

# CITYGATE ASSOCIATES, LLC

■ FOLSOM (SACRAMENTO), CA

MANAGEMENT CONSULTANTS ■



## **FIRE AND EMERGENCY SERVICES STUDY FOR THE EL DORADO LAFCO**

***VOLUME 3 OF 3 – STATISTICAL  
APPENDIX***

*May 13, 2010*



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CITYGATE ASSOCIATES, LLC  
FIRE & EMERGENCY SERVICES

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# EL DORADO COUNTY RESPONSE STATISTICS ASSESSMENT

## 1.1 DATASET IDENTIFICATION

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*This section describes the sources and quality of data used in this study.*

Data used in this study was gathered from two primary sources. NFIRS 5 data was collected from South Lake Tahoe and Lake Valley fire agencies in the Tahoe Basin.

The second source of data was from CAL Fire, which provided CAD data for West Slope fire agencies.

### 1.1.1 Creation of Incident Data

NFIRS 5 data was quickly converted into Incidents (one record per incident) and Apparatus (one record per apparatus response) records. CAL Fire CAD data was provided for apparatus responses. Using CAL Fire's incident numbers, the provided apparatus response data was used to create a corresponding set of incidents. In total 84,071 incidents and 256,289 apparatus records were collected.

### *Dataset Dates and Analytical Periods*

The NFIRS 5 data from Tahoe Basin included incidents from 1/1/2006 – 11/25/2009. The CAL Fire CAD data included responses from 12/14/2004 – 11/05/2009.

In order to maximize the benefit of the data provided trends county-wide will be tracked in three fiscal years as follows

- ◆ FY 06/07      10/1/2006 – 9/30/2007
- ◆ FY 07/08      10/1/2007 – 9/30/2008
- ◆ FY 08/09      10/1/2008 – 9/30/2009.

Using the last 36 months of available data assures the most contemporary county-wide trend analysis possible. Because of the extended date ranges available for the West Slope, trends analysis can include FY 05/06 (10/1/2005 – 9/30/2006).

### *Geocodes*

Geocoded data was provided by CAL Fire for all West Slope incidents. Tahoe Basin incidents were not geocoded. Using NFIRS 5 address information geocodes were located for 87.3 percent incident and apparatus responses.

### *Data Standardization*

NFIRS 5 data and CAL Fire CAD data use different systems to categorize call types. For the purpose of this study all incident and apparatus call types were grouped as follows:

- ◆ BF      Building Fire
- ◆ WF      Wildland Fire
- ◆ OF      Other Fire

- ◆ EMS EMS response
- ◆ OTH Other response type.

Because CAD call types describe the initial report and not the situation found, these categories may have a few inaccuracies.

### *Quantitative vs. Qualitative Datasets*

Quantitative datasets, those used to measure the amount of activity, include all incidents between a set of date ranges. Qualitative datasets, those used to measure response performance, utilize the following search criteria:

- ◆ Incidents are included within a stated date range
- ◆ Only fires and EMS incidents are included (“OTH” incident type excluded)
- ◆ Incidents excluding all those having a call to arrival time equal to zero
- ◆ Incidents excluding all those having a call to arrival time greater than 60 minutes
- ◆ EMS incidents excluding the CAD incident type, “Medical Transfer”
- ◆ EMS incidents excluding those originating in a “331 Hospital” Property Use.

Maintaining different datasets for quantitative and qualitative measurements provides the best estimates of both system demand and system performance.

Data from two fire departments was not included in the statistical analysis that follows. Fallen Leaf uses an on-line data center which was unresponsive to a request for NFIRS 5 data. The record keeping system used in Meeks Bay is a type of spreadsheet narrative. Information about these fire departments may be found at the end of the Tahoe Basin narrative.

### *Data Collection Recommendations*

CAL Fire has a capable and responsive CAD records system. As a minimum, all fire departments in the County should be reporting incident and apparatus activity in a qualified NFIRS 5 format. This minimum reporting standard is required in California and by FEMA at the federal level. NFIRS 5 reporting is considered a prerequisite for receiving federal grants.

## **2.1 COUNTY-WIDE – DEMAND AND PERFORMANCE**

### **2.1.1 Demand Trends**

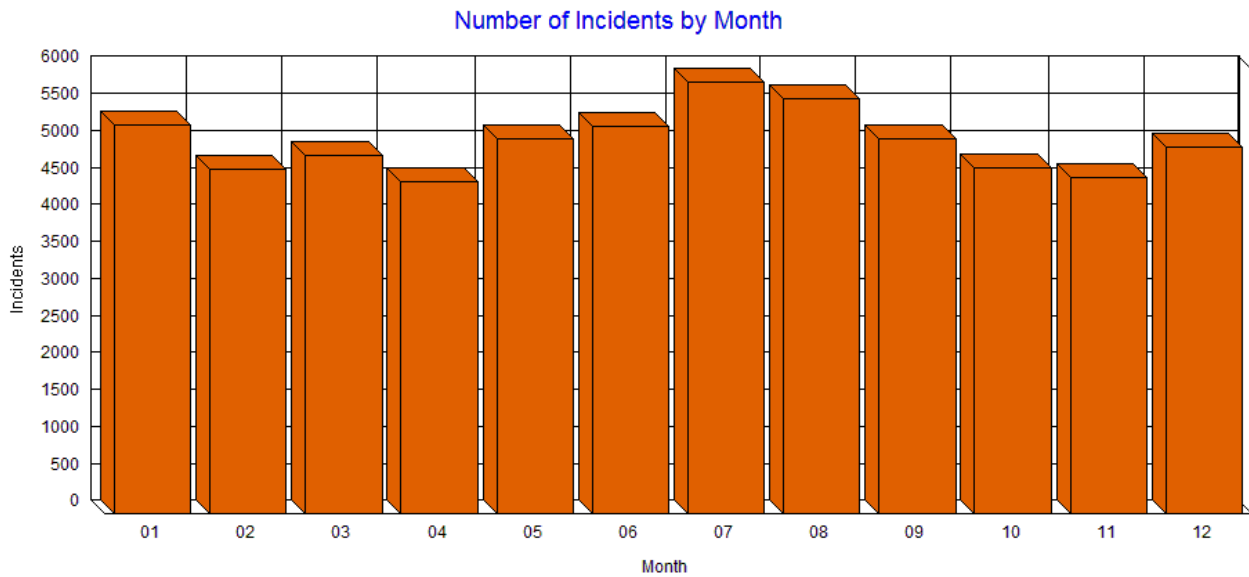
The number of county-wide incidents constructed from collected apparatus data is as follows:

- ◆ FY 06/07 18,971
- ◆ FY 07/08 20,701
- ◆ FY 08/09 20,642.

Here is another county-wide breakdown by incident type for the three-year period. A very small number of incidents could not be categorized by type:

|            | BF  | EMS    | WF    | OF    | OTH    | Total  |
|------------|-----|--------|-------|-------|--------|--------|
| FY 06/07   | 212 | 13,920 | 355   | 550   | 3,933  | 18,970 |
| FY 07/08   | 242 | 14,283 | 387   | 524   | 5,265  | 20,701 |
| FY 08/09   | 197 | 13,625 | 299   | 406   | 6,113  | 20,640 |
| Total      | 651 | 41,828 | 1,041 | 1,480 | 15,311 | 60,311 |
| Percentage | 1%  | 69%    | 2%    | 3%    | 25%    | 100%   |

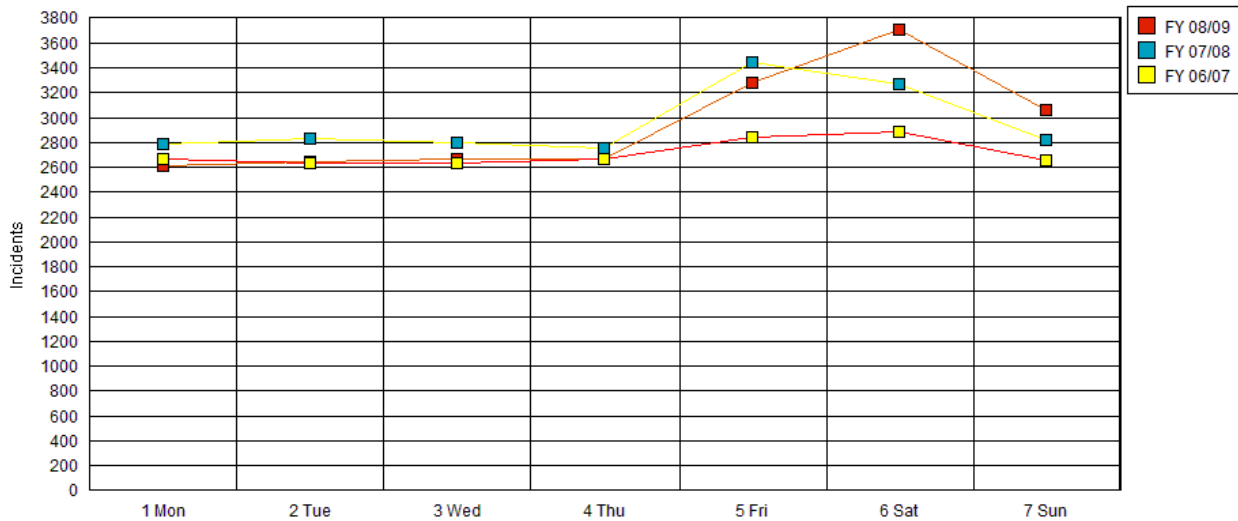
Incidents peak slightly during the summer months.



April and November have the fewest number of incidents.

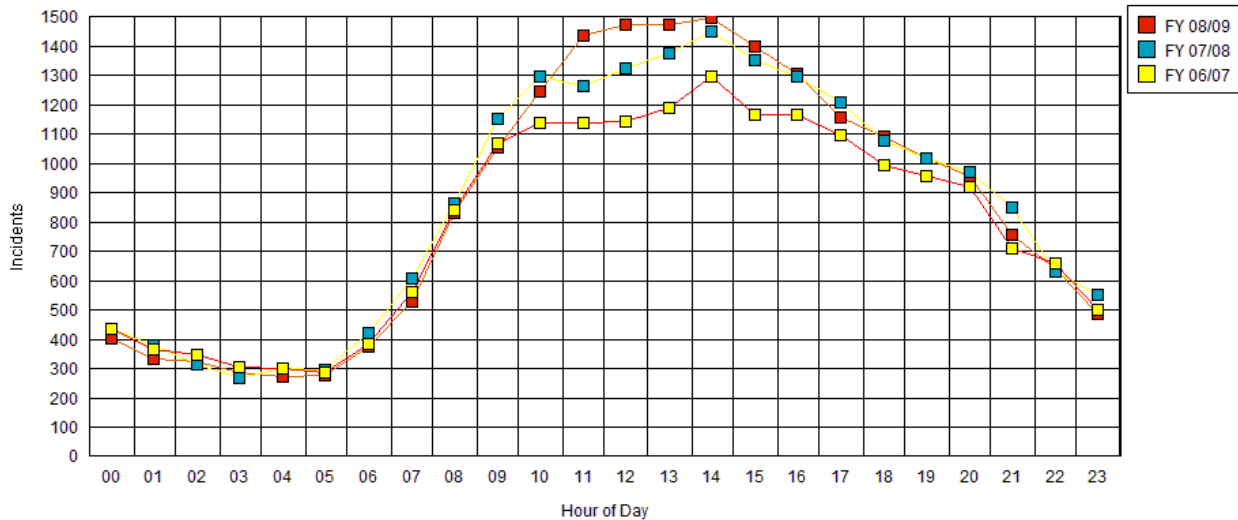
The County experiences the greatest incident activity at the end of the week. The year-to-year trend shows an increase in the number of incidents in the early part of the weekend.

Number of Incidents by Day of Week by Year



The number of incidents by hour of day follows a normal curve for fire department operations. However, it is interesting to note the annual increase in activity during peak hours from 10:00 – 16:00.

Number of Incidents by Hour of Day by Year



Here is a “temporal activity map” showing incident activity by hour of day and day of week.

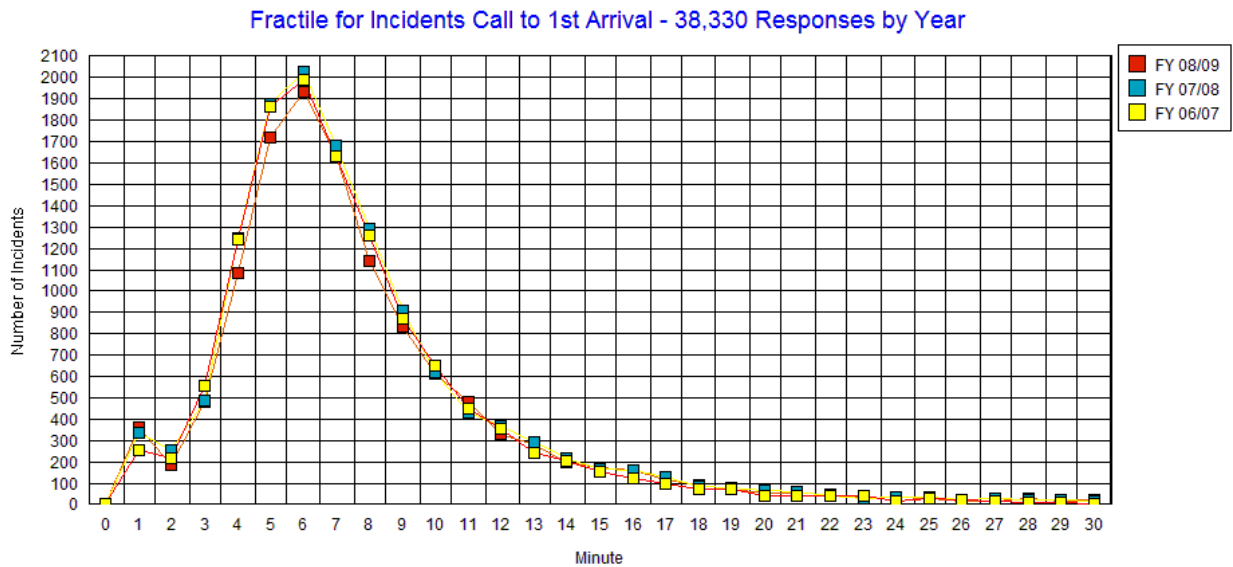
**County-wide Activity - 3 Yrs**

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Total  |
|-------------|-------|-------|-------|-------|-------|-------|-------|--------|
| 00:00-00:59 | 178   | 160   | 144   | 161   | 183   | 246   | 201   | 1,273  |
| 01:00-01:59 | 142   | 144   | 149   | 131   | 125   | 200   | 185   | 1,076  |
| 02:00-02:59 | 123   | 112   | 139   | 124   | 124   | 163   | 200   | 985    |
| 03:00-03:59 | 88    | 122   | 129   | 111   | 109   | 138   | 161   | 858    |
| 04:00-04:59 | 92    | 119   | 118   | 122   | 147   | 150   | 129   | 877    |
| 05:00-05:59 | 129   | 124   | 120   | 104   | 121   | 124   | 138   | 860    |
| 06:00-06:59 | 202   | 171   | 167   | 156   | 175   | 179   | 129   | 1,179  |
| 07:00-07:59 | 258   | 232   | 263   | 251   | 260   | 224   | 210   | 1,698  |
| 08:00-08:59 | 414   | 374   | 370   | 364   | 369   | 334   | 309   | 2,534  |
| 09:00-09:59 | 469   | 439   | 468   | 497   | 511   | 467   | 429   | 3,280  |
| 10:00-10:59 | 516   | 507   | 508   | 496   | 573   | 561   | 526   | 3,687  |
| 11:00-11:59 | 542   | 517   | 496   | 537   | 591   | 555   | 598   | 3,836  |
| 12:00-12:59 | 538   | 511   | 535   | 469   | 609   | 699   | 579   | 3,940  |
| 13:00-13:59 | 526   | 530   | 544   | 536   | 638   | 687   | 577   | 4,038  |
| 14:00-14:59 | 540   | 570   | 579   | 544   | 659   | 761   | 593   | 4,246  |
| 15:00-15:59 | 491   | 513   | 543   | 519   | 615   | 702   | 536   | 3,919  |
| 16:00-16:59 | 480   | 522   | 443   | 505   | 610   | 658   | 549   | 3,767  |
| 17:00-17:59 | 420   | 473   | 473   | 480   | 583   | 555   | 484   | 3,468  |
| 18:00-18:59 | 416   | 417   | 404   | 436   | 532   | 513   | 446   | 3,164  |
| 19:00-19:59 | 405   | 414   | 376   | 401   | 507   | 476   | 415   | 2,994  |
| 20:00-20:59 | 360   | 375   | 349   | 404   | 507   | 490   | 362   | 2,847  |
| 21:00-21:59 | 299   | 324   | 295   | 302   | 420   | 359   | 318   | 2,317  |
| 22:00-22:59 | 254   | 230   | 272   | 238   | 341   | 338   | 259   | 1,932  |
| 23:00-23:59 | 173   | 214   | 214   | 202   | 259   | 279   | 199   | 1,540  |
| Total       | 8,055 | 8,114 | 8,098 | 8,090 | 9,568 | 9,858 | 8,532 | 60,315 |

Here activity is focused during the afternoon hours on Friday and Saturday.

**2.1.2 Fractile Performance for El Dorado County**

The following graph illustrates fractile performance for El Dorado County. Incidents with a response time greater than 60 minutes were eliminated from this fractile analysis. The measurement is from the time the request for assistance was received until the first apparatus arrived on the scene. This graph includes data from all three years for fire and EMS incidents only.



In the graph above, performance appears very consistent from year-to-year. Also, there is a very slow drop-off after 7 minutes indicating a significant number of incidents with longer call to arrival times.

***Fractile Breakdown by Call Type for the County***

Here is the statistical breakdown for the same set of incidents:

| INC Type | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|----------|-----------|--------------|--------------|------------|------------|
| EMS      | 11,300    | 00:12:30     | 00:09:30     | 86.05%     | 93.71%     |
| OF       | 348       | 00:17:30     | 00:11:45     | 76.14%     | 87.35%     |
| WF       | 272       | 00:24:00     | 00:17:30     | 58.08%     | 74.63%     |
| BF       | 190       | 00:14:00     | 00:10:45     | 83.68%     | 91.57%     |

### 2.1.3 Temporal Performance for the County

Here is a chart that compares performance by hour of day and day of week. Here the percentage of compliance with an 11-minute call to first apparatus arrival is being measured.

Call to 1st Arrival @ 11 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 80%   | 69%   | 83%   | 63%   | 91%   | 72%   | 80%   | 78%      |
| 01:00-01:59 | 85%   | 74%   | 77%   | 78%   | 81%   | 88%   | 77%   | 80%      |
| 02:00-02:59 | 64%   | 72%   | 88%   | 79%   | 90%   | 71%   | 87%   | 80%      |
| 03:00-03:59 | 82%   | 82%   | 73%   | 68%   | 85%   | 82%   | 89%   | 81%      |
| 04:00-04:59 | 91%   | 90%   | 83%   | 71%   | 91%   | 92%   | 88%   | 87%      |
| 05:00-05:59 | 78%   | 86%   | 71%   | 81%   | 87%   | 79%   | 79%   | 80%      |
| 06:00-06:59 | 86%   | 92%   | 89%   | 88%   | 88%   | 80%   | 67%   | 85%      |
| 07:00-07:59 | 89%   | 83%   | 85%   | 85%   | 77%   | 85%   | 89%   | 85%      |
| 08:00-08:59 | 83%   | 87%   | 85%   | 92%   | 86%   | 81%   | 83%   | 85%      |
| 09:00-09:59 | 84%   | 85%   | 87%   | 91%   | 83%   | 89%   | 88%   | 87%      |
| 10:00-10:59 | 82%   | 89%   | 89%   | 87%   | 92%   | 86%   | 82%   | 87%      |
| 11:00-11:59 | 90%   | 84%   | 83%   | 85%   | 82%   | 79%   | 84%   | 84%      |
| 12:00-12:59 | 88%   | 78%   | 86%   | 80%   | 82%   | 78%   | 82%   | 82%      |
| 13:00-13:59 | 86%   | 87%   | 84%   | 84%   | 87%   | 75%   | 90%   | 84%      |
| 14:00-14:59 | 89%   | 86%   | 87%   | 81%   | 90%   | 84%   | 86%   | 86%      |
| 15:00-15:59 | 90%   | 87%   | 83%   | 85%   | 89%   | 81%   | 83%   | 85%      |
| 16:00-16:59 | 87%   | 93%   | 85%   | 90%   | 88%   | 78%   | 86%   | 87%      |
| 17:00-17:59 | 92%   | 91%   | 91%   | 90%   | 87%   | 83%   | 89%   | 89%      |
| 18:00-18:59 | 80%   | 92%   | 82%   | 84%   | 89%   | 90%   | 89%   | 87%      |
| 19:00-19:59 | 87%   | 85%   | 80%   | 81%   | 82%   | 90%   | 89%   | 85%      |
| 20:00-20:59 | 86%   | 92%   | 89%   | 85%   | 82%   | 93%   | 92%   | 88%      |
| 21:00-21:59 | 87%   | 86%   | 91%   | 84%   | 84%   | 88%   | 89%   | 87%      |
| 22:00-22:59 | 90%   | 80%   | 86%   | 86%   | 86%   | 89%   | 90%   | 87%      |
| 23:00-23:59 | 75%   | 86%   | 85%   | 88%   | 75%   | 90%   | 76%   | 83%      |
| Daily %     | 86%   | 86%   | 85%   | 85%   | 86%   | 83%   | 85%   | 85%      |



Here are the results using the same dataset for 15 minutes.

Call to 1st Arrival @ 15 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 84%   | 86%   | 89%   | 71%   | 100%  | 84%   | 93%   | 88%      |
| 01:00-01:59 | 96%   | 87%   | 94%   | 93%   | 97%   | 95%   | 93%   | 94%      |
| 02:00-02:59 | 91%   | 86%   | 94%   | 89%   | 97%   | 92%   | 96%   | 93%      |
| 03:00-03:59 | 93%   | 96%   | 83%   | 86%   | 96%   | 85%   | 94%   | 91%      |
| 04:00-04:59 | 96%   | 100%  | 93%   | 88%   | 97%   | 97%   | 94%   | 95%      |
| 05:00-05:59 | 88%   | 91%   | 88%   | 100%  | 91%   | 97%   | 82%   | 90%      |
| 06:00-06:59 | 93%   | 100%  | 94%   | 97%   | 97%   | 84%   | 74%   | 92%      |
| 07:00-07:59 | 98%   | 92%   | 93%   | 94%   | 91%   | 98%   | 96%   | 95%      |
| 08:00-08:59 | 91%   | 96%   | 93%   | 98%   | 94%   | 95%   | 91%   | 94%      |
| 09:00-09:59 | 93%   | 95%   | 97%   | 97%   | 90%   | 94%   | 96%   | 95%      |
| 10:00-10:59 | 92%   | 97%   | 93%   | 95%   | 97%   | 93%   | 91%   | 94%      |
| 11:00-11:59 | 97%   | 96%   | 91%   | 91%   | 93%   | 91%   | 90%   | 93%      |
| 12:00-12:59 | 93%   | 92%   | 96%   | 91%   | 95%   | 90%   | 86%   | 92%      |
| 13:00-13:59 | 93%   | 94%   | 90%   | 88%   | 92%   | 85%   | 92%   | 91%      |
| 14:00-14:59 | 93%   | 91%   | 96%   | 87%   | 97%   | 90%   | 93%   | 92%      |
| 15:00-15:59 | 93%   | 94%   | 89%   | 92%   | 94%   | 90%   | 90%   | 92%      |
| 16:00-16:59 | 91%   | 97%   | 91%   | 96%   | 93%   | 89%   | 91%   | 93%      |
| 17:00-17:59 | 95%   | 98%   | 95%   | 96%   | 94%   | 88%   | 94%   | 94%      |
| 18:00-18:59 | 93%   | 97%   | 88%   | 92%   | 96%   | 99%   | 97%   | 95%      |
| 19:00-19:59 | 98%   | 94%   | 95%   | 92%   | 88%   | 98%   | 95%   | 94%      |
| 20:00-20:59 | 94%   | 97%   | 95%   | 95%   | 90%   | 94%   | 95%   | 94%      |
| 21:00-21:59 | 97%   | 97%   | 98%   | 95%   | 89%   | 92%   | 99%   | 95%      |
| 22:00-22:59 | 97%   | 91%   | 96%   | 98%   | 92%   | 97%   | 96%   | 95%      |
| 23:00-23:59 | 92%   | 92%   | 94%   | 93%   | 90%   | 99%   | 92%   | 93%      |
| Daily %     | 94%   | 95%   | 93%   | 93%   | 93%   | 92%   | 92%   | 93%      |

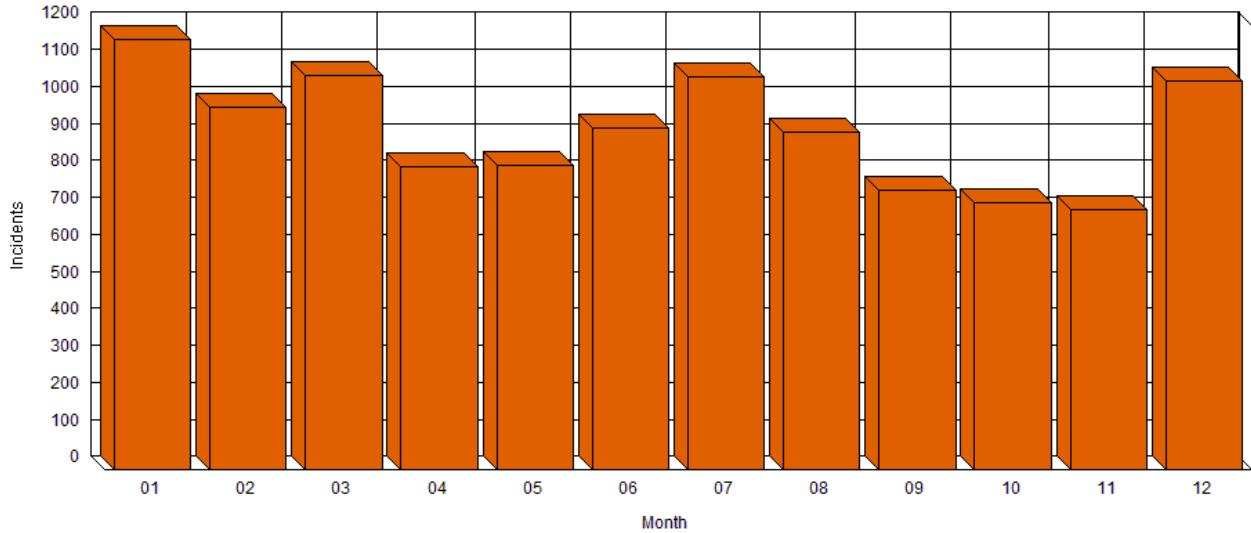
**3.1 TAHOE BASIN – DEMAND AND PERFORMANCE**

Here is the same breakdown for the Tahoe Basin:

|            | BF  | EMS   | WF  | OF  | OTH   | Total  |
|------------|-----|-------|-----|-----|-------|--------|
| FY 06/07   | 41  | 2,331 | 82  | 48  | 990   | 3,492  |
| FY 07/08   | 69  | 2,802 | 35  | 44  | 1,250 | 4,200  |
| FY 08/09   | 40  | 2,281 | 20  | 26  | 935   | 3,302  |
| Total      | 150 | 7,414 | 137 | 118 | 3,175 | 10,994 |
| Percentage | 2%  | 67%   | 1%  | 1%  | 29%   | 100%   |

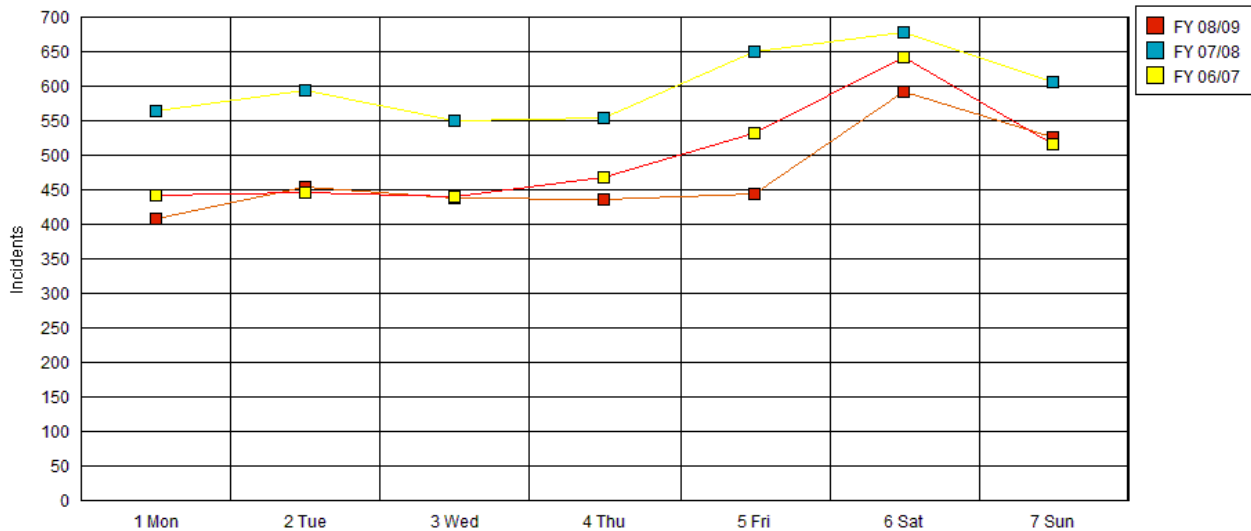
While Tahoe Basin shows a general increase in activity in the summer months, winter recreational activities may be providing an activity boost December through March.

Number of Incidents by Month

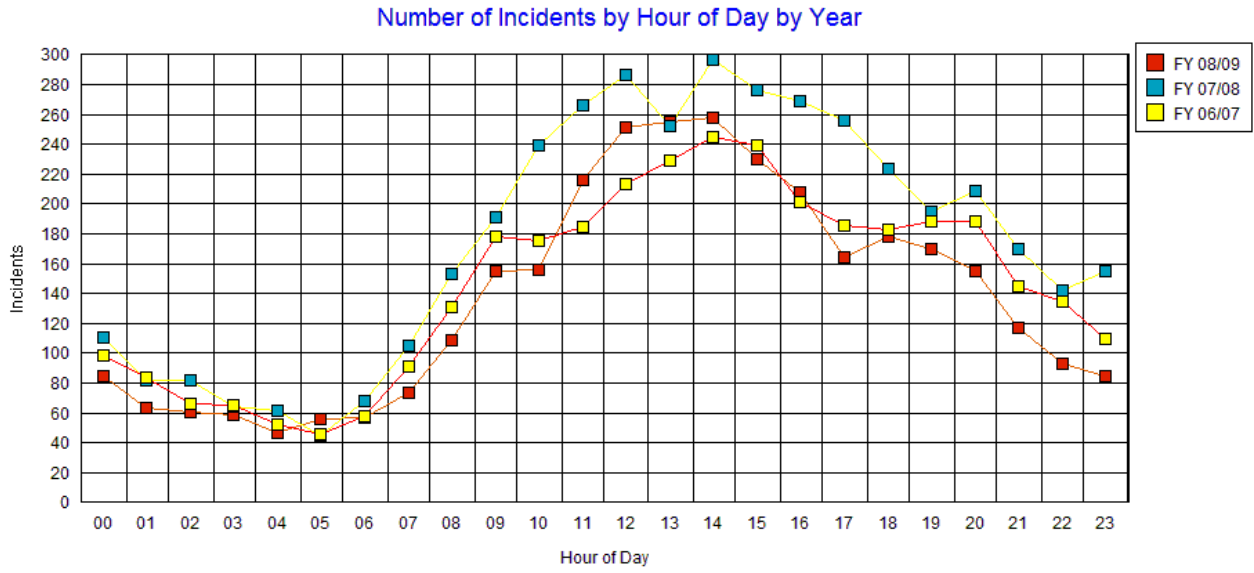


Incidents tend to increase as the weekend starts.

Number of Incidents by Day of Week by Year



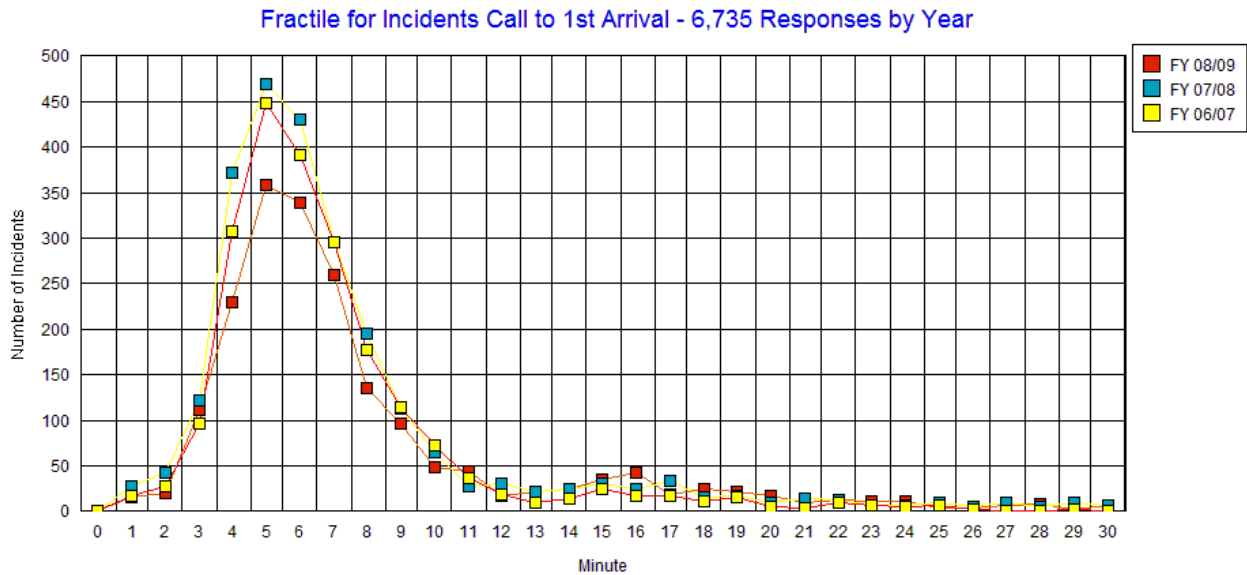
Here is the annual trend by hour of day.



### 3.1.1 Temporal Activity for Tahoe Basin

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Total |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 00:00-00:59 | 23    | 25    | 28    | 28    | 21    | 50    | 39    | 214   |
| 01:00-01:59 | 21    | 21    | 21    | 16    | 20    | 45    | 26    | 170   |
| 02:00-02:59 | 17    | 16    | 26    | 20    | 20    | 28    | 39    | 166   |
| 03:00-03:59 | 15    | 19    | 17    | 17    | 23    | 20    | 32    | 143   |
| 04:00-04:59 | 11    | 9     | 14    | 16    | 18    | 28    | 23    | 119   |
| 05:00-05:59 | 17    | 14    | 8     | 11    | 16    | 18    | 28    | 112   |
| 06:00-06:59 | 19    | 15    | 17    | 20    | 13    | 31    | 9     | 124   |
| 07:00-07:59 | 19    | 25    | 21    | 27    | 28    | 38    | 26    | 184   |
| 08:00-08:59 | 36    | 37    | 28    | 51    | 34    | 33    | 40    | 259   |
| 09:00-09:59 | 41    | 40    | 49    | 41    | 47    | 47    | 48    | 313   |
| 10:00-10:59 | 57    | 60    | 62    | 64    | 71    | 39    | 42    | 395   |
| 11:00-11:59 | 71    | 63    | 56    | 80    | 58    | 75    | 74    | 477   |
| 12:00-12:59 | 92    | 69    | 68    | 57    | 74    | 96    | 92    | 548   |
| 13:00-13:59 | 75    | 67    | 80    | 62    | 67    | 98    | 65    | 514   |
| 14:00-14:59 | 63    | 58    | 70    | 76    | 66    | 127   | 83    | 543   |
| 15:00-15:59 | 65    | 64    | 59    | 79    | 80    | 113   | 69    | 529   |
| 16:00-16:59 | 51    | 62    | 49    | 50    | 58    | 91    | 77    | 438   |
| 17:00-17:59 | 53    | 62    | 44    | 40    | 54    | 77    | 65    | 395   |
| 18:00-18:59 | 36    | 55    | 49    | 45    | 73    | 61    | 50    | 369   |
| 19:00-19:59 | 52    | 52    | 55    | 42    | 58    | 58    | 68    | 385   |
| 20:00-20:59 | 50    | 51    | 38    | 52    | 69    | 56    | 53    | 369   |
| 21:00-21:59 | 41    | 28    | 27    | 34    | 54    | 40    | 50    | 274   |
| 22:00-22:59 | 29    | 29    | 38    | 26    | 44    | 38    | 38    | 242   |
| 23:00-23:59 | 26    | 32    | 34    | 36    | 44    | 52    | 29    | 253   |
| Total       | 980   | 973   | 958   | 990   | 1,110 | 1,359 | 1,165 | 7,535 |

### 3.1.2 Overall Fractile Performance for Tahoe Basin



The key area to watch is the drop-off of the number of minutes after 7 minutes. The faster the drop-off the fewer the incidents experiencing delayed first apparatus arrival. Here we see a fairly normal drop-off until 15 – 20 minutes where longer response times indicate few responses to a few remote locations.

#### Fractile Performance by Call Type for Tahoe Basin

| INC Type | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|----------|-----------|--------------|--------------|------------|------------|
| EMS      | 1,665     | 00:14:45     | 00:08:45     | 85.52%     | 90.39%     |
| BF       | 36        | 00:16:45     | 00:09:00     | 83.33%     | 88.88%     |
| OF       | 23        | 00:09:15     | 00:09:00     | 100.00%    | 100.00%    |
| WF       | 17        | 00:24:45     | 00:19:00     | 58.82%     | 70.58%     |

### 3.1.3 Temporal Performance for Tahoe Basin

Call to 1st Arrival @ 11 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 100%  | 100%  | 83%   | 60%   | 100%  | 100%  | 100%  | 93%      |
| 01:00-01:59 | 100%  | 67%   | 100%  | 100%  | 100%  | 100%  | 86%   | 91%      |
| 02:00-02:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 03:00-03:59 | 100%  | 100%  | 75%   | 100%  | 100%  | 100%  | 88%   | 94%      |
| 04:00-04:59 | 100%  | 100%  | 100%  | 100%  | 75%   | 100%  | 100%  | 97%      |
| 05:00-05:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 06:00-06:59 | 80%   | 100%  | 100%  | 100%  |       | 100%  | 100%  | 96%      |
| 07:00-07:59 | 100%  | 100%  | 100%  | 100%  | 83%   | 100%  | 89%   | 95%      |
| 08:00-08:59 | 100%  | 83%   | 100%  | 100%  | 100%  | 100%  | 100%  | 98%      |
| 09:00-09:59 | 92%   | 83%   | 75%   | 71%   | 100%  | 82%   | 100%  | 87%      |
| 10:00-10:59 | 100%  | 82%   | 80%   | 88%   | 100%  | 82%   | 86%   | 87%      |
| 11:00-11:59 | 100%  | 89%   | 74%   | 64%   | 61%   | 74%   | 63%   | 74%      |
| 12:00-12:59 | 67%   | 55%   | 78%   | 80%   | 88%   | 71%   | 71%   | 73%      |
| 13:00-13:59 | 68%   | 76%   | 70%   | 64%   | 76%   | 42%   | 73%   | 66%      |
| 14:00-14:59 | 95%   | 78%   | 81%   | 69%   | 100%  | 61%   | 79%   | 78%      |
| 15:00-15:59 | 93%   | 73%   | 73%   | 92%   | 85%   | 73%   | 67%   | 78%      |
| 16:00-16:59 | 90%   | 86%   | 50%   | 86%   | 80%   | 73%   | 81%   | 78%      |
| 17:00-17:59 | 92%   | 93%   | 100%  | 86%   | 100%  | 74%   | 88%   | 88%      |
| 18:00-18:59 | 91%   | 100%  | 92%   | 100%  | 93%   | 92%   | 91%   | 94%      |
| 19:00-19:59 | 100%  | 100%  | 100%  | 100%  | 92%   | 100%  | 95%   | 98%      |
| 20:00-20:59 | 92%   | 100%  | 88%   | 100%  | 92%   | 100%  | 100%  | 96%      |
| 21:00-21:59 | 100%  | 100%  | 100%  | 80%   | 91%   | 92%   | 100%  | 95%      |
| 22:00-22:59 | 100%  | 71%   | 80%   | 100%  | 100%  | 100%  | 100%  | 93%      |
| 23:00-23:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| Daily %     | 90%   | 85%   | 82%   | 86%   | 89%   | 81%   | 86%   | 85%      |

Here is the same record set at 15 minutes.

Call to 1st Arrival @ 15 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 100%  | 100%  | 83%   | 60%   | 100%  | 100%  | 100%  | 93%      |
| 01:00-01:59 | 100%  | 83%   | 100%  | 100%  | 100%  | 100%  | 86%   | 94%      |
| 02:00-02:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 03:00-03:59 | 100%  | 100%  | 75%   | 100%  | 100%  | 100%  | 100%  | 97%      |
| 04:00-04:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 05:00-05:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 06:00-06:59 | 100%  | 100%  | 100%  | 100%  |       | 100%  | 100%  | 100%     |
| 07:00-07:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| 08:00-08:59 | 100%  | 83%   | 100%  | 100%  | 100%  | 100%  | 100%  | 98%      |
| 09:00-09:59 | 100%  | 83%   | 88%   | 71%   | 100%  | 88%   | 100%  | 91%      |
| 10:00-10:59 | 100%  | 91%   | 85%   | 94%   | 100%  | 91%   | 86%   | 92%      |
| 11:00-11:59 | 100%  | 100%  | 79%   | 71%   | 78%   | 87%   | 75%   | 84%      |
| 12:00-12:59 | 83%   | 75%   | 96%   | 92%   | 94%   | 88%   | 71%   | 85%      |
| 13:00-13:59 | 84%   | 88%   | 74%   | 64%   | 82%   | 67%   | 73%   | 76%      |
| 14:00-14:59 | 95%   | 83%   | 88%   | 69%   | 100%  | 71%   | 95%   | 84%      |
| 15:00-15:59 | 93%   | 87%   | 82%   | 100%  | 90%   | 85%   | 76%   | 87%      |
| 16:00-16:59 | 90%   | 86%   | 67%   | 93%   | 87%   | 80%   | 86%   | 84%      |
| 17:00-17:59 | 92%   | 93%   | 100%  | 86%   | 100%  | 74%   | 88%   | 88%      |
| 18:00-18:59 | 91%   | 100%  | 92%   | 100%  | 93%   | 92%   | 91%   | 94%      |
| 19:00-19:59 | 100%  | 100%  | 100%  | 100%  | 92%   | 100%  | 95%   | 98%      |
| 20:00-20:59 | 92%   | 100%  | 100%  | 100%  | 92%   | 100%  | 100%  | 97%      |
| 21:00-21:59 | 100%  | 100%  | 100%  | 100%  | 91%   | 92%   | 100%  | 97%      |
| 22:00-22:59 | 100%  | 71%   | 100%  | 100%  | 100%  | 100%  | 100%  | 95%      |
| 23:00-23:59 | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%     |
| Daily %     | 94%   | 91%   | 88%   | 89%   | 93%   | 88%   | 90%   | 90%      |

Tahoe Basin performance is fairly consistent. Most systems would experience a greater performance shift by hour of day with poorer performance during early morning hours.

By comparing the temporal activity chart with this temporal performance chart it appears the increased activity occurring during daytime hours may be a factor dragging-down performance. This may explain the better performance observed in early evening hours.

#### 4.1 MEEKS BAY AND FALLEN LEAF FIRE DEPARTMENTS

From 2006 through 2008 the Fallen Leaf Fire Department responded to an average of 32 incidents per year. Peak activity is May through September. Average arrival time for first Fallen Leaf responder is 4:48 from time of dispatch. Ambulance response times from dispatch to arrival average 18:57.

Meeks Bay responded to 201 incidents in 2006, 215 in 2007 and 213 incidents in 2008. Roughly 60 percent of incidents are EMS and 20 percent are fire. The majority of dispatch-to-arrival times are less than 10 minutes.

Approximate Percentage by Incident Type:

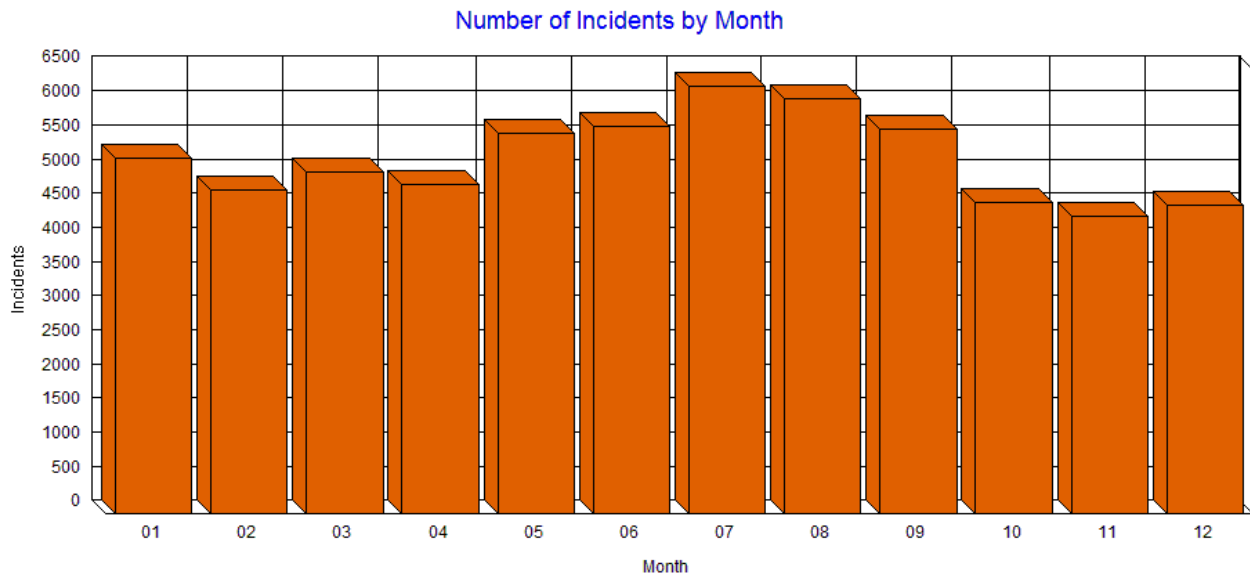
| Incident Type | BF     | WF     | OF  | EMS | OTH |
|---------------|--------|--------|-----|-----|-----|
| Fallen Leaf   | 3%     | 25%    | 24% | 37% | 11% |
| Meeks Bay     | 1 – 2% | 1 – 2% | 3%  | 79% | 15% |

### 5.1 WEST SLOPE – DEMAND AND PERFORMANCE

Using the additional year for trend analysis, here are the totals for West Slope:

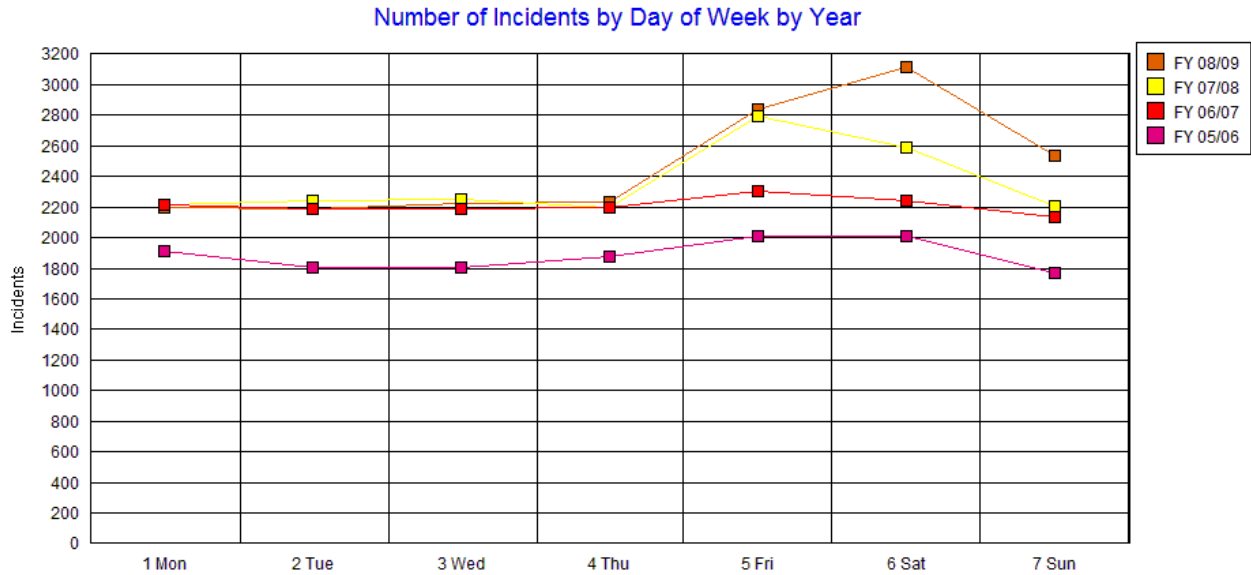
|            | BF  | EMS    | WF    | OF    | OTH    | Total  |
|------------|-----|--------|-------|-------|--------|--------|
| FY 05/06   | 204 | 9,710  | 286   | 625   | 2,367  | 13,192 |
| FY 06/07   | 171 | 11,589 | 273   | 502   | 2,943  | 15,478 |
| FY 07/08   | 173 | 11,481 | 352   | 480   | 4,015  | 16,501 |
| FY 08/09   | 157 | 11,344 | 279   | 380   | 5,178  | 17,338 |
| Total      | 705 | 44,124 | 1,190 | 1,987 | 14,503 | 62,509 |
| Percentage | 1%  | 71%    | 2%    | 3%    | 23%    | 100%   |

In the West Slope, incident activity tends to peak in the summer months.

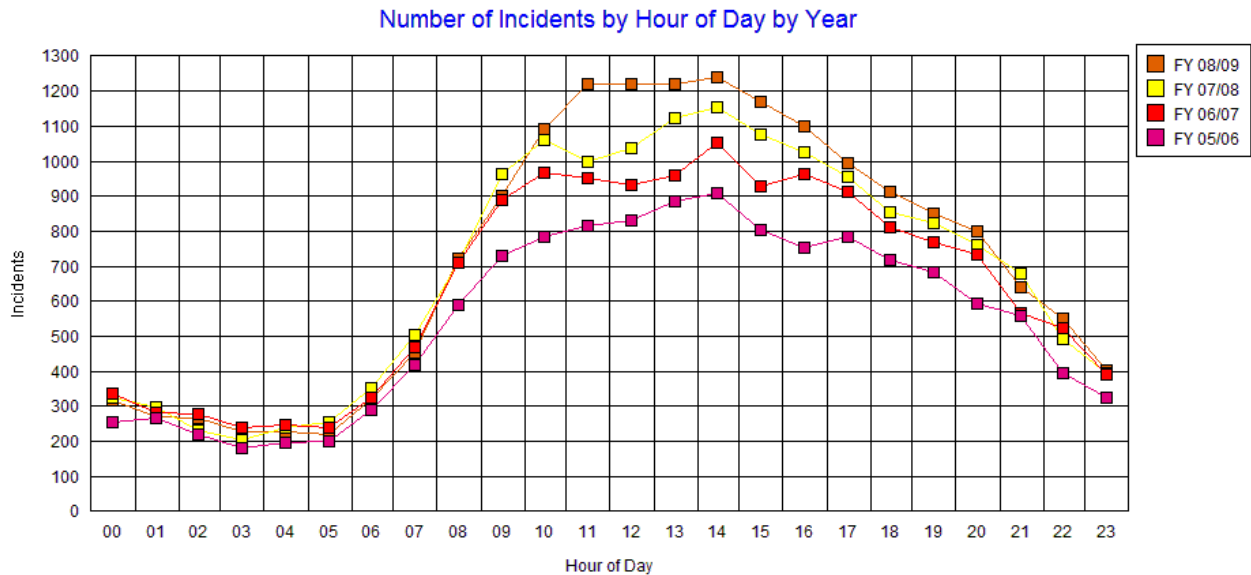




Like Tahoe Basic incident activity tends to peak early weekend.



While activity has remained steady in the early morning hours, late morning, afternoon and evening activity is increasing with each passing year.

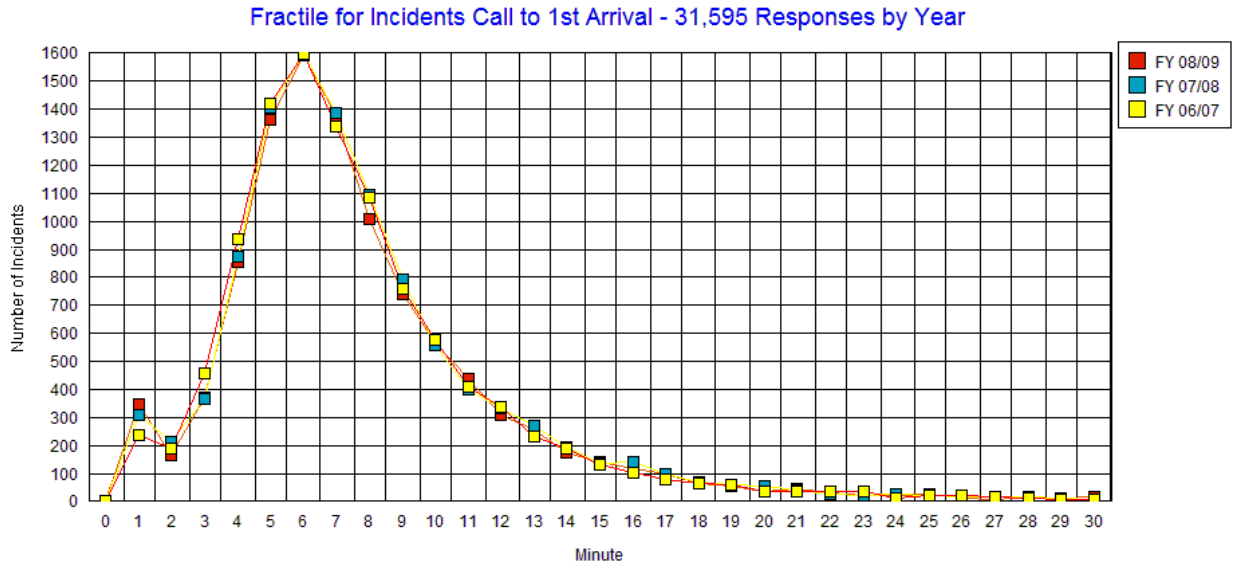


### 5.1.1 Temporal Activity for West Slope

Again, activity is greatest during afternoon hours at the end of the week.

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Total  |
|-------------|-------|-------|-------|-------|-------|-------|-------|--------|
| 00:00-00:59 | 116   | 108   | 92    | 99    | 128   | 158   | 136   | 837    |
| 01:00-01:59 | 103   | 94    | 105   | 92    | 89    | 122   | 125   | 730    |
| 02:00-02:59 | 86    | 85    | 97    | 86    | 87    | 112   | 126   | 679    |
| 03:00-03:59 | 62    | 81    | 89    | 85    | 70    | 98    | 96    | 581    |
| 04:00-04:59 | 66    | 91    | 84    | 83    | 97    | 99    | 83    | 603    |
| 05:00-05:59 | 89    | 85    | 86    | 78    | 90    | 82    | 98    | 608    |
| 06:00-06:59 | 147   | 118   | 126   | 102   | 125   | 111   | 94    | 823    |
| 07:00-07:59 | 186   | 156   | 181   | 171   | 169   | 132   | 136   | 1,131  |
| 08:00-08:59 | 277   | 254   | 259   | 227   | 214   | 200   | 179   | 1,610  |
| 09:00-09:59 | 311   | 265   | 295   | 300   | 277   | 260   | 223   | 1,931  |
| 10:00-10:59 | 332   | 284   | 296   | 311   | 334   | 304   | 268   | 2,129  |
| 11:00-11:59 | 330   | 292   | 302   | 291   | 354   | 286   | 312   | 2,167  |
| 12:00-12:59 | 320   | 325   | 308   | 290   | 345   | 337   | 309   | 2,234  |
| 13:00-13:59 | 303   | 329   | 343   | 327   | 333   | 325   | 295   | 2,255  |
| 14:00-14:59 | 346   | 374   | 346   | 326   | 363   | 344   | 307   | 2,406  |
| 15:00-15:59 | 308   | 322   | 345   | 304   | 323   | 312   | 283   | 2,197  |
| 16:00-16:59 | 287   | 318   | 285   | 314   | 327   | 301   | 289   | 2,121  |
| 17:00-17:59 | 253   | 292   | 312   | 303   | 322   | 277   | 280   | 2,039  |
| 18:00-18:59 | 277   | 259   | 256   | 265   | 282   | 304   | 286   | 1,929  |
| 19:00-19:59 | 260   | 253   | 222   | 246   | 289   | 264   | 254   | 1,788  |
| 20:00-20:59 | 214   | 230   | 215   | 237   | 263   | 295   | 214   | 1,668  |
| 21:00-21:59 | 187   | 222   | 190   | 196   | 235   | 198   | 203   | 1,431  |
| 22:00-22:59 | 167   | 156   | 182   | 160   | 216   | 218   | 171   | 1,270  |
| 23:00-23:59 | 115   | 134   | 153   | 124   | 157   | 174   | 134   | 991    |
| Total       | 5,142 | 5,127 | 5,169 | 5,017 | 5,489 | 5,313 | 4,901 | 36,158 |

## 5.1.2 Fractile Performance for West Slope



West Slope performance tapers down very slowly to about 20 minutes for call to arrival.

### *Fractile Performance by Call Type for West Slope*

| INC Type | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|----------|-----------|--------------|--------------|------------|------------|
| EMS      | 9,635     | 00:12:15     | 00:09:30     | 86.14%     | 94.29%     |
| OF       | 325       | 00:17:45     | 00:12:00     | 74.46%     | 86.46%     |
| WF       | 255       | 00:23:45     | 00:17:15     | 58.03%     | 74.90%     |
| BF       | 154       | 00:13:00     | 00:10:45     | 83.76%     | 92.20%     |

### 5.1.3 Temporal Performance for West Slope

Call to 1st Arrival @ 11 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 77%   | 64%   | 83%   | 63%   | 90%   | 65%   | 76%   | 75%      |
| 01:00-01:59 | 83%   | 76%   | 75%   | 75%   | 78%   | 85%   | 75%   | 78%      |
| 02:00-02:59 | 56%   | 71%   | 87%   | 76%   | 88%   | 66%   | 82%   | 76%      |
| 03:00-03:59 | 79%   | 79%   | 73%   | 63%   | 82%   | 78%   | 89%   | 78%      |
| 04:00-04:59 | 90%   | 89%   | 80%   | 67%   | 93%   | 90%   | 83%   | 85%      |
| 05:00-05:59 | 74%   | 83%   | 67%   | 76%   | 84%   | 77%   | 71%   | 76%      |
| 06:00-06:59 | 87%   | 91%   | 87%   | 85%   | 88%   | 76%   | 64%   | 83%      |
| 07:00-07:59 | 88%   | 81%   | 84%   | 83%   | 77%   | 80%   | 89%   | 83%      |
| 08:00-08:59 | 81%   | 88%   | 84%   | 91%   | 84%   | 79%   | 78%   | 84%      |
| 09:00-09:59 | 83%   | 85%   | 88%   | 92%   | 81%   | 91%   | 86%   | 87%      |
| 10:00-10:59 | 81%   | 90%   | 91%   | 87%   | 91%   | 86%   | 81%   | 87%      |
| 11:00-11:59 | 89%   | 84%   | 85%   | 89%   | 86%   | 81%   | 87%   | 86%      |
| 12:00-12:59 | 92%   | 84%   | 88%   | 80%   | 81%   | 79%   | 85%   | 84%      |
| 13:00-13:59 | 90%   | 90%   | 88%   | 88%   | 88%   | 83%   | 93%   | 88%      |
| 14:00-14:59 | 87%   | 87%   | 88%   | 82%   | 89%   | 91%   | 87%   | 87%      |
| 15:00-15:59 | 89%   | 89%   | 84%   | 84%   | 90%   | 84%   | 86%   | 86%      |
| 16:00-16:59 | 87%   | 95%   | 90%   | 91%   | 89%   | 78%   | 87%   | 88%      |
| 17:00-17:59 | 92%   | 90%   | 90%   | 91%   | 86%   | 86%   | 89%   | 89%      |
| 18:00-18:59 | 79%   | 90%   | 80%   | 82%   | 88%   | 89%   | 89%   | 86%      |
| 19:00-19:59 | 85%   | 82%   | 78%   | 79%   | 81%   | 88%   | 87%   | 83%      |
| 20:00-20:59 | 86%   | 91%   | 90%   | 83%   | 80%   | 93%   | 91%   | 87%      |
| 21:00-21:59 | 86%   | 84%   | 90%   | 84%   | 82%   | 87%   | 86%   | 85%      |
| 22:00-22:59 | 89%   | 82%   | 86%   | 84%   | 84%   | 88%   | 89%   | 86%      |
| 23:00-23:59 | 71%   | 83%   | 83%   | 86%   | 73%   | 88%   | 72%   | 80%      |
| Daily %     | 85%   | 86%   | 86%   | 84%   | 85%   | 84%   | 85%   | 85%      |

Here is the same dataset at 15 minutes.

Call to 1st Arrival @ 15 minutes

|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Hourly % |
|-------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 00:00-00:59 | 82%   | 84%   | 90%   | 73%   | 100%  | 80%   | 91%   | 86%      |
| 01:00-01:59 | 96%   | 88%   | 93%   | 92%   | 96%   | 94%   | 94%   | 93%      |
| 02:00-02:59 | 89%   | 86%   | 94%   | 88%   | 96%   | 91%   | 95%   | 91%      |
| 03:00-03:59 | 92%   | 96%   | 85%   | 84%   | 95%   | 81%   | 93%   | 89%      |
| 04:00-04:59 | 95%   | 100%  | 92%   | 86%   | 97%   | 97%   | 92%   | 94%      |
| 05:00-05:59 | 85%   | 90%   | 87%   | 100%  | 89%   | 97%   | 75%   | 88%      |
| 06:00-06:59 | 92%   | 100%  | 93%   | 96%   | 97%   | 82%   | 72%   | 91%      |
| 07:00-07:59 | 98%   | 91%   | 93%   | 94%   | 89%   | 97%   | 94%   | 94%      |
| 08:00-08:59 | 91%   | 97%   | 93%   | 97%   | 93%   | 94%   | 89%   | 94%      |
| 09:00-09:59 | 92%   | 97%   | 98%   | 99%   | 89%   | 95%   | 95%   | 95%      |
| 10:00-10:59 | 91%   | 97%   | 95%   | 96%   | 96%   | 94%   | 91%   | 94%      |
| 11:00-11:59 | 97%   | 95%   | 94%   | 95%   | 95%   | 91%   | 92%   | 94%      |
| 12:00-12:59 | 95%   | 96%   | 96%   | 90%   | 95%   | 90%   | 90%   | 93%      |
| 13:00-13:59 | 96%   | 95%   | 95%   | 92%   | 94%   | 89%   | 96%   | 94%      |
| 14:00-14:59 | 93%   | 93%   | 97%   | 90%   | 96%   | 96%   | 93%   | 94%      |
| 15:00-15:59 | 93%   | 96%   | 90%   | 91%   | 96%   | 92%   | 93%   | 93%      |
| 16:00-16:59 | 91%   | 99%   | 95%   | 97%   | 94%   | 90%   | 92%   | 94%      |
| 17:00-17:59 | 96%   | 99%   | 95%   | 97%   | 94%   | 91%   | 95%   | 95%      |
| 18:00-18:59 | 93%   | 96%   | 87%   | 91%   | 96%   | 100%  | 98%   | 95%      |
| 19:00-19:59 | 97%   | 92%   | 94%   | 92%   | 88%   | 97%   | 96%   | 94%      |
| 20:00-20:59 | 94%   | 97%   | 94%   | 95%   | 89%   | 94%   | 94%   | 94%      |
| 21:00-21:59 | 97%   | 96%   | 98%   | 94%   | 89%   | 92%   | 98%   | 95%      |
| 22:00-22:59 | 96%   | 95%   | 95%   | 98%   | 91%   | 97%   | 96%   | 95%      |
| 23:00-23:59 | 90%   | 90%   | 93%   | 92%   | 89%   | 98%   | 91%   | 92%      |
| Daily %     | 94%   | 95%   | 94%   | 93%   | 93%   | 93%   | 93%   | 94%      |

## 6.1 SUMMARY OF DEMAND AND PERFORMANCE BY COMMUNITY

CAL Fire CAD data included a community reference with each apparatus response. Similarly, NFIRS 5 data included a city of incident. Here is a demand and performance summary calculated by the values of those two fields for fire and EMS incidents of 60 minutes or less during the three-year dataset.

| Community       | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-----------------|-----------|--------------|--------------|------------|------------|
| S Lake Tahoe    | 6,574     | 00:13:00     | 00:08:15     | 87.89%     | 91.81%     |
| Placerville     | 5,585     | 00:10:15     | 00:08:30     | 91.69%     | 96.49%     |
| El Dorado Hills | 4,263     | 00:09:30     | 00:08:15     | 95.21%     | 98.87%     |
| Cameron Park    | 3,644     | 00:07:45     | 00:06:45     | 98.24%     | 99.39%     |
| Diamond Springs | 3,301     | 00:08:30     | 00:07:15     | 96.72%     | 99.21%     |
| Pollock Pines   | 2,136     | 00:11:15     | 00:09:00     | 89.18%     | 96.48%     |
| Shingle Springs | 1,720     | 00:11:00     | 00:09:00     | 90.17%     | 97.55%     |
| El Dorado       | 1,145     | 00:10:00     | 00:08:15     | 93.18%     | 97.81%     |
| Georgetown      | 1,079     | 00:18:15     | 00:13:30     | 70.34%     | 83.31%     |
| Camino          | 1,066     | 00:12:45     | 00:10:15     | 83.86%     | 94.09%     |
| Rescue          | 862       | 00:12:30     | 00:10:30     | 82.36%     | 95.59%     |
| Garden Valley   | 840       | 00:11:15     | 00:09:45     | 88.69%     | 95.59%     |
| Cool            | 638       | 00:15:45     | 00:13:15     | 64.10%     | 86.36%     |
| Oak Hill        | 622       | 00:14:30     | 00:12:00     | 74.59%     | 90.67%     |
| Pleasant Valley | 548       | 00:16:30     | 00:13:30     | 62.77%     | 86.49%     |
| Sierra Springs  | 443       | 00:17:45     | 00:16:00     | 26.86%     | 71.78%     |
| Coloma          | 392       | 00:15:00     | 00:12:15     | 73.21%     | 89.79%     |
| Logtown         | 350       | 00:19:45     | 00:17:00     | 41.42%     | 71.71%     |
| Gold Hill       | 332       | 00:14:30     | 00:13:30     | 51.50%     | 93.07%     |
| Grizzly Flats   | 283       | 00:29:15     | 00:25:15     | 19.78%     | 38.51%     |
| Pacific Ranch   | 264       | 00:40:15     | 00:30:45     | 39.01%     | 51.51%     |
| Sleepy Hollow   | 241       | 00:12:45     | 00:11:15     | 79.25%     | 96.26%     |
| Pilot Hill      | 240       | 00:21:30     | 00:16:30     | 47.91%     | 73.33%     |
| Mount Aukum     | 217       | 00:13:45     | 00:11:30     | 76.49%     | 93.08%     |
| Fair Play       | 202       | 00:17:00     | 00:14:45     | 50.00%     | 80.69%     |
| Mosquito        | 197       | 00:14:00     | 00:11:45     | 75.12%     | 92.38%     |
| Kelsey          | 183       | 00:18:00     | 00:15:30     | 49.18%     | 75.40%     |
| Somerset        | 147       | 00:19:15     | 00:16:45     | 41.49%     | 65.98%     |
| Kyburz          | 141       | 00:29:00     | 00:25:45     | 14.18%     | 24.82%     |

| Community     | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|---------------|-----------|--------------|--------------|------------|------------|
| Greenwood     | 132       | 00:15:45     | 00:12:45     | 59.84%     | 87.87%     |
| Latrobe       | 129       | 00:15:30     | 00:12:45     | 68.99%     | 85.27%     |
| Kirkwood      | 104       | 00:50:45     | 00:44:30     | 0.96%      | 1.92%      |
| Strawberry    | 79        | 00:38:30     | 00:31:45     | 8.86%      | 17.72%     |
| Outingdale    | 61        | 00:13:30     | 00:11:45     | 65.57%     | 91.80%     |
| Pacific House | 56        | 00:30:30     | 00:16:00     | 32.14%     | 71.42%     |
| Omo Ranch     | 41        | 00:26:30     | 00:24:45     | 9.75%      | 14.63%     |
| Twin Bridges  | 20        | 00:21:30     | 00:19:45     | 15.00%     | 55.00%     |
| Meyers        | 12        | 00:09:30     | 00:09:30     | 100.00%    | 100.00%    |
| Stateline     | 10        | 00:12:30     | 00:12:00     | 70.00%     | 100.00%    |
| Amador Ranch  | 8         | 00:38:30     | 00:36:45     | 25.00%     | 25.00%     |
| Desolation    | 6         | 00:44:45     | 00:25:45     | 16.66%     | 16.66%     |
| Hope Valley   | 5         | 00:29:30     | 00:24:45     | 0.00%      | 20.00%     |

Here is the same data ordered by community name.

| Community       | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-----------------|-----------|--------------|--------------|------------|------------|
| Amador Ranch    | 8         | 00:38:30     | 00:36:45     | 25.00%     | 25.00%     |
| Cameron Park    | 3,644     | 00:07:45     | 00:06:45     | 98.24%     | 99.39%     |
| Camino          | 1,066     | 00:12:45     | 00:10:15     | 83.86%     | 94.09%     |
| Coloma          | 392       | 00:15:00     | 00:12:15     | 73.21%     | 89.79%     |
| Cool            | 638       | 00:15:45     | 00:13:15     | 64.10%     | 86.36%     |
| Desolation      | 6         | 00:44:45     | 00:25:45     | 16.66%     | 16.66%     |
| Diamond Springs | 3,301     | 00:08:30     | 00:07:15     | 96.72%     | 99.21%     |
| El Dorado       | 1,145     | 00:10:00     | 00:08:15     | 93.18%     | 97.81%     |
| El Dorado Hills | 4,263     | 00:09:30     | 00:08:15     | 95.21%     | 98.87%     |
| Fair Play       | 202       | 00:17:00     | 00:14:45     | 50.00%     | 80.69%     |
| Garden Valley   | 840       | 00:11:15     | 00:09:45     | 88.69%     | 95.59%     |
| Georgetown      | 1,079     | 00:18:15     | 00:13:30     | 70.34%     | 83.31%     |
| Gold Hill       | 332       | 00:14:30     | 00:13:30     | 51.50%     | 93.07%     |
| Greenwood       | 132       | 00:15:45     | 00:12:45     | 59.84%     | 87.87%     |
| Grizzly Flats   | 283       | 00:29:15     | 00:25:15     | 19.78%     | 38.51%     |
| Hope Valley     | 5         | 00:29:30     | 00:24:45     | 0.00%      | 20.00%     |
| Kelsey          | 183       | 00:18:00     | 00:15:30     | 49.18%     | 75.40%     |
| Kirkwood        | 104       | 00:50:45     | 00:44:30     | 0.96%      | 1.92%      |
| Kyburz          | 141       | 00:29:00     | 00:25:45     | 14.18%     | 24.82%     |
| Latrobe         | 129       | 00:15:30     | 00:12:45     | 68.99%     | 85.27%     |
| Logtown         | 350       | 00:19:45     | 00:17:00     | 41.42%     | 71.71%     |
| Meyers          | 12        | 00:09:30     | 00:09:30     | 100.00%    | 100.00%    |
| Mosquito        | 197       | 00:14:00     | 00:11:45     | 75.12%     | 92.38%     |
| Mount Aukum     | 217       | 00:13:45     | 00:11:30     | 76.49%     | 93.08%     |
| Oak Hill        | 622       | 00:14:30     | 00:12:00     | 74.59%     | 90.67%     |
| Omo Ranch       | 41        | 00:26:30     | 00:24:45     | 9.75%      | 14.63%     |
| Outingdale      | 61        | 00:13:30     | 00:11:45     | 65.57%     | 91.80%     |
| Pacific House   | 56        | 00:30:30     | 00:16:00     | 32.14%     | 71.42%     |
| Pacific Ranch   | 264       | 00:40:15     | 00:30:45     | 39.01%     | 51.51%     |
| Pilot Hill      | 240       | 00:21:30     | 00:16:30     | 47.91%     | 73.33%     |
| Placerville     | 5,585     | 00:10:15     | 00:08:30     | 91.69%     | 96.49%     |
| Pleasant Valley | 548       | 00:16:30     | 00:13:30     | 62.77%     | 86.49%     |



| Community       | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-----------------|-----------|--------------|--------------|------------|------------|
| Pollock Pines   | 2,136     | 00:11:15     | 00:09:00     | 89.18%     | 96.48%     |
| Rescue          | 862       | 00:12:30     | 00:10:30     | 82.36%     | 95.59%     |
| S Lake Tahoe    | 6,574     | 00:13:00     | 00:08:15     | 87.89%     | 91.81%     |
| Shingle Springs | 1,720     | 00:11:00     | 00:09:00     | 90.17%     | 97.55%     |
| Sierra Springs  | 443       | 00:17:45     | 00:16:00     | 26.86%     | 71.78%     |
| Sleepy Hollow   | 241       | 00:12:45     | 00:11:15     | 79.25%     | 96.26%     |
| Somerset        | 147       | 00:19:15     | 00:16:45     | 41.49%     | 65.98%     |
| Stateline       | 10        | 00:12:30     | 00:12:00     | 70.00%     | 100.00%    |
| Strawberry      | 79        | 00:38:30     | 00:31:45     | 8.86%      | 17.72%     |
| Twin Bridges    | 20        | 00:21:30     | 00:19:45     | 15.00%     | 55.00%     |

Here are community stats broken down by incident type.

| Community / Type  | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-------------------|-----------|--------------|--------------|------------|------------|
| Alpine County_EMS | 1         | 00:34:30     | 00:34:30     | 0.00%      | 0.00%      |
| Amador Ranch_EMS  | 3         | 00:20:15     | 00:20:15     | 0.00%      | 0.00%      |
| Amador Ranch_OF   | 2         | 00:00:45     | 00:00:45     | 100.00%    | 100.00%    |
| Amador Ranch_WF   | 3         | 00:38:30     | 00:38:30     | 0.00%      | 0.00%      |
| Cameron Park_BF   | 61        | 00:08:15     | 00:07:45     | 96.72%     | 100.00%    |
| Cameron Park_EMS  | 3,480     | 00:07:45     | 00:06:45     | 98.50%     | 99.48%     |
| Cameron Park_OF   | 82        | 00:08:45     | 00:07:30     | 90.24%     | 96.34%     |
| Cameron Park_WF   | 21        | 00:09:00     | 00:08:45     | 90.47%     | 95.23%     |
| Camino_           | 1         | 00:42:00     | 00:42:00     | 0.00%      | 0.00%      |
| Camino_BF         | 20        | 00:11:45     | 00:10:30     | 80.00%     | 95.00%     |
| Camino_EMS        | 950       | 00:12:15     | 00:10:00     | 85.57%     | 95.36%     |
| Camino_OF         | 66        | 00:22:15     | 00:14:00     | 69.69%     | 81.81%     |
| Camino_WF         | 29        | 00:17:00     | 00:13:00     | 65.51%     | 82.75%     |
| Coloma_BF         | 4         | 00:11:45     | 00:11:45     | 75.00%     | 100.00%    |
| Coloma_EMS        | 358       | 00:15:00     | 00:12:15     | 74.02%     | 90.22%     |
| Coloma_OF         | 15        | 00:15:45     | 00:15:00     | 60.00%     | 80.00%     |
| Coloma_WF         | 15        | 00:16:00     | 00:14:30     | 66.66%     | 86.66%     |
| Cool_BF           | 7         | 00:15:30     | 00:13:45     | 71.42%     | 85.71%     |
| Cool_EMS          | 600       | 00:16:00     | 00:13:15     | 64.00%     | 86.33%     |

| Community / Type     | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|----------------------|-----------|--------------|--------------|------------|------------|
| Cool_OF              | 13        | 00:18:45     | 00:15:15     | 69.23%     | 76.92%     |
| Cool_WF              | 18        | 00:14:45     | 00:13:45     | 61.11%     | 94.44%     |
| Desolation_EMS       | 3         | 00:44:45     | 00:44:45     | 0.00%      | 0.00%      |
| Desolation_WF        | 3         | 00:21:15     | 00:21:15     | 33.33%     | 33.33%     |
| Diamond Springs_BF   | 26        | 00:09:15     | 00:08:15     | 96.15%     | 96.15%     |
| Diamond Springs_EMS  | 3,175     | 00:08:30     | 00:07:15     | 97.07%     | 99.33%     |
| Diamond Springs_OF   | 76        | 00:11:45     | 00:08:45     | 86.84%     | 96.05%     |
| Diamond Springs_WF   | 24        | 00:12:30     | 00:10:45     | 83.33%     | 95.83%     |
| El Dorado County_EMS | 1         | 00:13:45     | 00:13:45     | 0.00%      | 100.00%    |
| El Dorado Hills_BF   | 94        | 00:10:30     | 00:09:00     | 94.68%     | 100.00%    |
| El Dorado Hills_EMS  | 3,945     | 00:09:15     | 00:08:15     | 95.79%     | 99.18%     |
| El Dorado Hills_OF   | 157       | 00:13:45     | 00:10:30     | 82.80%     | 91.71%     |
| El Dorado Hills_WF   | 67        | 00:10:45     | 00:09:45     | 91.04%     | 95.52%     |
| El Dorado_BF         | 14        | 00:09:45     | 00:09:45     | 100.00%    | 100.00%    |
| El Dorado_EMS        | 1,081     | 00:09:45     | 00:08:00     | 93.89%     | 98.24%     |
| El Dorado_OF         | 30        | 00:18:30     | 00:14:15     | 76.66%     | 83.33%     |
| El Dorado_WF         | 20        | 00:12:30     | 00:11:30     | 75.00%     | 95.00%     |
| Fair Play_BF         | 2         | 00:18:30     | 00:18:30     | 0.00%      | 50.00%     |
| Fair Play_EMS        | 183       | 00:16:15     | 00:14:45     | 52.45%     | 83.06%     |
| Fair Play_OF         | 6         | 00:24:30     | 00:19:15     | 33.33%     | 50.00%     |
| Fair Play_WF         | 11        | 00:22:30     | 00:16:30     | 27.27%     | 63.63%     |
| Garden Valley_BF     | 15        | 00:14:15     | 00:12:30     | 46.66%     | 93.33%     |
| Garden Valley_EMS    | 764       | 00:10:45     | 00:09:15     | 91.23%     | 96.59%     |
| Garden Valley_OF     | 31        | 00:20:30     | 00:12:45     | 70.96%     | 87.09%     |
| Garden Valley_WF     | 30        | 00:18:00     | 00:14:00     | 63.33%     | 80.00%     |
| Georgetown_BF        | 11        | 00:22:30     | 00:19:45     | 63.63%     | 63.63%     |
| Georgetown_EMS       | 951       | 00:16:45     | 00:12:45     | 72.45%     | 86.01%     |
| Georgetown_OF        | 67        | 00:23:30     | 00:18:30     | 65.67%     | 73.13%     |
| Georgetown_WF        | 50        | 00:35:45     | 00:27:45     | 38.00%     | 50.00%     |
| Gold Hill_BF         | 6         | 00:17:45     | 00:14:00     | 50.00%     | 83.33%     |
| Gold Hill_EMS        | 311       | 00:14:30     | 00:13:15     | 51.44%     | 93.89%     |
| Gold Hill_OF         | 8         | 00:15:15     | 00:12:45     | 62.50%     | 87.50%     |

| Community / Type  | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-------------------|-----------|--------------|--------------|------------|------------|
| Gold Hill_WF      | 7         | 00:20:45     | 00:18:00     | 42.85%     | 71.42%     |
| Greenwood_BF      | 1         | 00:11:45     | 00:11:45     | 0.00%      | 100.00%    |
| Greenwood_EMS     | 119       | 00:14:45     | 00:12:15     | 64.70%     | 89.91%     |
| Greenwood_OF      | 1         | 00:13:15     | 00:13:15     | 0.00%      | 100.00%    |
| Greenwood_WF      | 11        | 00:17:30     | 00:16:30     | 18.18%     | 63.63%     |
| Grizzly Flats_BF  | 5         | 00:35:45     | 00:30:30     | 20.00%     | 20.00%     |
| Grizzly Flats_EMS | 248       | 00:28:00     | 00:25:00     | 18.95%     | 38.70%     |
| Grizzly Flats_OF  | 19        | 00:39:00     | 00:23:00     | 36.84%     | 42.10%     |
| Grizzly Flats_WF  | 11        | 00:35:45     | 00:31:45     | 9.09%      | 36.36%     |
| Highway 88_EMS    | 3         | 00:28:45     | 00:28:45     | 0.00%      | 0.00%      |
| Hope Valley_EMS   | 5         | 00:29:30     | 00:24:45     | 0.00%      | 20.00%     |
| Kelsey_BF         | 5         | 00:18:00     | 00:14:15     | 60.00%     | 80.00%     |
| Kelsey_EMS        | 161       | 00:16:30     | 00:15:00     | 52.79%     | 80.12%     |
| Kelsey_OF         | 6         | 00:45:15     | 00:25:30     | 16.66%     | 16.66%     |
| Kelsey_WF         | 11        | 00:24:45     | 00:21:00     | 9.09%      | 36.36%     |
| Kirkwood_EMS      | 103       | 00:50:45     | 00:44:30     | 0.97%      | 1.94%      |
| Kirkwood_WF       | 1         | 00:40:15     | 00:40:15     | 0.00%      | 0.00%      |
| Kyburz_BF         | 2         | 00:24:30     | 00:24:30     | 0.00%      | 0.00%      |
| Kyburz_EMS        | 121       | 00:26:45     | 00:25:00     | 15.70%     | 27.27%     |
| Kyburz_OF         | 9         | 00:33:45     | 00:33:45     | 11.11%     | 22.22%     |
| Kyburz_WF         | 9         | 00:38:15     | 00:33:00     | 0.00%      | 0.00%      |
| Latrobe_BF        | 4         | 00:10:00     | 00:10:00     | 100.00%    | 100.00%    |
| Latrobe_EMS       | 112       | 00:15:45     | 00:12:45     | 69.64%     | 84.82%     |
| Latrobe_OF        | 5         | 00:12:45     | 00:12:00     | 40.00%     | 100.00%    |
| Latrobe_WF        | 8         | 00:22:15     | 00:15:15     | 62.50%     | 75.00%     |
| Logtown_BF        | 3         | 00:16:30     | 00:16:30     | 33.33%     | 66.66%     |
| Logtown_EMS       | 327       | 00:19:00     | 00:16:30     | 42.20%     | 73.08%     |
| Logtown_OF        | 6         | 00:22:45     | 00:18:45     | 16.66%     | 66.66%     |
| Logtown_WF        | 14        | 00:37:15     | 00:25:15     | 35.71%     | 42.85%     |
| Meyers_EMS        | 11        | 00:09:30     | 00:09:30     | 100.00%    | 100.00%    |
| Meyers_OF         | 1         | 00:05:00     | 00:05:00     | 100.00%    | 100.00%    |
| Minden_EMS        | 1         | 00:01:45     | 00:01:45     | 100.00%    | 100.00%    |
| Mosquito_BF       | 4         | 00:13:15     | 00:13:15     | 50.00%     | 100.00%    |
| Mosquito_EMS      | 166       | 00:12:30     | 00:11:00     | 79.51%     | 95.78%     |

| Community / Type    | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|---------------------|-----------|--------------|--------------|------------|------------|
| Mosquito_OF         | 13        | 00:17:30     | 00:15:15     | 61.53%     | 76.92%     |
| Mosquito_WF         | 14        | 00:22:00     | 00:19:45     | 42.85%     | 64.28%     |
| Mount Aukum_BF      | 6         | 00:12:00     | 00:11:30     | 66.66%     | 100.00%    |
| Mount Aukum_EMS     | 201       | 00:13:30     | 00:11:15     | 78.10%     | 95.02%     |
| Mount Aukum_OF      | 3         | 00:36:30     | 00:36:30     | 33.33%     | 33.33%     |
| Mount Aukum_WF      | 7         | 00:42:45     | 00:27:45     | 57.14%     | 57.14%     |
| Oak Hill_BF         | 12        | 00:11:15     | 00:11:15     | 75.00%     | 100.00%    |
| Oak Hill_EMS        | 573       | 00:13:45     | 00:11:45     | 76.09%     | 91.79%     |
| Oak Hill_OF         | 22        | 00:26:00     | 00:17:30     | 59.09%     | 77.27%     |
| Oak Hill_WF         | 15        | 00:26:30     | 00:19:45     | 40.00%     | 60.00%     |
| Omo Ranch_EMS       | 27        | 00:27:00     | 00:24:45     | 3.70%      | 11.11%     |
| Omo Ranch_OF        | 8         | 00:31:00     | 00:26:30     | 25.00%     | 25.00%     |
| Omo Ranch_WF        | 6         | 00:21:45     | 00:18:15     | 16.66%     | 16.66%     |
| Outingdale_BF       | 2         | 00:13:30     | 00:13:30     | 50.00%     | 100.00%    |
| Outingdale_EMS      | 56        | 00:13:30     | 00:11:45     | 67.85%     | 92.85%     |
| Outingdale_OF       | 2         | 00:17:30     | 00:17:30     | 0.00%      | 50.00%     |
| Outingdale_WF       | 1         | 00:06:00     | 00:06:00     | 100.00%    | 100.00%    |
| Pacific House_EMS   | 50        | 00:17:00     | 00:15:30     | 32.00%     | 76.00%     |
| Pacific House_OF    | 2         | 00:05:45     | 00:05:45     | 100.00%    | 100.00%    |
| Pacific House_WF    | 4         | 00:46:00     | 00:46:00     | 0.00%      | 0.00%      |
| Pacific Ranch_EMS   | 112       | 00:43:00     | 00:33:15     | 29.46%     | 41.96%     |
| Pacific Ranch_OF    | 52        | 00:40:15     | 00:23:45     | 55.76%     | 63.46%     |
| Pacific Ranch_WF    | 100       | 00:37:00     | 00:28:00     | 41.00%     | 56.00%     |
| Pilot Hill_BF       | 2         | 00:15:30     | 00:15:30     | 50.00%     | 50.00%     |
| Pilot Hill_EMS      | 208       | 00:21:00     | 00:15:45     | 50.00%     | 75.48%     |
| Pilot Hill_OF       | 10        | 00:27:30     | 00:19:15     | 30.00%     | 70.00%     |
| Pilot Hill_WF       | 20        | 00:34:00     | 00:20:45     | 35.00%     | 55.00%     |
| Placerville_        | 2         | 00:05:00     | 00:05:00     | 100.00%    | 100.00%    |
| Placerville_BF      | 95        | 00:09:15     | 00:08:00     | 96.84%     | 97.89%     |
| Placerville_EMS     | 5,172     | 00:10:00     | 00:08:15     | 93.17%     | 97.79%     |
| Placerville_OF      | 199       | 00:39:15     | 00:16:00     | 69.34%     | 78.39%     |
| Placerville_WF      | 117       | 00:32:00     | 00:25:15     | 59.82%     | 68.37%     |
| Pleasant Valley_BF  | 13        | 00:20:00     | 00:16:45     | 30.76%     | 61.53%     |
| Pleasant Valley_EMS | 503       | 00:15:30     | 00:13:15     | 64.41%     | 88.07%     |

| Community / Type    | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|---------------------|-----------|--------------|--------------|------------|------------|
| Pleasant Valley_OF  | 13        | 00:18:30     | 00:17:45     | 30.76%     | 69.23%     |
| Pleasant Valley_WF  | 19        | 00:23:15     | 00:20:15     | 63.15%     | 73.68%     |
| Pollock Pines_BF    | 13        | 00:09:15     | 00:08:45     | 100.00%    | 100.00%    |
| Pollock Pines_EMS   | 2,027     | 00:10:45     | 00:09:00     | 90.28%     | 97.08%     |
| Pollock Pines_OF    | 66        | 00:19:00     | 00:13:15     | 68.18%     | 83.33%     |
| Pollock Pines_WF    | 30        | 00:19:00     | 00:14:15     | 56.66%     | 83.33%     |
| Rescue_BF           | 18        | 00:15:45     | 00:12:15     | 77.77%     | 88.88%     |
| Rescue_EMS          | 762       | 00:12:15     | 00:10:30     | 83.59%     | 96.45%     |
| Rescue_OF           | 46        | 00:16:15     | 00:11:30     | 76.08%     | 84.78%     |
| Rescue_WF           | 36        | 00:14:45     | 00:12:15     | 66.66%     | 94.44%     |
| Round Hill_EMS      | 1         | 00:33:00     | 00:33:00     | 0.00%      | 0.00%      |
| S Lake Tahoe_BF     | 145       | 00:11:45     | 00:08:45     | 88.27%     | 94.48%     |
| S Lake Tahoe_EMS    | 6,205     | 00:13:00     | 00:08:15     | 88.10%     | 91.87%     |
| S Lake Tahoe_OF     | 115       | 00:10:00     | 00:08:00     | 93.91%     | 98.26%     |
| S Lake Tahoe_WF     | 109       | 00:22:00     | 00:15:30     | 68.80%     | 77.98%     |
| Shingle Springs_BF  | 36        | 00:13:15     | 00:11:30     | 72.22%     | 97.22%     |
| Shingle Springs_EMS | 1,578     | 00:10:45     | 00:08:45     | 91.38%     | 98.03%     |
| Shingle Springs_OF  | 62        | 00:15:00     | 00:11:15     | 77.41%     | 90.32%     |
| Shingle Springs_WF  | 44        | 00:15:00     | 00:11:00     | 79.54%     | 90.90%     |
| Sierra Springs_BF   | 3         | 00:23:30     | 00:23:30     | 0.00%      | 33.33%     |
| Sierra Springs_EMS  | 409       | 00:17:15     | 00:15:30     | 27.87%     | 74.81%     |
| Sierra Springs_OF   | 16        | 00:22:15     | 00:20:00     | 6.25%      | 25.00%     |
| Sierra Springs_WF   | 15        | 00:23:45     | 00:21:00     | 26.66%     | 46.66%     |
| Sleepy Hollow_BF    | 2         | 00:08:15     | 00:08:15     | 100.00%    | 100.00%    |
| Sleepy Hollow_EMS   | 216       | 00:13:00     | 00:11:00     | 79.62%     | 95.83%     |
| Sleepy Hollow_OF    | 17        | 00:12:30     | 00:12:00     | 70.58%     | 100.00%    |
| Sleepy Hollow_WF    | 6         | 00:11:30     | 00:07:45     | 83.33%     | 100.00%    |
| Somerset_BF         | 4         | 00:20:15     | 00:20:15     | 25.00%     | 75.00%     |
| Somerset_EMS        | 125       | 00:19:15     | 00:17:45     | 42.40%     | 64.80%     |
| Somerset_OF         | 4         | 00:23:45     | 00:23:45     | 75.00%     | 75.00%     |
| Somerset_WF         | 14        | 00:16:45     | 00:15:30     | 28.57%     | 71.42%     |
| Stateline_BF        | 1         | 00:08:45     | 00:08:45     | 100.00%    | 100.00%    |
| Stateline_EMS       | 9         | 00:14:30     | 00:12:30     | 66.66%     | 100.00%    |
| Strawberry_BF       | 1         | 00:28:00     | 00:28:00     | 0.00%      | 0.00%      |

| Community / Type  | Incidents | Mins. to 90% | Mins. to 80% | % @ 11 min | % @ 15 min |
|-------------------|-----------|--------------|--------------|------------|------------|
| Strawberry_EMS    | 58        | 00:32:30     | 00:29:30     | 12.06%     | 20.68%     |
| Strawberry_OF     | 14        | 00:52:00     | 00:48:45     | 0.00%      | 0.00%      |
| Strawberry_WF     | 6         | 00:38:30     | 00:38:30     | 0.00%      | 33.33%     |
| Twin Bridges_EMS  | 19        | 00:28:15     | 00:20:45     | 15.78%     | 52.63%     |
| Twin Bridges_OF   | 1         | 00:12:45     | 00:12:45     | 0.00%      | 100.00%    |
| Zephyr Cove_EMS   | 2         | 00:19:00     | 00:19:00     | 0.00%      | 50.00%     |
| Zephyr Heights_BF | 1         | 00:09:00     | 00:09:00     | 100.00%    | 100.00%    |

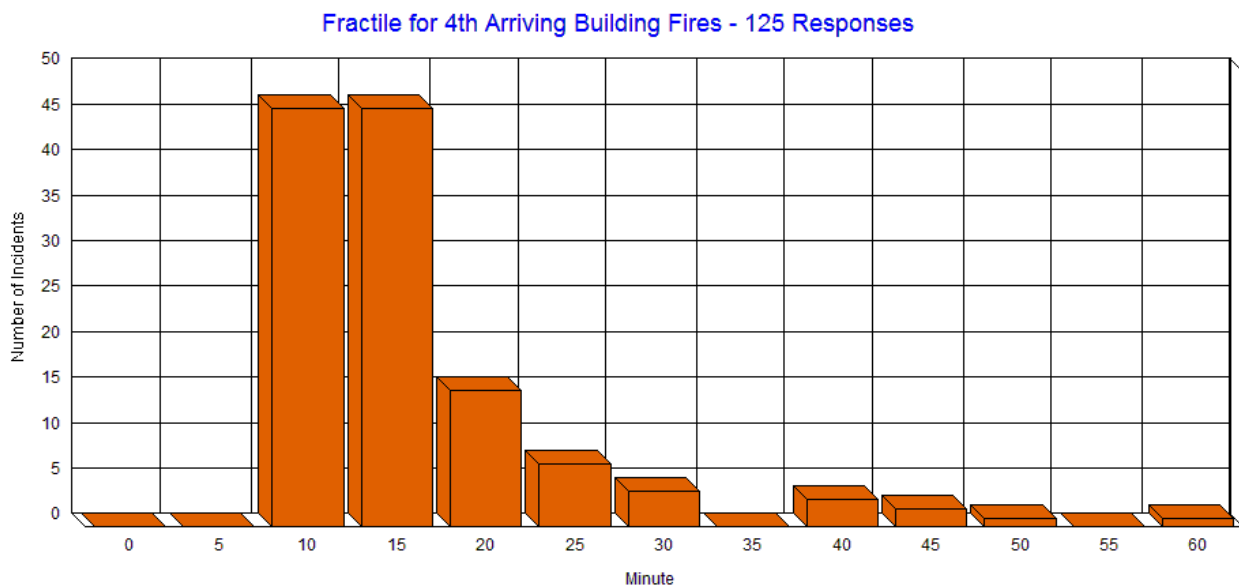
### 7.1 CONCENTRATION (FIRST ALARM) MEASUREMENTS

In the last 12-month fiscal year there were 125 4<sup>th</sup> apparatus arrivals at building fires and 126 4<sup>th</sup> apparatus arrivals at wildland fires.

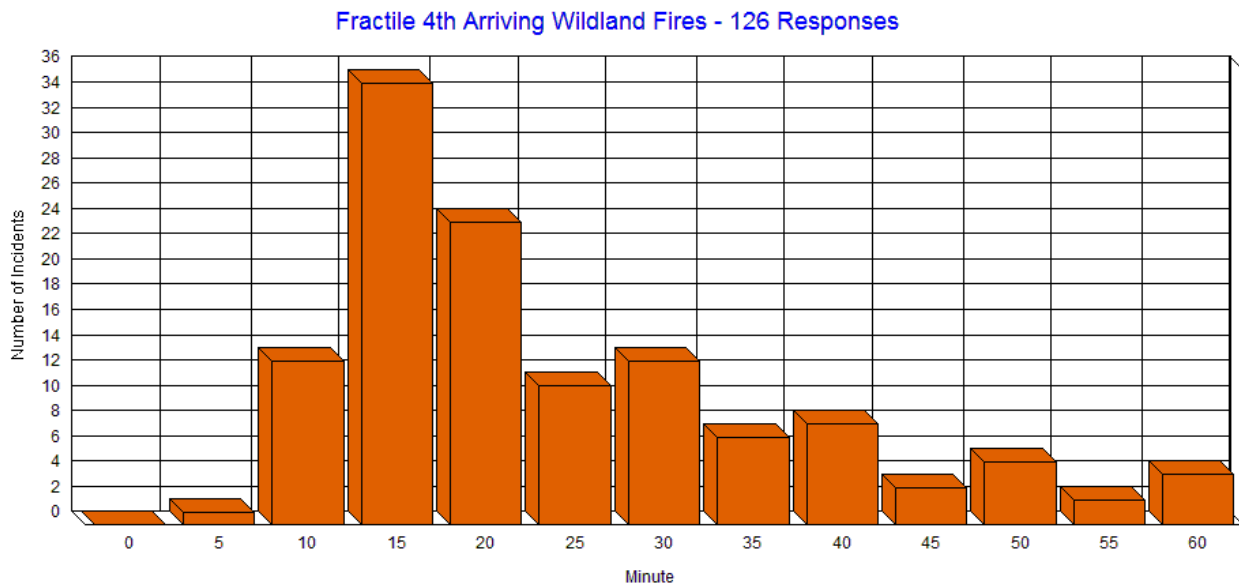
With nearly equal 4<sup>th</sup> apparatus arrivals here is how the fractiles break down by incident type.

| Percent | Building Fires | Wildland Fires |
|---------|----------------|----------------|
| 70%     | 14:30          | 28:00          |
| 80%     | 17:15          | 32:30          |
| 90%     | 23:15          | 44:00          |

The graph below illustrates 4<sup>th</sup> apparatus fractile arrivals at building fires.



The graph below illustrates 4<sup>th</sup> apparatus fractile arrivals at wildland fires.



Roughly speaking 4<sup>th</sup> apparatus arrival performance is roughly twice as good for building fires as for wildland fires.

## **8.1 SIMULTANEOUS CALLS FOR SERVICE**

### **8.1.1 Overview**

Like most of El Dorado County, Tahoe Basin provides service to both core and remote areas. Despite a fairly low call volume there is a very high incidence of simultaneous alarms within the South Lake Tahoe / Lake Valley response areas.

#### ***Simultaneous Incidents***

An incident can be marked as simultaneous if the incident begins while other incidents are underway. Here is the breakdown for simultaneous incidents within the Tahoe Basin area for the three fiscal years of the study. At fewer than 4,000 incidents per year there is a high incidence of simultaneous alarms.

- Number of Incidents 10,994
- At least 1 simultaneous incident – 5,148 or 46.8%
- At least 2 simultaneous incidents – 2,024 or 18.4%
- At least 3 simultaneous incidents – 718 or 6.5%
- At least 4 simultaneous incidents – 235 or 2.1%.

Whenever simultaneous incidents are high and call volume is low it makes sense to investigate incident duration. The longer an incident, the more likely another incident will occur before it is cleared.

The graph below indicates when this simultaneous incident activity occurs:

**Temporal  
Activity**

Simultaneous Incidents

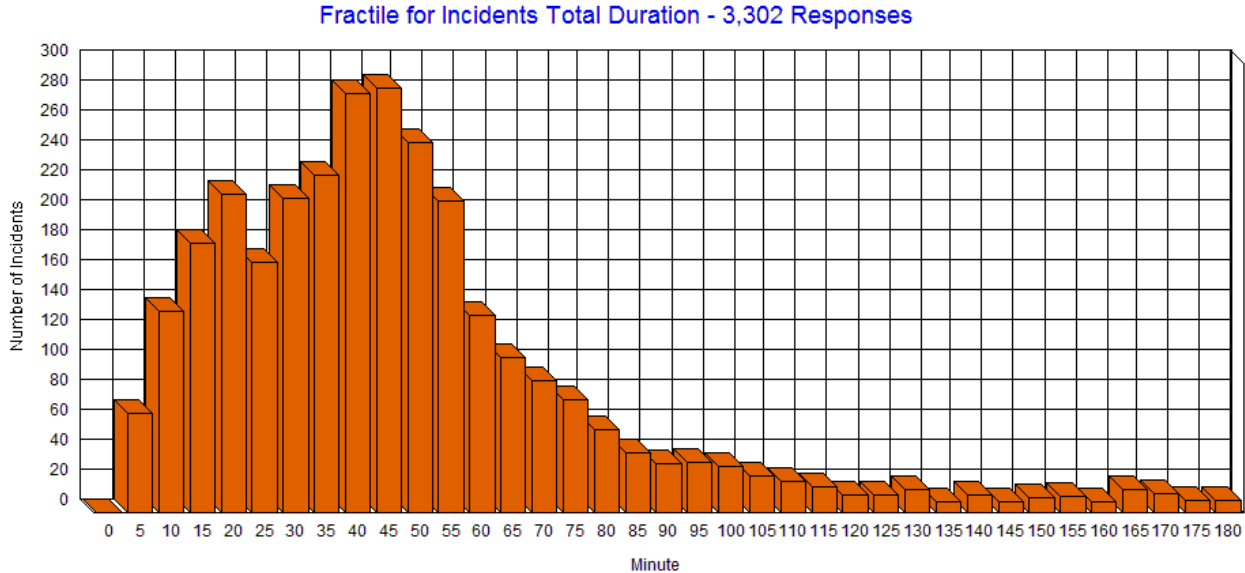
|             | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | Total |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 00:00-00:59 | 13    | 11    | 12    | 15    | 14    | 26    | 24    | 115   |
| 01:00-01:59 | 11    | 12    | 9     | 7     | 8     | 24    | 10    | 81    |
| 02:00-02:59 | 5     | 5     | 9     | 3     | 5     | 10    | 13    | 50    |
| 03:00-03:59 | 5     | 7     | 9     | 4     | 5     | 8     | 22    | 60    |
| 04:00-04:59 | 3     | 2     | 3     | 7     | 5     | 6     | 10    | 36    |
| 05:00-05:59 | 1     | 3     | 3     | 1     | 2     | 4     | 11    | 25    |
| 06:00-06:59 | 9     | 5     | 7     | 5     | 3     | 13    | 6     | 48    |
| 07:00-07:59 | 3     | 4     | 6     | 10    | 8     | 16    | 9     | 56    |
| 08:00-08:59 | 14    | 16    | 13    | 20    | 22    | 24    | 11    | 120   |
| 09:00-09:59 | 24    | 26    | 42    | 34    | 28    | 33    | 24    | 211   |
| 10:00-10:59 | 41    | 28    | 36    | 38    | 44    | 20    | 25    | 232   |
| 11:00-11:59 | 49    | 46    | 46    | 70    | 42    | 39    | 43    | 335   |
| 12:00-12:59 | 73    | 49    | 60    | 42    | 57    | 69    | 61    | 411   |
| 13:00-13:59 | 54    | 56    | 65    | 47    | 55    | 75    | 58    | 410   |
| 14:00-14:59 | 56    | 61    | 65    | 52    | 67    | 118   | 69    | 488   |
| 15:00-15:59 | 48    | 58    | 52    | 64    | 53    | 97    | 65    | 437   |
| 16:00-16:59 | 37    | 66    | 39    | 38    | 45    | 87    | 68    | 380   |
| 17:00-17:59 | 43    | 49    | 35    | 33    | 53    | 71    | 59    | 343   |
| 18:00-18:59 | 29    | 46    | 34    | 37    | 60    | 46    | 35    | 287   |
| 19:00-19:59 | 27    | 35    | 40    | 25    | 43    | 43    | 51    | 264   |
| 20:00-20:59 | 33    | 32    | 30    | 35    | 53    | 49    | 36    | 268   |
| 21:00-21:59 | 24    | 31    | 14    | 28    | 46    | 34    | 34    | 211   |
| 22:00-22:59 | 19    | 19    | 25    | 11    | 26    | 22    | 19    | 141   |
| 23:00-23:59 | 12    | 23    | 20    | 12    | 29    | 29    | 14    | 139   |
| Total       | 633   | 690   | 674   | 638   | 773   | 963   | 777   | 5,148 |

Notice activity is unusually high during a six-hour period on Saturday.



## Incident Duration

This fractile graph breaks down the duration of incidents into 5-minute segments. Here we look only at Tahoe Basin incidents in the last fiscal year. Only incidents with durations less than 3 hours were included in this calculation.



Notice incident durations peak at 45 minutes and taper down well past 2 hours. Also notice while the median duration was under 45 minutes the average duration was just under 1 hour and 9 minutes.

Here is the fractile break down for these incidents:

There are 3,302 Incident records being analyzed.

One record was ignored because of a zero time value.

Total Duration <= 00:00:00 .0% (0)  
Total Duration <= 00:05:00 2.0% (67)  
Total Duration <= 00:10:00 6.1% (202)  
Total Duration <= 00:15:00 11.6% (382)  
Total Duration <= 00:20:00 18.0% (595)  
Total Duration <= 00:25:00 23.1% (763)  
Total Duration <= 00:30:00 29.5% (973)  
Total Duration <= 00:35:00 36.3% (1,199)  
Total Duration <= 00:40:00 44.8% (1,479)  
Total Duration <= 00:45:00 53.4% (1,763)  
Total Duration <= 00:50:00 60.9% (2,011)  
Total Duration <= 00:55:00 67.3% (2,220)  
Total Duration <= 01:00:00 71.3% (2,352)  
Total Duration <= 01:05:00 74.4% (2,456)  
Total Duration <= 01:10:00 77.1% (2,545)  
Total Duration <= 01:15:00 79.4% (2,621)

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Total Duration <= 01:20:00 81.1% (2,677)  
Total Duration <= 01:25:00 82.3% (2,717)  
Total Duration <= 01:30:00 83.3% (2,750)  
Total Duration <= 01:35:00 84.3% (2,784)  
Total Duration <= 01:40:00 85.3% (2,815)  
Total Duration <= 01:45:00 86.0% (2,840)  
Total Duration <= 01:50:00 86.7% (2,861)  
Total Duration <= 01:55:00 87.2% (2,879)  
Total Duration <= 02:00:00 87.6% (2,891)  
Total Duration <= 02:05:00 87.9% (2,903)  
Total Duration <= 02:10:00 88.4% (2,919)  
Total Duration <= 02:15:00 88.7% (2,927)  
Total Duration <= 02:20:00 89.0% (2,939)  
Total Duration <= 02:25:00 89.3% (2,947)  
Total Duration <= 02:30:00 89.6% (2,957)  
Total Duration <= 02:35:00 89.9% (2,968)  
Total Duration <= 02:40:00 90.2% (2,976)  
Total Duration <= 02:45:00 90.6% (2,992)  
Total Duration <= 02:50:00 91.0% (3,005)  
Total Duration <= 02:55:00 91.3% (3,014)  
Total Duration <= 03:00:00 91.6% (3,023)

Median Total Duration 00:43:07 (43.12 minutes)  
Average Total Duration 01:08:58 (68.96 minutes)