

CALIFORNIA DEPARTMENT OF TRANSPORTATION

MOBILITY PERFORMANCE STATISTICS 2012

DISTRICT 12

Prepared by the

**Traffic Operations, Irvine
Operational Systems
District 12**

January 2014

Unofficial Statistics

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1. DESCRIPTIVE STATISTICS

District Headquarters: Irvine
Counties: Orange
Counties without Detection: none

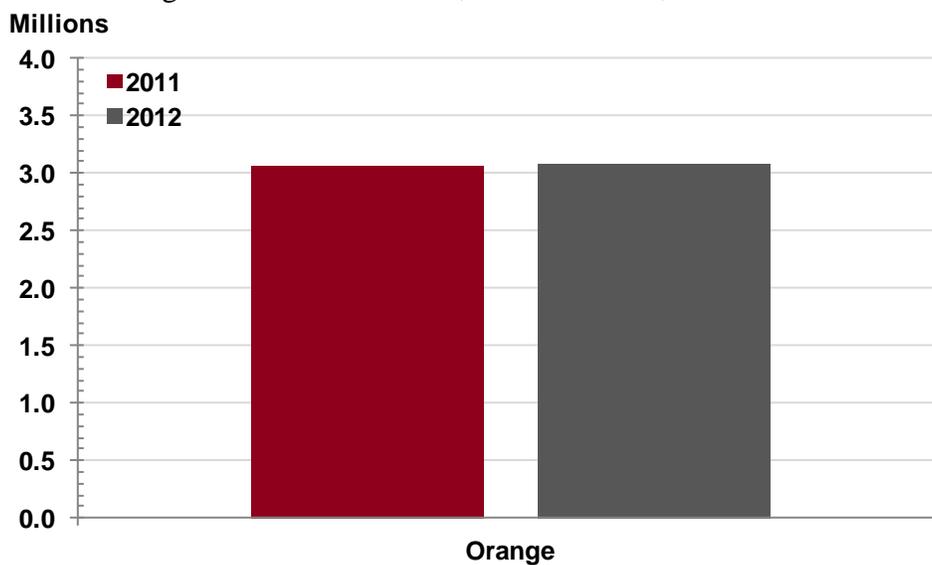
Population: 3,081,804; 0.8% increase over 2011
Population as a Percentage of Statewide: 8%

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

County	2011	2012	Difference (2012 - 2011)	
	Population	Population	Absolute	Percent
Orange	3,057,879	3,081,804	23,925	0.8%
Total	3,057,879	3,081,804	23,925	0.8%

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



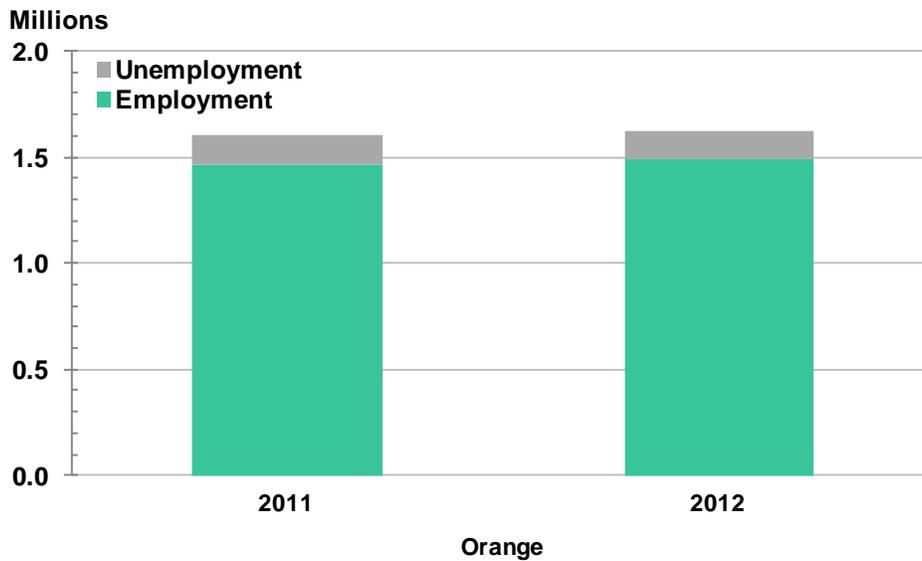
Employment, 2012 Monthly Average: 1,495,975
Unemployment Rate, 2012 Monthly Average: 7.6%, 1.2% decrease over 2011

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)
Orange	8.8%	7.6%	-1.2%
District Total	8.8%	7.6%	-1.2%

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

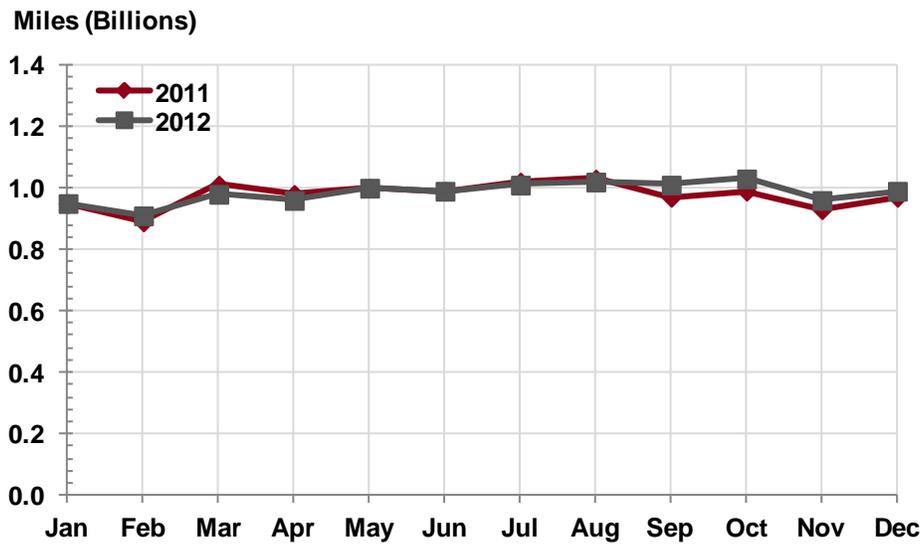


2. TRAVEL DEMAND

Vehicle Miles of Travel, 2012: 11.8 billion miles
Absolute and Percentage Change over 2011: 96.9 million VMT increase; 0.8% increase over 2011
Peak Travel Month, Percentage Change over 2011: October, 1 billion miles, 4.9% increase over 2011

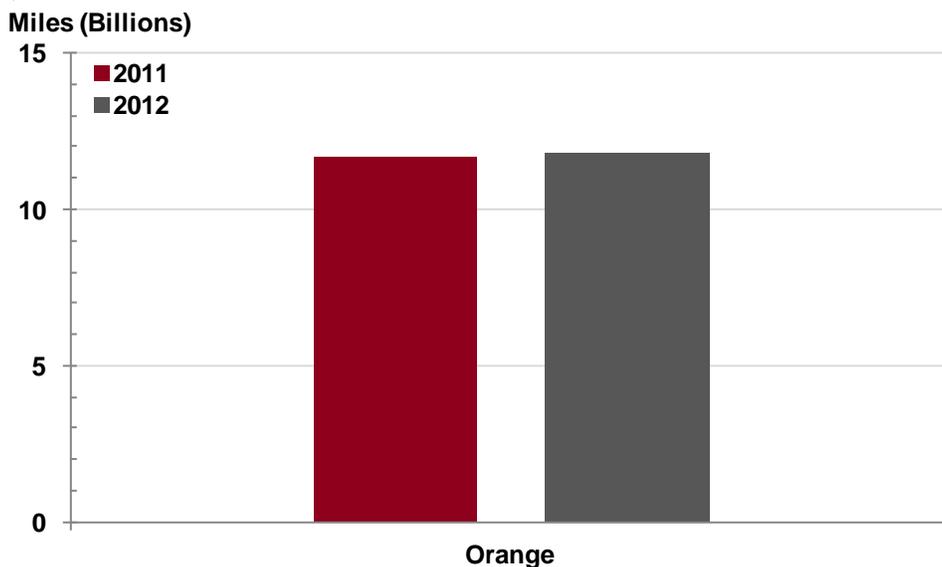
Monthly Trend

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: 12.4 million hours, 21.5% increase over 2011
Average Non-Holiday Weekday Delay, 35: 42,004 hours, 17.7% increase over 2011
Percentage of Statewide VHD at 35mph: 13.2%, 1.4% increase over 2011

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

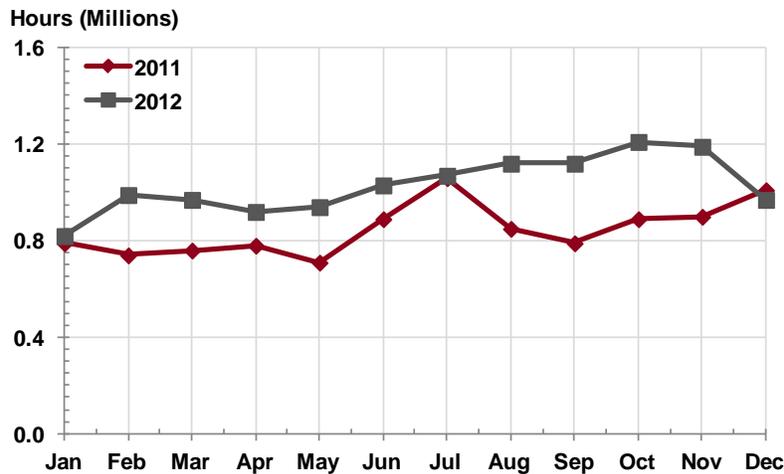
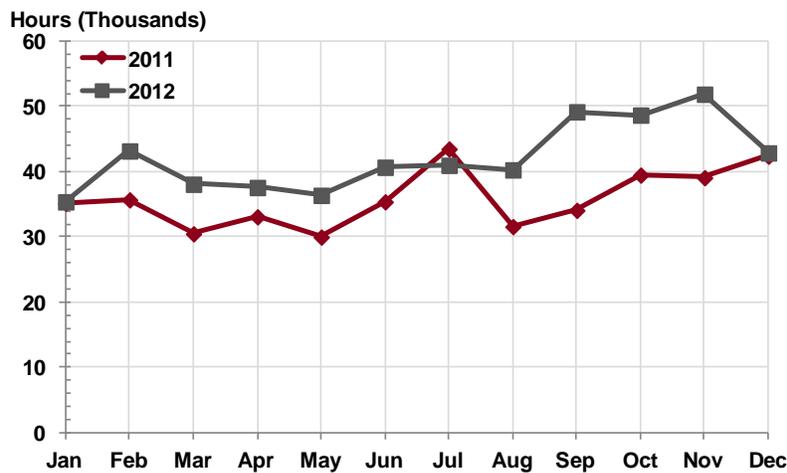


Figure 5. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 35 MILES PER HOUR, BY MONTH, 2011-2012



3.1.2 Delay at 60 Miles per Hour

Vehicle Hours of Delay, 60 miles per hour: 26.1 million hours, 12.4% increase over 2011
Average Non-Holiday Weekday Delay, 60: 89,056 hours, 9.8% increase over 2011
Percentage of Statewide VHD at 60mph: 11.8%, 0.4% increase over 2011

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

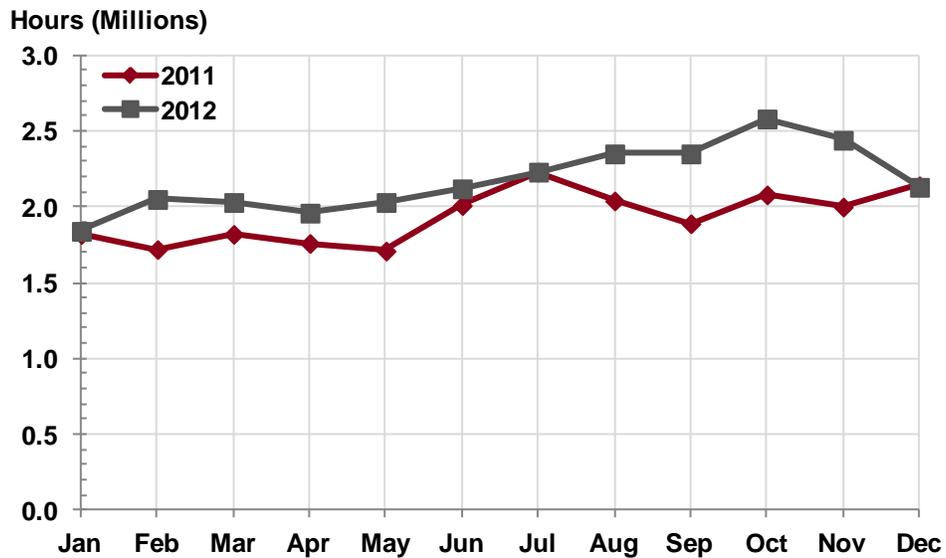
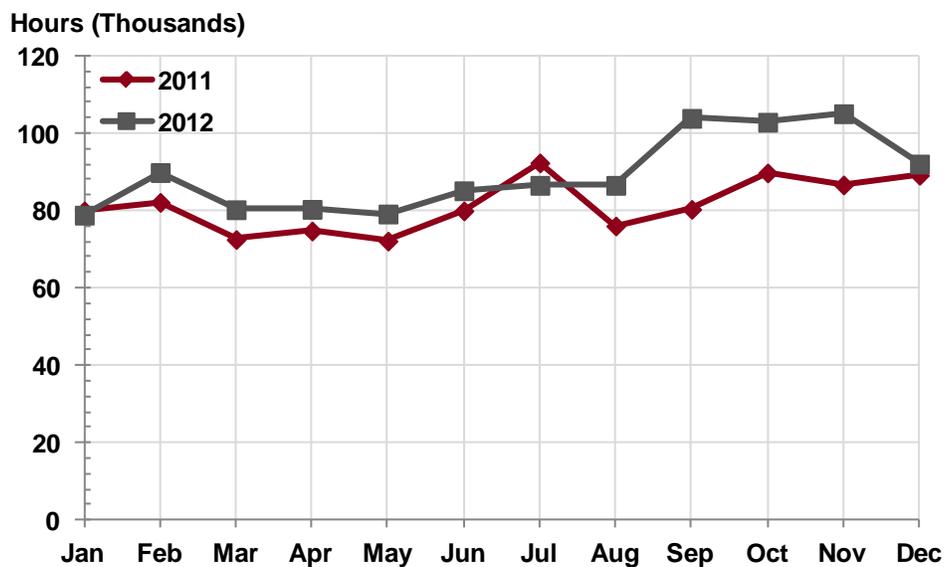


Figure 7. AVERAGE NON-HOLIDAY WEEKDAY VEHICLE HOURS OF DELAY AT 60 MILES PER HOUR, BY MONTH, 2011-2012



3.2. Average Vehicle Hours of Delay by Day of Week

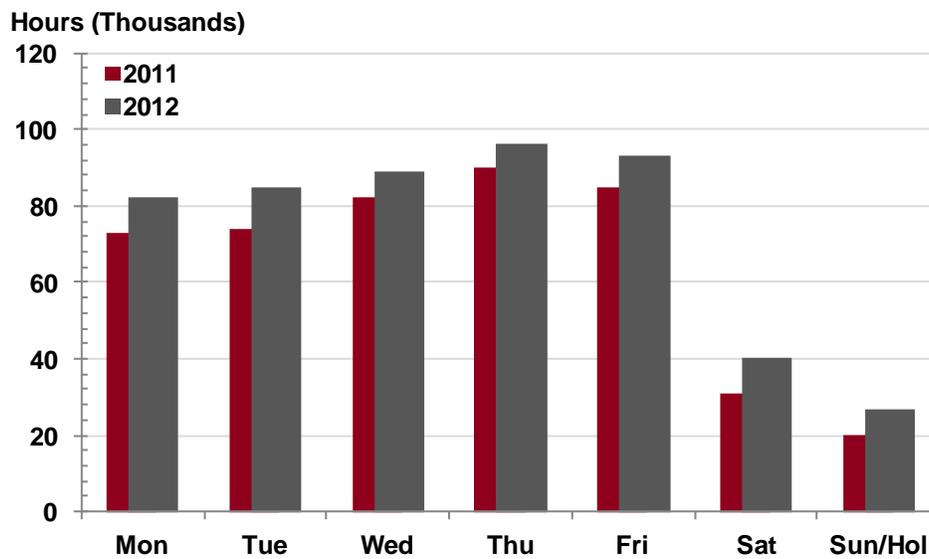
Most Congested Day of the Week, 60 mph: Thursday, 96,371 hours, 7% increase over 2011

Highest Absolute Change in Delay, 60mph: Tuesday, 10,978 VHD increase, 15% increase over 2011

Highest Percentage Change in Delay Sunday/Holiday, 6,761 VHD increase, 33% 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



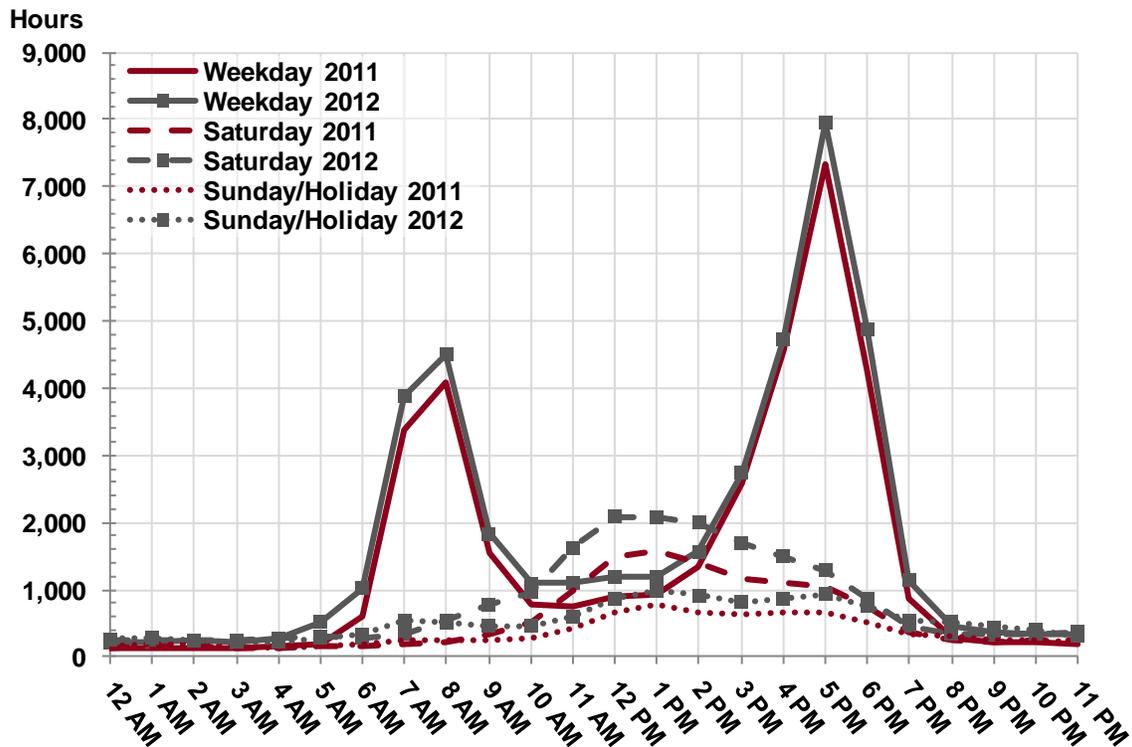
3.3. Average Vehicle Hours of Delay by Hour of Day

3.3.1 Delay at 35 Miles per Hour

- Weekday PM Peak Hour, 35 mph:** 5 PM, 7,957 hours, 8% increase over 2011
- Weekday AM Peak Hour, 35 mph:** 8 AM, 4,508 hours, 10% increase over 2011
- Saturday Peak Hour, 35mph** 12 PM, 2,090 hours, 39% increase over 2011
- Sunday/Holiday Peak Hour, 35mph** 1 PM, 977 hours, 28% 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

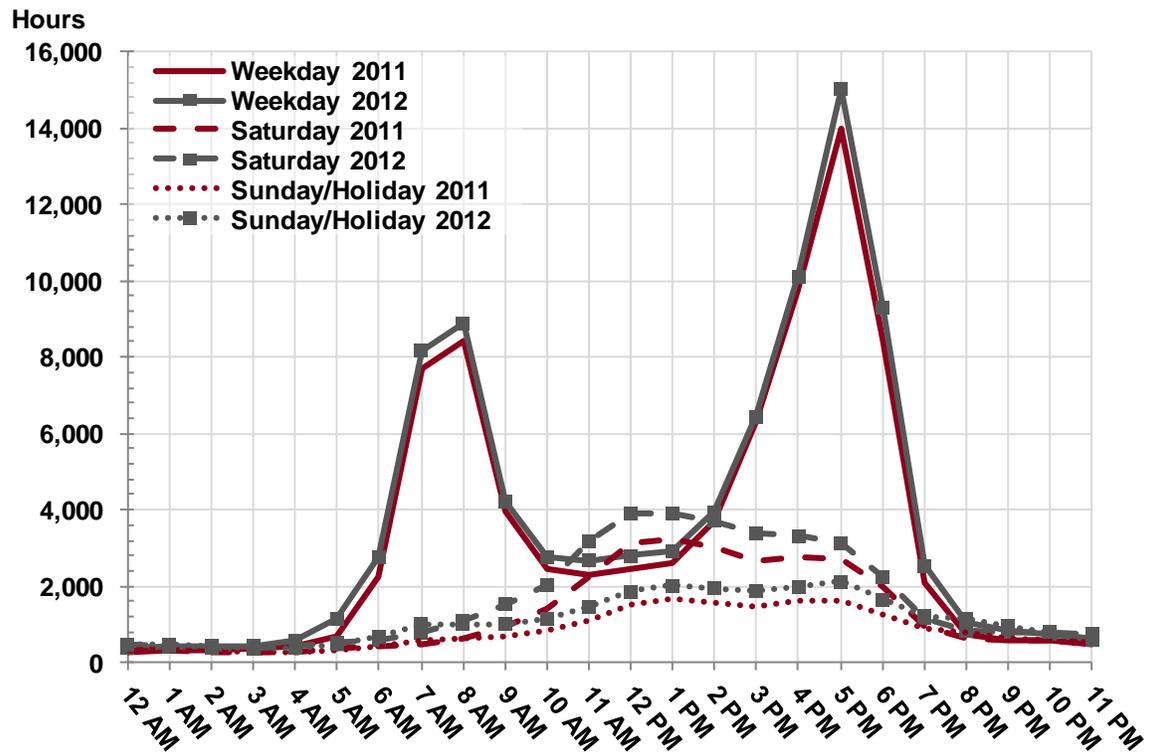


3.3.2 Delay at 60 Miles per Hour

Weekday PM Peak Hour, 60 mph: 5 PM, 15,012 hours, 7% increase over 2011
Weekday AM Peak Hour, 60 mph: 8 AM, 8,871 hours, 5% increase over 2011
Saturday Peak Hour, 60mph 12 PM, 3,910 hours, 25% increase over 2011
Sunday/Holiday Peak Hour, 60mph 5 PM, 2,111 hours, 32% 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

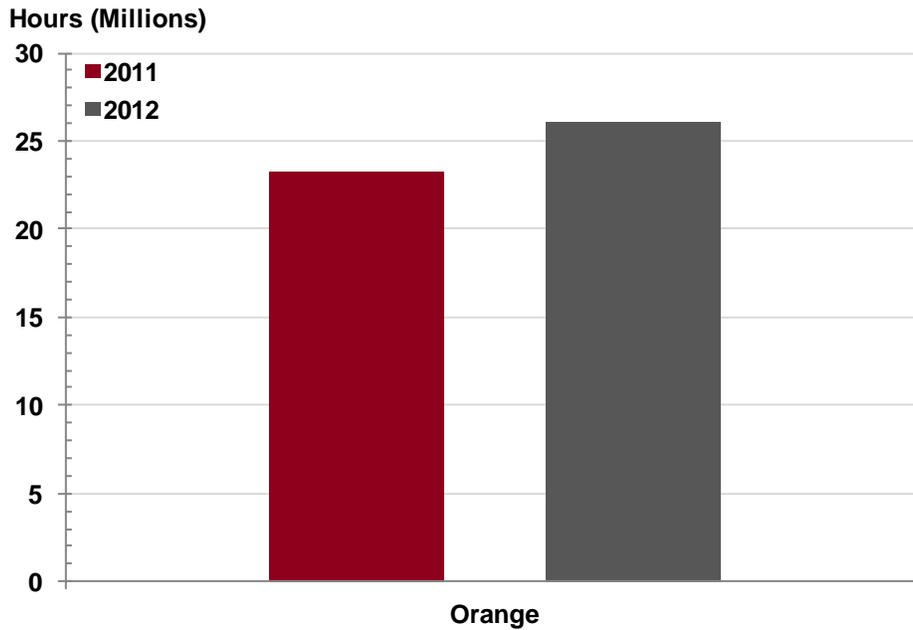


3.4. Total Vehicle Hours of Delay by County

County with Largest Delay, 60 mph: Orange, 26.1 million hours, 12.4% increase over 2011 VHD, 100% of District total VHD

Delay at 60 miles per hour

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

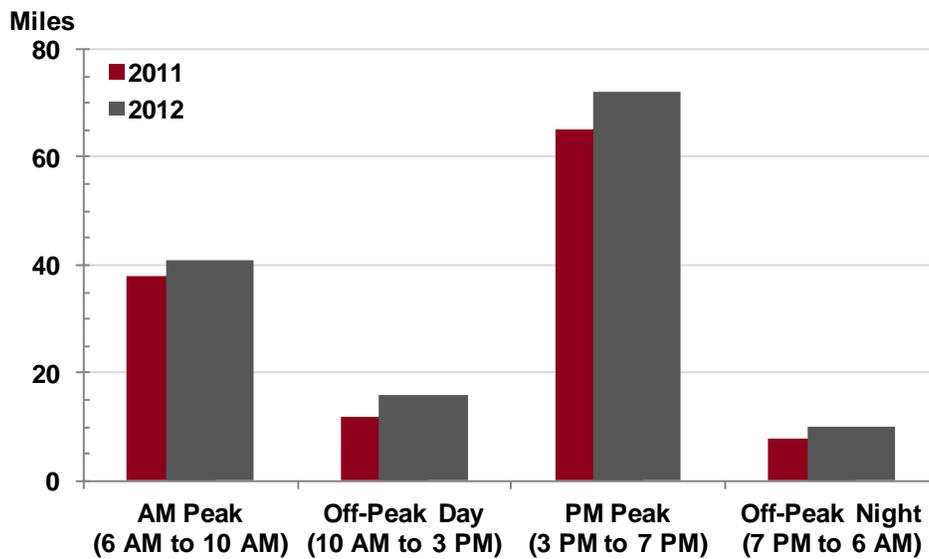


3.5. Lost Productivity

AM Peak:	41 miles, 10.2% increase over 2011
Off-Peak Day:	16 miles, 31.6% increase over 2011
PM Peak:	72 miles, 10.5% increase over 2011
Off-Peak Night:	10 miles, 24% increase over 2011

Lost Lane Miles at 35 miles per hour

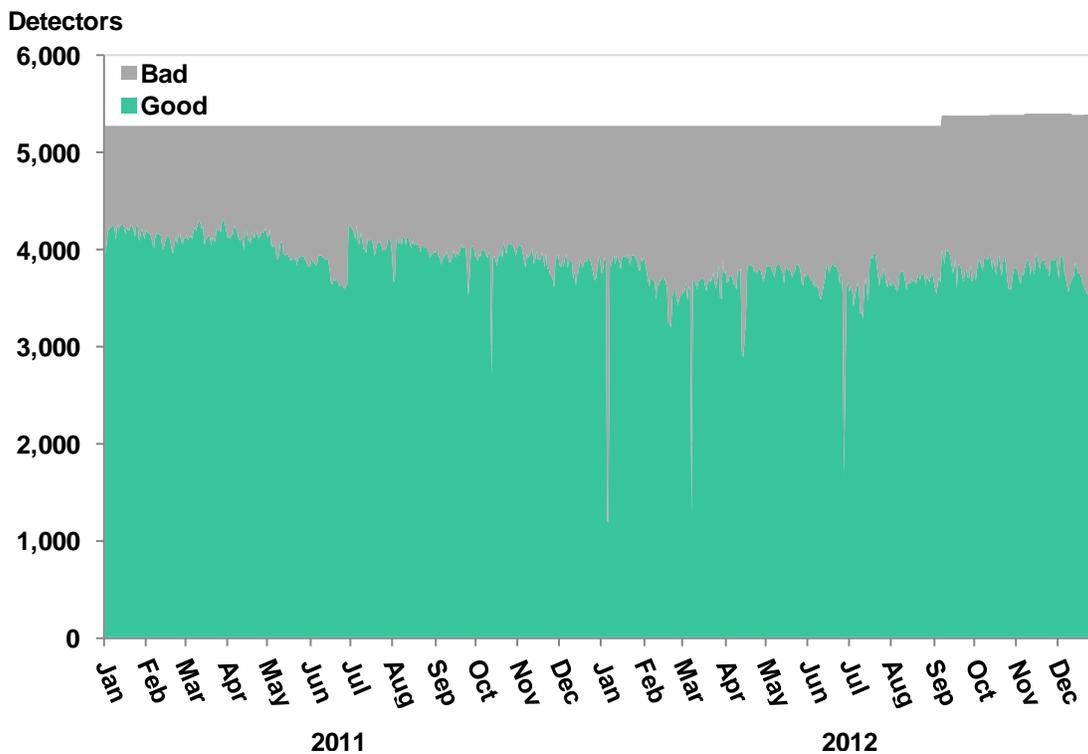
Figure 12. AVERAGE NON-HOLIDAY WEEKDAY EQUIVALENT LOST LANE MILES



4. DETECTOR HEALTH AND DATA QUALITY

Directional Mainline Miles: 578 miles
Directional Mainline Miles with Detection: 390 miles
Number of Detectors at End of 2012: 5,401, 2% increase over 2011
Average Percentage of Good and Bad Detection: 70% good, 7.7% decrease over 2011; 30% bad, 27.1% increase over 2011
Number of Days Reporting less Than 50% Working Detection: 5

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: 26,009,023 hours, 100% of total VHD in 2012

Table 3. TOP CONGESTED FREEWAYS, 2011-2012

Route	County	Vehicle Hours of Delay at 60 mph		Difference (2012 - 2011)		Rank	
		2011	2012	Absolute	Percent	2011	2012
I-5	Orange	7,728,734	8,098,821	370,087	5%	1	1
I-405	Orange	5,436,501	6,246,872	810,371	15%	2	2
SR-91	Orange	3,657,120	3,235,483	-421,637	-12%	3	3
SR-57	Orange	2,165,512	3,162,837	997,325	46%	5	4
SR-55	Orange	2,356,787	2,735,502	378,715	16%	4	5
SR-22	Orange	1,069,336	1,089,160	19,825	2%	6	6
SR-74	Orange	0	570,927	570,927			7
SR-73	Orange	358,253	410,764	52,511	15%	7	8
SR-241	Orange	202,343	259,877	57,533	28%	8	9
I-605	Orange	174,457	198,783	24,325	14%	9	10
TOTALS		23,149,042	26,009,023	2,859,981	12.4%		

5.2. Bottleneck Locations

Total Delay, All AM Bottlenecks: 2,541,195 hours
Top Bottleneck Delay, AM: 1,355,895 hours
Percentage Top Bottleneck Delay of Total Bottleneck Delay, AM: 53%

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	Orange	Brea	SR57-S	19.730	Imperial Hwy	2.34	172,484	1,065	2.3	65%
2	Orange	Huntington Beach	I405-S	16.260	Edinger Ave	3.29	171,023	1,000	2.0	68%
3	Orange	Orange	SR55-S	13.200	La Veta Ave	2.02	166,626	744	2.3	89%
4	Orange	Irvine	I405-N	4.030	Jeffrey Rd 2	2.85	152,571	723	1.3	84%
5	Orange	Orange	SR57-S	10.800	Rte SR-22 & I-5	2.54	143,747	609	1.9	94%
6	Orange	Santa Ana	SR55-S	R9.19	Edinger Ave	2.05	134,502	623	2.0	86%
7	Orange	Fountain Valley	I405-S	14.540	Bushard St	1.58	108,130	443	1.9	97%
8	Orange	Huntington Beach	I405-S	16.600	Beach Blvd	2.88	106,533	888	2.0	48%
9	Orange	Tustin	SR55-S	10.400	South of I-5	2.08	103,608	423	1.6	98%
10	Orange	Santa Ana	I5-S	30.900	1st St	1.70	96,671	441	1.3	87%

Total Delay, All PM Bottlenecks: 4,954,671 hours
Top Bottleneck Delay, PM: 2,673,749 hours
Percentage Top Bottleneck Delay of Total Bottleneck Delay, PM: 54%

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	Orange	Anaheim	SR91-E	R16.4	Gypsum Canyon	2.58	523,766	2,297	4.2	91%
2	Orange	Fountain Valley	I405-N	13.970	Brookhurst St	3.67	510,702	2,110	3.4	96%
3	Orange	Santa Ana	I5-N	32.600	17th St 3	1.45	336,798	1,347	4.1	100%
4	Orange	Irvine	I405-S	3.840	Jeffrey Rd 1	3.38	246,115	1,104	2.1	89%
5	Orange	Laguna Hills	I5-S	18.700	El Toro Rd 2	2.84	234,110	1,005	2.0	93%
6	Orange	Santa Ana	SR55-N	R8.12	Dyer Rd	1.93	209,698	863	2.3	97%
7	Orange	Tustin	I5-N	29.240	Red Hill Ave	3.33	200,202	914	1.6	87%
8	Orange	Anaheim	I5-N	36.600	Anaheim Blvd	2.91	144,790	596	1.2	97%
9	Orange	Brea	SR57-N	22.000	Tonner Canyon	4.68	143,892	911	1.8	63%
10	Orange	Costa Mesa	SR55-S	R2.77	Victoria St	2.93	123,675	783	1.6	63%

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

Forthcoming

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