

CALIFORNIA DEPARTMENT OF TRANSPORTATION

MOBILITY PERFORMANCE STATISTICS 2012

DISTRICT 10

**Prepared by the**

**District 10**

**January 2014**

Unofficial Statistics

**TABLE OF CONTENTS**

- 1. Descriptive Statistics ..... 1
- 2. Travel Demand ..... 3
- 3. Traffic Congestion ..... 4
  - 3.1. Total and Average Vehicle Hours of Delay at 35 and 60 Miles per Hour ..... 4
    - 3.1.1 Delay at 35 Miles per Hour ..... 4
    - 3.1.2 Delay at 60 Miles per Hour ..... 5
  - 3.2. Average Vehicle Hours of Delay by Day of Week ..... 6
  - 3.3. Average Vehicle Hours of Delay by Hour of Day ..... 7
    - 3.3.1 Delay at 35 Miles per Hour ..... 7
    - 3.3.2 Delay at 60 Miles per Hour ..... 8
  - 3.4. Total Vehicle Hours of Delay by County ..... 9
  - 3.5. Lost Productivity ..... 10
- 4. Detector Health and Data Quality ..... 11
- 5. Freeway Congestion and Bottleneck Locations ..... 12
  - 5.1. Congestion by Freeway ..... 12
  - 5.2. Bottleneck Locations ..... 13

**TABLES**

- Table 1. POPULATION ESTIMATES & ABSOLUTE & PERCENT CHANGE, 2011-2012 ..... 1
- Table 2. EMPLOYMENT, UNEMPLOYMENT, AND PERCENT CHANGE, BY COUNTY, 2011-2012 ..... 2
- Table 3. TOP CONGESTED FREEWAYS, 2011-2012 ..... 12
- Table 4 (a). TOP BOTTLENECKS, AM PEAK PERIOD ..... 13
- Table 4 (b). TOP BOTTLENECKS, PM PEAK PERIOD ..... 13

**FIGURES**

Figure 1. POPULATION, BY COUNTY, 2011-2012.....1

Figure 2. EMPLOYMENT AND UNEMPLOYMENT, BY COUNTY, 2011-2012.....2

Figure 3 (a). TOTAL VEHICLE MILES OF TRAVEL,BY MONTH, 2011-2012.....3

Figure 3 (b). TOTAL VEHICLE MILES OF TRAVEL, BY COUNTY, 2011-2012.....3

Figure 4. TOTAL VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY MONTH,  
2011-2012.....4

Figure 5. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 35  
MILES PER HOUR, BY MONTH, 2011-2012 .....4

Figure 6. TOTAL VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY MONTH,  
2011-2012.....5

Figure 7. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 60  
MILES PER HOUR, BY MONTH, 2011-2012 .....5

Figure 8: AVERAGE VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY DAY  
OF WEEK, 2011-2012.....6

Figure 9. AVERAGE VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY  
HOUR OF DAY, 2011-2012.....7

Figure 10. AVERAGE VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY  
HOUR OF DAY, 2011-2012.....8

Figure 11. TOTAL ANNUAL VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR,  
BY COUNTY, 2011-2012 .....9

Figure 12. AVERAGE NON-HOLIDAY WEEKDAY EQUIVALENT LOST LANE MILES ..10

Figure 13. DETECTOR HEALTH BY DAY, 2011-2012 .....11

Figure 14 (a). BOTTLENECKS AND CONGESTED SEGMENTS, AM PEAK PERIOD .....14

Figure 14 (b). BOTTLENECKS AND CONGESTED SEGMENTS, PM PEAK PERIOD .....15

## 1. DESCRIPTIVE STATISTICS

**District Headquarters:** Stockton

**Counties:** Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne

**Counties without Detection:** Alpine

**Population:** 1,640,162, 0.7% increase

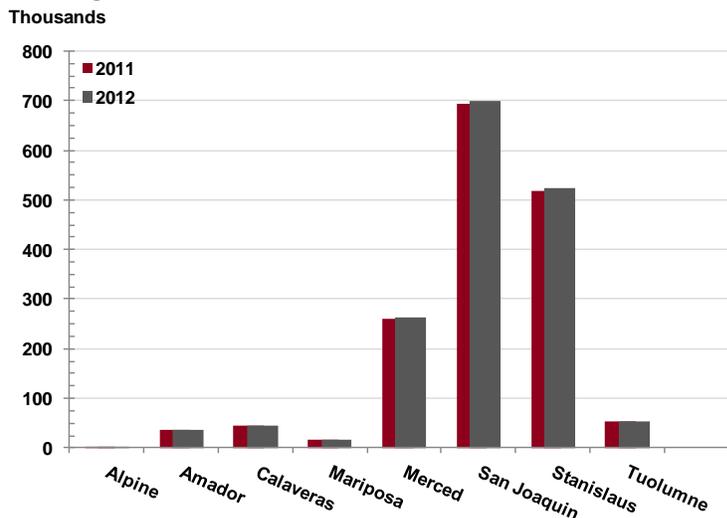
**Population as a Percentage of Statewide:** 4.3%

Table 1. POPULATION ESTIMATES & ABSOLUTE & PERCENT CHANGE, 2011-2012

County	2011	2012	Difference (2012 - 2011)	
	Population	Population	Absolute	Percent
Alpine	1,088	1,087	-1	-0.1%
Amador	37,123	36,741	-382	-1.0%
Calaveras	45,216	44,932	-284	-0.6%
Mariposa	17,952	18,026	74	0.4%
Merced	260,029	262,478	2,449	0.9%
San Joaquin	692,997	698,414	5,417	0.8%
Stanislaus	519,339	524,124	4,785	0.9%
Tuolumne	54,524	54,360	-164	-0.3%
<b>Total</b>	<b>1,628,268</b>	<b>1,640,162</b>	<b>11,894</b>	<b>0.7%</b>

Alpine County does not participate in mobility performance reporting.  
 Source: State of California, Department of Finance, E-1 Population Estimates for Cities, Counties, and the State—January 1, 2012 and 2013. Sacramento, California, May 2013.

Figure 1. POPULATION, BY COUNTY, 2011-2012



Unofficial Statistics

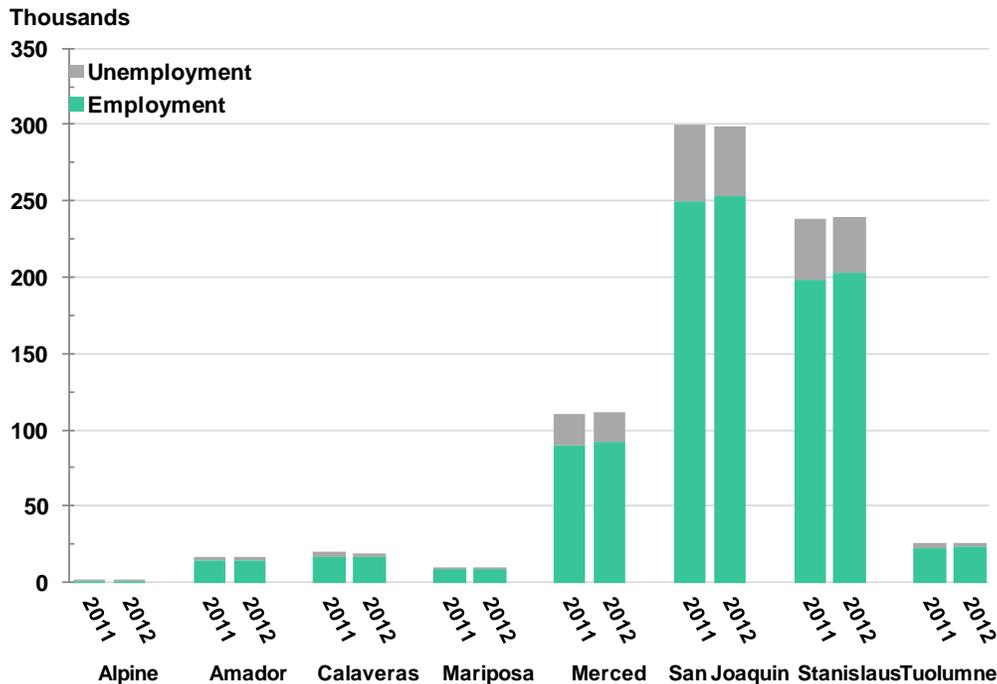
**Employment, 2012 Monthly Average:** 612,068  
**Unemployment Rate, 2012 Monthly Average:** 15.1%, 1.5% decrease over 2011

Table 2. EMPLOYMENT, UNEMPLOYMENT, AND PERCENT CHANGE, BY COUNTY, 2011-2012

County	Unemployment Rate, 2011	Unemployment Rate, 2012	Percent Change in Rate of Unemployment (2012 - 2011)
Alpine	14.9%	13.2%	-1.7%
Amador	12.8%	11.8%	-1.0%
Calaveras	14.6%	13.0%	-1.6%
Mariposa	11.9%	11.0%	-0.9%
Merced	18.3%	17.0%	-1.3%
San Joaquin	16.8%	15.2%	-1.7%
Stanislaus	16.7%	15.2%	-1.6%
Tuolumne	13.0%	11.6%	-1.3%
<b>District Total</b>	<b>16.7%</b>	<b>15.1%</b>	<b>-1.5%</b>

Alpine County does not participate in mobility performance reporting.  
 Data not seasonally adjusted.  
 Source: State of California, Employment Development Department (EDD), Labor Market Information Division; data downloaded Sept. 9, 2013.

Figure 2. EMPLOYMENT AND UNEMPLOYMENT, BY COUNTY, 2011-2012



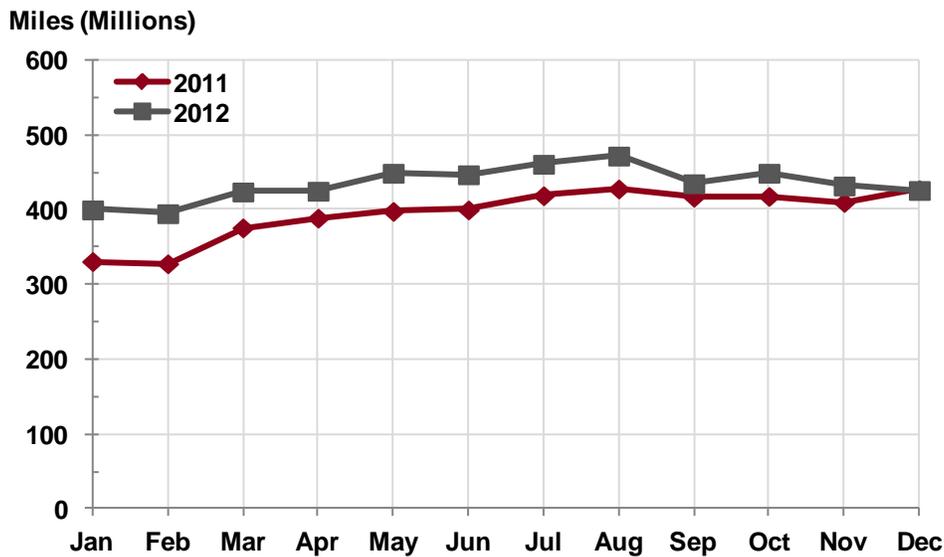
Unofficial Statistics

## 2. TRAVEL DEMAND

**Vehicle Miles of Travel, 2012:** 5.2 billion miles  
**Absolute and Percentage Change over 2011:** 472.6 million VMT increase; 10% increase over 2011  
**Peak Travel Month, Percentage Change over 2011:** August, 471.7 million miles, 10.3% increase over 2011

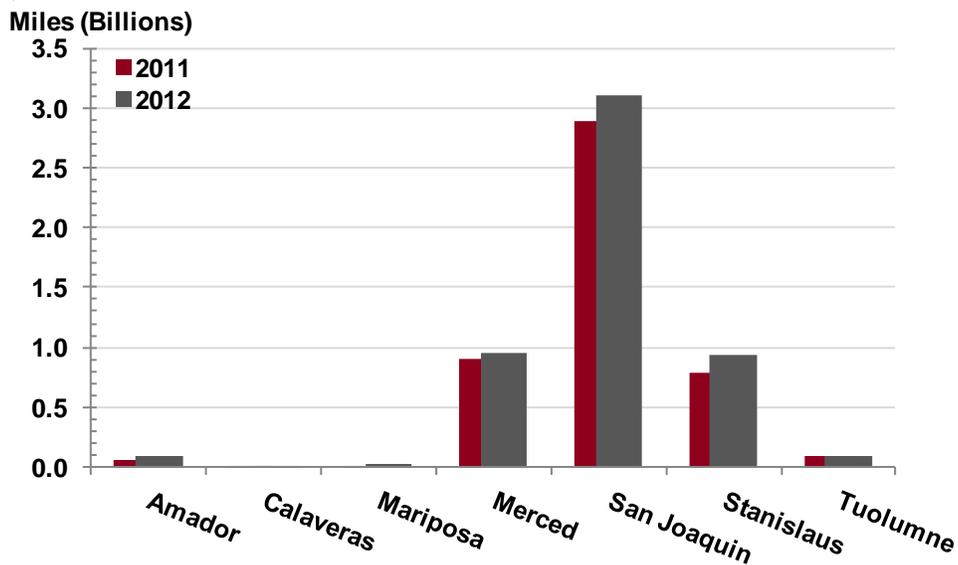
### Monthly Trend

Figure 3 (a). TOTAL VEHICLE MILES OF TRAVEL, BY MONTH, 2011-2012



### County Trend

Figure 3 (b). TOTAL VEHICLE MILES OF TRAVEL, BY COUNTY, 2011-2012



Unofficial Statistics

### 3. TRAFFIC CONGESTION

#### 3.1. Total and Average Vehicle Hours of Delay at 35 and 60 Miles per Hour

##### 3.1.1 Delay at 35 Miles per Hour

**Vehicle Hours of Delay, 35 miles per hour:** 1.5 million hours, 13.3% increase over 2011  
**Average Non-Holiday Weekday Delay, 35:** 4,867 hours, 8.9% increase over 2011  
**Percentage of Statewide VHD at 35mph:** 1.6%, 0.1% increase over 2011

Figure 4. TOTAL VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY MONTH, 2011-2012

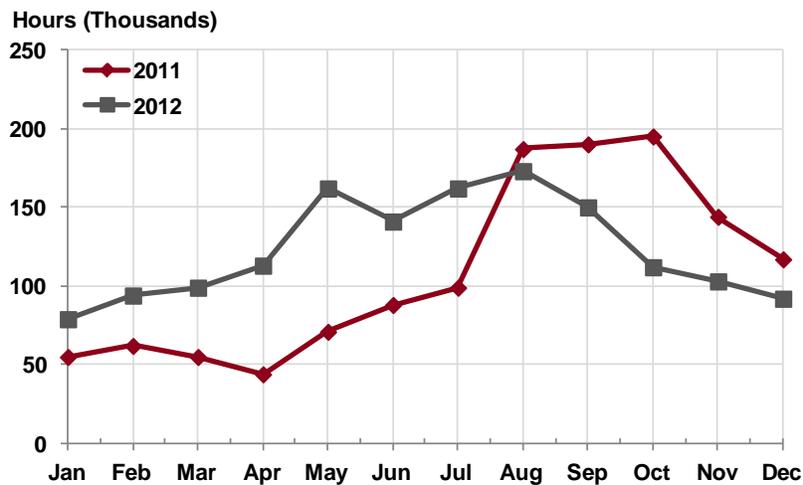
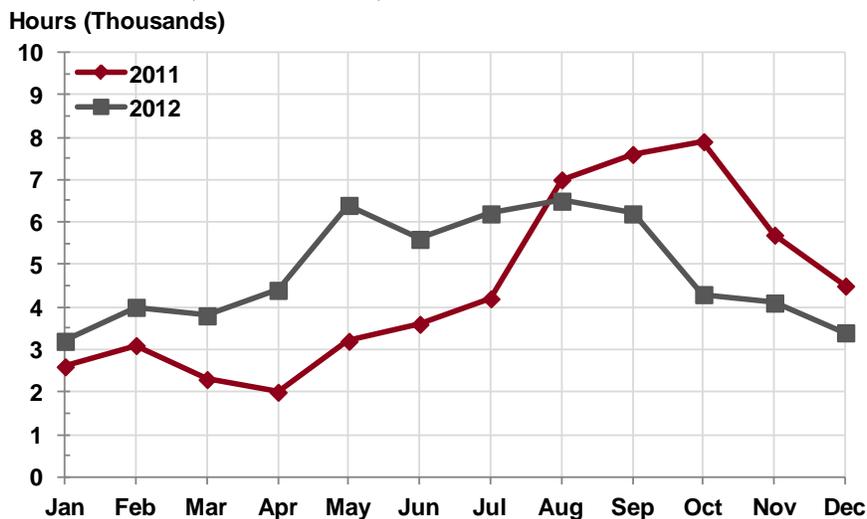


Figure 5. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY MONTH, 2011-2012



Unofficial Statistics

### 3.1.2 Delay at 60 Miles per Hour

**Vehicle Hours of Delay, 60 miles per hour:** 5.5 million hours, 12.2% increase over 2011

**Average Non-Holiday Weekday Delay, 60:** 18,203 hours, 8% increase over 2011

**Percentage of Statewide VHD at 60mph:** 2.5%, 0.1% increase over 2011

Figure 6. TOTAL VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY MONTH, 2011-2012

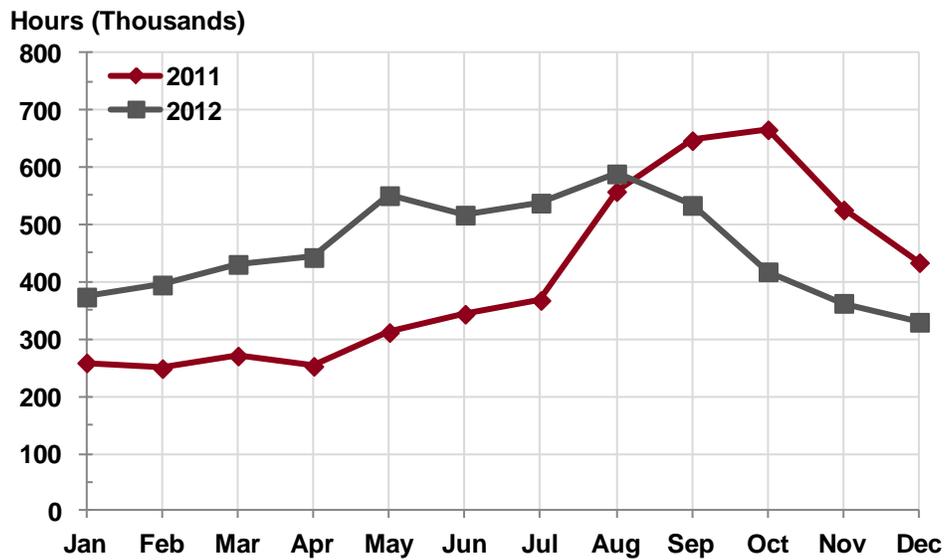
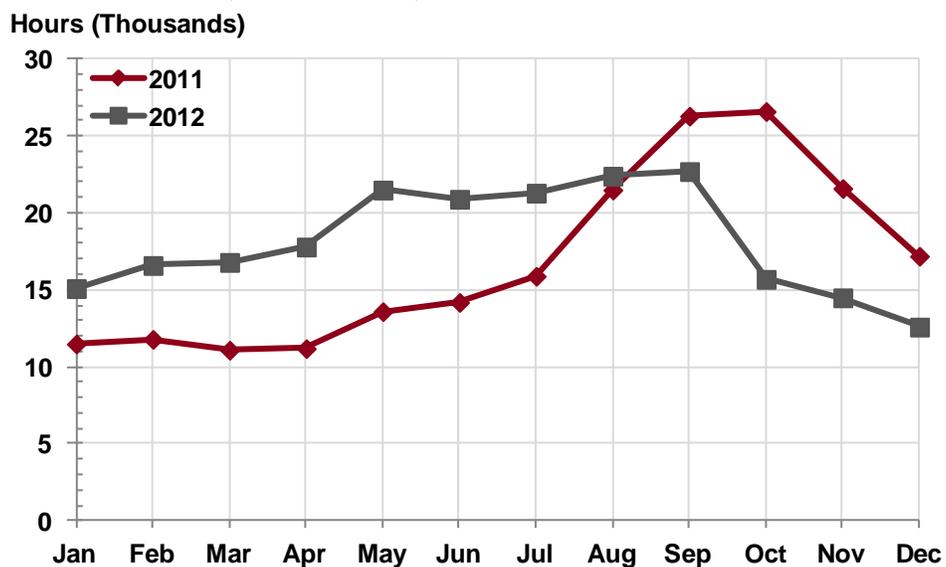


Figure 7. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY MONTH, 2011-2012



### 3.2. Average Vehicle Hours of Delay by Day of Week

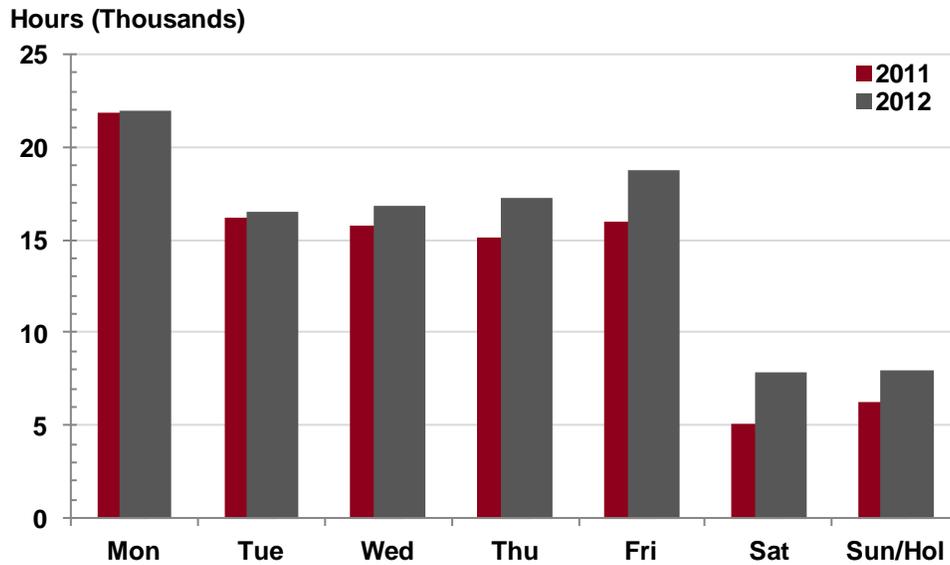
**Most Congested Day of the Week, 60 mph:** Monday, 22,041 hours, 1% increase over 2011

**Highest Absolute Change in Delay, 60mph:** Saturday, 2,749 VHD increase, 54% increase over 2011

**Highest Percentage Change in Delay** Saturday, 2,749 VHD increase, 54% increase over 2011

#### Delay at 60 miles per hour

Figure 8: AVERAGE VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY DAY OF WEEK, 2011-2012



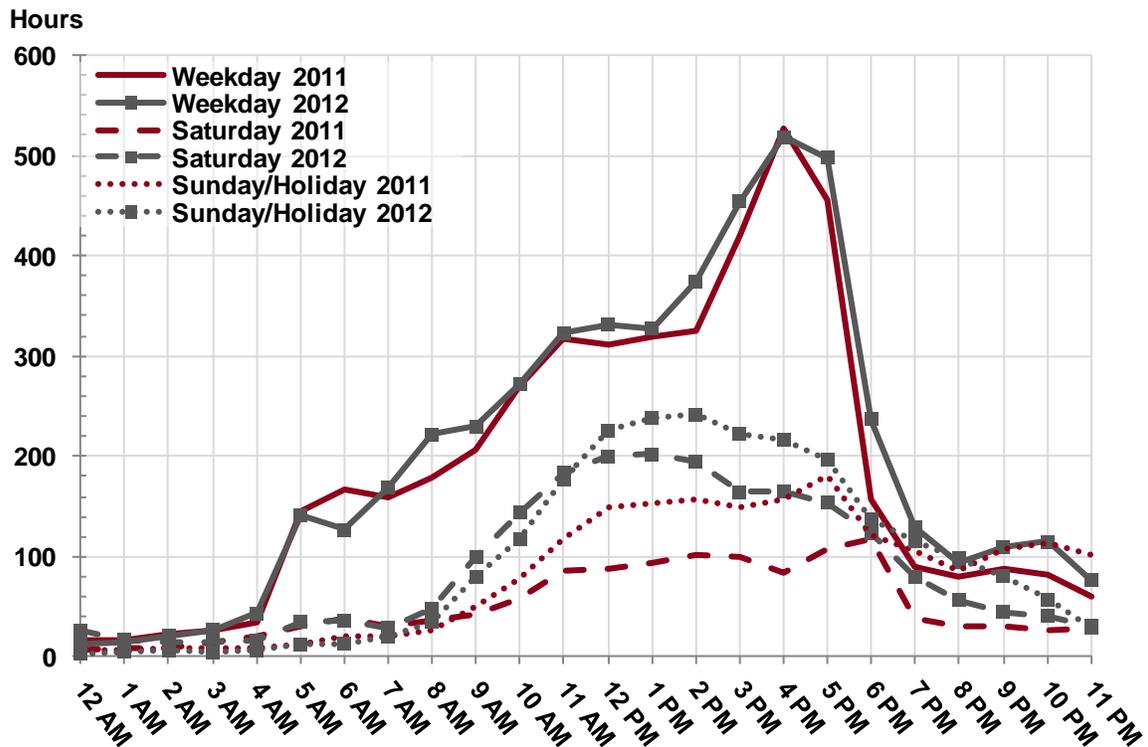
### 3.3. Average Vehicle Hours of Delay by Hour of Day

#### 3.3.1 Delay at 35 Miles per Hour

- Weekday PM Peak Hour, 35 mph:** 4 PM, 518 hours, 2% decrease over 2011
- Weekday AM Peak Hour, 35 mph:** 9 AM, 230 hours, 11% increase over 2011
- Saturday Peak Hour, 35mph** 1 PM, 202 hours, 114% increase over 2011
- Sunday/Holiday Peak Hour, 35mph** 2 PM, 242 hours, 54% increase over 2011

#### Delay at 35 miles per hour

Figure 9. AVERAGE VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY HOUR OF DAY, 2011-2012

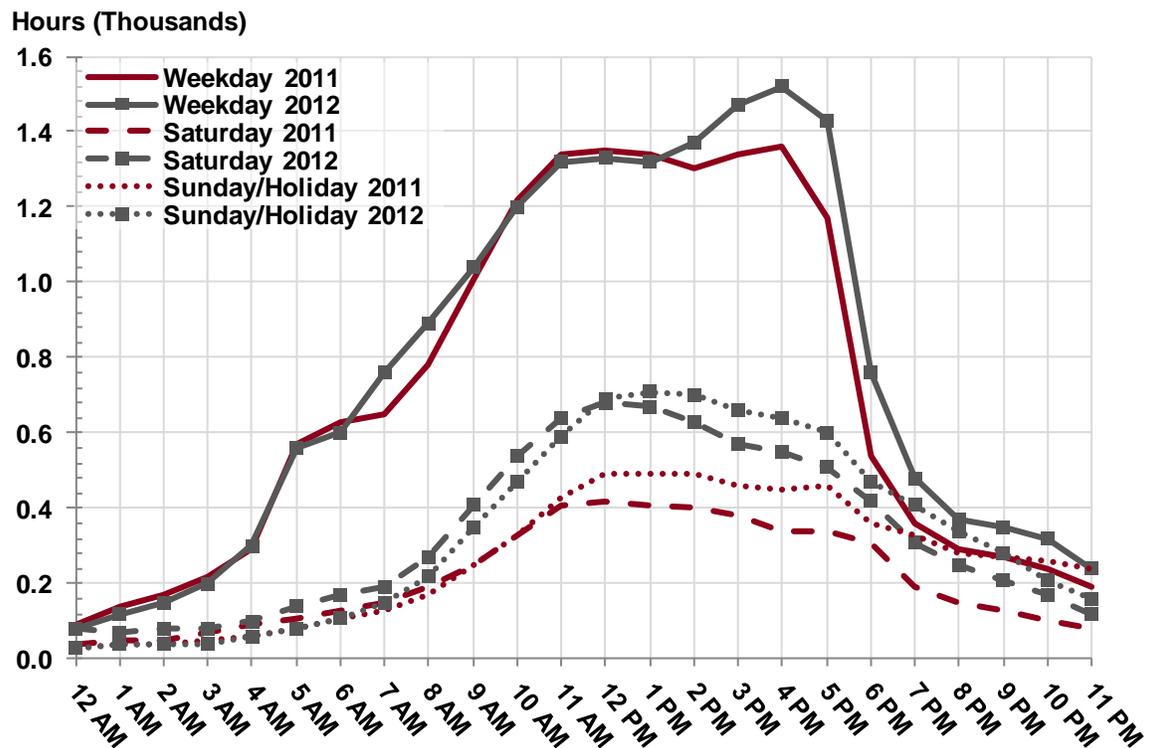


3.3.2 Delay at 60 Miles per Hour

**Weekday PM Peak Hour, 60 mph:** 4 PM, 1,520 hours, 12% increase over 2011  
**Weekday AM Peak Hour, 60 mph:** 9 AM, 1,042 hours, 3% increase over 2011  
**Saturday Peak Hour, 60mph** 12 PM, 681 hours, 63% increase over 2011  
**Sunday/Holiday Peak Hour, 60mph** 1 PM, 708 hours, 43% increase over 2011

Delay at 60 miles per hour

Figure 10. AVERAGE VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY HOUR OF DAY, 2011-2012

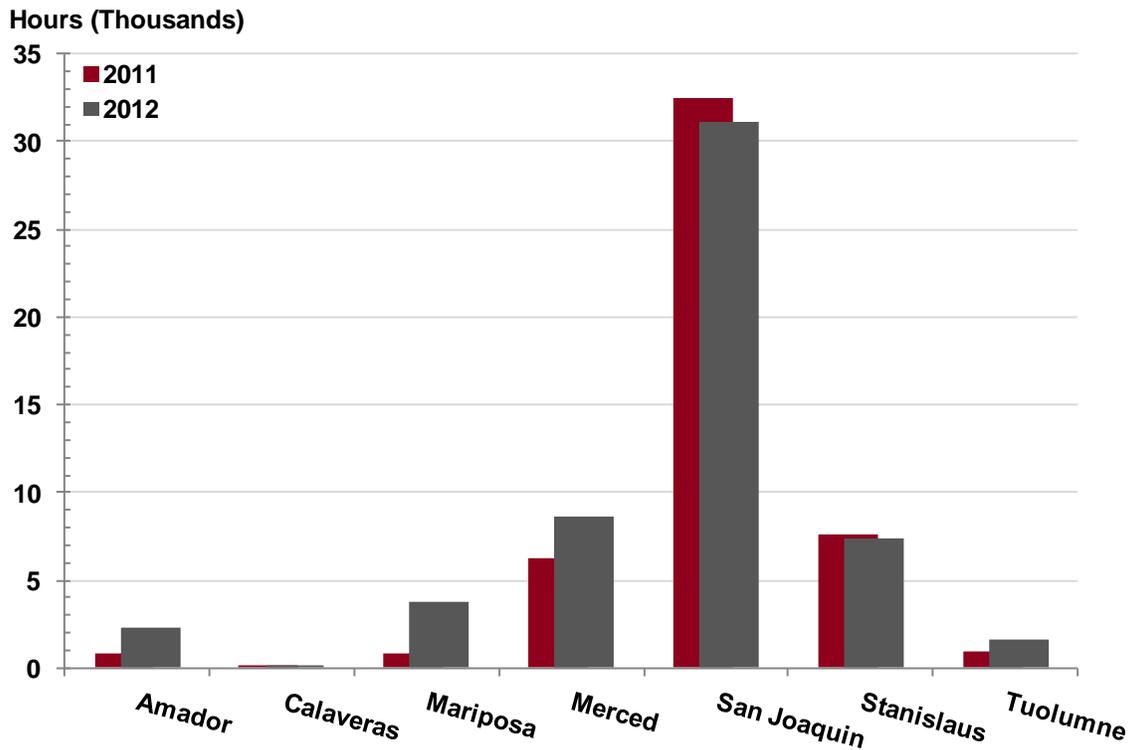


### 3.4. Total Vehicle Hours of Delay by County

- County with Largest Delay, 60 mph:** San Joaquin, 3.1 million hours, 3.9% decrease over 2011 VHD, 57% of District total VHD
- County with 2nd Largest Delay, 60mph:** Merced, 865,727 hours, 37.8% increase over 2011 VHD, 16% of District total VHD
- County with Largest Increase in Delay, 60 mph:** Mariposa, 291,444 hours, 344.7% increase over 2011
- County with Largest Decrease in Delay, 60 mph:** San Joaquin, -127,274 hours, 3.9% decrease over 2011

#### Delay at 60 miles per hour

Figure 11. TOTAL ANNUAL VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY COUNTY, 2011-2012

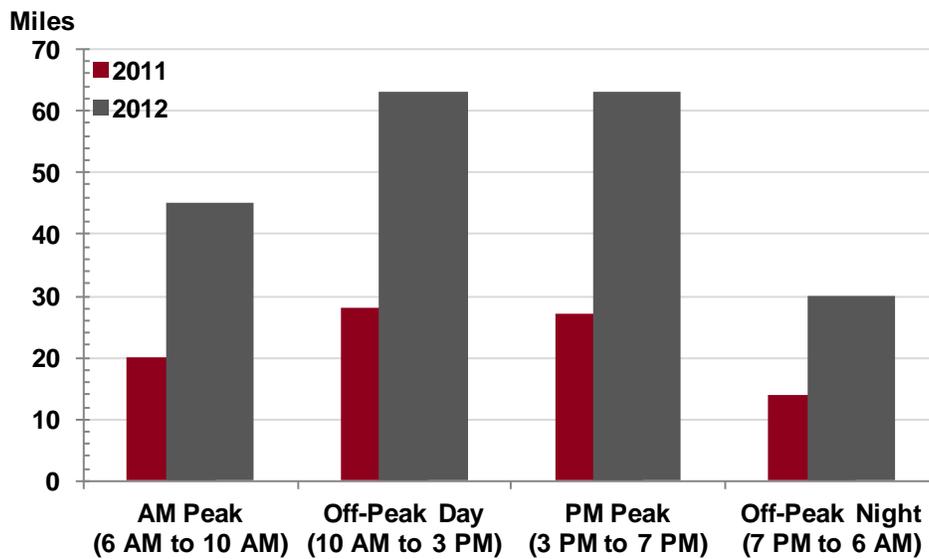


### 3.5. Lost Productivity

<b>AM Peak:</b>	45 miles, 130.3% increase over 2011
<b>Off-Peak Day:</b>	63 miles, 122.4% increase over 2011
<b>PM Peak:</b>	63 miles, 131.3% increase over 2011
<b>Off-Peak Night:</b>	30 miles, 114.0% increase over 2011

#### Lost Lane Miles at 35 miles per hour

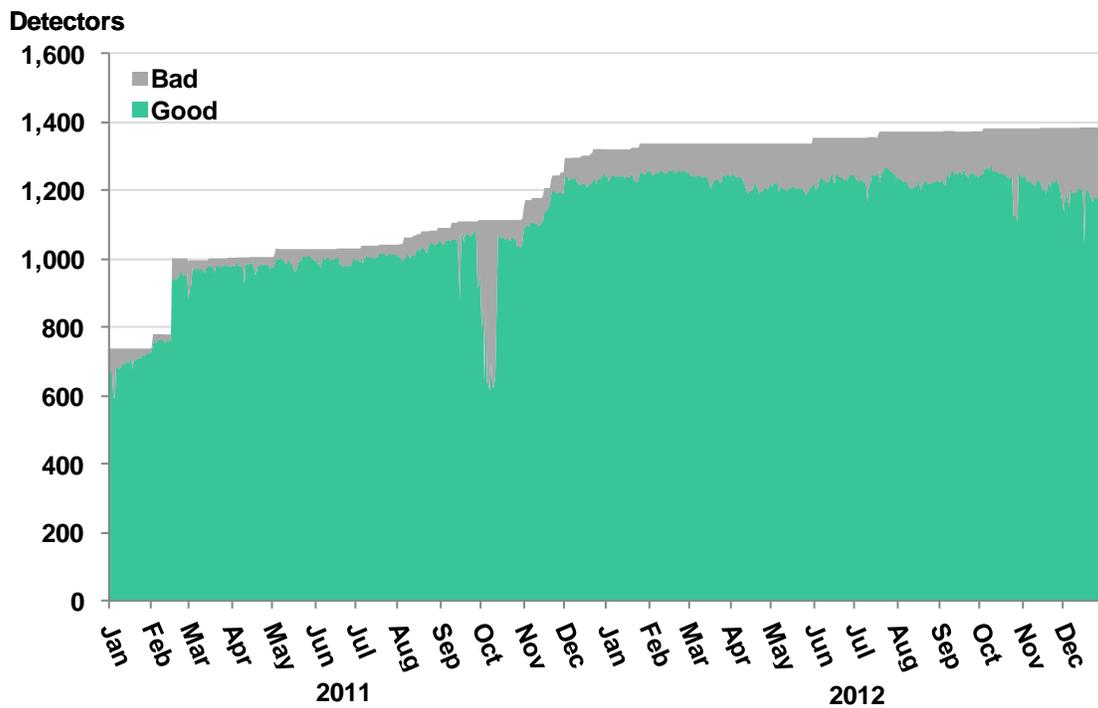
Figure 12. AVERAGE NON-HOLIDAY WEEKDAY EQUIVALENT LOST LANE MILES



## 4. DETECTOR HEALTH AND DATA QUALITY

**Directional Mainline Miles:** 2,653 miles  
**Directional Mainline Miles with Detection:** 764 miles  
**Number of Detectors at End of 2012:** 1,385, 5% increase over 2011  
**Average Percentage of Good and Bad Detection:** 90% good, 24.7% increase over 2011; 10% bad, 122.6% increase over 2011  
**Number of Days Reporting less Than 50% Working Detection:** 0

Figure 13. DETECTOR HEALTH BY DAY, 2011-2012



## 5. FREEWAY CONGESTION AND BOTTLENECK LOCATIONS

### 5.1. Congestion by Freeway

**Congestion Contributed by Top Congested Freeways:** 4,227,057 hours, 77% of total VHD in 2012

Table 3. TOP CONGESTED FREEWAYS, 2011-2012

Table 3							
Top Congested Freeways							
Route	County	Vehicle Hours of Delay at 60 mph		Difference (2012 - 2011)		Rank	
		2011	2012	Absolute	Percent	2011	2012
SR-99	San Joaquin	1,332,827	990,453	-342,374	-26%	1	1
SR-99	Stanislaus	617,949	556,890	-61,059	-10%	2	2
I-5	San Joaquin	506,570	525,340	18,770	4%	3	3
SR-4	San Joaquin	310,486	407,196	96,710	31%	6	4
I-205	San Joaquin	381,296	393,190	11,894	3%	5	5
SR-140	Merced	142,241	311,840	169,599	119%	10	6
SR-120	San Joaquin	395,991	305,709	-90,282	-23%	4	7
SR-12	San Joaquin	193,893	255,558	61,665	32%	8	8
SR-99	Merced	262,609	249,668	-12,941	-5%	7	9
SR-152	Merced	143,636	231,214	87,578	61%	9	10
<b>TOTALS</b>		<b>4,287,498</b>	<b>4,227,057</b>	<b>-60,441</b>	<b>-1.4%</b>		

5.2. Bottleneck Locations

**Total Delay, All AM Bottlenecks:** 49,906 hours  
**Top Bottleneck Delay, AM:** 49,906 hours  
**Percentage Top Bottleneck Delay of Total Bottleneck Delay, AM:** 100%

Table 4 (a). TOP BOTTLENECKS, AM PEAK PERIOD

Rank	County	City	Freeway	CA Postmile	Approximate Location	Average Extent (miles)	Total Delay (hours)	Average Daily Delay (hours)	Average Duration (hours)	Percent of Days Active
1	San Joaquin	Tracy	I205-W	0.761	West of Mountain House Parkway Overcrossing	2.29	36,156	233	1.2	62%
2	San Joaquin	Tracy	I205-W	R3.332	West of 11th Street Overcrossing	2.35	13,750	120	0.7	46%

**Total Delay, All PM Bottlenecks:** 8,374 hours  
**Top Bottleneck Delay, PM:** 8,374 hours  
**Percentage Top Bottleneck Delay of Total Bottleneck Delay, PM:** 100%

Table 4 (b). TOP BOTTLENECKS, PM PEAK PERIOD

Rank	County	City	Freeway	CA Postmile	Approximate Location	Average Extent (miles)	Total Delay (hours)	Average Daily Delay (hours)	Average Duration (hours)	Percent of Days Active
1	San Joaquin	Tracy	I205-E	R8.51	MacArthur Drive	1.04	8,374	125	1.4	27%

Figure 14 (a). BOTTLENECKS AND CONGESTED SEGMENTS, AM PEAK PERIOD

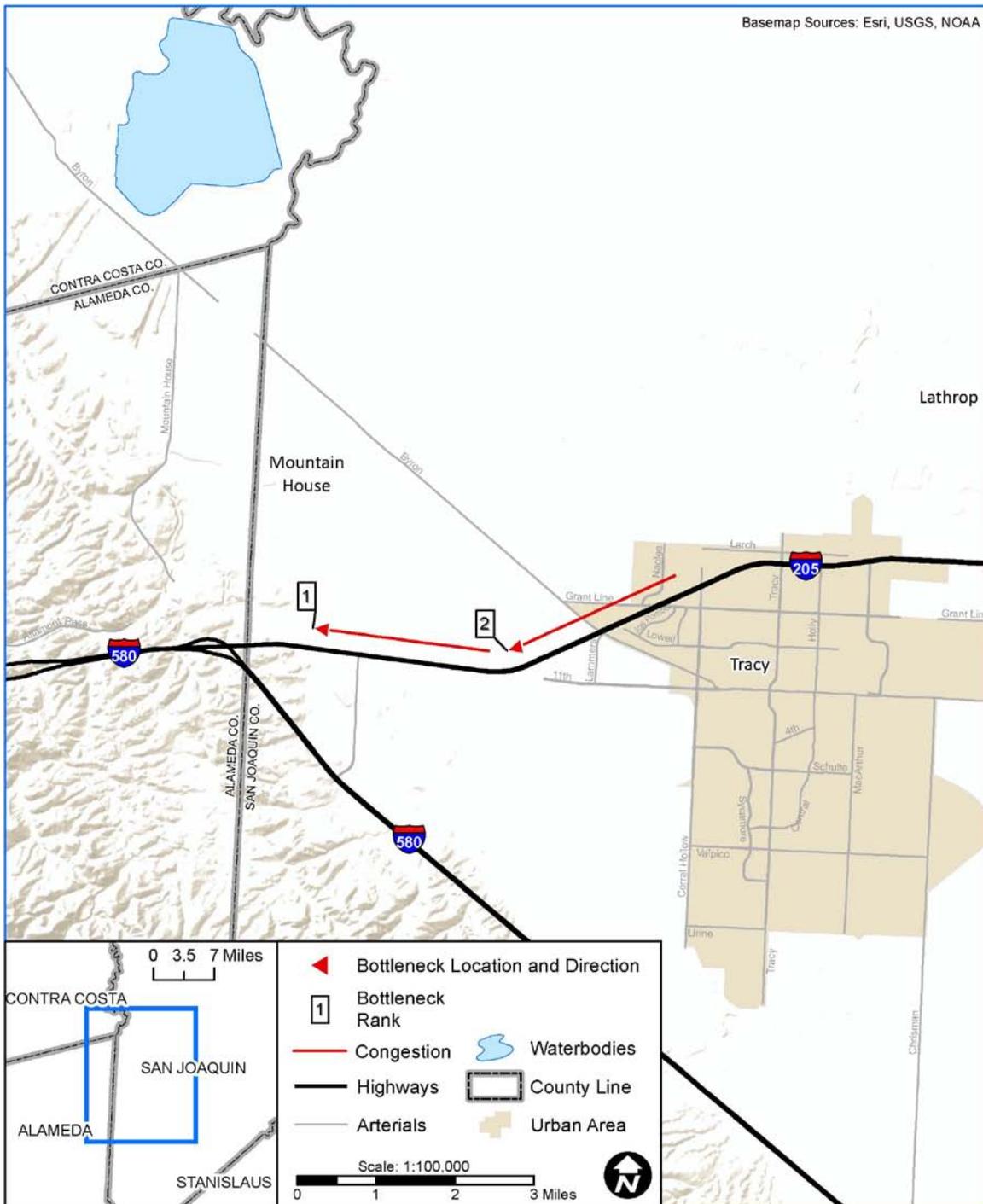


Figure 14 (b). BOTTLENECKS AND CONGESTED SEGMENTS, PM PEAK PERIOD

