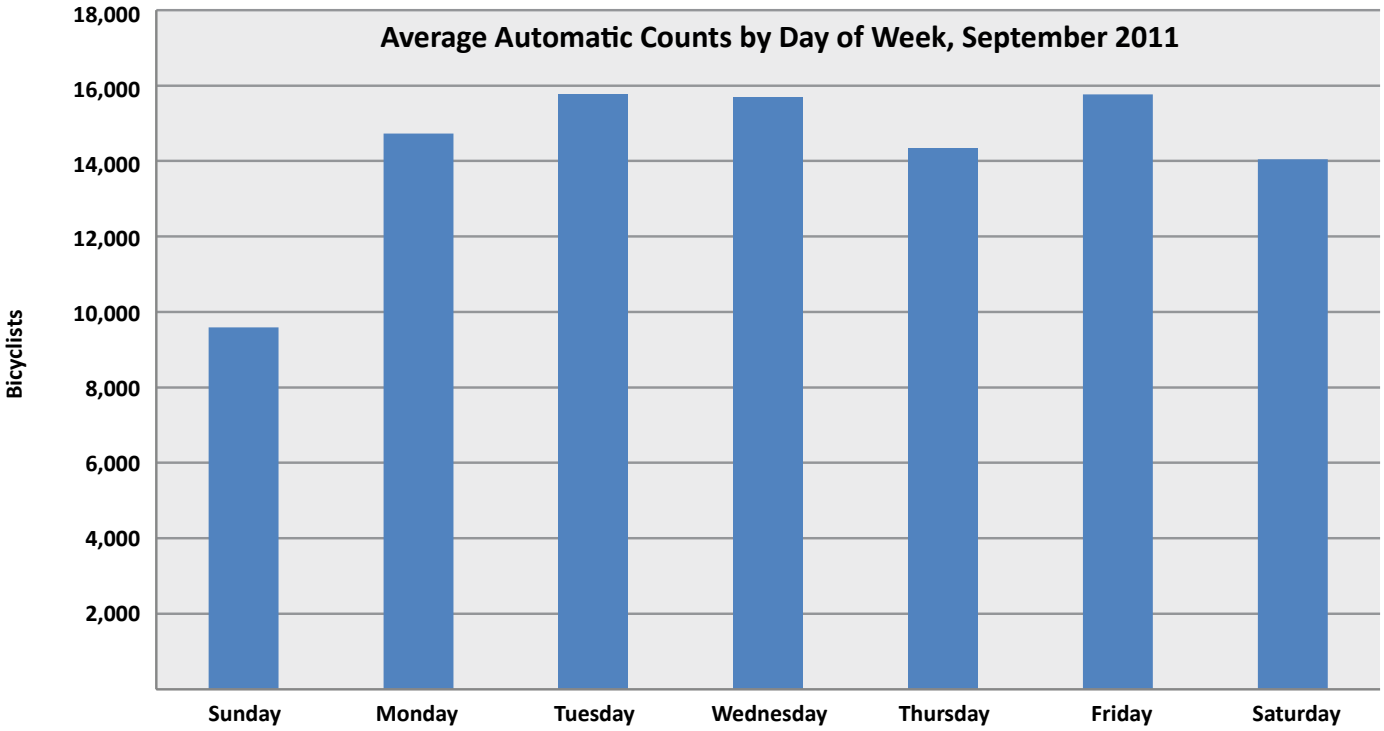
Automatic Bicycle Counter Locations	Bicyclists
6th/7th Ave and Kirkham	64
Fell St and Divisadero	443
Lake and Arguello	72
Market and 11th/Van Ness	771
North Point and Polk	122
Panhandle and Masonic	703
Polk and Grove	133
Potrero and 23rd St	21
14th St and Valencia/Julian	530
Average	318

Bicycling ridership fluctuates in a typical dual-peak pattern throughout the day, similar to transit or automobile travel.

Two-Hour Automated Counts, Citywide Average (16 locations)[6], Tuesday, September 20, 2011



Automatic counter data collected from loop detectors and sent to an SFMTA database is displayed below by day of week. The highest counts of bicycle trips occur mostly during the weekdays and suggest that bicycle trips are used more for work commutes than for weekend leisure trips. The middle bars in the graph for Tuesday, Wednesday and Thursday show the steady level of ridership during the midweek that corresponds to the days the manual bicycle counts were also performed. The graph below summarizes ridership from 16 locations with automatic counters.[6]



MTC Regional Manual Count

The Metropolitan Transportation Commission (MTC) conducted manual bicycle counts at Bay Area intersections for 2010-2011 in accordance with NBPDP methodology. In San Francisco, MTC has conducted manual counts at nine locations from 12-2 p.m. and from 4-6 p.m. Direct comparisons between MTC and SFMTA counts are difficult given that the MTC counts were conducted during different periods of the day. However, they are shown to demonstrate trends between 2010 and 2011 and to provide coverage at intersections not counted by SFMTA. Similar to SFMTA's observed 7% increase, MTC counts show 8.5%.

MTC Manual Intersection Locations	2010 12 - 2 pm	2010 4 - 6 pm	2010 Total	2011 12 - 2 pm	2011 4 - 6 pm	2011 Total	2010-11 % Change
3rd St and 16th St	62	107	169	68	103	171	1.2%
3rd St and Howard	170	337	507	266	480	746	47.1%
7th St and Folsom	173	246	419	239	317	556	32.7%
Baker and Fell St	284	696	980	210	634	844	-13.9%
Divisidero and Geary	36	62	98	25	55	80	-18.4%
Embarcadero and Washington	270	630	900	308	649	957	6.3%
Geneva/Phelan and Ocean	63	82	145	64	75	139	-4.1%
Haight and Scott	271	715	986	317	755	1072	8.7%
Van Ness and Turk	45	81	126	41	90	131	4.0%
Total	1,374	2,956	4,330	1,538	3,158	4,696	8.5%

Growth in San Francisco Bicycling

The 2011 Bicycle Count was successful in capturing a sample of bicycle use across the city and setting a new baseline for future counts by using the National Bicycle and Pedestrian Documentation Project methodology for the first time. A seven percent increase in count totals from 2010 was observed as well as a 71 percent increase since 2006. There is a clear increase in bicycle usage in San Francisco. Changes in the adjusted counts and raw counts are shown below.

The SFMTA applauds our partners at the San Francisco County Transportation Authority, the Metropolitan Transportation Commission and the San Francisco Bicycle Coalition for their dedication to funding and advocating for increased bicycle safety and usage. It is only through continued cooperation, planning, innovative engineering, public policy changes and strong leadership that San Francisco can continue to grow bicycle ridership at even higher rates in the coming decade.

Mayor Ed Lee and San Francisco Bicycle Coalition Executive Director Leah Shahum enjoy the protected bikeway on Market Street.

Citywide bicycle counts have increased 7% since 2010 and 71% since 2006

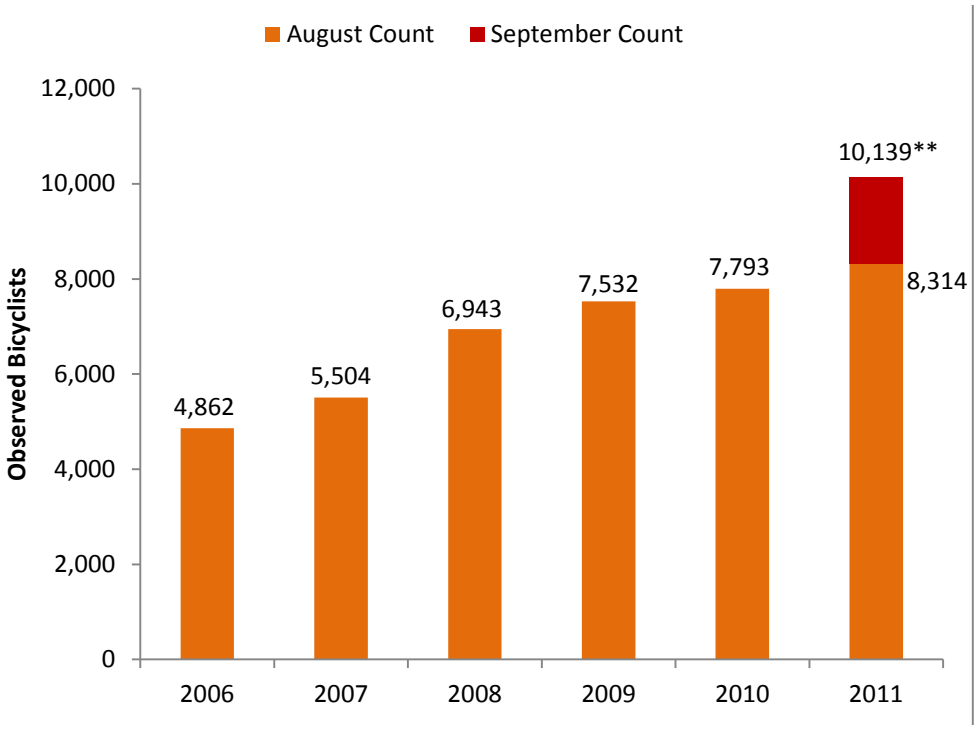
Bicycle Count Growth 2006-2011

Manual Count Locations	2006	2007	2008	2009	2010	2011*	2006-11 % Change	2010-11 % Change
2nd and Townsend	101	107	140	133	129	199	97%	54%
5th and Market (8-9am)	378	397	409	470	625	750	98%	20%
5th and Market (1-2pm)	156	152	163	192	194	226	45%	16%
5th and Market	468	519	615	745	796	952	103%	20%
5th and Townsend	254	266	306	325	417	530	109%	27%
7th and 16th	67	122	144	202	133	191	185%	44%
7th and Kirkham	35	45	47	54	55	77	120%	40%
8th and Townsend	167	214	264	276	281	432	159%	54%
11th and Howard	227	250	333	332	323	462	104%	43%
11th and Market	545	585	726	808	818	1173	115%	43%
17th and Valencia	441	541	690	606	771	862	95%	12%
Broadway and Columbus	95	80	94	63	96	138	45%	44%
Broadway and Embarcadero	393	369	594	554	498	615	56%	23%
Cervantes and Marina	240	292	490	518	382	531	121%	39%
Cesar Chavez and Harrison	39	48	54	57	35	64	64%	83%
Embarcadero and Townsend	195	259	319	315	366	569	192%	55%
Fell and Scott	202	250	302	373	410	420	108%	2%
Golden Gate and Masonic	42	38	47	43	54	75	79%	39%
McAllister and Polk	223	266	295	309	311	400	79%	29%
Page and Scott	376	420	578	613	689	1053	180%	53%
Polk and Sutter	158	181	209	203	258	263	66%	2%
Portola and O'Shaughnessy	23	29	29	28	11	24	4%	118%
Stockton and Sutter	37	74	95	113	141	133	259%	-6%
Bicyclists Counted	**4,862**	**5,504**	**6,943**	**7,332**	**7,793**	**10,139**	109%	30%
**September adjustment count/percent change to compare 2011 to 2006-2010 (see Appendix C):*						**8,314**	**71%**	**7%**

If the 2011 bicycle counts (manual, automated and MTC) are any indication, San Francisco is becoming a national leader in bicycle ridership. In 2010 when the Board of Supervisors adopted an ambitious goal of a 20% mode share by 2020, San Francisco committed itself to becoming the number one bicycling city in the United States. The SFMTA and its partners will continue to maximize the growth in bicycle mode share.

The totals shown here only include locations counted in all six of the study years for the 5:00 - 6:30 p.m. peak. Based on automated count data comparisons (see Appendix C), 18% of the growth from 2010 - 2011 is due to the shift from early August to late September. While the raw growth rate is 30% (from 7,793 to 10,130), the comparable growth rate is 7% (up to 8,314). It is unknown why counts are high in September, however, schools are back in session and summer travels have ended, bringing many locals back to into the city.

Total San Francisco Manual Bicycle Counts Trends Over the Past 6 Years*



* These counts represent a sample (10,139) of total daily ridership (75,000 bike trips)
** Approximately 18% of the 2011 increase (shown in red) is attributed to shifting the count from early August (estimated at 8,314 = 82% of 10,139 September counts), Appendix C

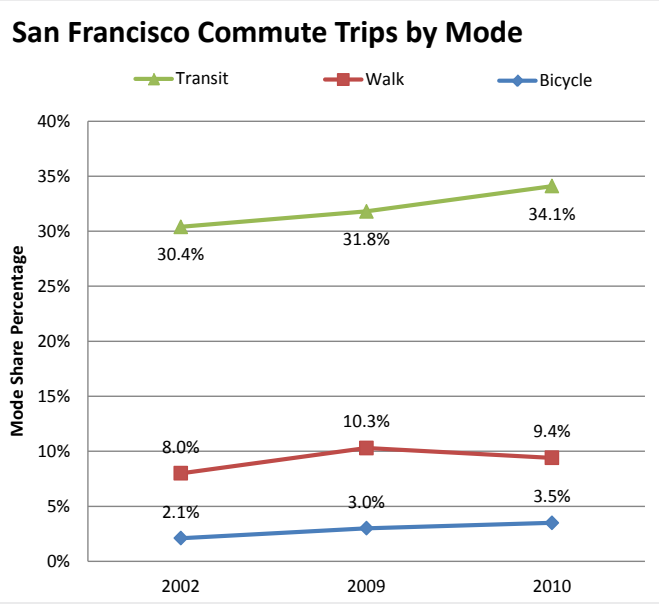
2010 American Community Survey Data

The American Community Survey (ACS) and the SFMTA counts validate the nationwide increase in bicycle trips. A graph of the ACS results for San Francisco is shown to the right. Over a period of 8 years from 2002 to 2010, bicycle mode share grew 1.4% for commute trips. This national survey and the reported growth rate of bicycle ridership verify the accuracy of the 2011 counts. Top US bicycling cities are show below, all contain major universities.

Top 11 US Cities 2010 in share of Bike Commute Trips	
Davis, CA	22%
Boulder, CO	10%
Eugene, OR	8%
Berkeley, CA	8%
Cambridge, MA	7%
Santa Barbara, CA	6%
Madison, WI	6%
Gainesville, FL	6%
Portland, OR	6%
Iowa City, IA	6%
Chico, CA	6%

Cities with the most bike trips have done incredible work to provide bike paths, boulevards, parking and bike-friendly policies while discouraging automobile use for short trips.

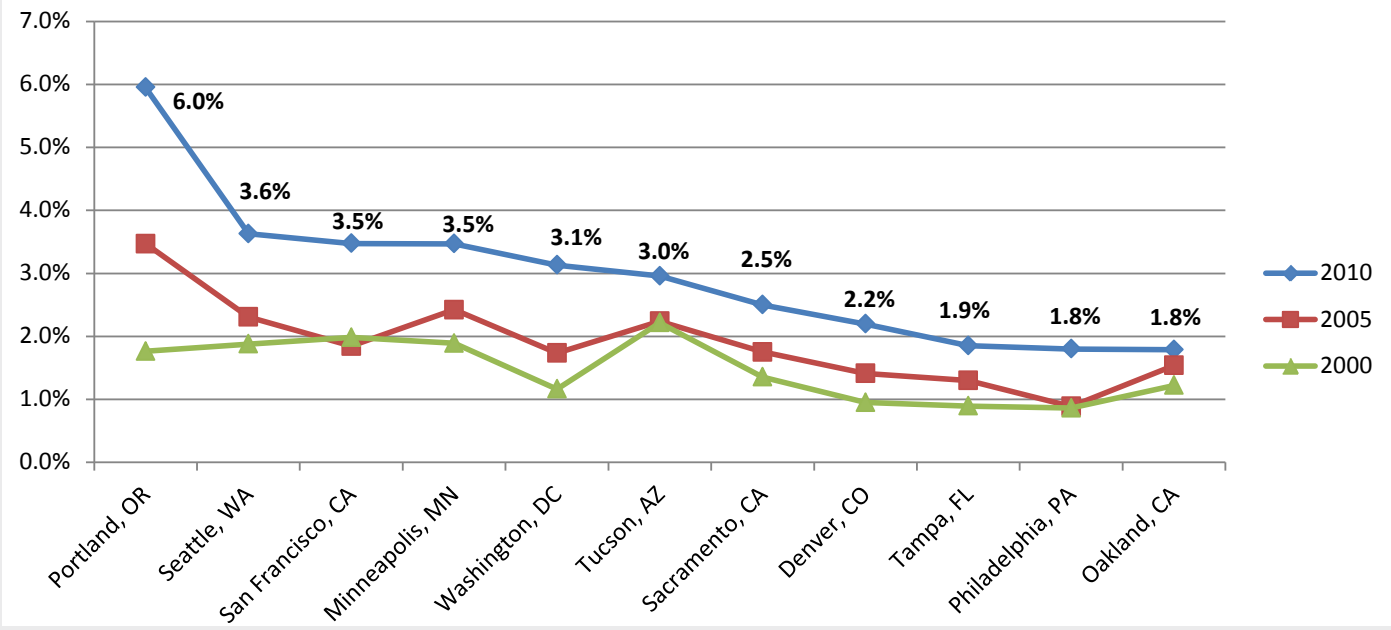
According to the ACS, a steady increase in bicycling (75%) and transit (12%) mode split occurred since 2002. This increase is consistent with the observed growth in the SFMTA bicycle counts.*



* The ACS asks San Francisco workers for their "usual commute mode during the last week."

Across the United States, bike commute trips are becoming more common. San Francisco ranks third in trips to work for major US cities over 300,000. Portland is a clear leader in bike commuting but Seattle, San Francisco, and Minneapolis are in a statistical tie for second. Three large California cities make the top 11, including Sacramento and Oakland. Philadelphia is the only city with over 1 million people to make the list. Note: the data from 2000 is from the Decennial US Census and data from 2005 and 2010 is from the ACS.

Top 11 Major US Cities', Percentage of 2010 Commute Trips by Bicycle



Bicyclist Behavior in San Francisco

Helmet Use

Since the SFMTA first began conducting manual bicycle counts in 2006, the percent of bicyclists observed wearing helmets has steadily remained close to 70%.[7]

San Francisco has a relatively high percent of helmet usage compared to many European cities. This may be due to differences in culture, legislation, enforcement, grade separation, speed/number of cars, and the bicyclist's perception of safety. Recent nationwide data suggests that 90% of bicyclists killed were not wearing helmets and that helmets reduce the risk of brain injury by 88%.

Helmet Use, 2006 - 2011

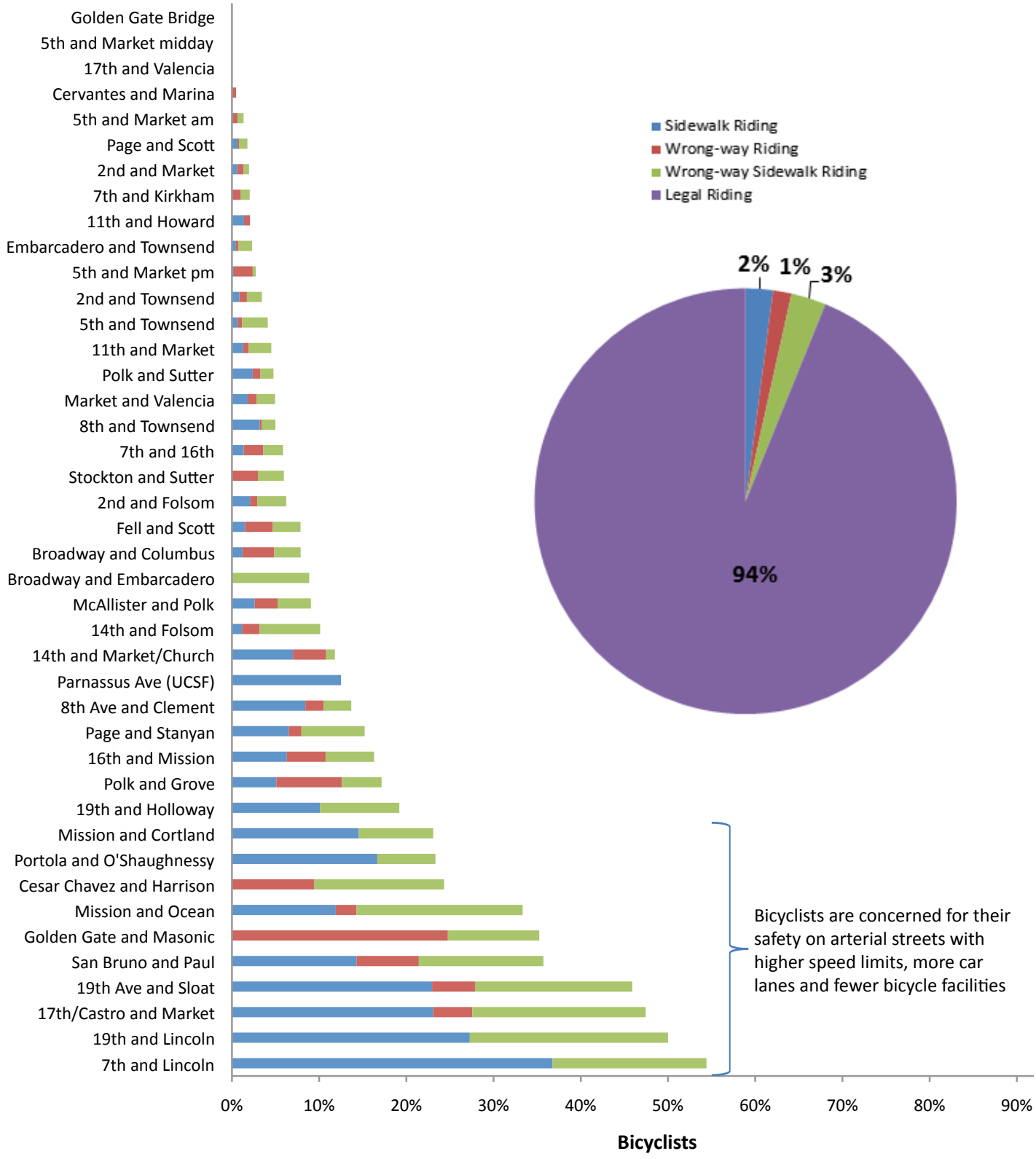
Count Year	Percent of Bicyclists using Helmets
2006	65%
2007	72%
2008	67%
2009	69%
2010	71%
2011	68%

Sidewalk and Wrong Way Riding

Overall, 94% of San Francisco's bicyclists were observed using bicycle facilities as designed. However, at almost all of this year's count locations, a few bicyclists either rode on the sidewalk and/or the wrong-way down the street. The next page shows the highest percentage of wrong way and sidewalk bicycle behaviors at the bottom of the chart. The two new count locations on Lincoln, a high-speed arterial with no bicycle facilities, reported more than 50% of riders on the sidewalk or riding against traffic.

Wrong way and sidewalk riding can endanger pedestrians, bicyclists, and other roadway users. Collecting data on the rate of these behaviors identifies places in the bicycle network where facilities may be inadequate or have unsafe conditions. SFMTA will work with our partners to improve the conditions that create high levels of wrong way and sidewalk riding (speed, lack of bike lanes or vehicle separation, safety, etc.).

2011 Bicyclist Behavior by Location



About 94% of observed riders used the roadways and facilities as designed. Those who rode against traffic or on the sidewalk did so at locations listed at the bottom of the graph. Riders sometimes use the sidewalk when traffic speeds or perceived dangers are high.

Recommendations - Using the Bike Counts

Multimodal Counts

In accordance with the SFMTA's Strategic Plan (FY 2013-2018), it is recommended that future bicycle counts be incorporated into regular counts of several modes together: bicycle, pedestrian, auto, taxi and transit. Instead of isolating modes in the counts and obtaining only a partial picture of the flows and interactions on the streets, the SFMTA hopes that with regular automated multimodal counts, a complete picture can be obtained. This data will then be used as part of the agency's Strategic Planning process to give a better picture of San Francisco's sustainable urban mobility and to inform SFMTA's future planning of how to best use San Francisco's limited street space and build towards a truly multimodal network.

Getting Good "Before" and "After" Data

The citywide bicycle count is an opportunity to measure bicycle volumes at locations where future projects are planned. The counts recorded before a bicycle project is implemented provide a baseline to measure the cost-effectiveness and impact of a new project on future ridership. Once this takes place, future bicycle counts enable before and after analysis as part of measuring a project's success.

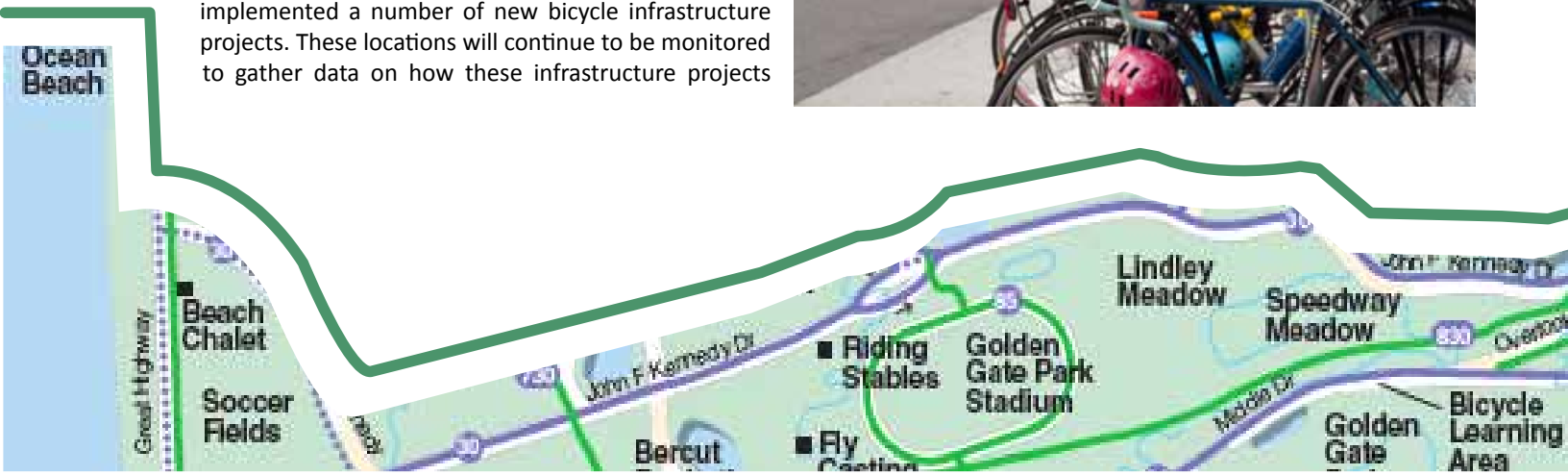
Automatic Bicycle Counters

Although the automated bicycle counters have been extremely beneficial and instrumental in expanding the 2011 bicycle counts, they collect data inconsistent with the manual bicycle counts. Automated counters count over a specific leg of an intersection, whereas the manual bicycle counts were done across all movements across an entire intersection. Therefore the automatic bicycle counter analysis was separate from the overall analysis. In the future, this should be reconciled and accounted for prior to performing the manual counts to fully utilize the automatic bicycle counters.

New Bicycle Infrastructure and Policy

Between August 2010 and September 2011, the SFMTA has implemented a number of new bicycle infrastructure projects. These locations will continue to be monitored to gather data on how these infrastructure projects have affected bicycle usage and trip making. Infrastructure improvements are one of the most readily available tools to the SFMTA to promote bicycling safety and ridership growth. The agency can also continue to promote public policy changes around bicycle parking and automobile mode shifts. Another option is to better integrate bicycles with the transit system so that users of multiple modes for a single trip have an easier time transferring between modes, bringing bikes onto the transit system and having secure storage without fear of theft or damage.

SFMTA Infrastructure improvements include bike lanes, racks, bike corrals, a new bike-share program, sharrows, bike actuated signals, parklets, bike slams, protected bike ways and cycle tracks.



Next Steps

Clear Trends - more bicyclists, more often

The benefits of bicycling are well known; it's affordable, healthy, environmentally sustainable and unlike any other mode of travel, it's active and quite fun. Bicycle ridership is showing consistent increases in San Francisco yet the SFMTA, the traveling public, advocacy groups and our partner agencies have a great deal more to do. One thing that is needed is a new Bicycle Strategy that will provide direction for the city in the coming years in order to:

1. Better connect destinations across the city to one another by bicycle routes.
2. Educate the youth in schools on how to ride safely and frequently.
3. Provide abundant and secure bike parking.
4. Improve citywide bike-friendly policies along with marketing and engineering efforts.

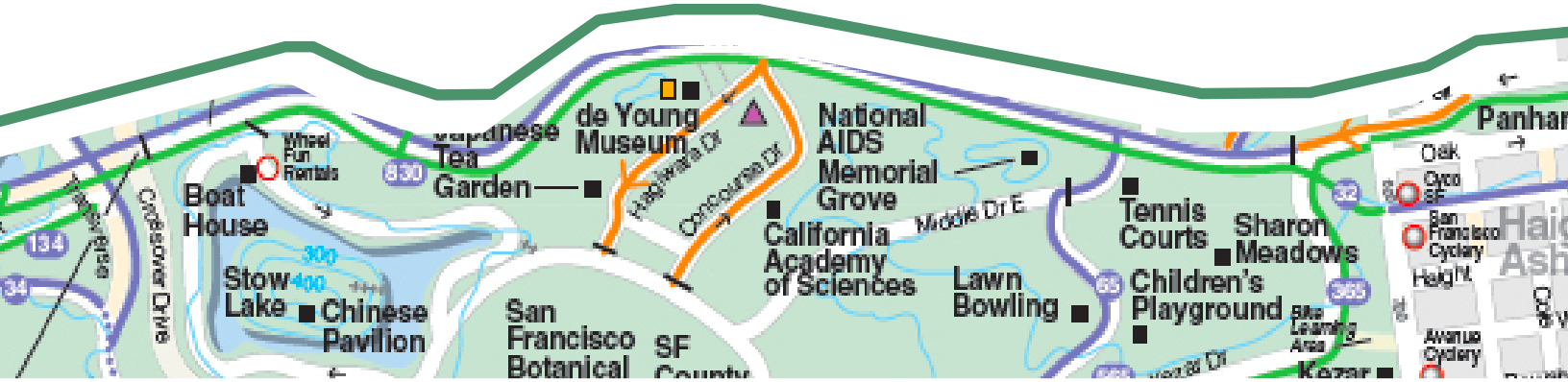
The path ahead must be one for increasing sustainable mobility throughout San Francisco and the region. Safe and convenient bicycling and walking will no doubt be the cornerstone of this mobility.

As part of the city's ongoing efforts the following will be key contributors to increasing bicycle count numbers and overall ridership:

1. Develop the new Bicycle Strategy.
2. Complete a multimodal regional traffic model.
3. Implement the regional Bike-Sharing program.
4. Provide more bike parking and bike lanes, boulevards and cycletracks.
5. Develop a Bike-Transit Integration Study.
6. Implement Complete Streets design.

Not only will all of these efforts help San Francisco achieve some of its sustainable mobility and mode split goals, but it will provide critical data to better inform future bicycle and multimodal counts.

More people are riding throughout the city, especially down Market Street, along the Wiggle and to and from the Mission.



Appendix A: Bicycle Count Methodology

The SFMTA bicycle counts follow national best practices and a consistent methodology, as outlined by the National Bicycle and Pedestrian Documentation Project (NBPDP).[1] The NBPDP seeks to establish a standardized bicycle and pedestrian count methodology across the country. This enables better data comparison between cities and allows jurisdictions to collaborate on growing bicycle ridership.

Map of 2011 Bicycle Count Locations

Forty-one locations were manually counted by SFMTA interns or community volunteers working a total of 44 shifts.[2] Counts were conducted on Tuesdays, Wednesdays, and Thursdays during the study period of two weeks (September 20th-22nd and 27th-29th).[3] During 2011, the weather was fair and did not negatively impact bicycle ridership. All locations were counted in 15 minute increments during the afternoon peak rush hours from 4:30 p.m. to 6:30 p.m.. The Fifth/Market Street location was also counted for an hour in the am peak (8-9 a.m.) and midday (1-2 p.m.).

At each location, bicyclists on all approaches to an intersection were counted manually and categorized based on their turning movement: left turn, right turn, or straight through. Bicyclists riding on sidewalks or travelling the wrong-way down a street, as well as helmet use were also noted. An example of the bicycle count reporting form can be found in Appendix D.

Bicycle Count Changes from 2010

Counting in September instead of August

This year's counts were taken in September, primarily to be in line with NPBDP recommendations, but also to capture a time frame when schools are back in session. The SFMTA has an active Safe Routes to School program which has seen an increase in bicycle riding among students in San Francisco.

In order to correct for bicycle use difference between early August and late September, automatic bicycle counter data was analyzed. The data revealed that the last two weeks of September have approximately 18% more cycling activity than the first two weeks in August. This analysis can be found in Appendix C and informs how counts from this year can be compared with those conducted between 2006-2010.

Lengthening the count shift to two hours

In 2011, the count shift was expanded from 1.5 hours (5-6:30 p.m.) to two hours (4:30-6:30 p.m.) following NPBDP's recommendation to count for two hours in the am or p.m. peak. Comparisons of the 2011 counts to previous years use the same time of day as before (15 minute increments from 5-6:30 p.m.).

No longer classifying riders by gender

In previous years, counters made attempts to classify bicyclists by gender. However, this item was dropped from the 2011 count, primarily out of concern for data accuracy. After comparing manual observations with survey data, it appeared that female ridership was being overestimated. The SFMTA conducted phone and in-person interviews in January and June 2011 which show that 27% of riders are female and 73% are male.

Discontinuing the downtown cordon count

Previous bicycle count reports have compared downtown versus non-downtown locations. That designation was dropped in this year's effort out of concerns that San Francisco's downtown street grid is accessible from too many directions to create a true cordon without requiring a dramatic increase in the number of locations counted.

Two count staff at high-volume locations

The 2010 report recommended covering some of the highest-volume count locations with two count staff. As a result, the Fifth/Market Street and Church/Market Street/14th St. locations each had two staff to conduct the counts.

Adding new count locations and eliminating others

A total of 18 new count locations have been added this year, primarily to capture accurate "before" data for locations scheduled to receive new bicycle infrastructure in the next few years. Other locations were added to assess bicycle ridership on streets with many pedestrians and/or transit riders, both on and off of the city's official bicycle route network.

A total of twelve locations were left out of the 2011 manual count. Four locations were dropped because automatic bicycle counters were installed, six were due to consistently low count numbers; and two were eliminated due to concerns with field accuracy.

Summary of Count Methodology Changes

- *Counting in September instead of August*
- *Lengthening the count shift to two hours*
- *No longer classifying riders by gender (using survey data instead - shows a 73-27% male to female split)*
- *Discontinuing the downtown cordon count*
- *Covering high-volume locations with two count staff*
- *Adding new locations and eliminating low-ridership locations*
- *Using automatic counters at select locations*
- *Including data from the city's automatic bicycle counters and from the Metropolitan Transportation Commission*

New Count Locations	Reason Added
14th and Market/Church	14th St bicycle lanes (2013/14)
16th and Mission	Heavy transit/pedestrian intersection
17th/Castro and Market	Heavy transit/pedestrian intersection
19th and Holloway	Holloway bicycle lanes (Summer 2011) Replaces Lake Merced and Winston
19th and Lincoln	Golden Gate Park entrance
19th and Sloat	Sloat bicycle lanes (2013/14)
2nd and Folsom	2nd St bicycle lanes
2nd and Market	2nd St bicycle lanes
7th and Lincoln	7th Ave at Lincoln intersection improvements project (2012/13)
8th Ave and Clement	Presidio and Golden Gate Park connection
Golden Gate Bridge	Popular bicycle route
Market and Valencia	McCoppin bike path (Summer 2011) and Market/Valencia intersection improvements (2013/14)
Mission and Cortland	Captures south end of Mission
Mission and Ocean	Heavy transit/pedestrian intersection
Page and Stanyan	Page and Stanyan intersection improvements (Fall 2012)
Parnassus Ave at UCSF	Captures university ridership
Polk and Grove	Heavy transit/pedestrian intersection
San Bruno and Paul	San Bruno Ave bicycle lanes (2012/13)

Eliminated Count Locations	Reason Eliminated *(# of 2010 bicyclists)*
23rd and Potrero	Auto counter
3rd St Bridge and Illinois St	Low volume (27 in 2010)
7th and Kirkham	Auto counter
Alemany and Geneva	Low volume (25 in 2010)
Arguello and Lake	Auto counter
Ferry Terminals	Counting issues in previous years
Great Highway and Sloat	Low volume (38 in 2010)
Illinois and Mariposa/Terry Francois	Low volume (74 in 2010)
JFK and Transverse	Counting issues in previous years
Lake Merced and Winston	Low volume (42 in 2010). Replaced by new location at 19th and Holloway
Masonic and Panhandle Path	Auto counter
Randall and San Jose	Low volume (74 in 2010). Replaced by new location at Mission and Cortland

Appendix B: Upcoming Bicycle Projects

The San Francisco Municipal Transportation Agency (SFMTA) is currently engaged in the planning of many new upcoming bicycle projects in the next few years, ranging from bicycle lane implementations to traffic signal improvements and bike parking expansion. Some of these projects are shown in the figure below. To inform SFMTA on the effectiveness of these planned bicycle improvements, count locations corresponding to these projects were added this year to be included with past count locations. These locations can be coupled with counts after implementation and analyzed to determine the effectiveness of the implementation and goals of these projects.

Upcoming Bicycle Project	Estimated Implementation	Count Location
McCoppin Street bicycle path, Market Street to Valencia Street	Summer 2011	Market at Valencia (not Octavia)
Holloway Avenue bicycle lanes, Junipero Serra Boulevard to Varela Avenue	Summer 2011	NEW 19th at Holloway
Bayshore Boulevard bicycle lanes, Cesar Chavez Street to Silver Avenue	Fall 2011	Bayshore at Silver
PHASE II (final) - Portola Drive bicycle lanes, Corbett Avenue to O'Shaughnessy Boulevard	Fall 2011	Portola at O'Shaughnessy
Portola Drive bicycle lanes, O'Shaughnessy Boulevard to Sloat Boulevard	Fall 2011	Portola at O'Shau
John Muir Drive bicycle lanes, Lake Merced Blvd to Skyline Boulevard	Winter 2011/12	John M at Skyline
23rd Street bicycle lanes, Kansas Street to Potrero Avenue	Winter 2011/12	23rd at Potrero
John F. Kennedy Drive bicycle lanes, Kezar Drive to Transverse Drive	Winter 2011/12	JFK at Transverse
Page and Stanyan Streets intersection traffic signal improvements	Fall 2012	Page at Stanyan
Great Highway and Point Lobos Avenue bicycle lanes, Cabrillo Street to El Camino del Mar	Summer 2013, Bond dependent	NEW GH at Point Lobos
San Bruno Avenue bicycle lanes, Paul Avenue to Silver Avenue	FY 2012/13	San Bruno at Paul
7th Avenue at Lincoln Way intersection improvements	FY 2012/13	7th at Lincoln
Market and Valencia Streets intersection improvements	FY 2013/14	Market at Valencia (not Octavia)
PHASE II (final) - 14th Street eastbound bicycle lane, Dolores Street to Market Street	FY 2013/14	14th at Market/Church
Polk Street northbound contraflow bicycle lane, Market Street to McAllister Street	FY 2013/14	Polk at Grove
Sloat Boulevard bicycle lanes, The Great Highway to Skyline Boulevard	FY 2013/14	19th at Holloway
Fell and Oak streets bikeway improvements	FY 2013/14	MTC (Baker at Fell) 2010 Manual (Fell at Scott)
Cesar Chavez/26th Streets corridor bicycle lanes, Sanchez Street to US 101	FY 2013/14	CC at Harrison
Masonic Avenue bicycle lanes, Fell Street to Geary Boulevard	TBD on Full Funding	2010 Manual Count Kept GG at Masonic (USF)
5th Street bicycle lanes, Market Street to Townsend Street	TBD	5th at Townsend and at Market
16th Street bicycle lanes, 3rd Street to Terry Francois Boulevard	TBD	16th at Terry Francois

Appendix C: August to September Adjustment

Calculating the August to September Adjustment

Along with expanding the counts to two hours, the fact that counts took place in September instead of August necessitated the calculation of an adjustment ratio. These numbers are included to allow a comparison with past years' counts. The adjustment allows the September 2011 count to be comparable to bicycle counts from prior years. The table below shows the detailed calculations obtained from automatic counters to calculate the average ratio used for this adjustment. On average, bicycle counts are 18% higher in late September over early August.

		Week 1	Week 2	Average	Ratio: Aug/Sept
Fell	**Aug 2011**	10,419	12,754	11,587	**0.76**
	Sept 2011	13,091	17,423	15,257	
	Aug 2010	10,405	10,994	10,700	**0.75**
	Sept 2010	13,185	15,249	14,217	
	Aug 2009	9,637	9,127	9,382	**0.81**
	Sept 2009	10,450	12,594	11,522	
Lake	**Aug 2011**	1,321	1,451	1,386	**0.89**
	Sept 2011	1,458	1,644	1,551	
Panhandle	**Aug 2011**	22,071	30,154	26,113	**0.76**
	Sept 2011	27,084	41,529	34,307	
Market EB	**Aug 2011**	12,625	13,184	12,905	**0.88**
	Sept 2011	14,217	15,138	14,678	
Market WB	**Aug 2011**	12,233	13,161	12,697	**0.88**
	Sept 2011	13,911	14,963	14,437	
Valencia SB	**Aug 2011**	7,311	7,808	7,560	**0.91**
	Sept 2011	7,883	8,695	8,289	
Valencia NB	**Aug 2011**	9,708	9,987	9,846	**0.86**
	Sept 2011	11,288	11,666	11,477	
14th St	**Aug 2011**	4,503	4,831	4,667	**0.82**
	Sept 2011	5,428	5,950	5,689	
Kirkham	**Aug 2011**	728	762	745	**0.69**
	Sept 2011	975	1,180	1,078	
Arguello	**Aug 2011**	2,010	2,221	2,116	**0.99**
	Sept 2011	2,213	2,082	2,148	
Potrero NB	**Aug 2011**	855	893	874	**0.89**
	Sept 2011	982	1,010	986	
6th Ave	**Aug 2011**	322	331	327	**0.75**
	Sept 2011	434	442	438	
			AVERAGE RATIO:		**0.82**

Appendix D: Manual Count Data Sheet

SFMTA SUSTAINABLE STREETS: CITYWIDE BICYCLE COUNT 2011 (1 of 2)

Location: 8th at Townsend

Date: _____ Day: _____

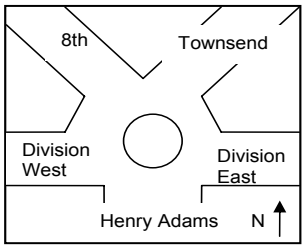
Weather: _____

Observer: _____

Time: from _____ to _____

Notes: _____

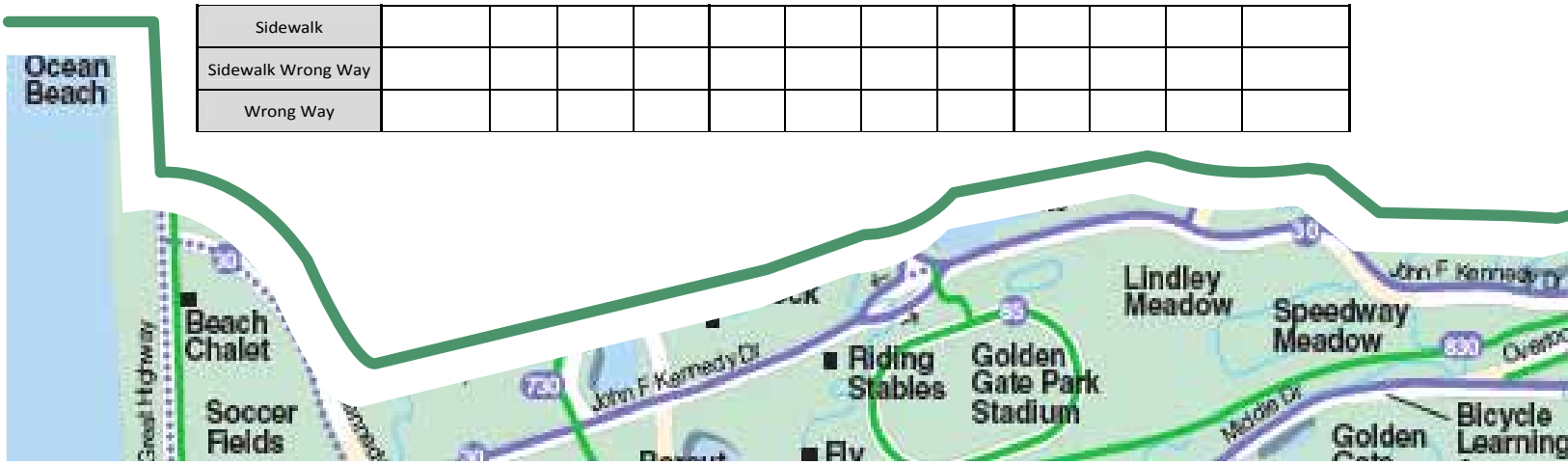
_____



On the diagram, please identify your counting location.

	FROM 8TH				FROM TOWNSEND				FROM DIVISION EAST			
	Southeast				Southwest				West			
	TO TOWNSEND	TO DIV. E.	TO H. ADAMS	TO DIV. W.	TO DIV. W.	TO H. ADAMS	TO DIV. E.	TO 8TH	TO H. ADAMS	TO DIV. W.	TO 8TH	TO TOWNSEND
4:30-4:45												
4:45-5:00												
5:00-5:15												
5:15-5:30												
5:30-5:45												
5:45-6:00												
6:00-6:15												
6:15-6:30												

Sidewalk												
Sidewalk Wrong Way												
Wrong Way												



Endnotes

1. The annual bicycle counts are not meant to measure the exact number of people who bicycle in San Francisco, nor are they intended to determine travel mode split. For a more comprehensive look at bicycle ridership in San Francisco, see the 2011 San Francisco State of Cycling Report, which summarizes information from a variety of data sources including automated bicycle counters, the United States Census, and telephone/in-person surveys.
2. The NBPDP is an annual bicycle and pedestrian count and survey effort sponsored by the Institute of Transportation Engineers Pedestrian and Bicycle Council, which seeks to establish a standardized bicycle and pedestrian count methodology and to disseminate this methodology to cities across the country. The ultimate goal is to develop a national database of count information that will provide bicycle and pedestrian planners with crucial data to support their work. Please visit bikepeddocumentation.org for more information.
3. SFMTA and Corey, Canapary & Galanis Research conducted two random telephone surveys of San Francisco residents in 2011. Both revealed approximately 3.5% of all trips in the city were made by bicycle.
4. Three of the highest volume locations had two counters to ensure complete data collection.
5. Portola at O'Shaughnessy was counted on Thursday, October 6, 2011.
6. 16 automatic locations: Panhandle, east bound (EB) Market, west bound (WB) Market, EB Kirkham, NB 7th, SB 6th, NB Portrero, SB Portrero, EB North Point, WB North Point, Polk, EB Grove, SB Valencia, NB Valencia, 14th Street, Lake, NB Arguello, SB Arguello, WB Fell.
7. SFMTA manual counts also included observations of helmet usage. These percentage totals were recorded for all riders observed.
8. SFMTA uses Eco-Counter's ZELT Inductive Loop Counters. Inductive loop counters are installed 1 to 3 inches below the road surface and the system detects a bicycle's electromagnetic signature and registers a count. They are invisible to the public and distinguish between bicyclists and other users of the street, such as cars or pedestrians. See www.eco-computer.com for more information.
9. We observed an unusual pattern of helmet usage at the Marina Green location (Marina Blvd at Cervantes Blvd). This year, only 24% of the 651 observed cyclists were wearing helmets, compared to 71% in 2010 and 74% in 2007. Care should be taken during next year's count to ensure that helmet counts are accurate at this location.

Photo Credits:

Images from SFMTA Photo Archives, SFBike.org, SF Streetsblog, Empower SF, SF Bicycle Coalition.

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