

## ***Final Report***



**ORGANIZATIONAL AND  
MANAGEMENT ANALYSIS  
AND STRATEGIC PLAN  
FOR THE  
CITY OF BEVERLY HILLS  
FIRE DEPARTMENT  
VOLUME 2 OF 3 – STATS APPENDIX**

October 29, 2010



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# BEVERLY HILLS FIRE DEPARTMENT RESPONSE STATISTICS ASSESSMENT

## Dataset Identification

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

The Beverly Hills Fire Department furnished *NFIRS 5* transaction files for incidents occurring from 1/1/2007 to 12/31/09. Additional “Unit Table” times were submitted from FIREHOUSE’s Units table. The Units table accepts data from the Tiburon CAD system. However, the connection between the Tiburon CAD and FIREHOUSE was flawed causing a corruption of FIREHOUSE’s *NFIRS 5* Apparatus data and Units table data.

In years 2007, 2008 and several months into 2009, Engine 3 responses were read into Rescue 2’s apparatus record. If both Engine 3 and Rescue 2 responded to the same call, both apparatus responses were merged into a single Rescue 2 response. Other more minor apparatus-specific errors were also located. These included inconsistent typing of Engines and Rescues.

Various attempts were made to establish and correct the pattern of corruption, but in the end, the decision was made to delete all *NFIRS 5* Apparatus data and rebuild the apparatus data from raw CAD data.

The raw CAD was furnished directly from the Tiburon CAD system. The dispatch time was missing, but was merged from the dispatch time found in each *NFIRS 5* incident. The merged *NFIRS 5* / CAD dataset now covers 1/1/2007 – 12/31/2009. In this 3-year time period there were 17,961 incidents and 35,075 apparatus operation records.

The repaired dataset shows consistent year-to-year apparatus response totals. The table below illustrates response numbers for engines, trucks and rescues:

**Apparatus: Count - Year by Vehicle ID**

Year	2007	2008	2009	Totals
<b>Vehicle ID</b>	<b>Count</b>			
E1	2,606	2,474	2,515	7,595
E2	1,013	1,070	1,063	3,146
E3	2,074	2,030	2,010	6,114
E5	395	337	304	1,036
E6	78	131	59	268
E7	12	168	93	273
E8	16	52	29	97
LACOFD	93	111	148	352
R1	3,163	3,245	2,764	9,172
R2	771	818	1,479	3,068
R3	90	130	136	356
T4	853	866	782	2,501
T9		4		4
USAR1	5	1	7	13
<b>Totals</b>	11,169	11,437	11,389	33,995

***Data Quality***

Beverly Hills uses the current *NFIRS 5* reporting standard.

Dataset strengths include the following:

1. Use of seconds in all time fields
2. Use of *NFIRS 5* Apparatus module (appears to have been repaired in 2009)
3. Multiple years of data were available.

The *NFIRS 5* dataset could be improved by loading latitudes and longitudes from the Tiburon CAD. Also, the CAD data’s “Call Entry” timestamp appears to be well into the Call Handling process. This tends to exaggerate Call Handling performance and may be penalizing Turnout Time performance depending where in the dispatch process timestamps are occurring.

Some task analysis of CAD time stamping may be helpful for evaluating this issue.

***Analysis Period***

Three calendar years of data will be used for trend analysis: 2007, 2008 and 2009. *Unless otherwise noted, all three years of data will be used in this analysis.*

## Service Demand

*Service demands are broken-down into specific incident types and property types. Dollar losses are also outlined in this section.*

In 2009 the Beverly Hills Fire Department responded to an average of 16.23 incidents per day. 1.98 percent of incident responses were to fire, 64.59 percent to EMS and 33.43 percent to other types of incidents.

### ***Breakdown by Incident Type and Property Type***

Below is a list of the top incident types occurring in Beverly Hills. Incident types with fewer than 20 responses in three years were eliminated from the list. Notice the 3<sup>rd</sup> most numerous incident type is “611 Dispatched and canceled en route.”

#### **Incidents: Count - Year by Incident Type**

There are 17,356 Incident records being analyzed.

Year	2007	2008	2009	Totals
Incident Type	Count			
321 EMS call, excluding vehicle accident with injury	2,506	2,656	2,724	7,886
300 Rescue, emergency medical call (EMS) call, other	618	563	499	1,680
611 Dispatched & canceled en route	522	525	450	1,497
700 False alarm or false call, other	411	529	539	1,479
322 Vehicle accident with injuries	200	182	140	522
353 Removal of victim(s) from stalled elevator	112	184	145	441
311 Medical assist, assist EMS crew	101	99	99	299
324 Motor vehicle accident no injuries	72	67	74	213
743 Smoke detector activation, no fire - unintentional	89	78	44	211
600 Good intent call, other	64	58	41	163
745 Alarm system sounded, no fire - unintentional	48	46	61	155
531 Smoke or odor removal	59	42	48	149
500 Service call, other	48	51	41	140
651 Smoke scare, odor of smoke	46	43	48	137
740 Unintentional transmission of alarm, other	46	41	49	136
323 Motor vehicle/pedestrian accident (MV Ped)	37	46	49	132
554 Assist invalid	35	56	37	128
440 Electrical wiring/equipment problem, other	36	33	29	98
735 Alarm system sounded due to malfunction	23	31	35	89
522 Water or steam leak	39	24	26	89

Year	2007	2008	2009	Totals
Incident Type	Count			
733 Smoke detector activation due to malfunction	40	24	20	84
730 System malfunction, other	31	29	20	80
520 Water problem, other	31	25	22	78
540 Animal problem, other	21	30	26	77
412 Gas leak (natural gas or LPG)	24	25	26	75
510 Person in distress, other	39	21	14	74
622 No incident found on arrival of incident address	14	15	27	56
744 Detector activation, no fire - unintentional	26	17	9	52
331 Lock-in (if lock out , use 511 )	17	15	20	52
555 Defective elevator, no occupants	6	27	17	50
131 Passenger vehicle fire	17	10	18	45
445 Arcing, shorted electrical equipment	21	11	12	44
900 Special type of incident, other	17	11	15	43
400 Hazardous condition, other	15	16	12	43
511 Lock-out	21	14	7	42
541 Animal problem	13	14	13	40
444 Power line down	15	14	11	40
812 Flood assessment	6	19	9	34
111 Building fire	8	14	12	34
521 Water evacuation	9	14	9	32
113 Cooking fire, confined to container	5	10	16	31
100 Fire, other	7	13	11	31
710 Malicious, mischievous false call, other	5	4	21	30
550 Public service assistance, other	10	15	5	30
154 Dumpster or other outside trash receptacle fire	9	14	7	30
151 Outside rubbish, trash or waste fire	9	10	10	29
551 Assist police or other governmental agency	7	13	6	26
442 Overheated motor	3	11	9	23
741 Sprinkler activation, no fire - unintentional	8	7	6	21

The ranking of the top 10 incident types change when we rank incident types by staff hours instead of the number of incidents. Building fires moves from the 39<sup>th</sup> position to 5<sup>th</sup> place.

**Incidents: Total Staff Hours by Year by Incident Type**

There are 17,356 Incident records being analyzed.

Year	2007	2008	2009	Totals
Incident Type	Count			
321 EMS call, excluding vehicle accident with injury	9,196.40	9,612.77	10,428.53	29,237.71
300 Rescue, emergency medical call (EMS) call, other	2,098.92	1,865.97	1,639.80	5,604.69
322 Vehicle accident with injuries	726.9	750.3	601.05	2,078.25
700 False alarm or false call, other	550.21	730.74	648.55	1,929.50
111 Building fire	247.89	347.39	670.91	1,266.19
311 Medical assist, assist EMS crew	312.26	373.73	356.27	1,042.26
353 Removal of victim(s) from stalled elevator	197.02	293.88	247.42	738.32
611 Dispatched & canceled en route	210.37	208.5	188	606.87
142 Brush, or brush and grass mixture fire	473.32	86.21		559.53
141 Forest, woods or wildland fire		82.03	435.1	517.13

This chart shows the top types of property receiving services from the Beverly Hills Fire Department. Property types with fewer than 20 total responses were eliminated from the list.

**Incidents: Count - Year by Property Use**

There are 17,356 Incident records being analyzed.

Year	2007	2008	2009	Totals
Property Use	Count			
419 1 or 2 family dwelling	1,310	1,458	1,415	4,183
429 Multifamily dwellings	1,178	1,235	1,255	3,668
963 Street or road in commercial area	417	386	374	1,177
599 Business office	443	296	275	1,014
- Blank-	408	169	211	788
962 Residential street, road or residential driveway	265	246	268	779
500 Mercantile, business, other	94	239	252	585
960 Street, other	163	216	173	552
342 Doctor, dentist or oral surgeon's office	184	183	170	537
449 Hotel/motel, commercial	155	205	164	524
340 Clinics, Doctors offices, hemodialysis centers	98	137	143	378
161 Restaurant or cafeteria	104	121	95	320
459 Residential board and care	61	122	72	255
UUU Undetermined	19	101	64	184
882 Parking garage, general vehicle	37	82	56	175
311 24-hour care Nursing homes, 4 or more persons	80	26	40	146
965 Vehicle parking area	48	50	43	141
361 Jail, prison (not juvenile)	44	39	56	139
888 Fire station	36	47	40	123
215 High school/junior high school/middle school	35	32	38	105
400 Residential, other	23	43	38	104
580 General retail, other	26	46	26	98
519 Food and beverage sales, grocery store	36	32	30	98
439 Boarding/rooming house, residential hotels	33	20	30	83
365 Police station	21	29	33	83
213 Elementary school, including kindergarten	29	22	29	80
529 Textile, wearing apparel sales	39	24	15	78
900 Outside or special property, other	21	19	26	66

Year	2007	2008	2009	Totals
Property Use	Count			
557 Personal service, including barber & beauty shops	17	19	19	55
581 Department or discount store	22	17	11	50
151 Library	22	14	9	45
549 Specialty shop	21	16	7	44
131 Church, mosque, synagogue, temple, chapel	14	14	15	43
592 Bank	9	14	17	40
155 Courthouse	9	12	15	36
160 Eating, drinking places	6	16	13	35
300 Health care, detention, & correction, other	6	14	14	34
961 Highway or divided highway	20	1	11	32
PROPERTY USE	14	10	8	32
124 Playground	2	19	9	30
571 Service station, gas station	8	11	10	29
150 Public or government, other	5	15	6	26
141 Athletic/health club	8	6	12	26
981 Construction site	11	2	7	20
343 Hemodialysis unit	3	8	9	20
120 Variable use amusement, recreation places	1	12	7	20
110 Fixed use recreation places, other	8	8	4	20

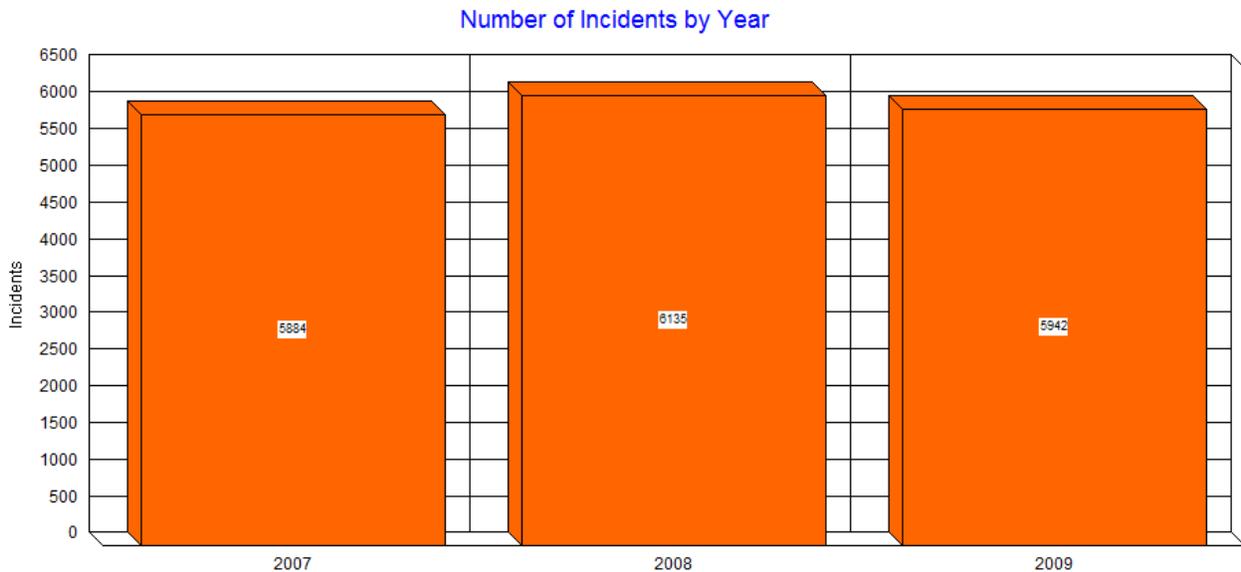
Here are the top ten property types by staff hours. Notice this ranking more closely resembles the property type ranking by incident count.

**Incidents: Total Staff Hours by Year by Property Use**

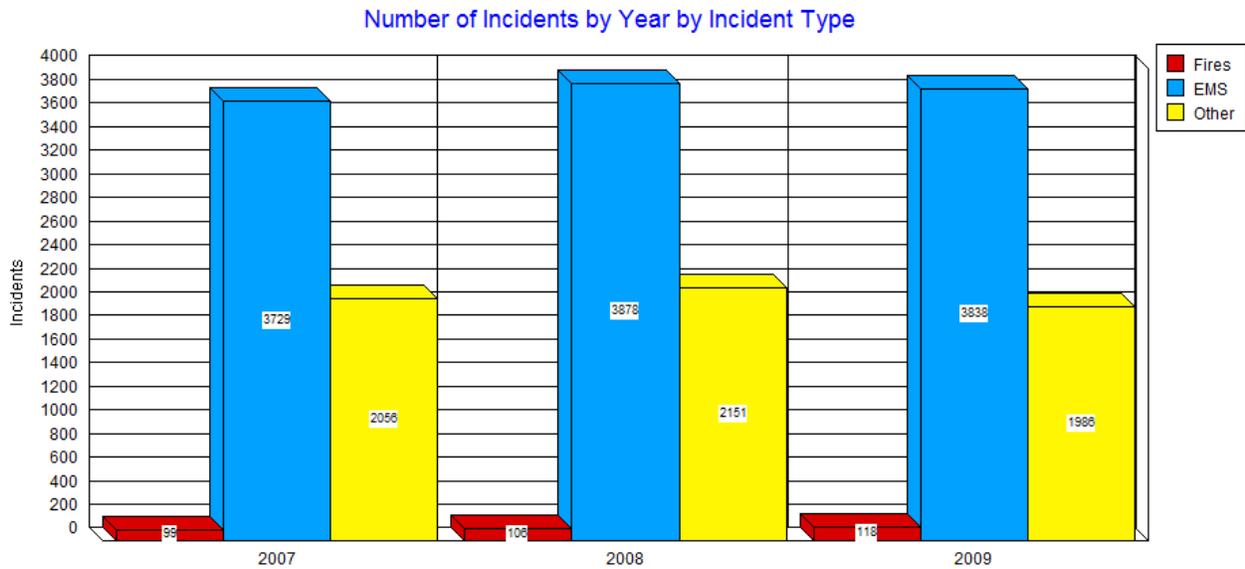
There are 17,356 Incident records being analyzed.

Year	2007	2008	2009	Totals
Property Use	Count			
419 1 or 2 family dwelling	4,469.84	4,198.97	4,049.12	12,717.93
429 Multifamily dwellings	3,854.39	4,088.83	4,217.02	12,160.24
963 Street or road in commercial area	1,188.90	1,056.08	1,175.84	3,420.82
599 Business office	1,169.55	804.79	982.06	2,956.40
962 Residential street, road or residential driveway	777.67	785.48	967.42	2,530.57
342 Doctor, dentist or oral surgeon's office	769.86	724.06	784.05	2,277.97
449 Hotel/motel, commercial	502.82	778.43	699.26	1,980.51
340 Clinics, Doctors offices, hemodialysis centers	482.41	555.59	621.55	1,659.55
960 Street, other	538.73	573.32	506.92	1,618.97
500 Mercantile, business, other	205.76	471.51	646.81	1,324.08

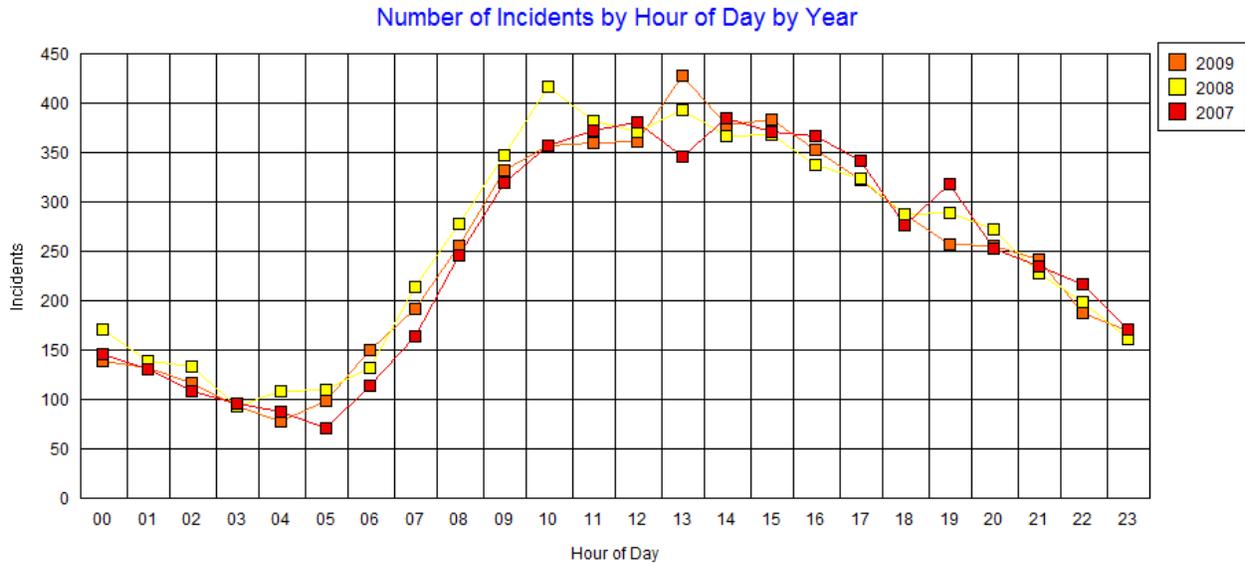
The number of incidents rose from 5,884 in 2007 to 6,135 in 2008. There was a slight decrease to 5,942 in 2009.



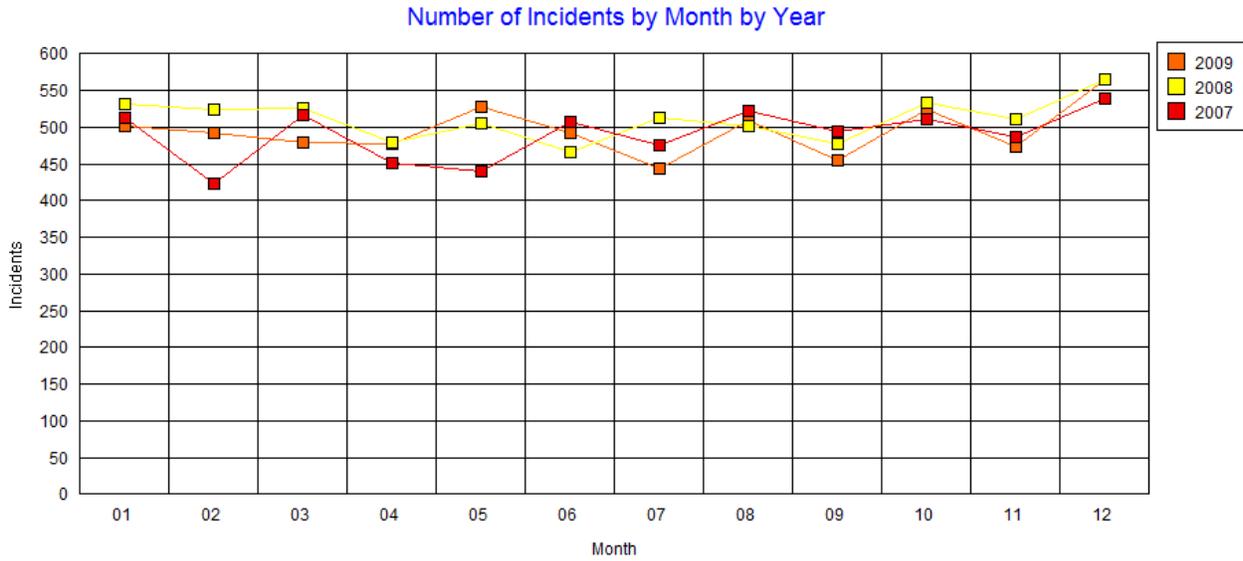
Here is the breakdown by incident type. Notice the number of fires rises from 99 in 2007 to 106 in 2008 and finally to 118 in 2009. The EMS and Other incident type categories peaked in 2008 declining only slightly in 2009.



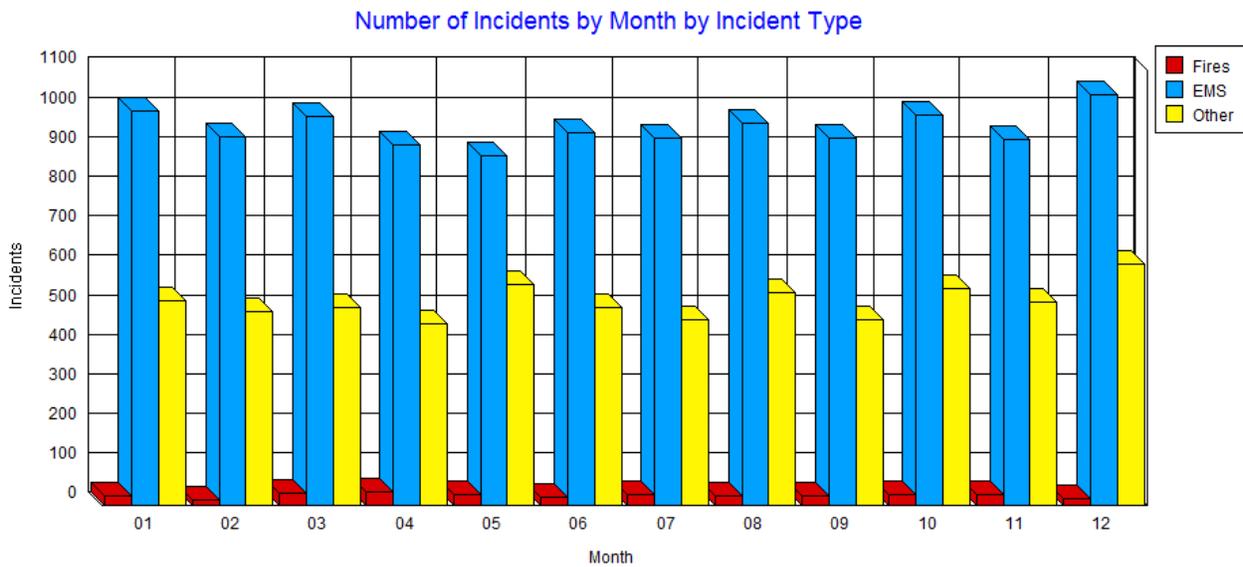
This graph compares incident activity by hour of day by year. Notice peak activity hours are from 10:00 – 17:00.



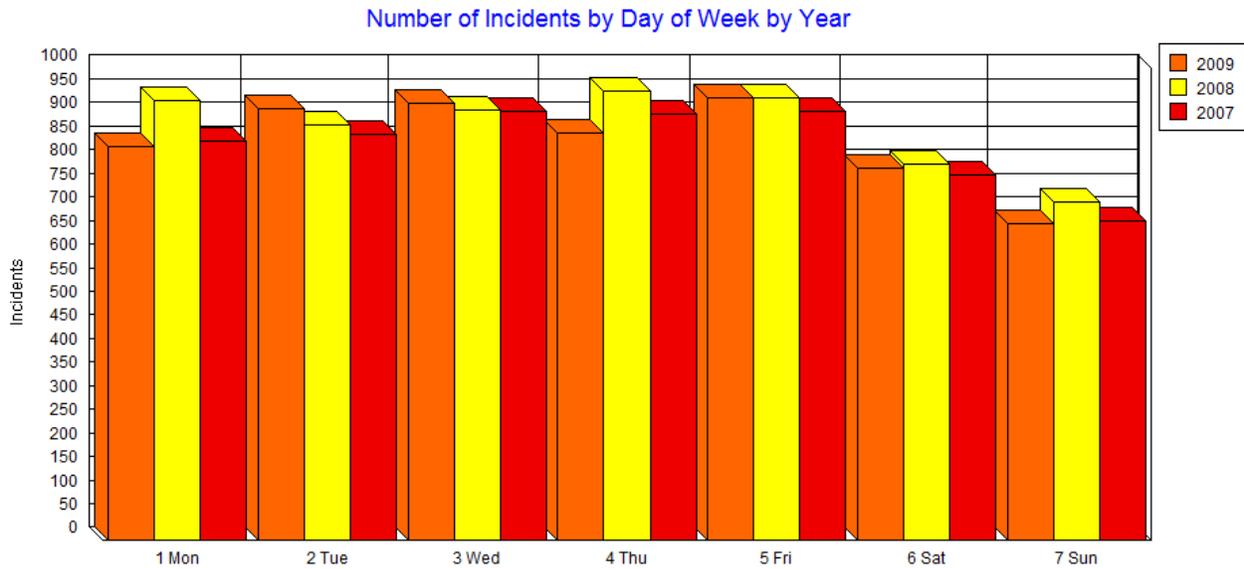
The graph below illustrates the number of incidents by month in the last three calendar years.



This graph illustrates monthly trends by incident type.

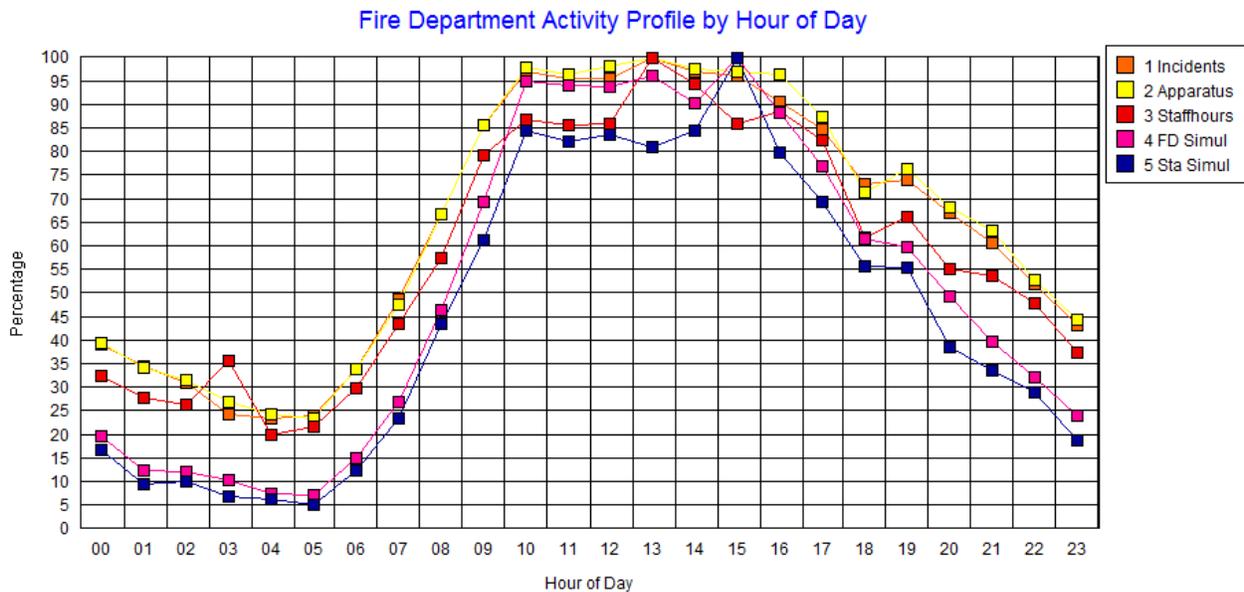


Incident activity by day of week shows a definite drop in activity on the weekend.



### Activity Profile

The greatest modulation of activity occurs by hour of day. Here is a breakdown showing the influence of different types of activity types as a percentage by hour of day. These figures are taken for the 3-year data set.



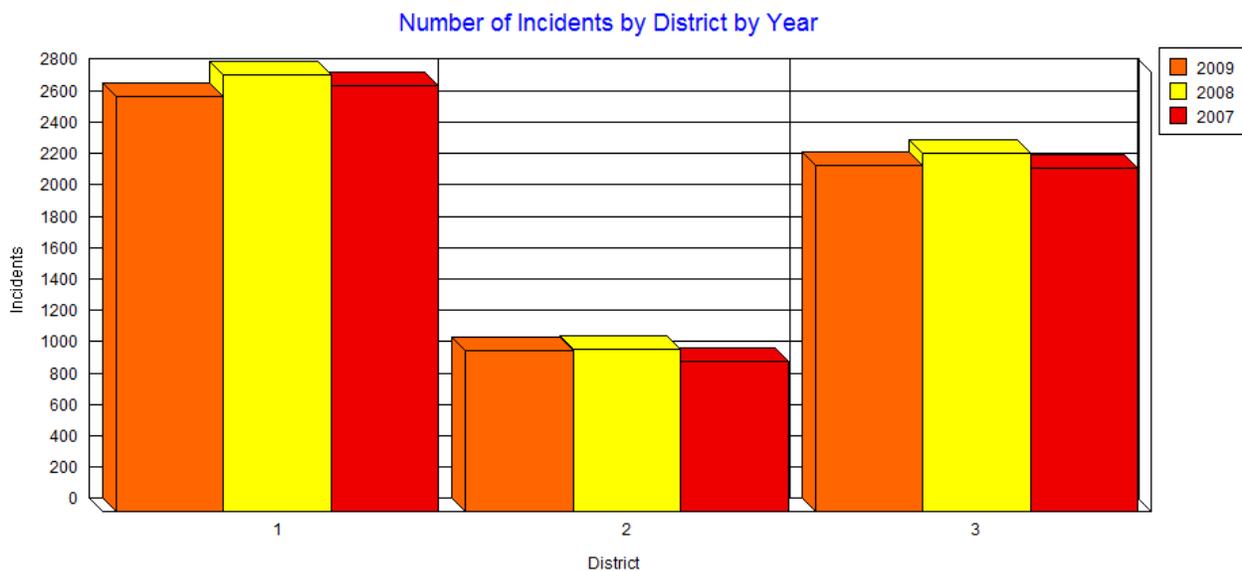
- ◆ “1 Incidents” is a percentage representation of the number of incidents by hour.
- ◆ “2 Apparatus” is similar to apparatus but refers to the number of apparatus responses by hour.

- ◆ “3 Staff hours” totals the number of staff hours for incidents beginning with each hour.
- ◆ “4 FD Simul” is a percentage representation of the number of simultaneous incidents department-wide by hour.
- ◆ “5 Sta Simul” is a percentage representation of the number of simultaneous incidents within a single station area by hour.

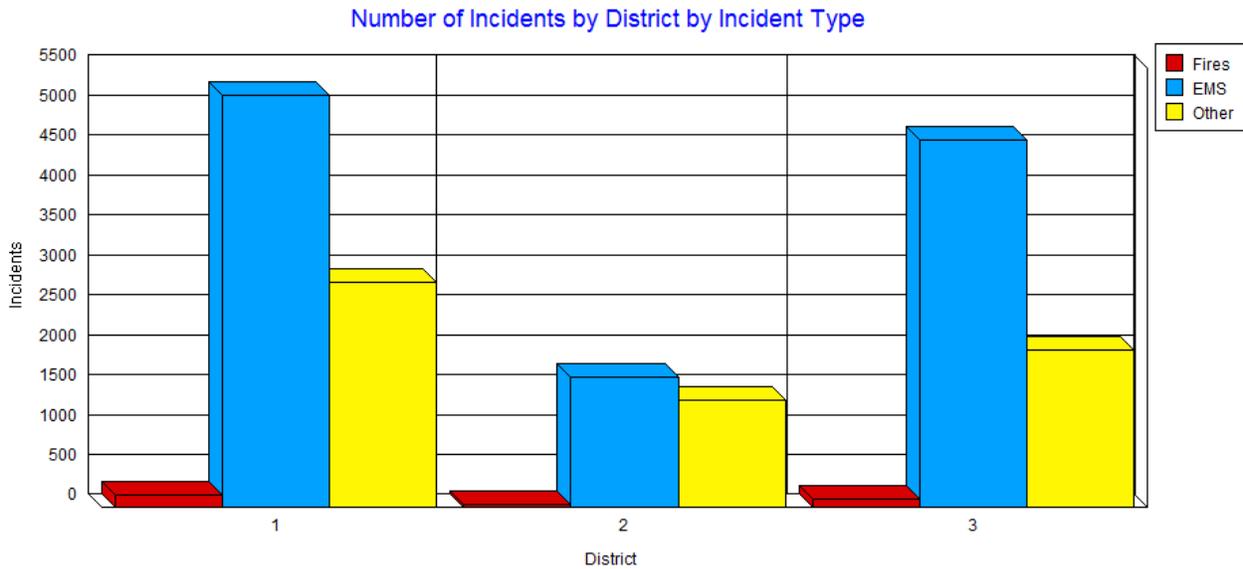
Each of the five activities can cause staffing stress. Clustering of these activity types illustrates activity peaks. In the chart showing *Fire Department Activity Profile by Hour of Day*, activity peaks in Beverly Hills from 10:00 – 17:00.

### Demand by Fire District Area

Here is an incident count by district by year. District 1 has the greatest activity followed by District 3. Volume remains fairly steady by year.



Here is the breakdown by district by incident type.



The chart below summarizes response statistics by **response area**. These stats are for all incidents in Beverly Hills station areas. Response areas are listed in order of overall incident activity.

**Incidents: Count – by Year – Resp. Area**

There are 17,878 Incident records being analyzed.

Year	2007	2008	2009	Totals
Resp. Area	Count			
203	392	470	399	1,261
304	338	339	389	1,066
128	260	262	235	757
121	261	258	238	757
202	263	269	222	754
201	123	161	148	432
129	120	136	124	380
114	112	116	121	349
950	89	108	123	320
510	88	117	115	320
122	91	101	126	318
511	103	101	112	316
302	115	86	102	303
102	89	122	91	302

Year	2007	2008	2009	Totals
Resp. Area	Count			
1216	83	111	100	294
126	83	98	101	282
113	69	113	89	271
112	93	92	80	265
119	71	96	96	263
508	97	88	74	259
120	82	79	77	238
108	71	81	78	230
124	80	68	69	217
116	80	59	65	204
419	51	69	82	202
505	56	77	66	199
103	68	61	66	195
2111	75	70	48	193
104	53	67	66	186
117	58	73	54	185
107	67	62	48	177
130	63	50	62	175
1115	63	64	38	165
115	54	46	63	163
109	59	53	48	160
413	59	55	43	157
503	53	45	58	156
125	50	49	52	151
110	60	46	45	151
416	53	40	57	150
504	58	43	46	147
501	42	52	52	146
123	45	50	51	146
808	48	49	48	145
418	45	52	46	143
414	52	45	43	140

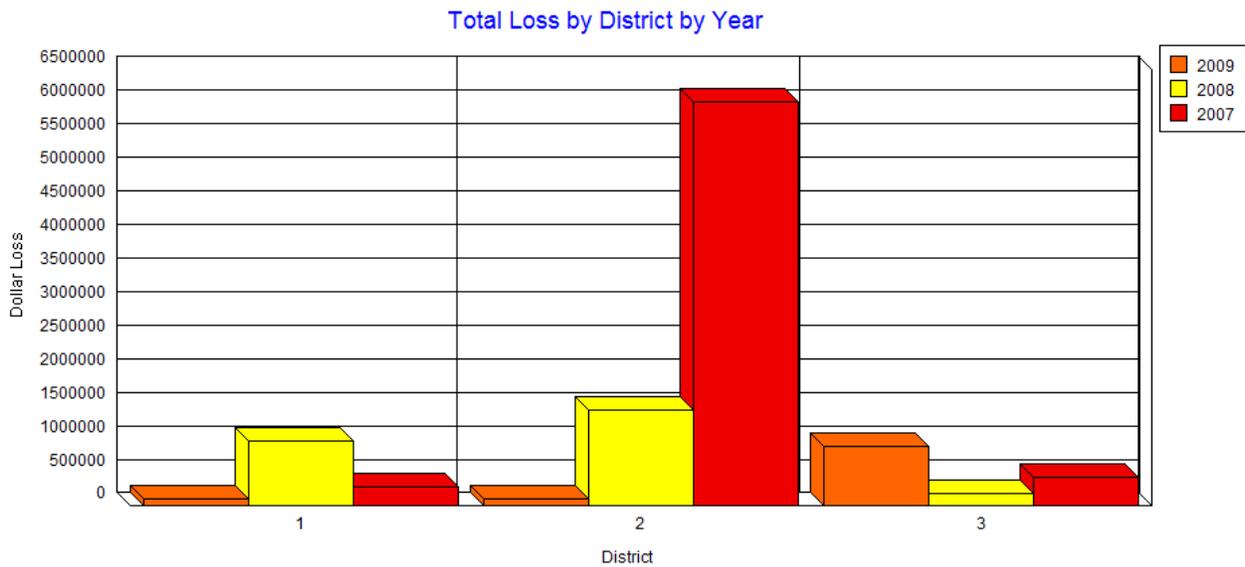
Year	2007	2008	2009	Totals
Resp. Area	Count			
807	46	54	39	139
118	48	54	37	139
105	31	46	58	135
502	44	55	34	133
415	52	44	32	128
405	47	39	37	123
1112	46	41	34	121
406	41	39	37	117
301	26	54	35	115
408	39	40	32	111
404	43	40	28	111
507	35	34	41	110
402	31	50	22	103
2102	37	31	35	103
100	32	32	39	103
3501	30	34	30	94
420	25	22	35	82
407	20	17	45	82
412	37	15	28	80
2112	23	20	32	75
131	23	28	24	75
403	23	29	21	73
303	25	20	24	69
111	22	23	19	64
1116	20	17	25	62
1113	31	14	14	59
417	23	7	28	58
3402	19	23	14	56
106	12	25	18	55
1201	23	13	16	52
506	6	16	27	49
127	16	21	9	46

Year	2007	2008	2009	Totals
Resp. Area	Count			
1102	18	11	14	43
411	14	11	17	42
401	22	11	9	42
409	10	12	18	40
1208	12	11	14	37
1110	16	9	11	36
1108	2	11	23	36
1106	11	9	16	36
1117	13	17	4	34
1211	15	13	4	32
N/A	8	9	15	32
1202	15	7	8	30
410	9	15	5	29
1213	10	10	7	27
1119	15	9	3	27
2104	9	10	7	26
1214	7	10	9	26
1103	10	9	6	25
3101	12	8	3	23
1204	10	4	9	23
1215	9	6	7	22
101	4	7	11	22
2402	5	7	9	21
1210	10	5	6	21
509	7	10	3	20
2106	5	3	12	20
900	8	5	6	19
400	4	5	10	19
1207	7	5	7	19
1111	7	5	7	19
3203	1	9	8	18
2110	9	3	6	18

Year	2007	2008	2009	Totals
Resp. Area	Count			
1303	2	9	7	18
1305	4	7	5	16
1109	7	3	5	15
3301	4	6	4	14
2107	4	5	4	13
1203	8	3	2	13
3502			12	12
3104	11	1		12
3202	3	6	2	11
2401	4	4	3	11
1301	5	3	3	11
1118	6	1	4	11
902	3	4	3	10
1401	5	3	2	10
1302	3	7		10
1104	3	3	4	10
1107	3	3	3	9
1304	5	3		8
3201	2	4	1	7
1205		3	4	7
1105	3	2	2	7
2101	2	1	3	6
1217	4		2	6
1206	1	1	3	5
800	1	2	1	4
2108	2	1	1	4
132	1	1	2	4
1209	3		1	4
1114		3	1	4
2109		2	1	3
901		2		2
2403		1	1	2

Year	2007	2008	2009	Totals
Resp. Area	Count			
1120		1	1	2
2103		1		1
Totals	5,874	6,118	5,886	17,878

The following graph illustrates total dollar loss by district by year. This measurement is likely very volatile as one large loss can skew the pattern.



Here is a chart that illustrates dollar loss over the past three years.

**Incidents: Total Loss by Year by Month**

There are 17,878 Incident records being analyzed.

Year	2007	2008	2009	Totals
Month	Count			
2007 01	33,501			33,501
2007 02	1,000			1,000
2007 03	19,451			19,451
2007 04	5,995,020			5,995,020
2007 05	43,203			43,203
2007 06	2,000			2,000
2007 07	191,900			191,900
2007 08	6,000			6,000
2007 09	42,500			42,500
2007 10	407,150			407,150
2007 11	14,225			14,225
2007 12				
2008 01		221,835		221,835
2008 02		5,001		5,001
2008 03		136,500		136,500
2008 04		910,501		910,501
2008 05		41,000		41,000
2008 06				
2008 07		8,800		8,800
2008 08		1,180,001		1,180,001
2008 09		51,100		51,100
2008 10		54,021		54,021
2008 11				
2008 12		2		2
2009 01				
2009 02			21,501	21,501
2009 03			36,000	36,000
2009 04			53,501	53,501
2009 05				

Year	2007	2008	2009	Totals
Month	Count			
2009 06			20	20
2009 07			32,200	32,200
2009 08			57,000	57,000
2009 09			4,500	4,500
2009 10			35,000	35,000
2009 11			729,504	729,504
2009 12			143,302	143,302
Totals	6,755,950	2,608,761	1,112,528	10,477,239

Here is the breakdown of the same dollar loss incidents by incident type.

**Incidents: Total Loss by Year by Incident Type**

There are 103 Incident records being analyzed.

Year	2007	2008	2009	Totals
Incident Type	Count			
100 Fire, other	9,400	3,695	15,600	28,695
111 Building fire	715,000	1,427,000	970,900	3,112,900
112 Fires in structures other than in a building	1,000			1,000
113 Cooking fire, confined to container	1,050		8,603	9,653
114 Chimney or flue fire, confined to chimney or flue		12,000		12,000
116 Fuel burner/boiler malfunction, fire confined			6,000	6,000
118 Trash or rubbish fire, contained	5,120	60		5,180
130 Mobile property (vehicle) fire, other		8,000		8,000
131 Passenger vehicle fire	94,200	45,001	53,901	193,102
132 Road freight or transport vehicle fire	3,500			3,500
138 Off-road vehicle or heavy equipment fire		200,000		200,000
140 Natural vegetation fire, other	1,000			1,000
142 Brush, or brush and grass mixture fire	5,650,000			5,650,000
151 Outside rubbish, trash or waste fire	1,802	95,000	2	96,804
154 Dumpster or other outside trash receptacle fire	17,778	501	20	18,299
160 Special outside fire, other	1,100			1,100
163 Outside gas or vapor combustion explosion			3,000	3,000
170 Cultivated vegetation, crop fire, other	3,000			3,000
173 Cultivated trees or nursery stock fire		2,500		2,500
200 Overpressure rupture, explosion, overheat other			2,500	2,500
220 Overpressure rupture from air or gas, other	40,000			40,000
251 Excessive heat, scorch burns with no ignition	2,000			2,000
321 EMS call, excluding vehicle accident with injury		4	2	6
445 Arcing, shorted electrical equipment			2,000	2,000
521 Water evacuation			50,000	50,000
522 Water or steam leak	210,000	815,000		1,025,000
Totals	6,755,950	2,608,761	1,112,528	10,477,239

Finally, here is a breakdown of dollar loss incidents by property type.

**Incidents: Total Loss by Year by Property Use**

There are 103 Incident records being analyzed.

Year	2007	2008	2009	Totals
Property Use	Count			
120 Variable use amusement, recreation places			20	20
121 Ballroom, gymnasium		2		2
161 Restaurant or cafeteria	5,000	12,060	4,101	21,161
340 Clinics, Doctors offices, hemodialysis centers	180,000	815,000		995,000
342 Doctor, dentist or oral surgeon's office			1	1
400 Residential, other	1,100			1,100
419 1 or 2 family dwelling	6,409,200	1,302,401	144,502	7,856,103
429 Multifamily dwellings	22,270	76,795	454,301	553,366
449 Hotel/motel, commercial		104,000		104,000
500 Mercantile, business, other		3,000		3,000
519 Food and beverage sales, grocery store			3,000	3,000
599 Business office		50,000	452,700	502,700
882 Parking garage, general vehicle	5,000	40,000		45,000
900 Outside or special property, other	31,000			31,000
931 Open land or field	1,000			1,000
960 Street, other	526		300	826
961 Highway or divided highway	2,000			2,000
962 Residential street, road or residential driveway	50,303	200,001	5,102	255,406
963 Street or road in commercial area	2,751	5,502	48,501	56,754
965 Vehicle parking area	42,300			42,300
981 Construction site	3,500			3,500
Totals	6,755,950	2,608,761	1,112,528	10,477,239

**Overall Response Time – Call to Arrival**

Once the types of incidents and losses are quantified, analysis shifts to the time required to respond to those incidents. Fractile breakdowns track the percentage (and count the number) of incidents meeting defined criteria such as the first apparatus to reach the scene within progressive time segments.

Here is a fractile breakdown for Beverly Hills Fire Station responses. Mutual/auto aid incidents outside of the City were not included in this calculation. Incidents exceeding 20 minutes response time were also eliminated.

**Incidents: Call to 1<sup>st</sup> Arrival Analysis - by Year**

There are 17,250 Incident records being analyzed.

\*66 records were ignored because of a zero time value.

\*67 records were ignored because they were more than the limit of 1,200 seconds.

	2007	2008	2009
Call to 1st Arrival at 0000 secs	.0% (0)	.0% (0)	.0% (0)
Call to 1st Arrival at 0010 secs	.1% (7)	.2% (9)	.1% (6)
Call to 1st Arrival at 0020 secs	.3% (17)	.3% (18)	.2% (14)
Call to 1st Arrival at 0030 secs	.4% (25)	.3% (20)	.3% (18)
Call to 1st Arrival at 0040 secs	.5% (29)	.5% (31)	.4% (20)
Call to 1st Arrival at 0050 secs	.7% (37)	.7% (41)	.5% (30)
Call to 1st Arrival at ** 1 minute **	.9% (49)	1.1% (63)	.9% (49)
Call to 1st Arrival at 0070 secs	1.2% (66)	1.4% (81)	1.4% (76)
Call to 1st Arrival at 0080 secs	1.6% (92)	1.8% (106)	1.7% (97)
Call to 1st Arrival at 0090 secs	2.1% (120)	2.4% (141)	2.2% (126)
Call to 1st Arrival at 0100 secs	2.7% (151)	3.0% (174)	2.8% (157)
Call to 1st Arrival at 0110 secs	3.5% (196)	3.8% (222)	3.6% (202)
Call to 1st Arrival at ** 2 minutes **	4.3% (244)	4.7% (273)	4.9% (273)
Call to 1st Arrival at 0130 secs	5.4% (306)	5.7% (334)	6.1% (344)
Call to 1st Arrival at 0140 secs	7.0% (393)	7.1% (415)	7.3% (411)
Call to 1st Arrival at 0150 secs	8.0% (451)	8.6% (503)	9.0% (503)
Call to 1st Arrival at 0160 secs	9.7% (548)	10.5% (614)	10.7% (601)
Call to 1st Arrival at 0170 secs	11.7% (663)	12.6% (736)	13.4% (755)
Call to 1st Arrival at ** 3 minutes **	14.1% (794)	15.2% (888)	16.3% (913)
Call to 1st Arrival at 0190 secs	16.9% (956)	18.3% (1,070)	19.4% (1,092)
Call to 1st Arrival at 0200 secs	20.0% (1,130)	21.5% (1,257)	23.2% (1,301)
Call to 1st Arrival at 0210 secs	23.6% (1,333)	25.6% (1,502)	27.0% (1,519)
Call to 1st Arrival at 0220 secs	27.4% (1,547)	30.2% (1,768)	31.8% (1,786)
Call to 1st Arrival at 0230 secs	31.3% (1,768)	34.6% (2,028)	36.5% (2,050)
Call to 1st Arrival at ** 4 minutes **	35.9% (2,028)	39.1% (2,289)	42.0% (2,356)
Call to 1st Arrival at 0250 secs	40.2% (2,270)	43.6% (2,554)	47.0% (2,640)

	2007	2008	2009
Call to 1st Arrival at 0260 secs	45.2% (2,550)	48.6% (2,846)	51.8% (2,907)
Call to 1st Arrival at 0270 secs	50.5% (2,849)	53.4% (3,130)	56.9% (3,198)
Call to 1st Arrival at 0280 secs	55.3% (3,123)	58.8% (3,446)	61.3% (3,442)
Call to 1st Arrival at 0290 secs	59.9% (3,380)	63.1% (3,696)	65.5% (3,680)
Call to 1st Arrival at ** 5 minutes **	64.7% (3,654)	67.2% (3,933)	69.5% (3,903)
Call to 1st Arrival at 0310 secs	69.1% (3,899)	70.9% (4,153)	72.5% (4,069)
Call to 1st Arrival at 0320 secs	72.8% (4,111)	74.3% (4,351)	75.9% (4,264)
Call to 1st Arrival at 0330 secs	76.4% (4,313)	77.6% (4,547)	78.9% (4,433)
Call to 1st Arrival at 0340 secs	79.4% (4,483)	80.6% (4,720)	82.0% (4,606)
Call to 1st Arrival at 0350 secs	82.2% (4,641)	83.5% (4,890)	84.2% (4,727)
Call to 1st Arrival at ** 6 minutes **	84.8% (4,786)	85.6% (5,012)	86.3% (4,847)
Call to 1st Arrival at 0370 secs	86.6% (4,886)	87.4% (5,116)	88.0% (4,942)
Call to 1st Arrival at 0380 secs	88.3% (4,983)	89.0% (5,212)	89.5% (5,024)
Call to 1st Arrival at 0390 secs	89.6% (5,056)	90.3% (5,288)	90.7% (5,093)
Call to 1st Arrival at 0400 secs	90.8% (5,124)	91.2% (5,342)	91.4% (5,133)
Call to 1st Arrival at 0410 secs	92.0% (5,191)	92.1% (5,392)	92.1% (5,175)
Call to 1st Arrival at ** 7 minutes **	92.8% (5,238)	92.8% (5,436)	92.8% (5,211)
Call to 1st Arrival at 0430 secs	93.4% (5,273)	93.6% (5,480)	93.6% (5,255)
Call to 1st Arrival at 0440 secs	94.0% (5,304)	94.2% (5,516)	94.2% (5,288)
Call to 1st Arrival at 0450 secs	94.6% (5,341)	94.7% (5,547)	94.7% (5,321)
Call to 1st Arrival at 0460 secs	95.1% (5,369)	95.3% (5,581)	95.0% (5,334)
Call to 1st Arrival at 0470 secs	95.7% (5,401)	95.6% (5,601)	95.5% (5,362)
Call to 1st Arrival at ** 8 minutes **	96.0% (5,421)	96.0% (5,620)	95.7% (5,376)
Call to 1st Arrival at 0490 secs	96.4% (5,440)	96.2% (5,634)	96.1% (5,397)
Call to 1st Arrival at 0500 secs	96.7% (5,460)	96.4% (5,648)	96.3% (5,409)
Call to 1st Arrival at 0510 secs	97.1% (5,482)	96.7% (5,660)	96.6% (5,424)
Call to 1st Arrival at 0520 secs	97.3% (5,493)	96.8% (5,670)	96.8% (5,435)
Call to 1st Arrival at 0530 secs	97.5% (5,505)	97.0% (5,682)	97.0% (5,448)
Call to 1st Arrival at ** 9 minutes **	97.7% (5,517)	97.3% (5,697)	97.2% (5,459)
Call to 1st Arrival at 0550 secs	97.9% (5,525)	97.4% (5,705)	97.4% (5,468)
Call to 1st Arrival at 0560 secs	98.0% (5,530)	97.6% (5,713)	97.6% (5,481)
Call to 1st Arrival at 0570 secs	98.1% (5,540)	97.8% (5,726)	97.8% (5,493)
Call to 1st Arrival at 0580 secs	98.2% (5,545)	97.9% (5,735)	98.0% (5,504)

	2007	2008	2009
Call to 1st Arrival at 0590 secs	98.4% (5,553)	98.1% (5,742)	98.1% (5,510)
Call to 1st Arrival at ** 10 minutes **	98.5% (5,560)	98.2% (5,748)	98.2% (5,516)
Call to 1st Arrival at 0610 secs	98.6% (5,568)	98.4% (5,762)	98.4% (5,524)
Call to 1st Arrival at 0620 secs	98.7% (5,571)	98.5% (5,766)	98.4% (5,528)
Call to 1st Arrival at 0630 secs	98.7% (5,574)	98.5% (5,770)	98.5% (5,531)
Call to 1st Arrival at 0640 secs	98.9% (5,581)	98.6% (5,772)	98.6% (5,535)
Call to 1st Arrival at 0650 secs	99.0% (5,587)	98.6% (5,776)	98.6% (5,536)
Call to 1st Arrival at ** 11 minutes **	99.0% (5,591)	98.7% (5,779)	98.7% (5,543)
Call to 1st Arrival at 0670 secs	99.1% (5,595)	98.7% (5,780)	98.8% (5,548)
Call to 1st Arrival at 0680 secs	99.2% (5,599)	98.8% (5,788)	98.8% (5,551)
Call to 1st Arrival at 0690 secs	99.2% (5,601)	98.9% (5,790)	98.8% (5,551)
Call to 1st Arrival at 0700 secs	99.3% (5,603)	98.9% (5,793)	98.9% (5,554)
Call to 1st Arrival at 0710 secs	99.3% (5,605)	99.0% (5,797)	98.9% (5,557)
Call to 1st Arrival at ** 12 minutes **	99.3% (5,608)	99.0% (5,800)	99.0% (5,559)
Call to 1st Arrival at 0730 secs	99.4% (5,611)	99.1% (5,804)	99.0% (5,562)
Call to 1st Arrival at 0740 secs	99.4% (5,613)	99.2% (5,807)	99.0% (5,562)
Call to 1st Arrival at 0750 secs	99.5% (5,616)	99.2% (5,810)	99.1% (5,565)
Call to 1st Arrival at 0760 secs	99.5% (5,619)	99.2% (5,812)	99.1% (5,565)
Call to 1st Arrival at 0770 secs	99.6% (5,620)	99.3% (5,816)	99.1% (5,567)
Call to 1st Arrival at ** 13 minutes **	99.6% (5,621)	99.3% (5,816)	99.2% (5,569)
Call to 1st Arrival at 0790 secs	99.6% (5,623)	99.3% (5,817)	99.2% (5,571)
Call to 1st Arrival at 0800 secs	99.6% (5,623)	99.4% (5,819)	99.2% (5,571)
Call to 1st Arrival at 0810 secs	99.7% (5,626)	99.4% (5,821)	99.2% (5,571)
Call to 1st Arrival at 0820 secs	99.7% (5,626)	99.4% (5,821)	99.2% (5,572)
Call to 1st Arrival at 0830 secs	99.7% (5,626)	99.4% (5,822)	99.3% (5,575)
Call to 1st Arrival at ** 14 minutes **	99.7% (5,627)	99.4% (5,823)	99.3% (5,576)
Call to 1st Arrival at 0850 secs	99.7% (5,627)	99.5% (5,826)	99.3% (5,577)
Call to 1st Arrival at 0860 secs	99.7% (5,627)	99.5% (5,828)	99.3% (5,578)
Call to 1st Arrival at 0870 secs	99.7% (5,628)	99.5% (5,828)	99.4% (5,582)
Call to 1st Arrival at 0880 secs	99.7% (5,628)	99.6% (5,830)	99.4% (5,583)
Call to 1st Arrival at 0890 secs	99.7% (5,629)	99.6% (5,831)	99.4% (5,584)
Call to 1st Arrival at ** 15 minutes **	99.7% (5,629)	99.6% (5,831)	99.5% (5,587)
Call to 1st Arrival at 0910 secs	99.7% (5,630)	99.6% (5,833)	99.5% (5,587)

	2007	2008	2009
Call to 1st Arrival at 0920 secs	99.8% (5,631)	99.6% (5,834)	99.5% (5,588)
Call to 1st Arrival at 0930 secs	99.8% (5,631)	99.6% (5,834)	99.6% (5,593)
Call to 1st Arrival at 0940 secs	99.8% (5,633)	99.7% (5,836)	99.6% (5,594)
Call to 1st Arrival at 0950 secs	99.8% (5,635)	99.7% (5,836)	99.6% (5,594)
Call to 1st Arrival at ** 16 minutes **	99.8% (5,636)	99.7% (5,836)	99.6% (5,595)
Call to 1st Arrival at 0970 secs	99.9% (5,637)	99.7% (5,837)	99.6% (5,595)
Call to 1st Arrival at 0980 secs	99.9% (5,638)	99.7% (5,838)	99.6% (5,595)
Call to 1st Arrival at 0990 secs	99.9% (5,638)	99.7% (5,839)	99.6% (5,595)
Call to 1st Arrival at 1000 secs	99.9% (5,638)	99.7% (5,839)	99.6% (5,596)
Call to 1st Arrival at 1010 secs	99.9% (5,638)	99.7% (5,839)	99.6% (5,596)
Call to 1st Arrival at ** 17 minutes **	99.9% (5,639)	99.7% (5,841)	99.7% (5,598)
Call to 1st Arrival at 1030 secs	99.9% (5,639)	99.7% (5,841)	99.7% (5,600)
Call to 1st Arrival at 1040 secs	99.9% (5,639)	99.7% (5,841)	99.8% (5,603)
Call to 1st Arrival at 1050 secs	99.9% (5,639)	99.8% (5,842)	99.8% (5,603)
Call to 1st Arrival at 1060 secs	99.9% (5,639)	99.8% (5,842)	99.8% (5,603)
Call to 1st Arrival at 1070 secs	99.9% (5,639)	99.8% (5,844)	99.8% (5,603)
Call to 1st Arrival at ** 18 minutes **	99.9% (5,641)	99.8% (5,845)	99.8% (5,606)
Call to 1st Arrival at 1090 secs	99.9% (5,641)	99.8% (5,847)	99.9% (5,608)
Call to 1st Arrival at 1100 secs	99.9% (5,642)	99.9% (5,848)	99.9% (5,609)
Call to 1st Arrival at 1110 secs	99.9% (5,642)	99.9% (5,848)	99.9% (5,610)
Call to 1st Arrival at 1120 secs	99.9% (5,642)	99.9% (5,848)	99.9% (5,612)
Call to 1st Arrival at 1130 secs	100.0% (5,643)	99.9% (5,848)	99.9% (5,612)
Call to 1st Arrival at ** 19 minutes **	100.0% (5,643)	99.9% (5,850)	99.9% (5,612)
Call to 1st Arrival at 1150 secs	100.0% (5,643)	99.9% (5,853)	99.9% (5,612)
Call to 1st Arrival at 1160 secs	100.0% (5,643)	99.9% (5,853)	99.9% (5,612)
Call to 1st Arrival at 1170 secs	100.0% (5,644)	99.9% (5,853)	99.9% (5,613)
Call to 1st Arrival at 1180 secs	100.0% (5,644)	100.0% (5,854)	100.0% (5,615)
Call to 1st Arrival at 1190 secs	100.0% (5,645)	100.0% (5,856)	100.0% (5,615)
Call to 1st Arrival at ** 20 minutes **	100.0% (5,645)	100.0% (5,856)	100.0% (5,616)
secs (mins) to 90%	390 (6.5)	390 (6.5)	390 (6.5)
secs (mins) to 80%	350 (5.83)	340 (5.66)	340 (5.66)

**Discussion:** Call to Arrival times appears solid, when averaged citywide.

## Failure Analysis

Fire and EMS incidents with a Call to Arrival duration of 420 (7 minutes total reflex) seconds or less meet the Call to Arrival Citygate recommendation used in this analysis. Incidents with a Call to Arrival greater than 420 seconds fail the recommended goal. This section measures and quantifies the “fail” incidents. In the Beverly Hills Fire Department, only 5.12 percent of fire and EMS incidents fail to meet a 420 second Call to 1<sup>st</sup> Apparatus arrival goal.

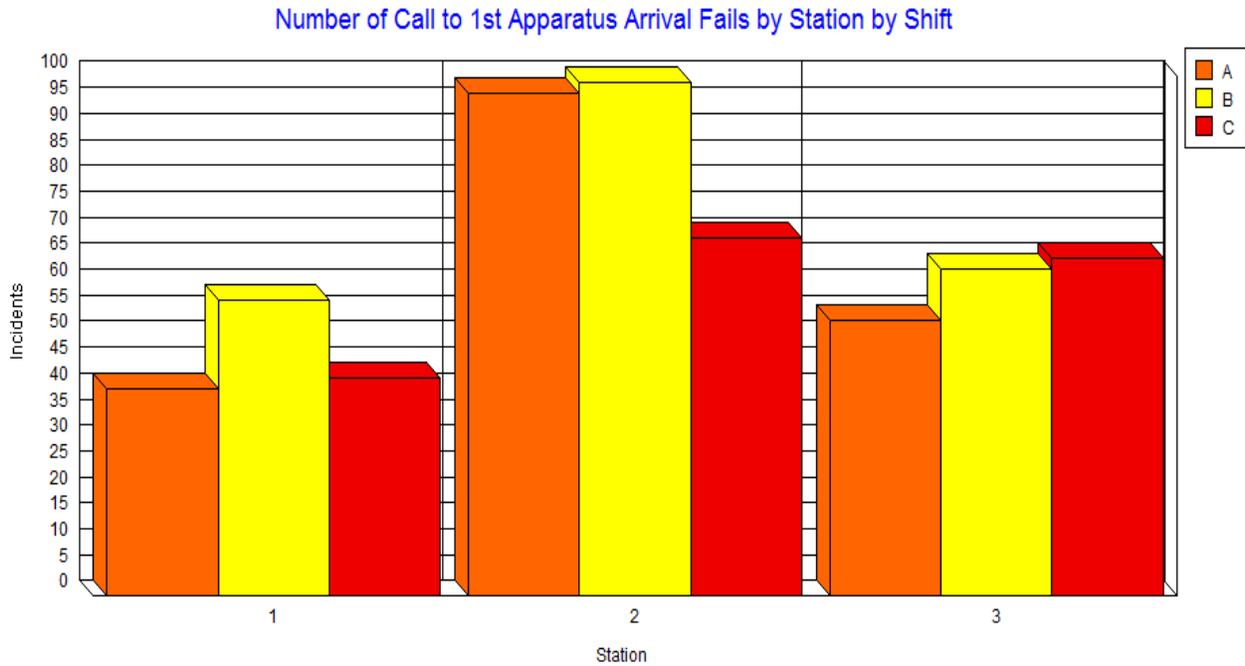
The chart below illustrates the temporal distribution of 585 Beverly Hills Fire Department station responses to fire and EMS incidents that *failed* to meet a 420 second Call to 1<sup>st</sup> Apparatus arrival:

Fire and EMS - Call to Arrival > 420

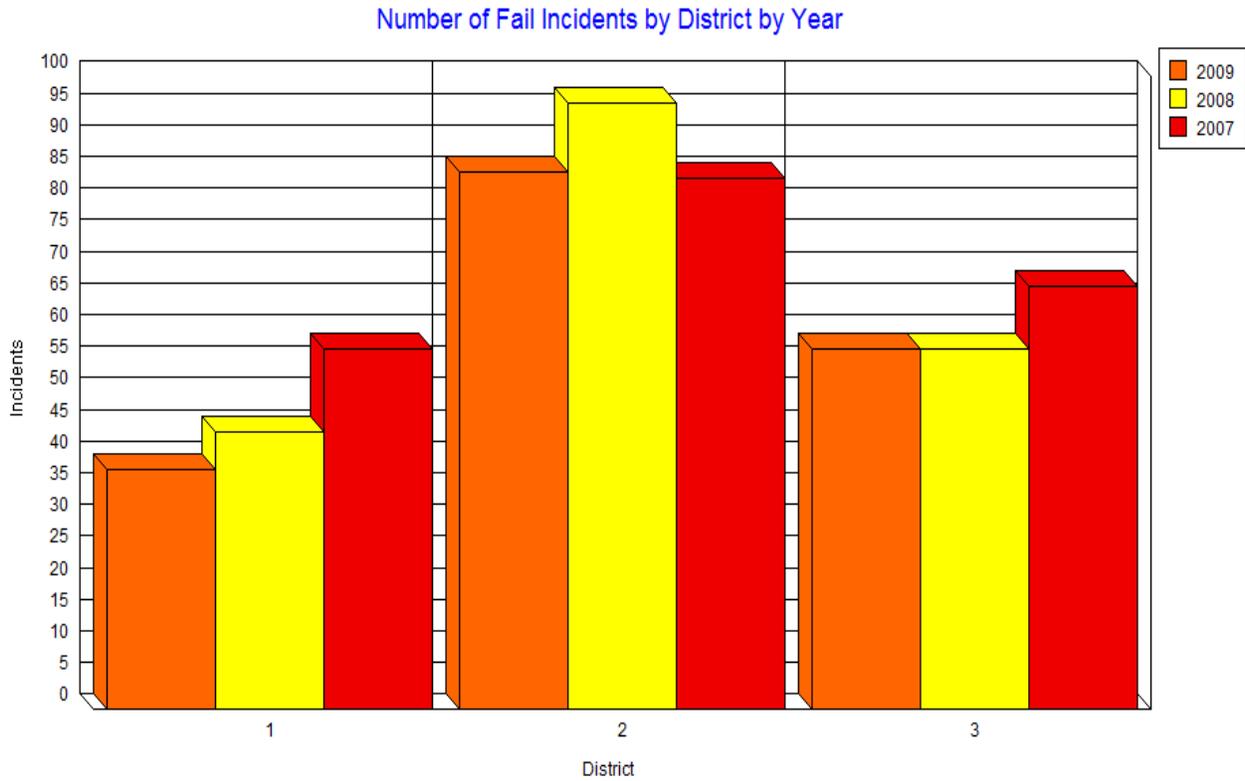
	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Total
00:00-00:59	3	0	2	1	3	3	6	18
01:00-01:59	2	3	6	1	2	5	3	22
02:00-02:59	2	5	4	0	5	3	2	21
03:00-03:59	1	1	2	0	3	3	3	13
04:00-04:59	2	4	1	3	5	3	1	19
05:00-05:59	7	2	3	0	3	0	2	17
06:00-06:59	1	0	4	2	2	4	1	14
07:00-07:59	2	4	2	5	3	4	4	24
08:00-08:59	2	7	8	2	2	2	0	23
09:00-09:59	5	5	6	1	2	5	1	25
10:00-10:59	5	4	2	4	4	1	5	25
11:00-11:59	4	5	8	5	2	3	1	28
12:00-12:59	7	7	6	4	3	8	3	38
13:00-13:59	7	7	6	6	5	1	0	32
14:00-14:59	5	3	6	10	2	8	0	34
15:00-15:59	5	8	4	12	3	2	5	39
16:00-16:59	2	5	12	3	5	1	3	31
17:00-17:59	5	11	4	4	4	1	5	34
18:00-18:59	2	5	2	1	3	1	3	17
19:00-19:59	2	3	2	4	8	4	4	27
20:00-20:59	4	4	4	2	5	1	2	22
21:00-21:59	5	3	4	5	5	2	4	28
22:00-22:59	2	4	4	2	1	2	0	15
23:00-23:59	1	0	2	4	4	6	2	19
Total	83	100	104	81	84	73	60	585

Failed incidents tend to congregate in the early afternoon into the late evening Monday through Friday. Placing the failure rate in context, only 5.12 percent of fire and EMS incidents fail to meet a 420 second Call to 1<sup>st</sup> Apparatus Arrival standard.

Here is the distribution of the 585 fail incidents by station and shift:

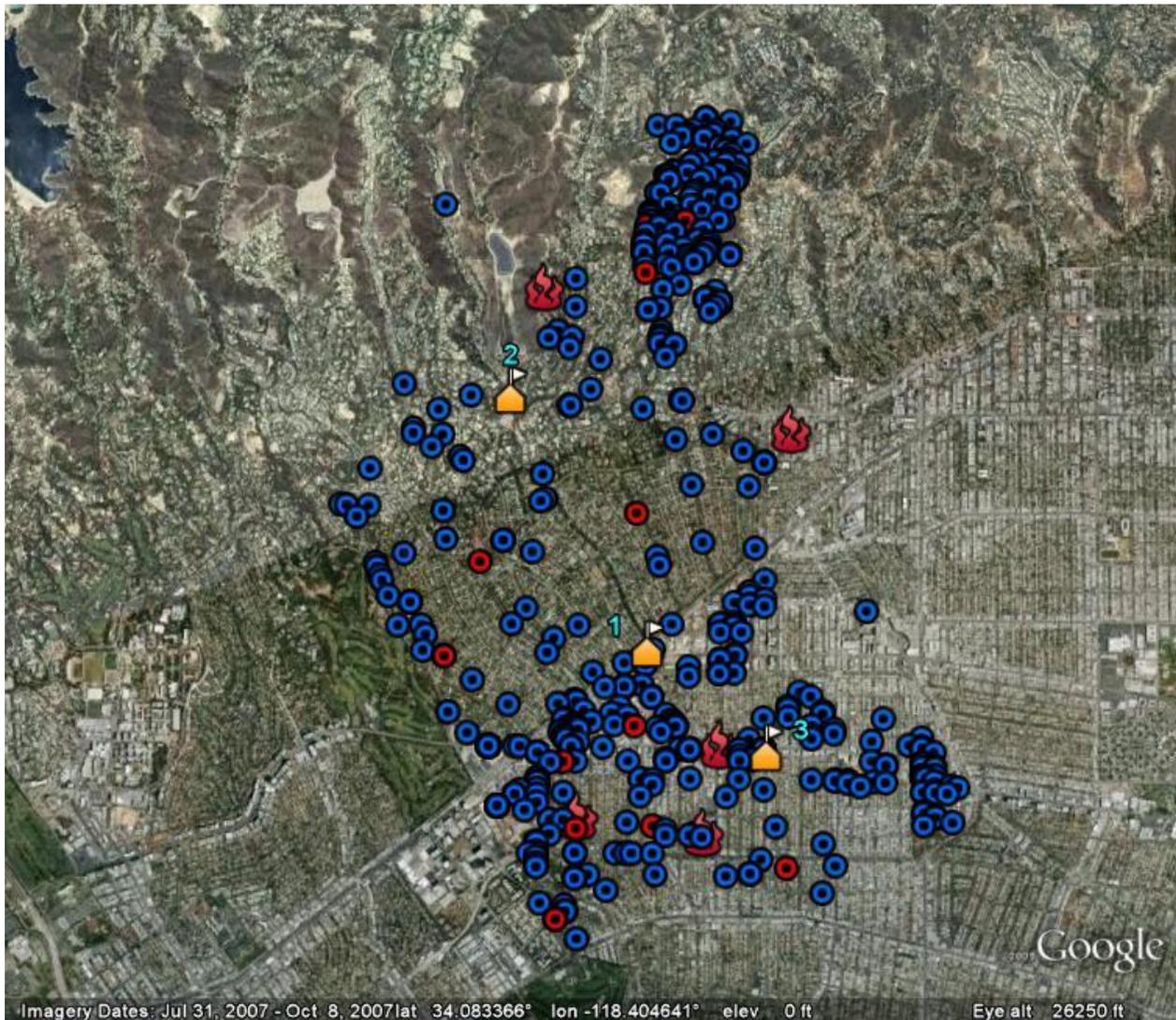


Here is the number of fail incidents by district by year.



The percentage of fail incidents that occurred when other incidents were underway was 36.58 percent. This compares to an overall simultaneous rate of 32.18 percent. This tends to eliminate simultaneous incidents as the only driving force behind fail incidents.

Geographic location of Call to Arrival fails:



The largest concentration of Call to 1<sup>st</sup> Arrival fails is in an isolated road network northeast of Station 2. Other smaller concentrations are at the east end of Station 3's district and the area west of Station 3 and southwest of Station 1.

In the above image EMS incidents are in blue. Structure fires are indicated by a fire icon. Other fires are indicated by a red circle.

In the next section, Call to Arrival is now broken down into component parts for further analysis.

### **Overall Call Processing Time – Call to Dispatch**

Call processing times generally average 90 percent in one minute. To reach 90 percent in 30 seconds is highly unusual and may indicate a call receipt timestamp well into the call handling process.

## Incidents: Call Processing (CAD) Analysis - by Year

There are 17,250 Incident records being analyzed.

\*77 records were ignored because of a zero time value.

\*35 records were ignored because they were more than the limit of 300 seconds.

	2007	2008	2009
Call Processing (CAD) at 0000 secs	.0% (0)	.0% (0)	.0% (0)
Call Processing (CAD) at 0010 secs	44.4% (2,508)	50.1% (2,937)	45.9% (2,586)
Call Processing (CAD) at 0020 secs	76.4% (4,316)	79.2% (4,637)	75.8% (4,272)
Call Processing (CAD) at 0030 secs	88.0% (4,970)	89.0% (5,213)	87.0% (4,899)
Call Processing (CAD) at 0040 secs	92.8% (5,241)	93.1% (5,453)	91.8% (5,171)
Call Processing (CAD) at 0050 secs	95.2% (5,375)	95.5% (5,592)	94.6% (5,330)
Call Processing (CAD) at ** 1 minute **	96.9% (5,473)	97.0% (5,682)	96.1% (5,416)
Call Processing (CAD) at 0070 secs	97.8% (5,521)	97.7% (5,725)	97.2% (5,474)
Call Processing (CAD) at 0080 secs	98.3% (5,549)	98.2% (5,755)	98.0% (5,523)
Call Processing (CAD) at 0090 secs	98.7% (5,576)	98.6% (5,774)	98.5% (5,551)
Call Processing (CAD) at 0100 secs	99.0% (5,590)	98.8% (5,787)	98.8% (5,568)
Call Processing (CAD) at 0110 secs	99.1% (5,597)	99.0% (5,800)	99.0% (5,576)
Call Processing (CAD) at ** 2 minutes **	99.2% (5,604)	99.3% (5,815)	99.1% (5,584)
Call Processing (CAD) at 0130 secs	99.3% (5,610)	99.4% (5,823)	99.4% (5,597)
Call Processing (CAD) at 0140 secs	99.4% (5,614)	99.5% (5,829)	99.4% (5,602)
Call Processing (CAD) at 0150 secs	99.5% (5,621)	99.6% (5,834)	99.6% (5,608)
Call Processing (CAD) at 0160 secs	99.6% (5,626)	99.7% (5,838)	99.6% (5,612)
Call Processing (CAD) at 0170 secs	99.7% (5,628)	99.7% (5,838)	99.7% (5,616)
Call Processing (CAD) at ** 3 minutes **	99.7% (5,629)	99.7% (5,843)	99.8% (5,619)
Call Processing (CAD) at 0190 secs	99.7% (5,630)	99.8% (5,845)	99.8% (5,621)
Call Processing (CAD) at 0200 secs	99.8% (5,633)	99.8% (5,846)	99.8% (5,623)
Call Processing (CAD) at 0210 secs	99.8% (5,637)	99.8% (5,846)	99.8% (5,624)
Call Processing (CAD) at 0220 secs	99.8% (5,638)	99.8% (5,849)	99.9% (5,625)
Call Processing (CAD) at 0230 secs	99.9% (5,639)	99.8% (5,849)	99.9% (5,628)
Call Processing (CAD) at ** 4 minutes **	99.9% (5,640)	99.9% (5,850)	99.9% (5,628)
Call Processing (CAD) at 0250 secs	99.9% (5,640)	99.9% (5,854)	100.0% (5,631)
Call Processing (CAD) at 0260 secs	99.9% (5,640)	99.9% (5,855)	100.0% (5,632)
Call Processing (CAD) at 0270 secs	99.9% (5,644)	99.9% (5,855)	100.0% (5,632)
Call Processing (CAD) at 0280 secs	99.9% (5,644)	100.0% (5,857)	100.0% (5,633)
Call Processing (CAD) at 0290 secs	100.0% (5,646)	100.0% (5,857)	100.0% (5,633)
Call Processing (CAD) at ** 5 minutes **	100.0% (5,647)	100.0% (5,858)	100.0% (5,633)
secs (mins) to 90%	40 (.66)	40 (.66)	40 (.66)
secs (mins) to 80%	30 (.5)	30 (.5)	30 (.5)

**Discussion:** Call Processing Times seem very short. Task analysis would provide a better picture about the validity of the CAD timestamps used for these calculations.

Here is the temporal distribution for fire and EMS incidents that failed to meet a 60-second call processing standard.

Failed Call Processing Incidents > 60 secs

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Total
00:00-00:59	0	0	0	0	0	0	1	1
01:00-01:59	0	0	1	0	1	1	0	3
02:00-02:59	1	0	0	0	2	0	0	3
03:00-03:59	1	0	0	0	1	0	0	2
04:00-04:59	0	1	1	0	0	0	1	3
05:00-05:59	0	0	0	1	0	0	0	1
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	1	1	1	0	0	0	0	3
08:00-08:59	2	1	4	0	2	0	0	9
09:00-09:59	5	1	2	0	4	0	2	14
10:00-10:59	3	6	5	1	3	3	1	22
11:00-11:59	4	2	4	5	4	0	2	21
12:00-12:59	2	3	4	6	4	3	0	22
13:00-13:59	3	4	6	3	7	2	1	26
14:00-14:59	2	2	4	2	3	1	1	15
15:00-15:59	3	10	1	10	5	3	3	35
16:00-16:59	2	6	5	2	3	1	1	20
17:00-17:59	5	5	6	2	2	0	3	23
18:00-18:59	1	2	1	3	1	0	0	8
19:00-19:59	2	2	1	2	5	1	3	16
20:00-20:59	1	1	0	3	1	0	1	7
21:00-21:59	0	1	3	3	3	0	0	10
22:00-22:59	0	1	0	2	0	2	0	5
23:00-23:59	0	1	0	1	0	2	0	4
Total	38	50	49	46	51	19	20	273

Call processing performance is strong in early morning hours, but begins to show some deterioration beginning around 9:00am and extending through to 6:00pm. Overall, however, Call Processing fail rate for fire and EMS incidents at 60 seconds is just under 2.4 percent.

### ***Overall Turnout Time – Dispatch to Enroute***

Turnout time performance seems unusually slow with only 50 percent compliance in 120 seconds.

#### **Incidents: Turnout (CAD) Analysis - by Year**

There are 17,250 Incident records being analyzed.

\*1,857 records were ignored because of a zero time value.

\*649 records were ignored because they were more than the limit of 300 seconds.

	<b>2007</b>	<b>2008</b>	<b>2009</b>
Turnout (CAD) at 0000 secs	.0% (0)	.0% (0)	.0% (0)
Turnout (CAD) at 0010 secs	.1% (6)	.2% (9)	.3% (15)
Turnout (CAD) at 0020 secs	.2% (8)	.3% (17)	.4% (21)
Turnout (CAD) at 0030 secs	.4% (21)	.5% (23)	.6% (27)
Turnout (CAD) at 0040 secs	1.5% (71)	1.2% (59)	1.0% (47)
Turnout (CAD) at 0050 secs	3.8% (186)	3.7% (185)	3.0% (144)
Turnout (CAD) at ** 1 minute **	7.3% (356)	7.0% (354)	6.7% (324)
Turnout (CAD) at 0070 secs	10.8% (523)	10.9% (547)	10.4% (508)
Turnout (CAD) at 0080 secs	16.2% (788)	16.1% (810)	15.9% (774)
Turnout (CAD) at 0090 secs	24.4% (1,182)	22.8% (1,145)	23.1% (1,126)
Turnout (CAD) at 0100 secs	32.8% (1,590)	32.0% (1,609)	32.3% (1,570)
Turnout (CAD) at 0110 secs	41.9% (2,034)	41.9% (2,107)	43.3% (2,108)
Turnout (CAD) at ** 2 minutes **	50.6% (2,453)	50.6% (2,547)	52.5% (2,556)
Turnout (CAD) at 0130 secs	58.1% (2,820)	58.3% (2,933)	60.2% (2,931)
Turnout (CAD) at 0140 secs	65.7% (3,185)	64.9% (3,265)	66.5% (3,233)
Turnout (CAD) at 0150 secs	71.1% (3,446)	70.9% (3,568)	72.6% (3,530)
Turnout (CAD) at 0160 secs	76.0% (3,688)	76.1% (3,825)	78.0% (3,794)
Turnout (CAD) at 0170 secs	80.3% (3,895)	80.8% (4,065)	82.4% (4,010)
Turnout (CAD) at ** 3 minutes **	83.6% (4,057)	84.5% (4,251)	86.1% (4,189)
Turnout (CAD) at 0190 secs	86.5% (4,197)	87.5% (4,401)	88.9% (4,327)
Turnout (CAD) at 0200 secs	<b>89.1% (4,320)</b>	<b>89.8% (4,517)</b>	<b>91.0% (4,428)</b>
Turnout (CAD) at 0210 secs	91.2% (4,423)	91.8% (4,619)	92.7% (4,511)
Turnout (CAD) at 0220 secs	92.8% (4,502)	93.2% (4,687)	94.1% (4,578)
Turnout (CAD) at 0230 secs	94.0% (4,558)	94.4% (4,745)	95.3% (4,634)
Turnout (CAD) at ** 4 minutes **	95.2% (4,616)	95.4% (4,797)	96.4% (4,688)
Turnout (CAD) at 0250 secs	96.3% (4,672)	96.3% (4,841)	97.2% (4,727)

	2007	2008	2009
Turnout (CAD) at 0260 secs	97.3% (4,720)	97.3% (4,894)	98.2% (4,775)
Turnout (CAD) at 0270 secs	98.0% (4,752)	98.1% (4,932)	98.8% (4,808)
Turnout (CAD) at 0280 secs	98.7% (4,786)	98.7% (4,965)	99.3% (4,830)
Turnout (CAD) at 0290 secs	99.4% (4,820)	99.4% (4,999)	99.7% (4,848)
Turnout (CAD) at ** 5 minutes **	100.0% (4,850)	100.0% (5,029)	100.0% (4,865)
secs (mins) to 90%	210 (3.5)	200 (3.33)	200 (3.33)
secs (mins) to 80%	170 (2.83)	170 (2.83)	170 (2.83)

**Discussion:** Turnout time seems long. One possibility is that the Time of Dispatch timestamp may be captured before the Dispatch information has been communicated to the companies. A task analysis would help clarify these unusually long turnout times.

Here is the temporal distribution for fire and EMS incidents that failed to meet a 120-second Crew Turnout standard.

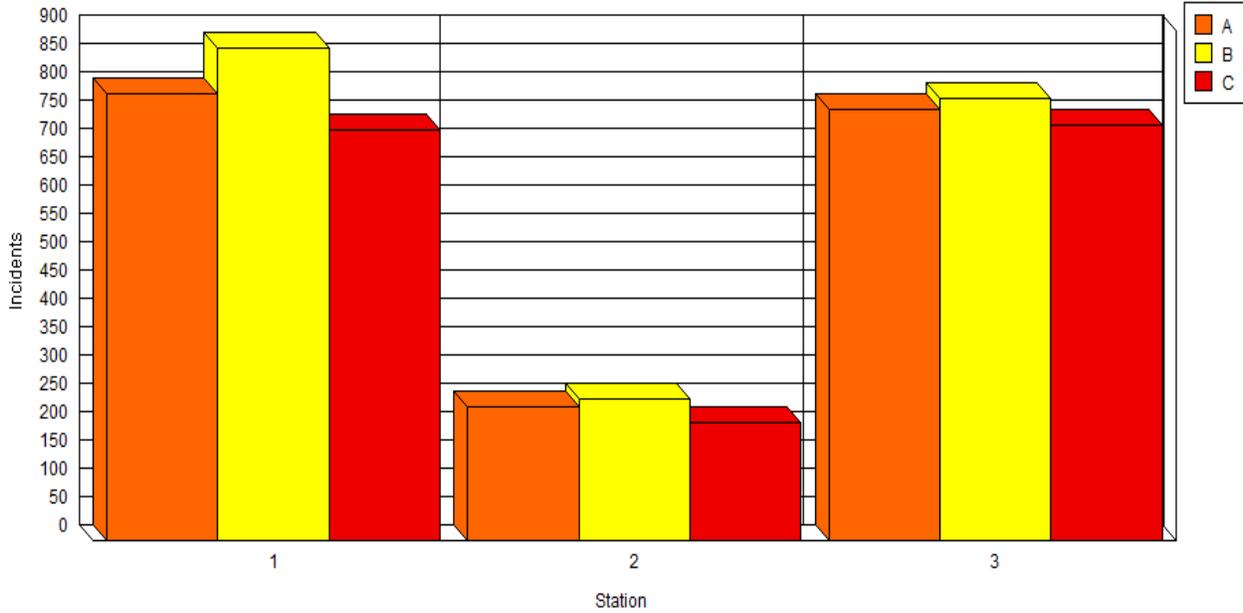
Fail Crew Turnout > 120  
secs

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Total
00:00-00:59	31	27	41	35	34	40	52	260
01:00-01:59	32	25	33	26	42	38	42	238
02:00-02:59	23	37	25	23	26	35	43	212
03:00-03:59	29	13	20	22	27	28	26	165
04:00-04:59	21	22	25	27	27	21	25	168
05:00-05:59	24	22	29	15	29	33	21	173
06:00-06:59	33	30	29	35	26	26	27	206
07:00-07:59	33	36	34	33	56	32	35	259
08:00-08:59	53	46	53	47	45	31	28	303
09:00-09:59	57	43	49	49	42	32	34	306
10:00-10:59	57	58	60	30	32	20	18	275
11:00-11:59	38	33	36	36	29	25	16	213
12:00-12:59	32	39	46	21	32	17	25	212
13:00-13:59	50	48	34	39	34	20	16	241
14:00-14:59	39	39	47	37	34	24	17	237
15:00-15:59	49	39	47	32	22	19	24	232
16:00-16:59	39	42	43	23	29	22	18	216
17:00-17:59	35	39	46	24	28	15	23	210
18:00-18:59	21	35	23	24	31	27	15	176
19:00-19:59	29	18	22	44	40	25	24	202
20:00-20:59	19	15	40	33	28	31	22	188
21:00-21:59	22	29	35	30	30	33	21	200
22:00-22:59	26	27	38	27	47	36	29	230
23:00-23:59	29	28	34	35	39	40	41	246
Total	821	790	889	747	809	670	642	5,368

Unlike Call Processing, the overall failure rate for Crew Turnout to fire and EMS incidents is very high at 47 percent. There is a significant opportunity for improvement in this area.

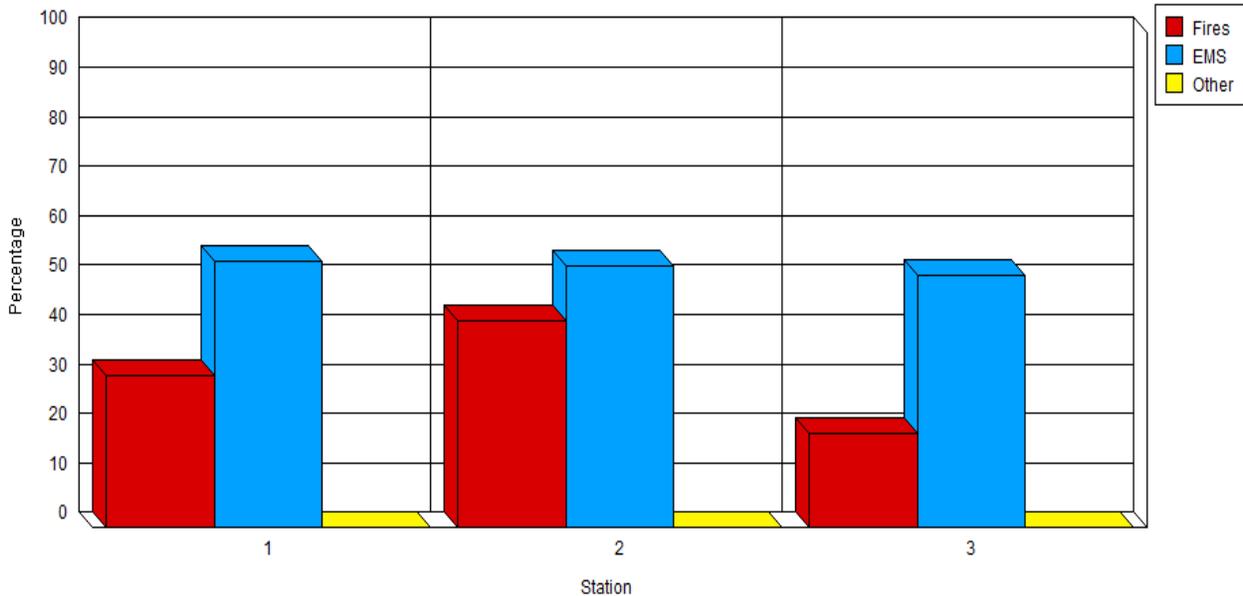
Here is the breakdown of Crew Turnout to fire and EMS incidents by station and shift.

Number of Crew Turnout Fail Incidents by Station by Shift



The compliance percentage for Crew Turnout for fires is dramatically less than the percentage for turnout to EMS incidents. This trend is true for all stations.

Station Compliance Percentage for Turnout (CAD) at 120 secs. by Type



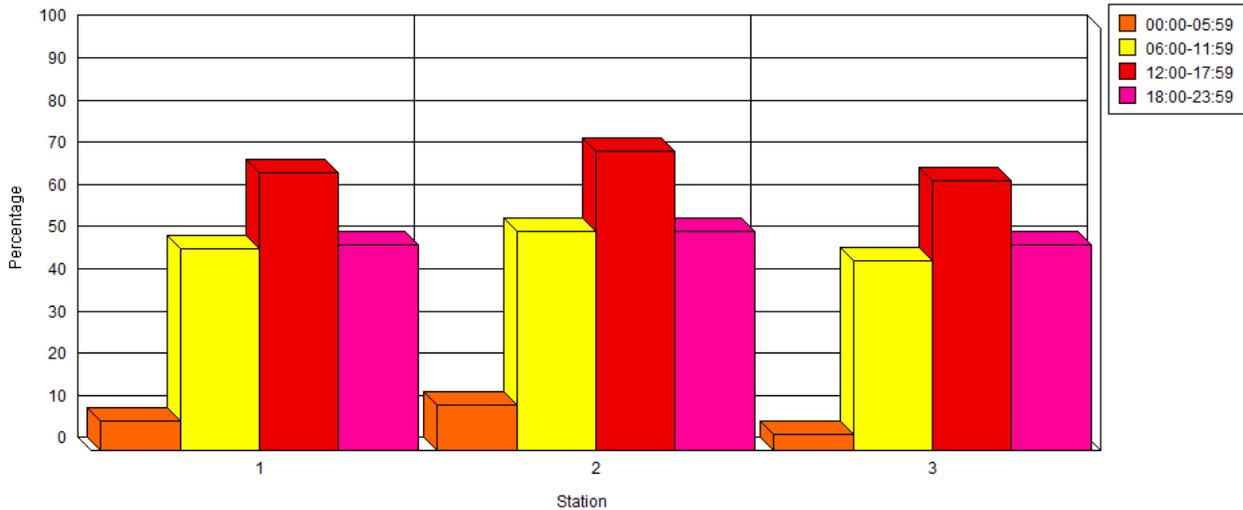
## Turnout Time Measures at 120 Seconds (2 Minutes) by 6-hour time block:

AM1=0001-0600    AM2=0600-1200    PM1=1200=1800    PM2=1800-1200

Shift	AM1	AM2	PM1	PM2	% @ 120 secs	Secs. to 90%
A	5.86% (614)	45.71% (1,341)	65.65% (1,776)	50.16% (1,248)	46.64% (4,979)	230
B	4.68% (576)	47.19% (1,303)	64.09% (1,863)	44.66% (1,274)	45.87% (5,016)	230
C	9.89% (576)	48.96% (1,407)	67.10% (1,839)	54.31% (1,193)	50.21% (5,015)	225

Dist	AM1	AM2	PM1	PM2	% @ 120 secs	Secs. to 90%
1	6.72% (788)	47.94% (1,846)	65.66% (2,563)	48.94% (1,663)	48.46% (6,860)	220
2	11.21% (330)	51.44% (589)	70.13% (750)	51.54% (648)	47.75% (2,317)	260
3	4.36% (642)	45.10% (1,603)	64% (2,156)	49.35% (1,394)	46.46% (5,795)	230

Station Compliance Percentage for Turnout (CAD) at 120 secs. by Hour Segment



Fire, SO, EMS, Other	AM1	AM2	PM1	PM2	% @ 120 secs	Secs. to 90%
3 EMS	6.99% (1,230)	51.10% (2,853)	71.14% (3,836)	56.06% (2,563)	53.00% (10,482)	210
4 Others	5.97% (452)	38.01% (939)	52.34% (1,238)	35.22% (880)	35.19% (3,509)	270
2 Special Ops	8.33% (48)	39.13% (207)	56.08% (312)	40% (190)	40.14% (757)	295
1 Fires	8.33% (36)	40.38% (52)	45.65% (92)	24.39% (82)	30.06% (262)	275

Hour of Day	Bldg Fires	% @ 120 secs	Secs. to 90%
0		9.85% (385)	240
1		4.48% (339)	240
2	1	7.31% (310)	250
3	5	7.66% (251)	230
4	3	4.81% (240)	230
5		3.11% (241)	255
6		10.97% (312)	265
7	1	19.70% (457)	245
8	2	32.57% (622)	250
9	3	46.13% (816)	235
10	1	56.90% (926)	240
11	2	64.95% (918)	210
12	3	66.04% (928)	210
13	4	60.47% (971)	220
14	1	59.85% (912)	235
15	2	62.79% (936)	235
16	6	63.98% (889)	225
17	4	61.12% (842)	235
18		59.78% (733)	210
19	1	57.73% (726)	210
20	1	55.74% (690)	185
21		48.02% (613)	190
22	5	32.58% (517)	220
23	4	19.95% (436)	215

Station -Shift	Bldg Fires	AM1	AM2	PM1	PM2	% @ 120 secs	Secs. to 90%
1_A	10	5.45% (275)	45.68% (626)	65.44% (819)	47.27% (533)	46.53% (2,253)	220
1_B	10	3.87% (258)	48% (575)	62.85% (891)	42.75% (566)	46.10% (2,290)	220
1_C	4	10.98% (255)	50.07% (645)	68.81% (853)	56.73% (564)	52.68% (2,317)	210
2_A	3	10.81% (111)	47.36% (171)	70.31% (256)	43.57% (218)	44.39% (756)	270
2_B	2	6.95% (115)	52.23% (224)	69.34% (261)	56.21% (201)	48.10% (801)	260
2_C	1	16.34% (104)	54.12% (194)	70.81% (233)	55.02% (229)	50.79% (760)	250
3_A	7	3.52% (227)	45.11% (543)	64.14% (700)	56.27% (494)	47.66% (1,964)	230
3_B	3	4.47% (201)	43.95% (496)	63.70% (708)	41.63% (502)	44.50% (1,907)	235
3_C	9	5.14% (214)	46.09% (564)	64.17% (748)	50.50% (398)	47.17% (1,924)	230

### Travel Time – Enroute to Arrival

Travel Times greater than 20 minutes were eliminated from this analysis.

#### Incidents: Travel (CAD) Analysis - by Year

There are 17,250 Incident records being analyzed.

\*4,224 records were ignored because of a zero time value.

\*36 records were ignored because they were more than the limit of 900 seconds.

	2007	2008	2009
Travel (CAD) at 0000 secs	.0% (0)	.0% (0)	.0% (0)
Travel (CAD) at 0010 secs	.3% (13)	.6% (26)	.6% (27)
Travel (CAD) at 0020 secs	.8% (35)	.9% (39)	1.3% (54)
Travel (CAD) at 0030 secs	1.6% (68)	1.8% (81)	2.3% (97)
Travel (CAD) at 0040 secs	3.1% (132)	3.4% (149)	4.0% (173)
Travel (CAD) at 0050 secs	4.5% (192)	5.8% (253)	6.8% (292)
Travel (CAD) at ** 1 minute **	7.5% (324)	8.5% (375)	10.4% (448)
Travel (CAD) at 0070 secs	11.4% (491)	12.0% (526)	15.2% (651)
Travel (CAD) at 0080 secs	15.8% (679)	16.5% (726)	19.7% (846)
Travel (CAD) at 0090 secs	20.4% (877)	21.5% (945)	25.6% (1,099)
Travel (CAD) at 0100 secs	25.3% (1,087)	27.3% (1,203)	32.8% (1,408)
Travel (CAD) at 0110 secs	31.4% (1,348)	33.9% (1,491)	38.6% (1,659)
Travel (CAD) at ** 2 minutes **	37.6% (1,617)	40.6% (1,785)	45.5% (1,954)
Travel (CAD) at 0130 secs	44.4% (1,909)	47.4% (2,087)	52.4% (2,249)
Travel (CAD) at 0140 secs	50.3% (2,160)	54.1% (2,379)	58.8% (2,525)

	2007	2008	2009
Travel (CAD) at 0150 secs	56.0% (2,407)	59.8% (2,629)	64.3% (2,760)
Travel (CAD) at 0160 secs	61.0% (2,622)	65.7% (2,889)	69.2% (2,972)
Travel (CAD) at 0170 secs	66.3% (2,847)	70.8% (3,115)	73.2% (3,146)
Travel (CAD) at ** 3 minutes **	71.5% (3,073)	75.3% (3,313)	77.1% (3,312)
Travel (CAD) at 0190 secs	76.0% (3,265)	79.0% (3,477)	80.4% (3,454)
Travel (CAD) at 0200 secs	80.3% (3,449)	82.3% (3,619)	83.5% (3,588)
Travel (CAD) at 0210 secs	83.5% (3,588)	85.2% (3,747)	85.6% (3,678)
Travel (CAD) at 0220 secs	86.3% (3,706)	87.2% (3,838)	87.9% (3,776)
Travel (CAD) at 0230 secs	88.5% (3,799)	89.0% (3,916)	89.5% (3,844)
Travel (CAD) at ** 4 minutes **	90.2% (3,875)	90.5% (3,984)	90.7% (3,897)
Travel (CAD) at 0250 secs	91.5% (3,929)	91.7% (4,034)	91.8% (3,942)
Travel (CAD) at 0260 secs	92.6% (3,977)	92.7% (4,079)	92.6% (3,977)
Travel (CAD) at 0270 secs	93.3% (4,006)	93.5% (4,116)	93.4% (4,010)
Travel (CAD) at 0280 secs	94.0% (4,038)	94.2% (4,146)	94.3% (4,051)
Travel (CAD) at 0290 secs	94.4% (4,056)	94.7% (4,168)	95.0% (4,079)
Travel (CAD) at ** 5 minutes **	95.0% (4,080)	95.3% (4,194)	95.4% (4,098)
Travel (CAD) at 0310 secs	95.7% (4,110)	95.6% (4,208)	95.8% (4,114)
Travel (CAD) at 0320 secs	96.0% (4,124)	96.1% (4,227)	96.2% (4,133)
Travel (CAD) at 0330 secs	96.6% (4,148)	96.3% (4,236)	96.6% (4,147)
Travel (CAD) at 0340 secs	96.9% (4,163)	96.6% (4,252)	96.8% (4,159)
Travel (CAD) at 0350 secs	97.2% (4,174)	97.0% (4,267)	97.2% (4,173)
Travel (CAD) at ** 6 minutes **	97.5% (4,186)	97.3% (4,280)	97.6% (4,191)
Travel (CAD) at 0370 secs	97.7% (4,197)	97.5% (4,289)	97.9% (4,203)
Travel (CAD) at 0380 secs	98.0% (4,207)	97.6% (4,295)	98.1% (4,215)
Travel (CAD) at 0390 secs	98.2% (4,218)	97.8% (4,304)	98.3% (4,220)
Travel (CAD) at 0400 secs	98.3% (4,223)	98.1% (4,318)	98.5% (4,229)
Travel (CAD) at 0410 secs	98.5% (4,231)	98.4% (4,330)	98.6% (4,237)
Travel (CAD) at ** 7 minutes **	98.6% (4,236)	98.5% (4,336)	98.8% (4,244)
Travel (CAD) at 0430 secs	98.8% (4,243)	98.7% (4,344)	98.8% (4,244)
Travel (CAD) at 0440 secs	98.9% (4,248)	98.8% (4,348)	98.9% (4,249)
Travel (CAD) at 0450 secs	99.0% (4,250)	99.0% (4,354)	99.0% (4,253)
Travel (CAD) at 0460 secs	99.0% (4,253)	99.0% (4,358)	99.0% (4,254)
Travel (CAD) at 0470 secs	99.1% (4,256)	99.2% (4,363)	99.1% (4,256)

	2007	2008	2009
Travel (CAD) at ** 8 minutes **	99.2% (4,259)	99.2% (4,364)	99.1% (4,258)
Travel (CAD) at 0490 secs	99.2% (4,260)	99.3% (4,367)	99.2% (4,260)
Travel (CAD) at 0500 secs	99.2% (4,262)	99.3% (4,367)	99.2% (4,262)
Travel (CAD) at 0510 secs	99.3% (4,266)	99.3% (4,371)	99.3% (4,263)
Travel (CAD) at 0520 secs	99.4% (4,270)	99.3% (4,371)	99.3% (4,266)
Travel (CAD) at 0530 secs	99.5% (4,272)	99.3% (4,371)	99.4% (4,269)
Travel (CAD) at ** 9 minutes **	99.5% (4,274)	99.4% (4,372)	99.4% (4,269)
Travel (CAD) at 0550 secs	99.5% (4,275)	99.4% (4,373)	99.5% (4,272)
Travel (CAD) at 0560 secs	99.6% (4,276)	99.4% (4,374)	99.5% (4,272)
Travel (CAD) at 0570 secs	99.6% (4,278)	99.4% (4,374)	99.5% (4,275)
Travel (CAD) at 0580 secs	99.6% (4,279)	99.5% (4,377)	99.6% (4,276)
Travel (CAD) at 0590 secs	99.7% (4,280)	99.5% (4,377)	99.6% (4,277)
Travel (CAD) at ** 10 minutes **	99.7% (4,283)	99.5% (4,380)	99.6% (4,278)
Travel (CAD) at 0610 secs	99.8% (4,285)	99.6% (4,382)	99.6% (4,279)
Travel (CAD) at 0620 secs	99.8% (4,286)	99.6% (4,382)	99.7% (4,281)
Travel (CAD) at 0630 secs	99.8% (4,288)	99.6% (4,383)	99.7% (4,282)
Travel (CAD) at 0640 secs	99.8% (4,288)	99.7% (4,387)	99.7% (4,282)
Travel (CAD) at 0650 secs	99.8% (4,288)	99.8% (4,390)	99.7% (4,282)
Travel (CAD) at ** 11 minutes **	99.8% (4,288)	99.8% (4,391)	99.7% (4,283)
Travel (CAD) at 0670 secs	99.9% (4,289)	99.8% (4,391)	99.8% (4,285)
Travel (CAD) at 0680 secs	99.9% (4,289)	99.8% (4,392)	99.8% (4,285)
Travel (CAD) at 0690 secs	99.9% (4,290)	99.8% (4,392)	99.8% (4,285)
Travel (CAD) at 0700 secs	99.9% (4,290)	99.8% (4,392)	99.8% (4,285)
Travel (CAD) at 0710 secs	99.9% (4,291)	99.8% (4,393)	99.8% (4,286)
Travel (CAD) at ** 12 minutes **	99.9% (4,291)	99.9% (4,394)	99.8% (4,286)
Travel (CAD) at 0730 secs	100.0% (4,293)	99.9% (4,395)	99.8% (4,286)
Travel (CAD) at 0740 secs	100.0% (4,293)	99.9% (4,395)	99.8% (4,287)
Travel (CAD) at 0750 secs	100.0% (4,293)	99.9% (4,395)	99.8% (4,287)
Travel (CAD) at 0760 secs	100.0% (4,293)	99.9% (4,395)	99.8% (4,287)
Travel (CAD) at 0770 secs	100.0% (4,293)	99.9% (4,396)	99.8% (4,287)
Travel (CAD) at ** 13 minutes **	100.0% (4,293)	99.9% (4,397)	99.8% (4,288)
Travel (CAD) at 0790 secs	100.0% (4,293)	100.0% (4,398)	99.9% (4,290)
Travel (CAD) at 0800 secs	100.0% (4,294)	100.0% (4,398)	99.9% (4,290)

	2007	2008	2009
Travel (CAD) at 0810 secs	100.0% (4,294)	100.0% (4,398)	99.9% (4,292)
Travel (CAD) at 0820 secs	100.0% (4,294)	100.0% (4,398)	99.9% (4,292)
Travel (CAD) at 0830 secs	100.0% (4,294)	100.0% (4,398)	99.9% (4,292)
Travel (CAD) at ** 14 minutes **	100.0% (4,295)	100.0% (4,400)	100.0% (4,293)
Travel (CAD) at 0850 secs	100.0% (4,295)	100.0% (4,400)	100.0% (4,293)
Travel (CAD) at 0860 secs	100.0% (4,295)	100.0% (4,400)	100.0% (4,294)
Travel (CAD) at 0870 secs	100.0% (4,295)	100.0% (4,400)	100.0% (4,294)
Travel (CAD) at 0880 secs	100.0% (4,295)	100.0% (4,400)	100.0% (4,294)
Travel (CAD) at 0890 secs	100.0% (4,295)	100.0% (4,400)	100.0% (4,294)
Travel (CAD) at ** 15 minutes **	100.0% (4,295)	100.0% (4,400)	100.0% (4,295)
secs (mins) to 90%	240 (4)	240 (4)	240 (4)
secs (mins) to 80%	200 (3.33)	200 (3.33)	190 (3.16)

**Discussion:** Citywide travel times are very good, meeting NFPA #1720 recommendations.

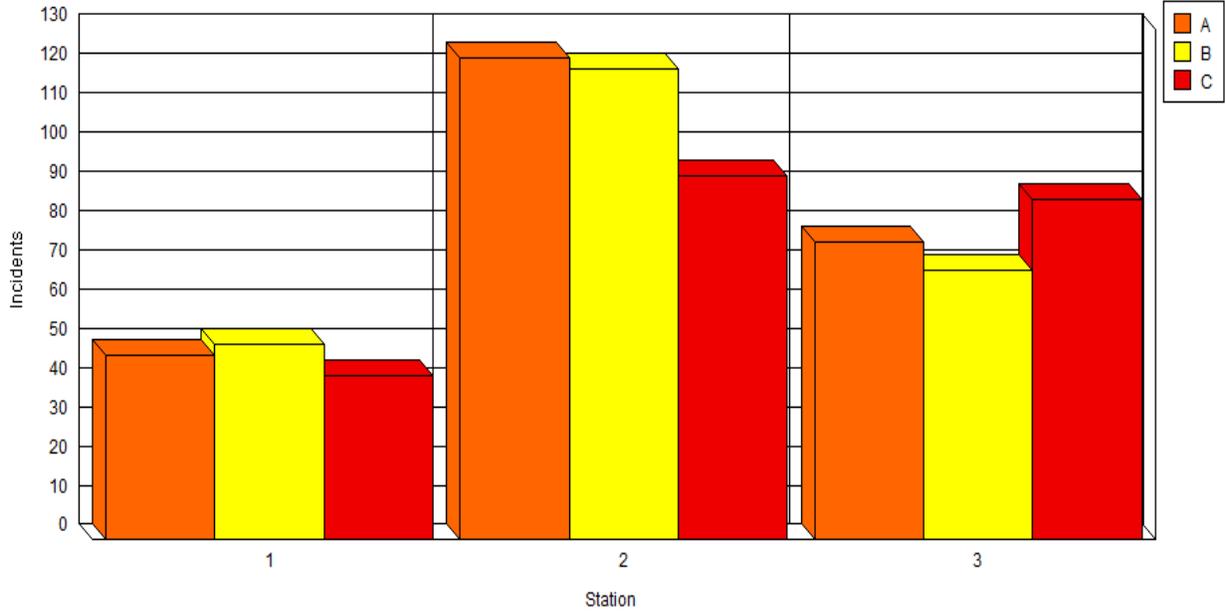
Here is the temporal activity chart for fire and EMS incident that failed to meet a travel time goal of 240 seconds:

Fire and EMS Travel Time > 240  
Seconds

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Total
00:00-00:59	2	0	3	2	1	2	4	14
01:00-01:59	1	2	3	1	2	2	3	14
02:00-02:59	1	4	3	1	2	4	2	17
03:00-03:59	0	1	1	1	2	2	3	10
04:00-04:59	1	3	1	2	5	2	1	15
05:00-05:59	3	1	3	0	1	1	1	10
06:00-06:59	1	0	3	3	1	4	1	13
07:00-07:59	3	2	4	2	5	2	3	21
08:00-08:59	6	8	4	4	2	3	1	28
09:00-09:59	7	5	8	5	6	5	3	39
10:00-10:59	7	5	4	4	6	1	5	32
11:00-11:59	3	4	8	9	7	5	7	43
12:00-12:59	8	8	8	10	11	13	3	61
13:00-13:59	6	7	8	11	10	5	0	47
14:00-14:59	9	6	5	10	5	9	2	46
15:00-15:59	5	7	6	12	7	5	5	47
16:00-16:59	5	5	10	8	10	4	2	44
17:00-17:59	8	11	6	7	5	3	5	45
18:00-18:59	4	7	5	3	7	2	3	31
19:00-19:59	5	6	4	8	7	5	3	38
20:00-20:59	4	3	6	2	7	1	1	24
21:00-21:59	5	3	5	7	6	2	6	34
22:00-22:59	3	3	4	3	1	2	1	17
23:00-23:59	1	0	3	4	4	4	1	17
Total	98	101	115	119	120	88	66	707

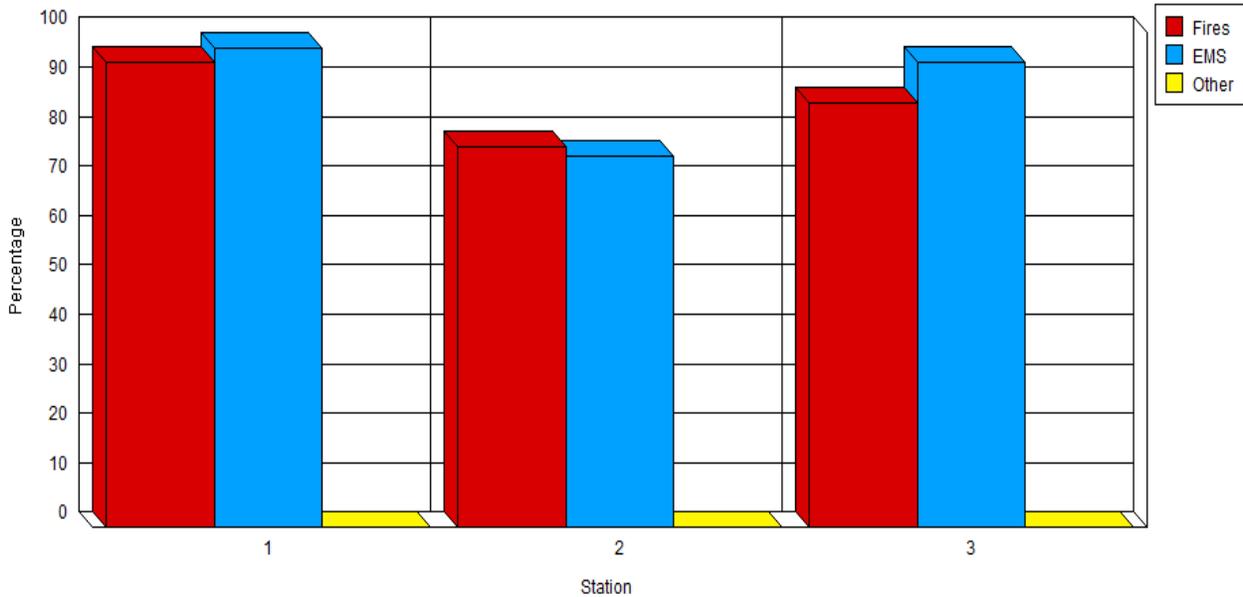
The following graph illustrates travel time fails by station and shift. Overall the Travel Time failure rate to fire and EMS incidents is only 6.2 percent.

Number of Fire & EMS Travel Time Fails by Station by Shift



Travel Time compliance is very high in Stations 1 and 3. Compliance in Station 2 is lower, but greater than 70 percent for fire and EMS incidents.

Station Compliance Percentage for Travel (CAD) at 240 secs. by Type



## Breakdown by Incident Type – Call to Arrival

### Incidents: Call to 1<sup>st</sup> Arrival Analysis - BF, Fire, SO, EMS, Other

There are 17,250 Incident records being analyzed.

\*66 records were ignored because of a zero time value.

\*67 records were ignored because they were more than limit of 1,200 seconds.

Call to Arrival	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0000 secs	.0% (0)	.0% (0)	.0% (0)	.0% (0)	.0% (0)
0010 secs	.0% (0)	.0% (0)	.0% (0)	.1% (7)	.3% (15)
0020 secs	.0% (0)	.0% (0)	.0% (0)	.2% (21)	.5% (28)
0030 secs	.0% (0)	.0% (0)	.0% (0)	.3% (29)	.6% (34)
0040 secs	.0% (0)	.9% (2)	.0% (0)	.3% (34)	.8% (44)
0050 secs	.0% (0)	.9% (2)	.1% (1)	.3% (36)	1.3% (69)
** 1 minute **	.0% (0)	.9% (2)	.2% (2)	.5% (50)	2.0% (107)
0070 secs	.0% (0)	.9% (2)	.5% (4)	.6% (67)	2.8% (150)
0080 secs	.0% (0)	.9% (2)	.7% (6)	.8% (82)	3.8% (205)
0090 secs	.0% (0)	.9% (2)	.8% (7)	1.0% (111)	5.0% (267)
0100 secs	.0% (0)	1.4% (3)	1.0% (8)	1.4% (145)	6.1% (326)
0110 secs	.0% (0)	1.4% (3)	1.1% (9)	1.7% (185)	7.9% (423)
** 2 minutes **	.0% (0)	1.9% (4)	1.3% (11)	2.2% (239)	10.0% (536)
0130 secs	.0% (0)	2.3% (5)	1.8% (15)	3.0% (320)	12.0% (644)
0140 secs	2.9% (1)	2.3% (5)	2.3% (19)	4.2% (450)	13.9% (744)
0150 secs	2.9% (1)	2.8% (6)	3.0% (25)	5.6% (602)	15.4% (823)
0160 secs	2.9% (1)	2.8% (6)	3.8% (32)	7.4% (794)	17.4% (930)
0170 secs	5.9% (2)	3.7% (8)	5.6% (47)	9.8% (1,044)	19.7% (1,053)
** 3 minutes **	5.9% (2)	5.6% (12)	7.3% (61)	12.7% (1,354)	21.8% (1,166)
0190 secs	5.9% (2)	7.5% (16)	9.9% (83)	16.2% (1,731)	24.0% (1,286)
0200 secs	8.8% (3)	12.6% (27)	11.9% (100)	20.2% (2,152)	26.3% (1,406)
0210 secs	11.8% (4)	14.0% (30)	15.0% (126)	24.7% (2,640)	29.0% (1,554)
0220 secs	17.6% (6)	17.3% (37)	18.3% (154)	30.0% (3,198)	31.9% (1,706)
0230 secs	23.5% (8)	21.0% (45)	21.7% (182)	35.0% (3,733)	35.1% (1,878)
** 4 minutes **	29.4% (10)	26.2% (56)	25.8% (217)	40.7% (4,342)	38.3% (2,048)
0250 secs	29.4% (10)	31.8% (68)	29.9% (251)	46.0% (4,910)	41.6% (2,225)
0260 secs	32.4% (11)	35.0% (75)	34.2% (287)	51.8% (5,526)	44.9% (2,404)
0270 secs	35.3% (12)	39.7% (85)	38.5% (323)	57.6% (6,151)	48.7% (2,606)

Call to Arrival	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0280 secs	44.1% (15)	44.9% (96)	43.5% (365)	63.0% (6,727)	52.5% (2,808)
0290 secs	50.0% (17)	49.1% (105)	48.9% (411)	67.7% (7,227)	56.0% (2,996)
** 5 minutes **	61.8% (21)	53.7% (115)	54.0% (454)	72.0% (7,690)	60.0% (3,210)
0310 secs	67.6% (23)	57.9% (124)	59.4% (499)	75.8% (8,089)	63.3% (3,386)
0320 secs	70.6% (24)	61.2% (131)	62.6% (526)	79.5% (8,490)	66.4% (3,555)
0330 secs	73.5% (25)	66.8% (143)	66.5% (559)	82.7% (8,825)	69.9% (3,741)
0340 secs	76.5% (26)	70.1% (150)	69.4% (583)	85.7% (9,146)	72.9% (3,904)
0350 secs	82.4% (28)	73.8% (158)	72.6% (610)	88.0% (9,391)	76.1% (4,071)
** 6 minutes **	82.4% (28)	78.0% (167)	75.2% (632)	89.8% (9,592)	79.0% (4,226)
0370 secs	82.4% (28)	81.8% (175)	78.2% (657)	91.3% (9,745)	81.1% (4,339)
0380 secs	85.3% (29)	84.1% (180)	81.0% (680)	92.4% (9,864)	83.4% (4,466)
0390 secs	85.3% (29)	86.4% (185)	83.2% (699)	93.5% (9,983)	84.8% (4,541)
0400 secs	88.2% (30)	88.8% (190)	84.6% (711)	94.2% (10,056)	86.2% (4,612)
0410 secs	88.2% (30)	89.7% (192)	86.1% (723)	94.8% (10,126)	87.6% (4,687)
** 7 minutes **	88.2% (30)	90.7% (194)	87.1% (732)	95.4% (10,190)	88.5% (4,739)
0430 secs	88.2% (30)	91.6% (196)	89.2% (749)	95.9% (10,234)	89.7% (4,799)
0440 secs	88.2% (30)	92.5% (198)	90.2% (758)	96.3% (10,278)	90.5% (4,844)
0450 secs	88.2% (30)	93.5% (200)	90.8% (763)	96.7% (10,323)	91.4% (4,893)
0460 secs	88.2% (30)	94.4% (202)	91.8% (771)	97.0% (10,353)	92.1% (4,928)
0470 secs	88.2% (30)	94.9% (203)	92.6% (778)	97.3% (10,390)	92.7% (4,963)
** 8 minutes **	88.2% (30)	95.8% (205)	92.7% (779)	97.5% (10,414)	93.2% (4,989)
0490 secs	88.2% (30)	95.8% (205)	93.2% (783)	97.7% (10,432)	93.8% (5,021)
0500 secs	88.2% (30)	96.7% (207)	93.9% (789)	97.9% (10,451)	94.2% (5,040)
0510 secs	91.2% (31)	97.7% (209)	94.3% (792)	98.1% (10,469)	94.6% (5,065)
0520 secs	91.2% (31)	97.7% (209)	94.3% (792)	98.2% (10,483)	95.0% (5,083)
0530 secs	94.1% (32)	98.6% (211)	94.5% (794)	98.3% (10,496)	95.3% (5,102)
** 9 minutes **	94.1% (32)	98.6% (211)	94.8% (796)	98.4% (10,508)	95.8% (5,126)
0550 secs	97.1% (33)	98.6% (211)	95.1% (799)	98.5% (10,518)	96.0% (5,137)
0560 secs	97.1% (33)	99.1% (212)	95.2% (800)	98.6% (10,531)	96.2% (5,148)
0570 secs	97.1% (33)	99.1% (212)	96.2% (808)	98.7% (10,542)	96.5% (5,164)
0580 secs	97.1% (33)	99.1% (212)	96.5% (811)	98.9% (10,555)	96.7% (5,173)
0590 secs	97.1% (33)	99.1% (212)	96.5% (811)	99.0% (10,568)	96.8% (5,181)
** 10 minutes **	97.1% (33)	99.1% (212)	96.7% (812)	99.1% (10,576)	97.0% (5,191)
0610 secs	97.1% (33)	99.5% (213)	96.9% (814)	99.2% (10,588)	97.3% (5,206)

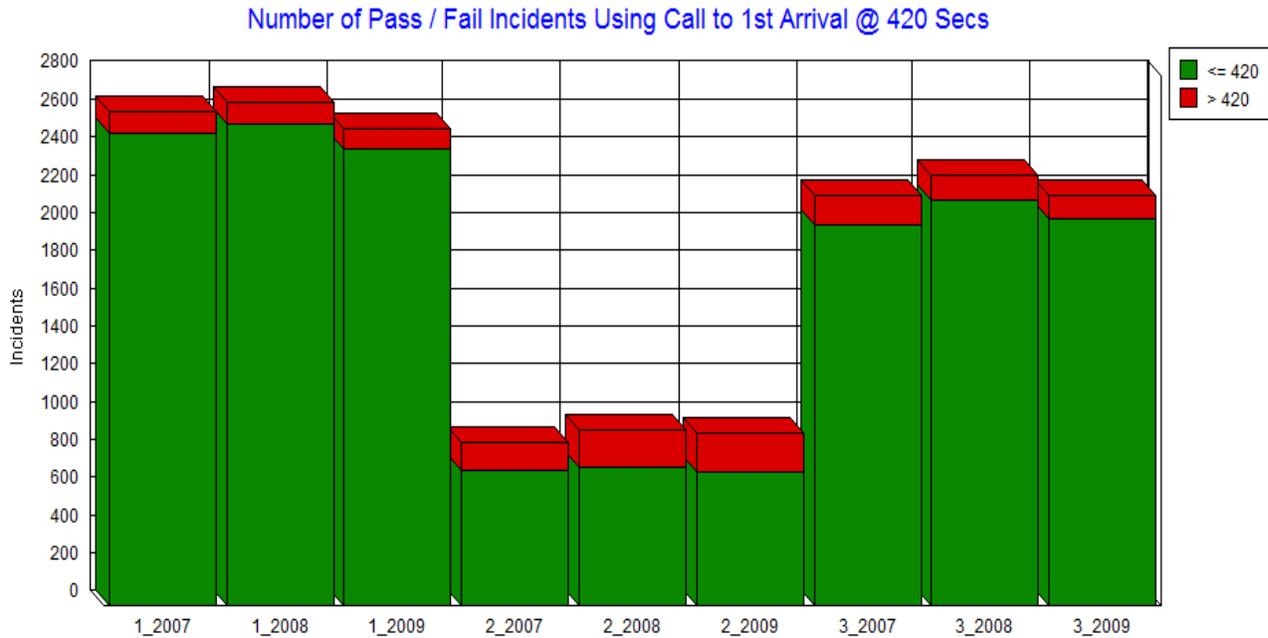
Call to Arrival	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0620 secs	97.1% (33)	99.5% (213)	97.0% (815)	99.2% (10,590)	97.4% (5,214)
0630 secs	97.1% (33)	99.5% (213)	97.0% (815)	99.2% (10,596)	97.5% (5,218)
0640 secs	97.1% (33)	99.5% (213)	97.0% (815)	99.3% (10,600)	97.7% (5,227)
0650 secs	97.1% (33)	99.5% (213)	97.1% (816)	99.3% (10,603)	97.8% (5,234)
** 11 minutes **	97.1% (33)	99.5% (213)	97.1% (816)	99.3% (10,606)	98.0% (5,245)
0670 secs	97.1% (33)	99.5% (213)	97.3% (817)	99.4% (10,608)	98.1% (5,252)
0680 secs	97.1% (33)	99.5% (213)	97.3% (817)	99.4% (10,610)	98.4% (5,265)
0690 secs	97.1% (33)	99.5% (213)	97.3% (817)	99.4% (10,611)	98.4% (5,268)
0700 secs	97.1% (33)	99.5% (213)	97.3% (817)	99.4% (10,612)	98.6% (5,275)
0710 secs	97.1% (33)	99.5% (213)	97.3% (817)	99.4% (10,615)	98.7% (5,281)
** 12 minutes **	97.1% (33)	99.5% (213)	97.4% (818)	99.4% (10,618)	98.7% (5,285)
0730 secs	97.1% (33)	99.5% (213)	97.5% (819)	99.5% (10,624)	98.8% (5,288)
0740 secs	97.1% (33)	99.5% (213)	97.6% (820)	99.5% (10,625)	98.9% (5,291)
0750 secs	97.1% (33)	99.5% (213)	97.6% (820)	99.5% (10,627)	99.0% (5,298)
0760 secs	100.0% (34)	99.5% (213)	97.7% (821)	99.6% (10,629)	99.0% (5,299)
0770 secs	100.0% (34)	99.5% (213)	97.9% (822)	99.6% (10,634)	99.0% (5,300)
** 13 minutes **	100.0% (34)	99.5% (213)	98.0% (823)	99.6% (10,634)	99.1% (5,302)
0790 secs	100.0% (34)	99.5% (213)	98.0% (823)	99.6% (10,635)	99.1% (5,306)
0800 secs	100.0% (34)	99.5% (213)	98.1% (824)	99.6% (10,636)	99.1% (5,306)
0810 secs	100.0% (34)	99.5% (213)	98.1% (824)	99.6% (10,637)	99.2% (5,310)
0820 secs	100.0% (34)	99.5% (213)	98.1% (824)	99.6% (10,637)	99.2% (5,311)
0830 secs	100.0% (34)	99.5% (213)	98.1% (824)	99.6% (10,639)	99.3% (5,313)
** 14 minutes **	100.0% (34)	99.5% (213)	98.1% (824)	99.6% (10,639)	99.3% (5,316)
0850 secs	100.0% (34)	99.5% (213)	98.2% (825)	99.7% (10,640)	99.4% (5,318)
0860 secs	100.0% (34)	99.5% (213)	98.2% (825)	99.7% (10,641)	99.4% (5,320)
0870 secs	100.0% (34)	99.5% (213)	98.3% (826)	99.7% (10,641)	99.5% (5,324)
0880 secs	100.0% (34)	99.5% (213)	98.5% (827)	99.7% (10,643)	99.5% (5,324)
0890 secs	100.0% (34)	99.5% (213)	98.5% (827)	99.7% (10,644)	99.5% (5,326)
** 15 minutes **	100.0% (34)	99.5% (213)	98.5% (827)	99.7% (10,644)	99.6% (5,329)
0910 secs	100.0% (34)	99.5% (213)	98.6% (828)	99.7% (10,646)	99.6% (5,329)
0920 secs	100.0% (34)	99.5% (213)	98.7% (829)	99.7% (10,646)	99.6% (5,331)
0930 secs	100.0% (34)	99.5% (213)	98.8% (830)	99.7% (10,648)	99.6% (5,333)
0940 secs	100.0% (34)	99.5% (213)	98.8% (830)	99.8% (10,652)	99.7% (5,334)
0950 secs	100.0% (34)	99.5% (213)	98.8% (830)	99.8% (10,653)	99.7% (5,335)

Call to Arrival	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
** 16 minutes **	100.0% (34)	99.5% (213)	98.8% (830)	99.8% (10,653)	99.7% (5,337)
0970 secs	100.0% (34)	99.5% (213)	98.8% (830)	99.8% (10,653)	99.8% (5,339)
0980 secs	100.0% (34)	99.5% (213)	98.9% (831)	99.8% (10,653)	99.8% (5,340)
0990 secs	100.0% (34)	99.5% (213)	98.9% (831)	99.8% (10,654)	99.8% (5,340)
1000 secs	100.0% (34)	99.5% (213)	98.9% (831)	99.8% (10,655)	99.8% (5,340)
1010 secs	100.0% (34)	99.5% (213)	98.9% (831)	99.8% (10,655)	99.8% (5,340)
** 17 minutes **	100.0% (34)	100.0% (214)	99.0% (832)	99.8% (10,655)	99.8% (5,343)
1030 secs	100.0% (34)	100.0% (214)	99.2% (833)	99.8% (10,656)	99.8% (5,343)
1040 secs	100.0% (34)	100.0% (214)	99.2% (833)	99.8% (10,657)	99.9% (5,345)
1050 secs	100.0% (34)	100.0% (214)	99.3% (834)	99.8% (10,657)	99.9% (5,345)
1060 secs	100.0% (34)	100.0% (214)	99.3% (834)	99.8% (10,657)	99.9% (5,345)
1070 secs	100.0% (34)	100.0% (214)	99.4% (835)	99.8% (10,657)	99.9% (5,346)
** 18 minutes **	100.0% (34)	100.0% (214)	99.5% (836)	99.9% (10,661)	99.9% (5,347)
1090 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,662)	99.9% (5,348)
1100 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,665)	99.9% (5,348)
1110 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,665)	99.9% (5,349)
1120 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,667)	99.9% (5,349)
1130 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,668)	99.9% (5,349)
** 19 minutes **	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,669)	100.0% (5,350)
1150 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,671)	100.0% (5,351)
1160 secs	100.0% (34)	100.0% (214)	99.8% (838)	99.9% (10,671)	100.0% (5,351)
1170 secs	100.0% (34)	100.0% (214)	99.9% (839)	99.9% (10,671)	100.0% (5,352)
1180 secs	100.0% (34)	100.0% (214)	99.9% (839)	100.0% (10,674)	100.0% (5,352)
1190 secs	100.0% (34)	100.0% (214)	100.0% (840)	100.0% (10,676)	100.0% (5,352)
** 20 minutes **	100.0% (34)	100.0% (214)	100.0% (840)	100.0% (10,677)	100.0% (5,352)
secs (mins) to 90%	510 (8.5)	410 (6.83)	440 (7.33)	360 (6)	430 (7.16)
secs (mins) to 80%	350 (5.83)	370 (6.16)	380 (6.33)	330 (5.5)	370 (6.16)

**Discussion:** EMS operations are most numerous and experience the best performance. There is longer than a 7-minute first-due performance for building fire incidents. A higher percentage of building fire responses include mutual aid responses. That would account for slower performance; however, any incident marked as “Aid Given” or “Automatic Aid Given” was eliminated from this calculation.

### Call to 1<sup>st</sup> Arrival - Station Comparisons

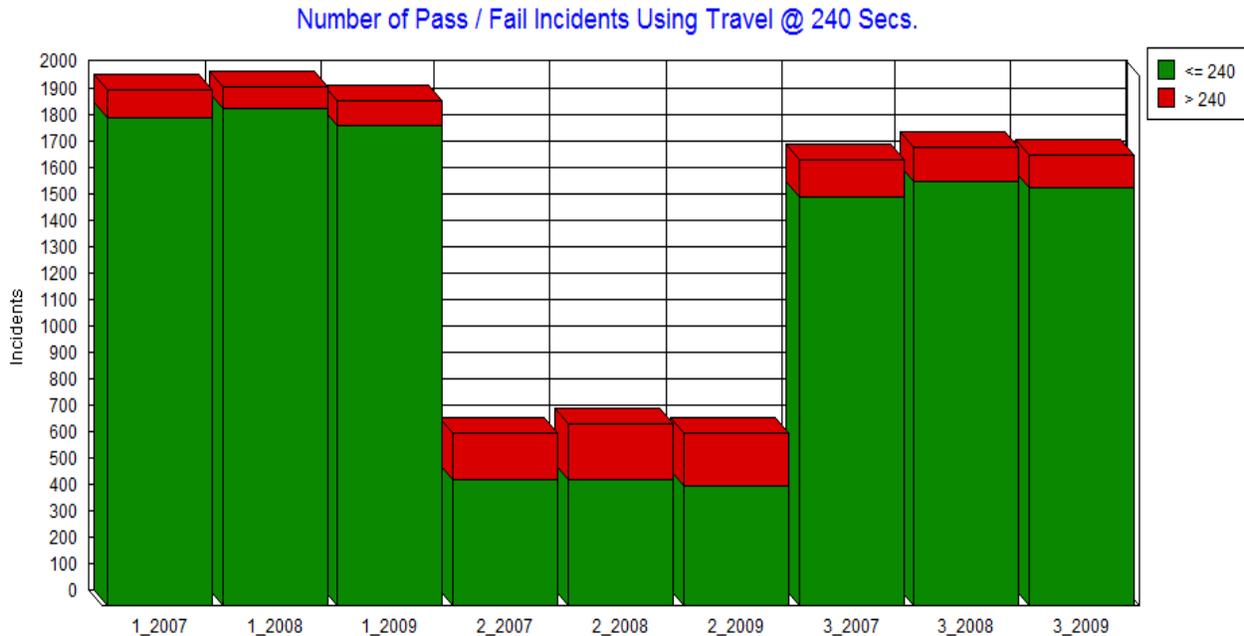
The following graph illustrates Call to Arrival performance at 420 seconds (7 minutes) by station by year. Incidents meeting the 420-second goal are in green. Incidents not meeting the 420-second goal are in red. Notice despite a more limited call volume, Station 2 has the largest number of red incidents.



While Station 2 experiences less than one-half the number of incidents as Stations 1 and 3, performance in Station 2's area lags significantly with 90 percent Call to Arrival times occurring well into the 8<sup>th</sup> minute as opposed to early 6 minutes in the two other stations.

The next chart illustrates activity and performance by first arriving apparatus by year. Activity includes the number of incidents and structure fires. Performance includes the number of seconds to 90 percent compliance as well as the percent at 420 seconds.

Using the same style graph we can see a larger percentage of incidents in Station 2's area have protracted travel times.



Here is a breakdown using a 420 second (7-min) Call to Arrival goal.

1st Arriving by Yr	Incidents	Structures	Secs to 90%	% @ 420 Secs
E1_2007	913		370	94.81%
E1_2008	916	2	370	94.57%
E1_2009	822	2	360	94.37%
E2_2007	528		480	80.60%
E2_2008	541	2	495	78.47%
E2_2009	495	3	495	77.68%
E3_2007	1,012	5	400	92.07%
E3_2008	1,115	5	375	95.12%
E3_2009	1,016	3	370	94.95%
R1_2007	1,826		370	95.39%
R1_2008	1,717		355	95.45%
R1_2009	1,489		360	95.28%
R2_2007	295		390	93.87%

1st Arriving by Yr	Incidents	Structures	Secs to 90%	% @ 420 Secs
R2_2008	349		380	94.52%
R2_2009	688		355	95.77%
T4_2007	275	1	445	86.02%
T4_2008	314		430	88.78%
T4_2009	287		415	90.14%

### Call Processing – By Incident Type

#### Incidents: Call Processing (CAD) Analysis - BF, Fire, SO, EMS, Other

There are 17,250 Incident records being analyzed.

\*77 records were ignored because of a zero time value.

\*35 records were ignored because they were more than limit of 300 seconds.

Call Processing	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0000 secs	.0% (0)	.0% (0)	.0% (0)	.0% (0)	.0% (0)
0010 secs	31.4% (11)	49.8% (107)	48.5% (406)	48.9% (5,231)	42.5% (2,276)
0020 secs	60.0% (21)	80.0% (172)	75.6% (633)	79.5% (8,498)	72.8% (3,901)
0030 secs	85.7% (30)	91.6% (197)	85.5% (716)	89.6% (9,585)	85.0% (4,554)
0040 secs	85.7% (30)	95.3% (205)	90.6% (758)	93.9% (10,040)	90.2% (4,832)
0050 secs	91.4% (32)	97.2% (209)	93.9% (786)	96.2% (10,289)	93.0% (4,981)
** 1 minute **	94.3% (33)	99.1% (213)	95.7% (801)	97.7% (10,452)	94.7% (5,072)
0070 secs	97.1% (34)	99.5% (214)	96.9% (811)	98.4% (10,517)	96.0% (5,144)
0080 secs	97.1% (34)	99.5% (214)	97.6% (817)	98.8% (10,566)	97.0% (5,196)
0090 secs	97.1% (34)	99.5% (214)	98.3% (823)	99.2% (10,609)	97.4% (5,221)
0100 secs	100.0% (35)	99.5% (214)	98.4% (824)	99.4% (10,626)	97.9% (5,246)
0110 secs	100.0% (35)	99.5% (214)	98.6% (825)	99.5% (10,641)	98.1% (5,258)
** 2 minutes **	100.0% (35)	100.0% (215)	98.8% (827)	99.7% (10,656)	98.4% (5,270)
0130 secs	100.0% (35)	100.0% (215)	98.9% (828)	99.8% (10,667)	98.6% (5,285)
0140 secs	100.0% (35)	100.0% (215)	99.0% (829)	99.8% (10,674)	98.8% (5,292)
0150 secs	100.0% (35)	100.0% (215)	99.2% (830)	99.9% (10,677)	99.0% (5,306)
0160 secs	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,678)	99.2% (5,315)
0170 secs	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,678)	99.3% (5,321)
** 3 minutes **	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,682)	99.4% (5,326)
0190 secs	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,683)	99.5% (5,330)

Call Processing	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0200 secs	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,684)	99.6% (5,335)
0210 secs	100.0% (35)	100.0% (215)	99.5% (833)	99.9% (10,687)	99.6% (5,337)
0220 secs	100.0% (35)	100.0% (215)	99.5% (833)	100.0% (10,688)	99.7% (5,341)
0230 secs	100.0% (35)	100.0% (215)	99.5% (833)	100.0% (10,688)	99.8% (5,345)
** 4 minutes **	100.0% (35)	100.0% (215)	99.5% (833)	100.0% (10,689)	99.8% (5,346)
0250 secs	100.0% (35)	100.0% (215)	99.5% (833)	100.0% (10,690)	99.9% (5,352)
0260 secs	100.0% (35)	100.0% (215)	99.6% (834)	100.0% (10,690)	99.9% (5,353)
0270 secs	100.0% (35)	100.0% (215)	99.8% (835)	100.0% (10,691)	99.9% (5,355)
0280 secs	100.0% (35)	100.0% (215)	99.9% (836)	100.0% (10,692)	100.0% (5,356)
0290 secs	100.0% (35)	100.0% (215)	99.9% (836)	100.0% (10,693)	100.0% (5,357)
** 5 minutes **	100.0% (35)	100.0% (215)	100.0% (837)	100.0% (10,693)	100.0% (5,358)
secs (mins) to 90%	50 (.83)	30 (.5)	40 (.66)	30 (.5)	40 (.66)
secs (mins) to 80%	30 (.5)	20 (.33)	30 (.5)	30 (.5)	30 (.5)

**Discussion:** Call processing for structure fires takes longer.

**Turnout Time – By Incident Type**

**Incidents: Turnout (CAD) Analysis - BF, Fire, SO, EMS, Other**

There are 17,250 Incident records being analyzed.

\*1,857 records were ignored because of a zero time value.

\*649 records were ignored because they were more than limit of 300 seconds.

Turnout Time	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0000 secs	.0% (0)	.0% (0)	.0% (0)	.0% (0)	.0% (0)
0010 secs	.0% (0)	.0% (0)	.1% (1)	.1% (13)	.5% (16)
0020 secs	.0% (0)	.5% (1)	.3% (2)	.2% (20)	.7% (23)
0030 secs	.0% (0)	1.5% (3)	.9% (7)	.3% (29)	.9% (32)
0040 secs	.0% (0)	1.5% (3)	2.4% (18)	.8% (85)	2.1% (71)
0050 secs	3.1% (1)	4.1% (8)	5.3% (40)	3.0% (305)	4.7% (161)
** 1 minute **	3.1% (1)	6.7% (13)	7.9% (59)	6.8% (699)	7.6% (262)
0070 secs	3.1% (1)	8.7% (17)	9.9% (74)	11.0% (1,138)	10.1% (348)
0080 secs	3.1% (1)	10.3% (20)	12.9% (97)	17.5% (1,806)	13.0% (448)
0090 secs	3.1% (1)	12.8% (25)	18.8% (141)	26.0% (2,680)	17.5% (606)
0100 secs	9.4% (3)	16.9% (33)	24.7% (185)	36.2% (3,738)	23.5% (810)

Turnout Time	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0110 secs	12.5% (4)	22.6% (44)	33.9% (254)	47.6% (4,913)	29.9% (1,034)
** 2 minutes **	18.8% (6)	31.8% (62)	44.5% (334)	56.6% (5,838)	38.1% (1,316)
0130 secs	25.0% (8)	40.0% (78)	53.3% (400)	64.1% (6,606)	46.1% (1,592)
0140 secs	43.8% (14)	46.7% (91)	59.9% (449)	70.5% (7,267)	53.9% (1,862)
0150 secs	50.0% (16)	53.3% (104)	65.2% (489)	75.4% (7,771)	62.7% (2,164)
0160 secs	68.8% (22)	65.6% (128)	70.9% (532)	79.9% (8,242)	69.0% (2,383)
0170 secs	75.0% (24)	72.3% (141)	75.5% (566)	84.0% (8,660)	74.7% (2,579)
** 3 minutes **	75.0% (24)	74.9% (146)	78.9% (592)	87.2% (8,997)	79.3% (2,738)
0190 secs	81.3% (26)	80.0% (156)	80.9% (607)	89.8% (9,256)	83.4% (2,880)
0200 secs	84.4% (27)	81.5% (159)	83.9% (629)	91.7% (9,457)	86.7% (2,993)
0210 secs	90.6% (29)	86.2% (168)	86.3% (647)	93.3% (9,622)	89.4% (3,087)
0220 secs	90.6% (29)	87.7% (171)	87.9% (659)	94.4% (9,740)	91.7% (3,168)
0230 secs	90.6% (29)	89.7% (175)	89.3% (670)	95.4% (9,841)	93.3% (3,222)
** 4 minutes **	96.9% (31)	92.8% (181)	91.5% (686)	96.4% (9,938)	94.5% (3,265)
0250 secs	96.9% (31)	92.8% (181)	92.9% (697)	97.2% (10,025)	95.7% (3,306)
0260 secs	96.9% (31)	94.4% (184)	95.2% (714)	98.1% (10,122)	96.6% (3,338)
0270 secs	96.9% (31)	95.9% (187)	96.3% (722)	98.7% (10,180)	97.6% (3,372)
0280 secs	100.0% (32)	96.9% (189)	97.3% (730)	99.2% (10,231)	98.4% (3,399)
0290 secs	100.0% (32)	97.9% (191)	98.9% (742)	99.6% (10,276)	99.2% (3,426)
** 5 minutes **	100.0% (32)	100.0% (195)	100.0% (750)	100.0% (10,313)	100.0% (3,454)
secs (mins) to 90%	210 (3.5)	230 (3.83)	240 (4)	190 (3.16)	220 (3.66)
secs (mins) to 80%	190 (3.16)	190 (3.16)	190 (3.16)	160 (2.66)	190 (3.16)

**Discussion:** Turnout Time is fastest for EMS incidents.

**Travel Time – By Incident Type**

**Incidents: Travel (CAD) Analysis - BF, Fire, SO, EMS, Other**

There are 17,250 Incident records being analyzed.

\*4,224 records were ignored because of a zero time value.

\*36 records were ignored because they were more than the limit of 900 seconds.

Travel Time	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0000 secs	.0% (0)	.0% (0)	.0% (0)	.0% (0)	.0% (0)
0010 secs	.0% (0)	.0% (0)	.0% (0)	.6% (55)	.4% (11)
0020 secs	.0% (0)	.0% (0)	.3% (2)	1.1% (102)	.8% (24)
0030 secs	.0% (0)	3.6% (6)	1.3% (8)	2.1% (188)	1.5% (44)
0040 secs	3.3% (1)	4.8% (8)	2.4% (15)	3.8% (349)	2.7% (81)
0050 secs	3.3% (1)	6.0% (10)	3.7% (23)	6.2% (567)	4.5% (136)
** 1 minute **	13.3% (4)	9.0% (15)	5.2% (32)	9.7% (886)	6.9% (210)
0070 secs	13.3% (4)	13.8% (23)	8.8% (54)	14.0% (1,284)	10.0% (303)
0080 secs	16.7% (5)	19.8% (33)	11.9% (73)	19.1% (1,743)	13.1% (397)
0090 secs	20.0% (6)	25.1% (42)	15.3% (94)	24.7% (2,260)	17.1% (519)
0100 secs	36.7% (11)	30.5% (51)	20.0% (123)	31.3% (2,861)	21.5% (652)
0110 secs	40.0% (12)	34.1% (57)	25.3% (156)	37.8% (3,456)	27.0% (817)
** 2 minutes **	43.3% (13)	37.7% (63)	32.0% (197)	44.7% (4,089)	32.8% (994)
0130 secs	50.0% (15)	43.7% (73)	39.0% (240)	51.8% (4,741)	38.8% (1,176)
0140 secs	60.0% (18)	50.3% (84)	44.5% (274)	58.4% (5,342)	44.5% (1,346)
0150 secs	66.7% (20)	54.5% (91)	51.1% (315)	64.1% (5,864)	49.7% (1,506)
0160 secs	70.0% (21)	62.3% (104)	56.3% (347)	69.5% (6,355)	54.7% (1,656)
0170 secs	76.7% (23)	67.7% (113)	61.2% (377)	74.0% (6,774)	60.1% (1,821)
** 3 minutes **	80.0% (24)	71.3% (119)	65.7% (405)	78.7% (7,200)	64.4% (1,950)
0190 secs	83.3% (25)	74.3% (124)	69.5% (428)	82.3% (7,528)	69.1% (2,091)
0200 secs	86.7% (26)	76.0% (127)	72.9% (449)	85.7% (7,842)	73.1% (2,212)
0210 secs	86.7% (26)	78.4% (131)	76.6% (472)	88.3% (8,077)	76.2% (2,307)
0220 secs	90.0% (27)	83.8% (140)	79.4% (489)	90.4% (8,267)	79.2% (2,397)
0230 secs	90.0% (27)	85.0% (142)	82.3% (507)	91.9% (8,408)	81.7% (2,475)
** 4 minutes **	90.0% (27)	88.0% (147)	84.4% (520)	93.1% (8,520)	83.9% (2,542)
0250 secs	90.0% (27)	89.2% (149)	86.5% (533)	94.0% (8,599)	85.8% (2,597)
0260 secs	90.0% (27)	89.8% (150)	88.3% (544)	94.8% (8,672)	87.2% (2,640)
0270 secs	93.3% (28)	92.8% (155)	89.8% (553)	95.3% (8,722)	88.3% (2,674)

Travel Time	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0280 secs	96.7% (29)	93.4% (156)	90.9% (560)	95.9% (8,773)	89.7% (2,717)
0290 secs	96.7% (29)	94.6% (158)	92.4% (569)	96.2% (8,802)	90.7% (2,745)
** 5 minutes **	96.7% (29)	94.6% (158)	93.5% (576)	96.5% (8,833)	91.7% (2,776)
0310 secs	96.7% (29)	97.0% (162)	94.6% (583)	96.8% (8,860)	92.4% (2,798)
0320 secs	96.7% (29)	97.0% (162)	94.8% (584)	97.1% (8,888)	93.2% (2,821)
0330 secs	96.7% (29)	97.6% (163)	95.3% (587)	97.4% (8,915)	93.7% (2,837)
0340 secs	96.7% (29)	98.2% (164)	95.8% (590)	97.7% (8,941)	94.1% (2,850)
0350 secs	96.7% (29)	99.4% (166)	95.9% (591)	98.0% (8,963)	94.6% (2,865)
** 6 minutes **	96.7% (29)	100.0% (167)	96.3% (593)	98.2% (8,985)	95.2% (2,883)
0370 secs	96.7% (29)	100.0% (167)	96.6% (595)	98.4% (9,004)	95.6% (2,894)
0380 secs	96.7% (29)	100.0% (167)	96.6% (595)	98.6% (9,022)	95.9% (2,904)
0390 secs	96.7% (29)	100.0% (167)	96.8% (596)	98.8% (9,035)	96.3% (2,915)
0400 secs	96.7% (29)	100.0% (167)	96.8% (596)	98.9% (9,052)	96.6% (2,926)
0410 secs	96.7% (29)	100.0% (167)	96.9% (597)	99.1% (9,066)	97.1% (2,939)
** 7 minutes **	96.7% (29)	100.0% (167)	96.9% (597)	99.2% (9,077)	97.3% (2,946)
0430 secs	100.0% (30)	100.0% (167)	97.2% (599)	99.3% (9,082)	97.5% (2,953)
0440 secs	100.0% (30)	100.0% (167)	97.6% (601)	99.3% (9,088)	97.7% (2,959)
0450 secs	100.0% (30)	100.0% (167)	97.6% (601)	99.4% (9,092)	98.0% (2,967)
0460 secs	100.0% (30)	100.0% (167)	97.7% (602)	99.4% (9,093)	98.2% (2,973)
0470 secs	100.0% (30)	100.0% (167)	97.9% (603)	99.5% (9,099)	98.3% (2,976)
** 8 minutes **	100.0% (30)	100.0% (167)	98.1% (604)	99.5% (9,104)	98.3% (2,976)
0490 secs	100.0% (30)	100.0% (167)	98.2% (605)	99.5% (9,105)	98.4% (2,980)
0500 secs	100.0% (30)	100.0% (167)	98.2% (605)	99.6% (9,108)	98.4% (2,981)
0510 secs	100.0% (30)	100.0% (167)	98.4% (606)	99.6% (9,112)	98.6% (2,985)
0520 secs	100.0% (30)	100.0% (167)	98.4% (606)	99.7% (9,117)	98.6% (2,987)
0530 secs	100.0% (30)	100.0% (167)	98.4% (606)	99.7% (9,117)	98.8% (2,992)
** 9 minutes **	100.0% (30)	100.0% (167)	98.4% (606)	99.7% (9,118)	98.9% (2,994)
0550 secs	100.0% (30)	100.0% (167)	98.5% (607)	99.7% (9,119)	99.0% (2,997)
0560 secs	100.0% (30)	100.0% (167)	98.5% (607)	99.7% (9,120)	99.0% (2,998)
0570 secs	100.0% (30)	100.0% (167)	98.5% (607)	99.7% (9,123)	99.1% (3,000)
0580 secs	100.0% (30)	100.0% (167)	98.5% (607)	99.7% (9,126)	99.1% (3,002)
0590 secs	100.0% (30)	100.0% (167)	98.5% (607)	99.8% (9,128)	99.1% (3,002)
** 10 minutes **	100.0% (30)	100.0% (167)	98.5% (607)	99.8% (9,132)	99.2% (3,005)

Travel Time	1 Bldg Fires	2 Other Fires	3 Special Ops	4 EMS	5 Others
0610 secs	100.0% (30)	100.0% (167)	98.7% (608)	99.8% (9,134)	99.3% (3,007)
0620 secs	100.0% (30)	100.0% (167)	98.7% (608)	99.8% (9,135)	99.4% (3,009)
0630 secs	100.0% (30)	100.0% (167)	98.7% (608)	99.9% (9,136)	99.5% (3,012)
0640 secs	100.0% (30)	100.0% (167)	98.7% (608)	99.9% (9,137)	99.6% (3,015)
0650 secs	100.0% (30)	100.0% (167)	98.9% (609)	99.9% (9,137)	99.6% (3,017)
** 11 minutes **	100.0% (30)	100.0% (167)	99.0% (610)	99.9% (9,137)	99.7% (3,018)
0670 secs	100.0% (30)	100.0% (167)	99.0% (610)	99.9% (9,137)	99.8% (3,021)
0680 secs	100.0% (30)	100.0% (167)	99.0% (610)	99.9% (9,137)	99.8% (3,022)
0690 secs	100.0% (30)	100.0% (167)	99.2% (611)	99.9% (9,137)	99.8% (3,022)
0700 secs	100.0% (30)	100.0% (167)	99.2% (611)	99.9% (9,137)	99.8% (3,022)
0710 secs	100.0% (30)	100.0% (167)	99.2% (611)	99.9% (9,139)	99.8% (3,023)
** 12 minutes **	100.0% (30)	100.0% (167)	99.4% (612)	99.9% (9,139)	99.8% (3,023)
0730 secs	100.0% (30)	100.0% (167)	99.4% (612)	99.9% (9,141)	99.9% (3,024)
0740 secs	100.0% (30)	100.0% (167)	99.4% (612)	99.9% (9,142)	99.9% (3,024)
0750 secs	100.0% (30)	100.0% (167)	99.4% (612)	99.9% (9,142)	99.9% (3,024)
0760 secs	100.0% (30)	100.0% (167)	99.4% (612)	99.9% (9,142)	99.9% (3,024)
0770 secs	100.0% (30)	100.0% (167)	99.5% (613)	99.9% (9,142)	99.9% (3,024)
** 13 minutes **	100.0% (30)	100.0% (167)	99.5% (613)	99.9% (9,144)	99.9% (3,024)
0790 secs	100.0% (30)	100.0% (167)	99.5% (613)	100.0% (9,145)	99.9% (3,026)
0800 secs	100.0% (30)	100.0% (167)	99.5% (613)	100.0% (9,146)	99.9% (3,026)
0810 secs	100.0% (30)	100.0% (167)	99.7% (614)	100.0% (9,146)	100.0% (3,027)
0820 secs	100.0% (30)	100.0% (167)	99.7% (614)	100.0% (9,146)	100.0% (3,027)
0830 secs	100.0% (30)	100.0% (167)	99.7% (614)	100.0% (9,146)	100.0% (3,027)
** 14 minutes **	100.0% (30)	100.0% (167)	99.8% (615)	100.0% (9,149)	100.0% (3,027)
0850 secs	100.0% (30)	100.0% (167)	99.8% (615)	100.0% (9,149)	100.0% (3,027)
0860 secs	100.0% (30)	100.0% (167)	100.0% (616)	100.0% (9,149)	100.0% (3,027)
0870 secs	100.0% (30)	100.0% (167)	100.0% (616)	100.0% (9,149)	100.0% (3,027)
0880 secs	100.0% (30)	100.0% (167)	100.0% (616)	100.0% (9,149)	100.0% (3,027)
0890 secs	100.0% (30)	100.0% (167)	100.0% (616)	100.0% (9,149)	100.0% (3,027)
** 15 minutes **	100.0% (30)	100.0% (167)	100.0% (616)	100.0% (9,149)	100.0% (3,028)
secs (mins) to 90%	220 (3.66)	260 (4.33)	270 (4.5)	220 (3.66)	280 (4.66)
secs (mins) to 80%	180 (3)	220 (3.66)	230 (3.83)	190 (3.16)	230 (3.83)

**Discussion:** Travel Time is shortest for building fires and EMS incident type categories.

**First Alarm Fractile Compliance**

*Measuring the time it takes the first apparatus to arrive on the scene is very important. Equally important is the amount of time it takes a full first alarm assignment to reach the scene of structure requiring an organized multi-company response.*

In 3 years, Beverly Hills responded to 25 building fires with a dollar loss. Mutual/auto given building fires are not included in this count. Here is a breakdown of those 25 incidents by first apparatus arrival.

**First Apparatus Arrival Times**

**Incidents: Call to 1<sup>st</sup> Arrival Analysis - by Year**

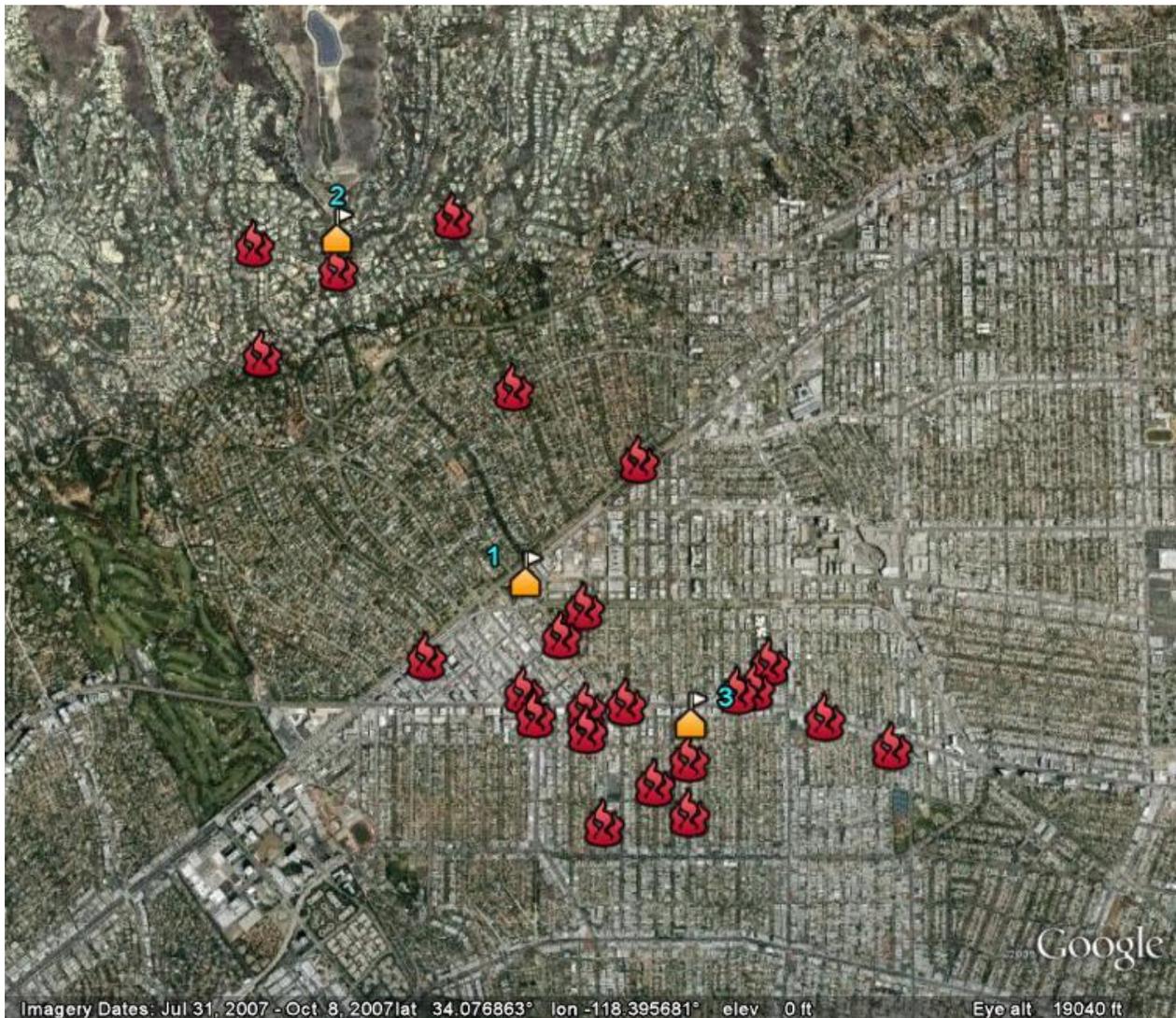
There are 25 Incident records being analyzed.

	2007	2008	2009
0000 secs	.0% (0)	.0% (0)	.0% (0)
0010 secs	.0% (0)	.0% (0)	.0% (0)
0020 secs	.0% (0)	.0% (0)	.0% (0)
0030 secs	.0% (0)	.0% (0)	.0% (0)
0040 secs	.0% (0)	.0% (0)	.0% (0)
0050 secs	.0% (0)	.0% (0)	.0% (0)
** 1 minute **	.0% (0)	.0% (0)	.0% (0)
0070 secs	.0% (0)	.0% (0)	.0% (0)
0080 secs	.0% (0)	.0% (0)	.0% (0)
0090 secs	.0% (0)	.0% (0)	.0% (0)
0100 secs	.0% (0)	.0% (0)	.0% (0)
0110 secs	.0% (0)	.0% (0)	.0% (0)
** 2 minutes **	.0% (0)	.0% (0)	.0% (0)
0130 secs	.0% (0)	.0% (0)	.0% (0)
0140 secs	.0% (0)	.0% (0)	.0% (0)
0150 secs	.0% (0)	.0% (0)	.0% (0)
0160 secs	.0% (0)	.0% (0)	.0% (0)
0170 secs	16.7% (1)	.0% (0)	.0% (0)
** 3 minutes **	16.7% (1)	.0% (0)	.0% (0)
0190 secs	16.7% (1)	.0% (0)	.0% (0)
0200 secs	33.3% (2)	.0% (0)	.0% (0)
0210 secs	50.0% (3)	.0% (0)	.0% (0)

	2007	2008	2009
0220 secs	50.0% (3)	.0% (0)	11.1% (1)
0230 secs	50.0% (3)	10.0% (1)	22.2% (2)
** 4 minutes **	50.0% (3)	20.0% (2)	33.3% (3)
0250 secs	50.0% (3)	20.0% (2)	33.3% (3)
0260 secs	50.0% (3)	20.0% (2)	33.3% (3)
0270 secs	50.0% (3)	20.0% (2)	44.4% (4)
0280 secs	66.7% (4)	20.0% (2)	66.7% (6)
0290 secs	66.7% (4)	30.0% (3)	66.7% (6)
** 5 minutes **	66.7% (4)	60.0% (6)	66.7% (6)
0310 secs	66.7% (4)	80.0% (8)	66.7% (6)
0320 secs	66.7% (4)	80.0% (8)	66.7% (6)
0330 secs	66.7% (4)	80.0% (8)	77.8% (7)
0340 secs	66.7% (4)	80.0% (8)	88.9% (8)
0350 secs	83.3% (5)	90.0% (9)	88.9% (8)
** 6 minutes **	83.3% (5)	90.0% (9)	88.9% (8)
0370 secs	83.3% (5)	90.0% (9)	88.9% (8)
0380 secs	83.3% (5)	100.0% (10)	88.9% (8)
0390 secs	83.3% (5)	100.0% (10)	88.9% (8)
0400 secs	83.3% (5)	100.0% (10)	88.9% (8)
0410 secs	83.3% (5)	100.0% (10)	88.9% (8)
** 7 minutes **	83.3% (5)	100.0% (10)	88.9% (8)
0430 secs	83.3% (5)	100.0% (10)	88.9% (8)
0440 secs	83.3% (5)	100.0% (10)	88.9% (8)
0450 secs	83.3% (5)	100.0% (10)	88.9% (8)
0460 secs	83.3% (5)	100.0% (10)	88.9% (8)
0470 secs	83.3% (5)	100.0% (10)	88.9% (8)
** 8 minutes **	83.3% (5)	100.0% (10)	88.9% (8)
0490 secs	83.3% (5)	100.0% (10)	88.9% (8)
0500 secs	83.3% (5)	100.0% (10)	88.9% (8)
0510 secs	100.0% (6)	100.0% (10)	88.9% (8)
0520 secs	100.0% (6)	100.0% (10)	88.9% (8)
0530 secs	100.0% (6)	100.0% (10)	88.9% (8)
** 9 minutes **	100.0% (6)	100.0% (10)	88.9% (8)

	2007	2008	2009
0550 secs	100.0% (6)	100.0% (10)	100.0% (9)
0560 secs	100.0% (6)	100.0% (10)	100.0% (9)
0570 secs	100.0% (6)	100.0% (10)	100.0% (9)
0580 secs	100.0% (6)	100.0% (10)	100.0% (9)
0590 secs	100.0% (6)	100.0% (10)	100.0% (9)
** 10 minutes **	100.0% (6)	100.0% (10)	100.0% (9)
secs (mins) to 90%	510 (8.5)	350 (5.83)	550 (9.16)
secs (mins) to 80%	350 (5.83)	310 (5.16)	340 (5.66)

Here is a map showing the location of the dollar loss structure fires that occurred in 2007 – 2009. Notice clusters of building fires near Station 3 and Station 2.



***First Alarm on Scene – 2 Engines 1 Ladder***

Given staffing of 4 firefighters per Engine and 5 for the Truck, a 2 Engine / 1 Truck first alarm assignment was established for measurement. While hampered by low structure fire count, here is the breakdown for 2/1 arrival at dollar loss structure fires occurring in Beverly Hills Fire Districts. Structure fires that did not have a full 2/1 arrival posted a zero time and were eliminated from the following calculation:

**Incidents: Call to 1<sup>st</sup> Alarm Arrival Analysis - by Year**

There are 25 Incident records being analyzed.

\*4 records were ignored because of a zero time value.

\*One record was ignored because it was more than limit of 1,500 seconds.

	2007	2008	2009
0000 secs	.0% (0)	.0% (0)	.0% (0)
0010 secs	.0% (0)	.0% (0)	.0% (0)
0020 secs	.0% (0)	.0% (0)	.0% (0)
0030 secs	.0% (0)	.0% (0)	.0% (0)
0040 secs	.0% (0)	.0% (0)	.0% (0)
0050 secs	.0% (0)	.0% (0)	.0% (0)
** 1 minute **	.0% (0)	.0% (0)	.0% (0)
0070 secs	.0% (0)	.0% (0)	.0% (0)
0080 secs	.0% (0)	.0% (0)	.0% (0)
0090 secs	.0% (0)	.0% (0)	.0% (0)
0100 secs	.0% (0)	.0% (0)	.0% (0)
0110 secs	.0% (0)	.0% (0)	.0% (0)
** 2 minutes **	.0% (0)	.0% (0)	.0% (0)
0130 secs	.0% (0)	.0% (0)	.0% (0)
0140 secs	.0% (0)	.0% (0)	.0% (0)
0150 secs	.0% (0)	.0% (0)	.0% (0)
0160 secs	.0% (0)	.0% (0)	.0% (0)
0170 secs	.0% (0)	.0% (0)	.0% (0)
** 3 minutes **	.0% (0)	.0% (0)	.0% (0)
0190 secs	.0% (0)	.0% (0)	.0% (0)
0200 secs	.0% (0)	.0% (0)	.0% (0)
0210 secs	.0% (0)	.0% (0)	.0% (0)
0220 secs	.0% (0)	.0% (0)	.0% (0)
0230 secs	.0% (0)	.0% (0)	.0% (0)

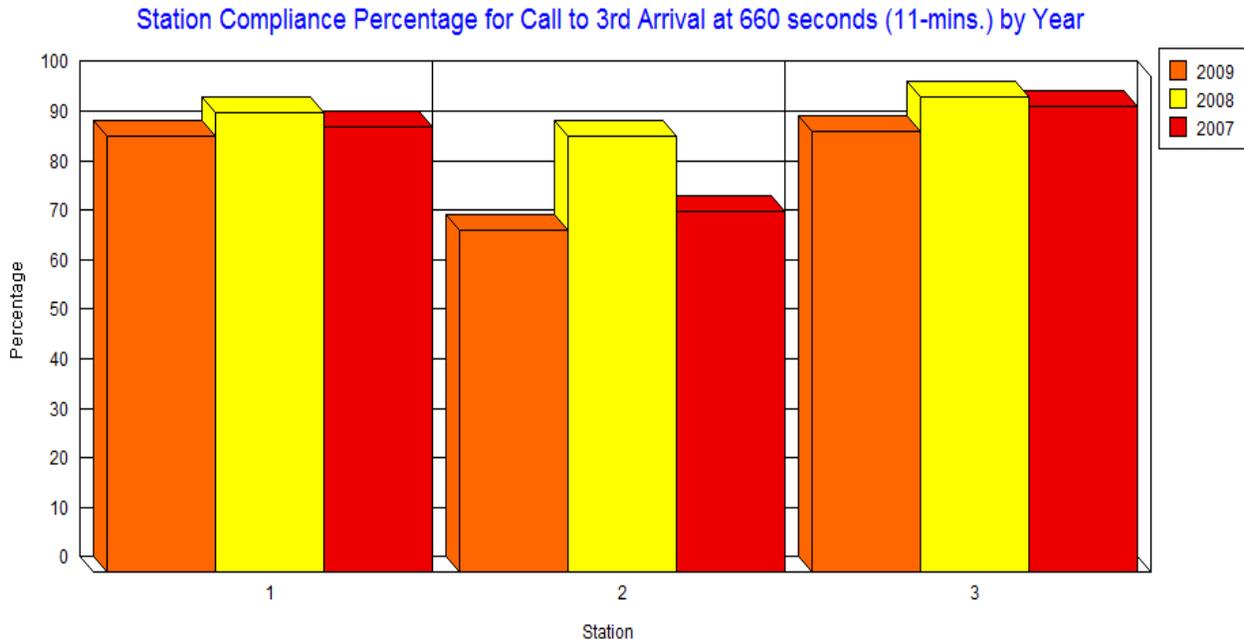
	2007	2008	2009
** 4 minutes **	.0% (0)	.0% (0)	.0% (0)
0250 secs	.0% (0)	.0% (0)	.0% (0)
0260 secs	.0% (0)	.0% (0)	.0% (0)
0270 secs	.0% (0)	.0% (0)	.0% (0)
0280 secs	.0% (0)	.0% (0)	.0% (0)
0290 secs	.0% (0)	.0% (0)	.0% (0)
** 5 minutes **	.0% (0)	.0% (0)	.0% (0)
0310 secs	.0% (0)	.0% (0)	.0% (0)
0320 secs	.0% (0)	.0% (0)	.0% (0)
0330 secs	.0% (0)	12.5% (1)	.0% (0)
0340 secs	.0% (0)	12.5% (1)	.0% (0)
0350 secs	.0% (0)	25.0% (2)	.0% (0)
** 6 minutes **	.0% (0)	25.0% (2)	.0% (0)
0370 secs	25.0% (1)	25.0% (2)	.0% (0)
0380 secs	25.0% (1)	25.0% (2)	.0% (0)
0390 secs	25.0% (1)	25.0% (2)	.0% (0)
0400 secs	25.0% (1)	25.0% (2)	12.5% (1)
0410 secs	50.0% (2)	25.0% (2)	12.5% (1)
** 7 minutes **	50.0% (2)	25.0% (2)	12.5% (1)
0430 secs	50.0% (2)	25.0% (2)	25.0% (2)
0440 secs	50.0% (2)	37.5% (3)	25.0% (2)
0450 secs	50.0% (2)	37.5% (3)	37.5% (3)
0460 secs	50.0% (2)	37.5% (3)	50.0% (4)
0470 secs	50.0% (2)	50.0% (4)	62.5% (5)
** 8 minutes **	50.0% (2)	50.0% (4)	62.5% (5)
0490 secs	50.0% (2)	62.5% (5)	62.5% (5)
0500 secs	50.0% (2)	62.5% (5)	62.5% (5)
0510 secs	50.0% (2)	62.5% (5)	75.0% (6)
0520 secs	50.0% (2)	62.5% (5)	75.0% (6)
0530 secs	75.0% (3)	62.5% (5)	75.0% (6)
** 9 minutes **	75.0% (3)	62.5% (5)	75.0% (6)
0550 secs	75.0% (3)	75.0% (6)	75.0% (6)
0560 secs	75.0% (3)	75.0% (6)	75.0% (6)
0570 secs	75.0% (3)	75.0% (6)	75.0% (6)

	2007	2008	2009
0580 secs	75.0% (3)	87.5% (7)	75.0% (6)
0590 secs	100.0% (4)	87.5% (7)	75.0% (6)
** 10 minutes **	100.0% (4)	87.5% (7)	75.0% (6)
0610 secs	100.0% (4)	87.5% (7)	87.5% (7)
0620 secs	100.0% (4)	87.5% (7)	87.5% (7)
0630 secs	100.0% (4)	87.5% (7)	87.5% (7)
0640 secs	100.0% (4)	87.5% (7)	87.5% (7)
0650 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 11 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0670 secs	100.0% (4)	87.5% (7)	87.5% (7)
0680 secs	100.0% (4)	87.5% (7)	87.5% (7)
0690 secs	100.0% (4)	87.5% (7)	87.5% (7)
0700 secs	100.0% (4)	87.5% (7)	87.5% (7)
0710 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 12 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0730 secs	100.0% (4)	87.5% (7)	87.5% (7)
0740 secs	100.0% (4)	87.5% (7)	87.5% (7)
0750 secs	100.0% (4)	87.5% (7)	87.5% (7)
0760 secs	100.0% (4)	87.5% (7)	87.5% (7)
0770 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 13 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0790 secs	100.0% (4)	87.5% (7)	87.5% (7)
0800 secs	100.0% (4)	87.5% (7)	87.5% (7)
0810 secs	100.0% (4)	87.5% (7)	87.5% (7)
0820 secs	100.0% (4)	87.5% (7)	87.5% (7)
0830 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 14 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0850 secs	100.0% (4)	87.5% (7)	87.5% (7)
0860 secs	100.0% (4)	87.5% (7)	87.5% (7)
0870 secs	100.0% (4)	87.5% (7)	87.5% (7)
0880 secs	100.0% (4)	87.5% (7)	87.5% (7)
0890 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 15 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0910 secs	100.0% (4)	87.5% (7)	87.5% (7)

	2007	2008	2009
0920 secs	100.0% (4)	87.5% (7)	87.5% (7)
0930 secs	100.0% (4)	87.5% (7)	87.5% (7)
0940 secs	100.0% (4)	87.5% (7)	87.5% (7)
0950 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 16 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
0970 secs	100.0% (4)	87.5% (7)	87.5% (7)
0980 secs	100.0% (4)	87.5% (7)	87.5% (7)
0990 secs	100.0% (4)	87.5% (7)	87.5% (7)
1000 secs	100.0% (4)	87.5% (7)	87.5% (7)
1010 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 17 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
1030 secs	100.0% (4)	87.5% (7)	87.5% (7)
1040 secs	100.0% (4)	87.5% (7)	87.5% (7)
1050 secs	100.0% (4)	87.5% (7)	87.5% (7)
1060 secs	100.0% (4)	87.5% (7)	87.5% (7)
1070 secs	100.0% (4)	87.5% (7)	87.5% (7)
** 18 minutes **	100.0% (4)	87.5% (7)	87.5% (7)
1090 secs	100.0% (4)	87.5% (7)	87.5% (7)
1100 secs	100.0% (4)	87.5% (7)	87.5% (7)
1110 secs	100.0% (4)	87.5% (7)	100.0% (8)
1120 secs	100.0% (4)	87.5% (7)	100.0% (8)
1130 secs	100.0% (4)	87.5% (7)	100.0% (8)
** 19 minutes **	100.0% (4)	87.5% (7)	100.0% (8)
1150 secs	100.0% (4)	87.5% (7)	100.0% (8)
1160 secs	100.0% (4)	87.5% (7)	100.0% (8)
1170 secs	100.0% (4)	87.5% (7)	100.0% (8)
1180 secs	100.0% (4)	87.5% (7)	100.0% (8)
1190 secs	100.0% (4)	100.0% (8)	100.0% (8)
** 20 minutes **	100.0% (4)	100.0% (8)	100.0% (8)
secs (mins) to 90%	590 (9.83)	1,190 (19.83)	1,110 (18.5)
secs (mins) to 80%	590 (9.83)	580 (9.66)	610 (10.16)

### *Concentration Percentage*

Here apparatus responses from 2007 - 2009 were filtered to Engine and Ladder responses only. Next, those responses were isolated to only the 3<sup>rd</sup> arriving engine or ladder company. The graph below was constructed for these 3<sup>rd</sup> apparatus arrivals showing percentage of compliance for the 3<sup>rd</sup> Engine / Ladder arrival at 11 minutes by station.

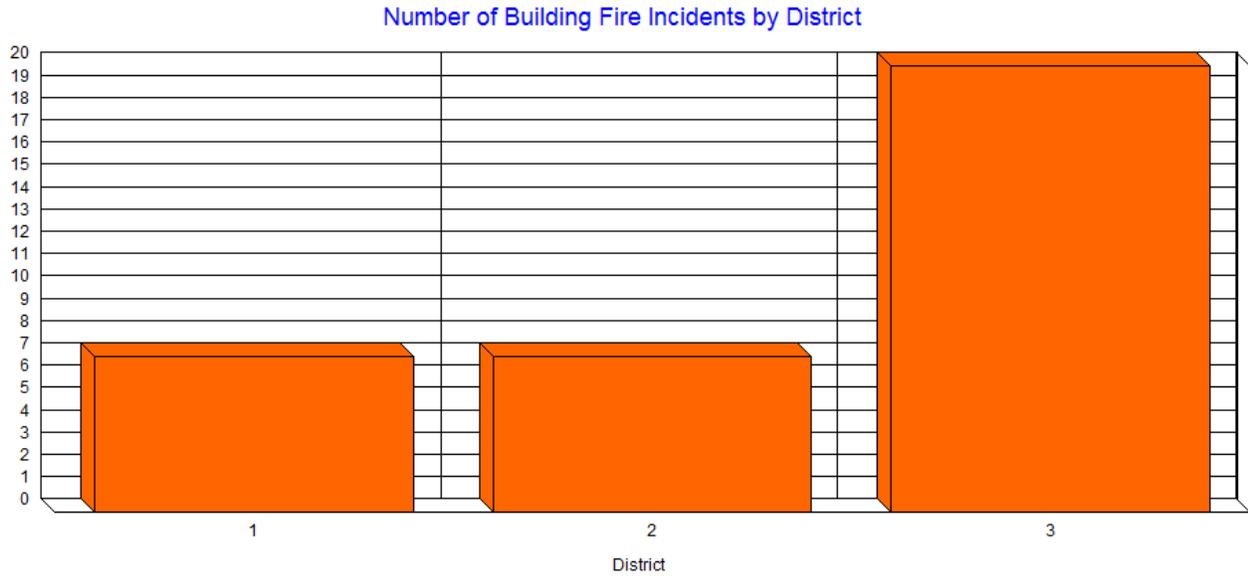


Here we see Stations 1 and 3 receive a 3<sup>rd</sup> engine or ladder arrival with 11 minutes with 90 percent compliance. Although Station 2 approached 90 percent compliance in 2008, it held near 70 percent in 2007 and 2009.

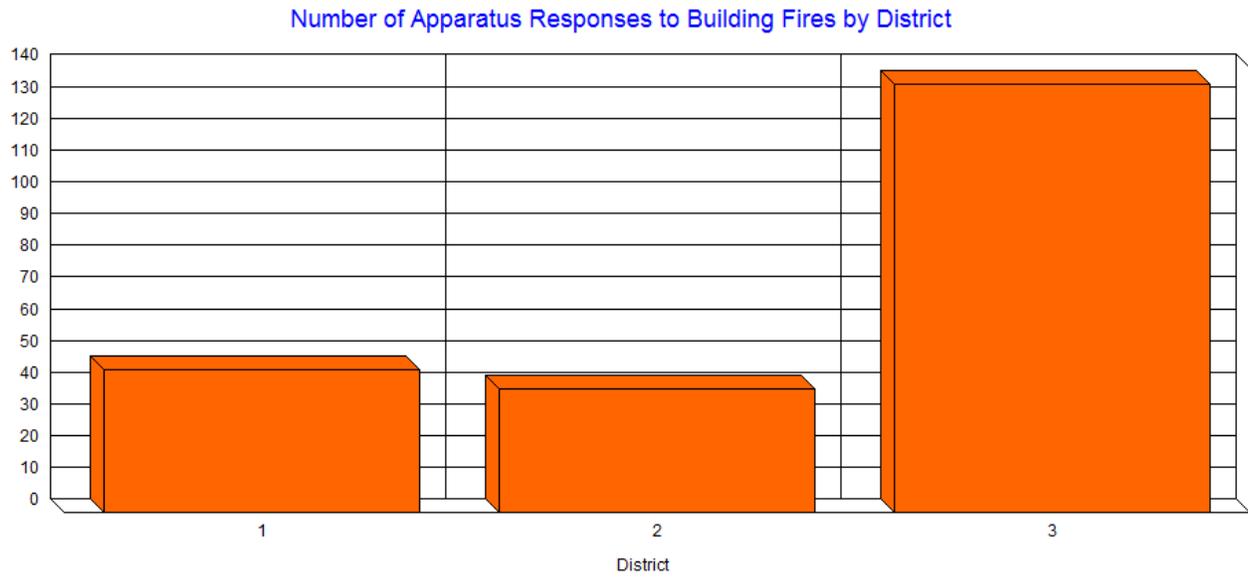
### *Building Fire Arrival Analysis*

Beverly Hills had 34 building fires inside station areas that had a Call to Arrival under 1,200 seconds (20 minutes).

Here is the breakdown of Incidents by district:



Here are the Apparatus responses to building fires by district.



This chart illustrates the arrival sequence of apparatus to building fires:

**Apparatus: Count - Arrival Sequence by Vehicle**

There are 156 Apparatus records being analyzed.

Arrival	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	Totals
Vehicle	Count									
E1	10	6	1	5	1					23
E2	5	1	2	2		1	2	1		14
E3	14	4	3	1	1					23
E5		6	10	7	3	1				27
LACOFD	1	1	1	4	6	7				20
LAFD									1	1
R1			1	2	2	3	3			11
R2	1	1	2	1	2					7
T4	3	12	7	4	4					30
Totals	34	31	27	26	19	12	5	1	1	156

Next is a breakdown Call to Arrival for all Apparatus responses to building fires in Beverly Hills Fire Department by arrival and by districts.

**All Districts**

By Arrival	Responses	Secs to 90%	Secs to 80%	% @ 420 Secs	% @ 480 Secs
1st	34	525	405	85.29%	85.29%
2nd	31	690	505	67.74%	77.41%
3rd	27	1105	540	33.33%	62.96%
4th	26	1105	720	23.07%	38.46%
5th	19		930	0.00%	15.78%
6th	12			0.00%	0.00%
7th	5			0.00%	0.00%
8th	1			0.00%	0.00%
9th	1			0.00%	0.00%

Here is the breakdown by district.

**District 1**

By Arrival	Responses	Secs to 90%	Secs to 80%	% @ 420 Secs	% @ 480 Secs
1st	7	530	405	85.71%	85.71%
2nd	7	1055	530	57.14%	71.42%
3rd	7	1185	530	42.85%	71.42%
4th	7	1185	855	42.85%	42.85%
5th	4			0.00%	0.00%
6th	2	795	795	0.00%	0.00%

**District 2**

By Arrival	Responses	Secs to 90%	Secs to 80%	% @ 420 Secs	% @ 480 Secs
1st	7	755	420	85.71%	85.71%
2nd	5		505	60.00%	60.00%
3rd	4			0.00%	75.00%
4th	3			0.00%	33.33%
5th	3			0.00%	33.33%
6th	2			0.00%	0.00%
7th	1	655	655	0.00%	0.00%

**District 3**

By Arrival	Responses	Secs to 90%	Secs to 80%	% @ 420 Secs	% @ 480 Secs
1st	20	505	380	85.00%	85.00%
2nd	19	690	470	73.68%	84.21%
3rd	16	585	540	37.50%	56.25%
4th	16	930	595	18.75%	37.50%
5th	12	930	810	0.00%	16.66%
6th	8			0.00%	0.00%
7th	4			0.00%	0.00%
8th	1			0.00%	0.00%
9th	1			0.00%	0.00%

## Simultaneous Incident Activity

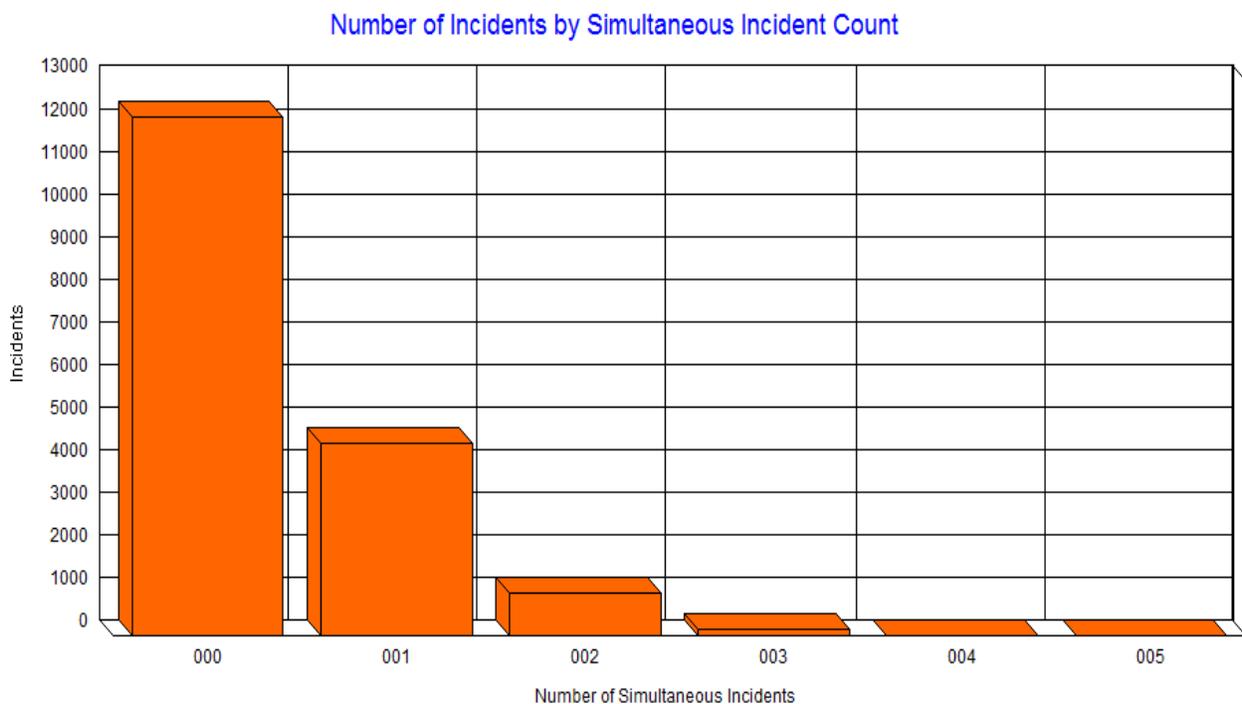
*A simultaneous alarm occurs when an incident originates before a prior incident has terminated. This section quantifies simultaneous or overlapping incidents.*

When overlapping incidents occur, fire department resources are taxed. Examining incident data for the 3-year dataset shows 32.18 percent of incidents occurred when Beverly Hills was already engaged in other response activity.

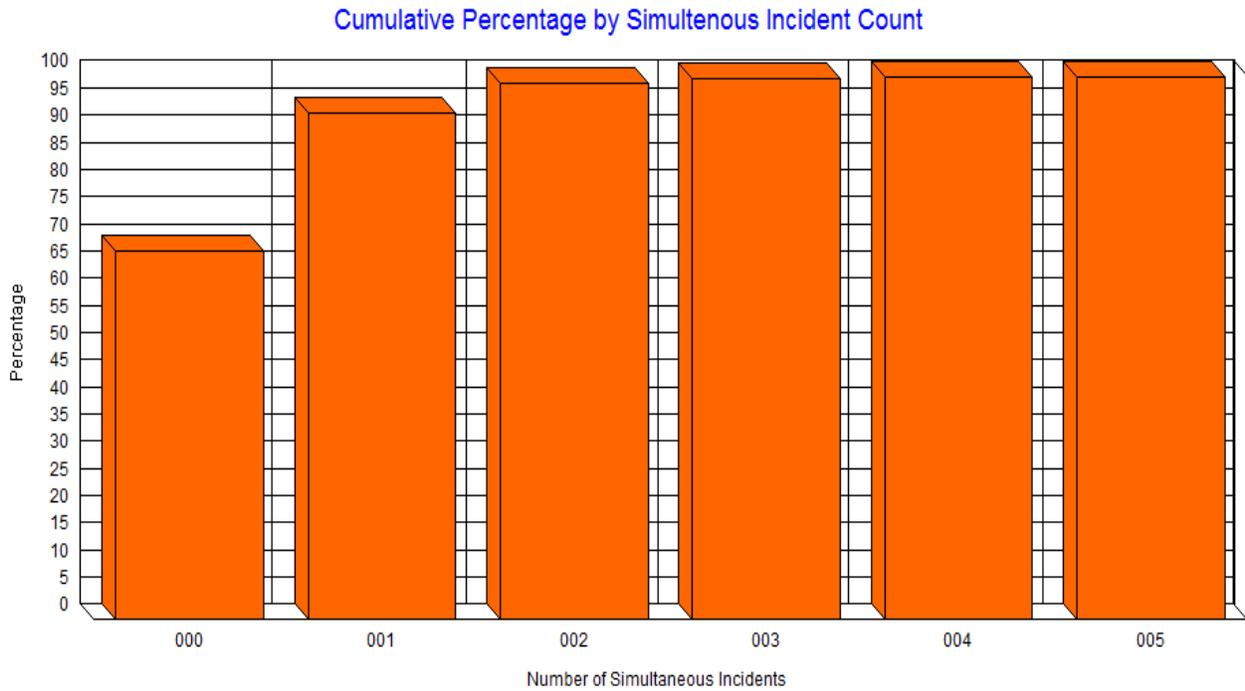
Here is the breakdown by number of incidents:

At least 2 incidents occurring at the same time	32.18 percent
At least 3 incidents occurring at the same time	6.91 percent
At least 4 incidents occurring at the same time	1.34 percent
At least 5 incidents occurring at the same time	.37 percent

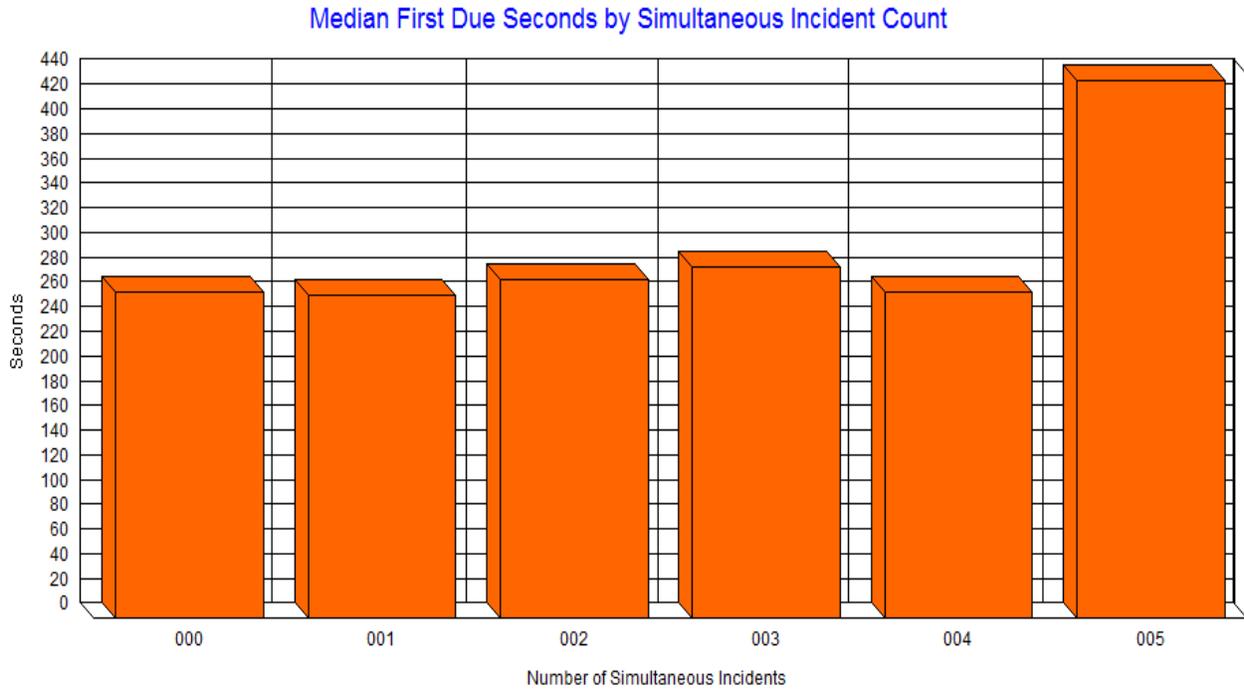
This graph below illustrates the number of simultaneous incidents. “000”, “001”, “002”, etc. indicate the number of incidents underway when a new the incident originated.



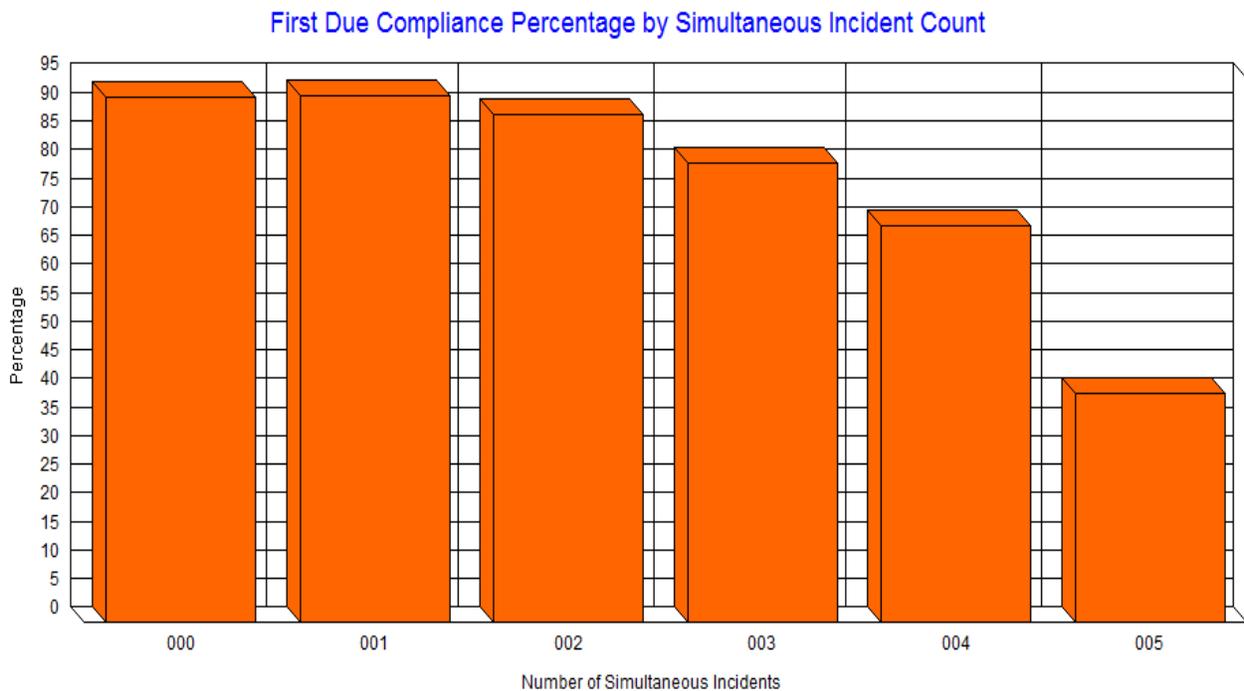
The cumulative percentage of incidents by simultaneous incident count provides another model of simultaneous incident activity. Here we see approximately 67 percent of incidents take place when no other incidents are underway.



The following graph illustrates the affect of multiple simultaneous incidents on a first apparatus arrival compliance goal of 420 seconds (7 minutes). Notice compliance generally declines as the number of simultaneous incidents increase. Incidents occurring during four or five or more simultaneous incidents are very rare and subject to volatility.

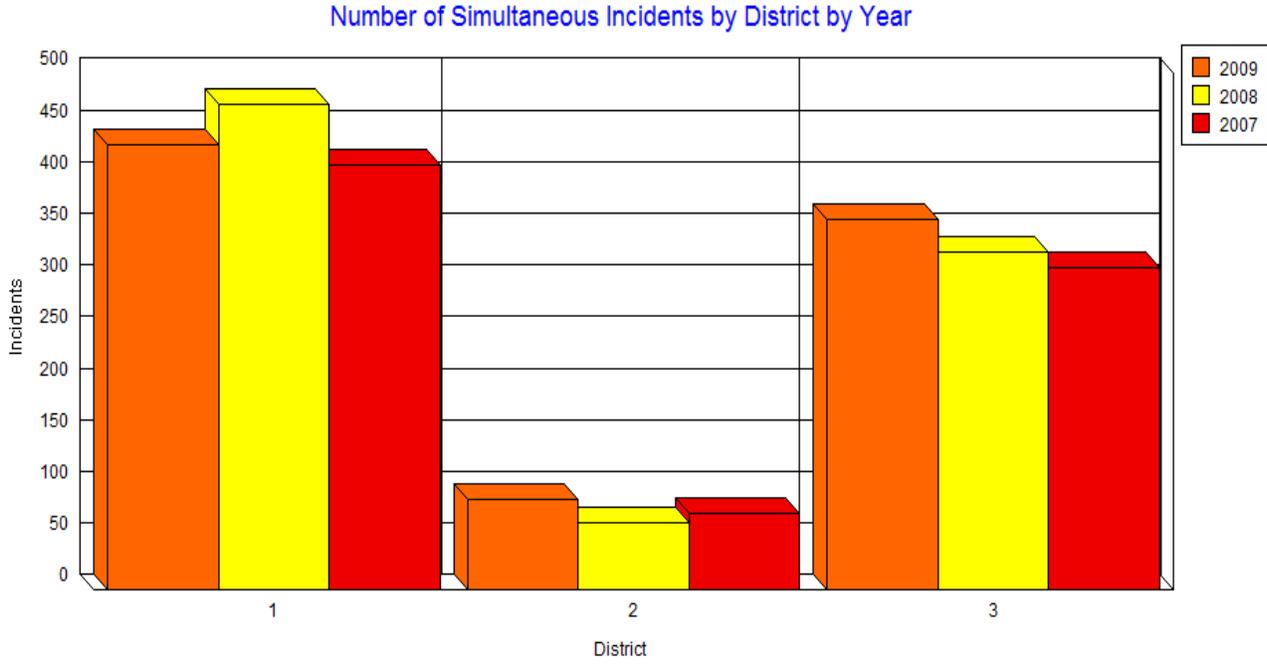


The next graph illustrates the effect of simultaneous incident load on 1<sup>st</sup> apparatus arrivals. Here we see significant degrading at 3 or more simultaneous incidents.



**Simultaneous Incidents by Station Area**

Another way to measure simultaneous responses is when simultaneous incidents occur within the same station area. Beverly Hills experiences same-station simultaneous incidents 14.1 percent of the time.



**Beverly Hills Station-to-Station Aid**

The chart below outlines the number of apparatus responses by district for the 3-year dataset:

**Apparatus: Count - Apparatus Responses by District**

There are 34,740 Apparatus records being analyzed.

District	1	2	3	Totals
<b>Vehicle ID</b>	<b>Count</b>			
R1	4,346	1,442	3,338	9,126
E1	6,405	241	818	7,464
E3	428	34	5,606	6,068
E2	220	2,766	137	3,123
R2	1,027	341	1,674	3,042
T4	1,663	155	667	2,485
E5	670	67	286	1,023
B1	529	102	330	961
R3	158	52	145	355

District	1	2	3	Totals
Vehicle ID	Count			
LACOFD	146	44	157	347
E7	227	14	31	272
E6	63	7	194	264
E8	8	85	4	97
E51	32		3	35
USAR1	6	2	5	13
B2	9	2	1	12
T9	4			4
FM	1	1	2	4
Totals	15,960	5,373	13,407	34,740

(Several low response vehicles were eliminated.)

### Out of District Responses

The three year dataset was distilled to fire and EMS apparatus responses only. This set was further distilled only to those apparatus that arrived 1<sup>st</sup> on the scene of a fire or EMS incident *outside* their home district.

Here is the breakdown for out of district 1<sup>st</sup> arrivals:

#### Apparatus: Count - Out of District 1<sup>st</sup> Arrivals by Vehicle ID

There are 2,141 Apparatus records being analyzed.

District	1	2	3	Totals
Vehicle	Count			
E1		53	284	337
E2	31		19	50
E3	79	1		80
E5			3	3
E6	26	1	88	115
R1		300	756	1,056
R2	238	50		288
R3	16	3	9	28
T4		17	167	184
Totals	390	425	1,326	2,141

Here is the travel time fractile breakdown for the same set of *out of District 1<sup>st</sup> arriving* apparatus. Here we see Station 2 travel times are the longest when home district resources are not available for response:

**Apparatus: Travel (CAD) Performance Analysis**

There are 2,141 Apparatus records being analyzed.

\*378 records were ignored because of a zero time value.

\*9 records were ignored because they were more than the limit of 900 seconds.

	1	2	3
Travel (CAD) at 0000 secs	.0% (0)	.0% (0)	.0% (0)
Travel (CAD) at 0010 secs	1.7% (5)	.5% (2)	.4% (4)
Travel (CAD) at 0020 secs	2.3% (7)	.5% (2)	.7% (8)
Travel (CAD) at 0030 secs	5.0% (15)	.8% (3)	1.0% (11)
Travel (CAD) at 0040 secs	8.0% (24)	1.1% (4)	1.5% (16)
Travel (CAD) at 0050 secs	11.0% (33)	1.1% (4)	2.3% (25)
Travel (CAD) at ** 1 minute **	13.7% (41)	1.3% (5)	3.3% (36)
Travel (CAD) at 0070 secs	17.1% (51)	1.3% (5)	4.6% (50)
Travel (CAD) at 0080 secs	24.1% (72)	2.4% (9)	7.3% (79)
Travel (CAD) at 0090 secs	31.1% (93)	3.2% (12)	10.3% (112)
Travel (CAD) at 0100 secs	39.5% (118)	4.9% (18)	13.7% (149)
Travel (CAD) at 0110 secs	44.8% (134)	6.2% (23)	18.8% (204)
Travel (CAD) at ** 2 minutes **	53.8% (161)	10.0% (37)	23.6% (256)
Travel (CAD) at 0130 secs	61.2% (183)	14.0% (52)	30.6% (332)
Travel (CAD) at 0140 secs	65.9% (197)	18.9% (70)	37.5% (407)
Travel (CAD) at 0150 secs	72.2% (216)	28.0% (104)	45.1% (489)
Travel (CAD) at 0160 secs	75.9% (227)	34.8% (129)	52.4% (568)
Travel (CAD) at 0170 secs	80.6% (241)	41.5% (154)	60.7% (658)
Travel (CAD) at ** 3 minutes **	84.6% (253)	48.8% (181)	67.7% (734)
Travel (CAD) at 0190 secs	87.0% (260)	55.0% (204)	73.4% (796)
Travel (CAD) at 0200 secs	90.0% (269)	59.0% (219)	80.2% (869)
Travel (CAD) at 0210 secs	91.6% (274)	63.6% (236)	84.8% (919)
Travel (CAD) at 0220 secs	93.0% (278)	68.5% (254)	87.2% (945)
Travel (CAD) at 0230 secs	93.6% (280)	73.0% (271)	90.8% (984)
Travel (CAD) at ** 4 minutes **	94.6% (283)	75.2% (279)	92.6% (1,004)
Travel (CAD) at 0250 secs	96.3% (288)	76.0% (282)	94.6% (1,025)
Travel (CAD) at 0260 secs	97.0% (290)	78.2% (290)	95.8% (1,039)

	1	2	3
Travel (CAD) at 0270 secs	97.3% (291)	80.1% (297)	96.6% (1,047)
Travel (CAD) at 0280 secs	97.7% (292)	83.0% (308)	96.9% (1,050)
Travel (CAD) at 0290 secs	98.3% (294)	84.4% (313)	97.4% (1,056)
Travel (CAD) at ** 5 minutes **	98.7% (295)	85.4% (317)	97.8% (1,060)
Travel (CAD) at 0310 secs	99.0% (296)	86.3% (320)	98.0% (1,062)
Travel (CAD) at 0320 secs	99.3% (297)	87.3% (324)	98.2% (1,064)
Travel (CAD) at 0330 secs	99.3% (297)	88.4% (328)	98.2% (1,065)
Travel (CAD) at 0340 secs	99.3% (297)	89.5% (332)	98.2% (1,065)
Travel (CAD) at 0350 secs	99.3% (297)	90.8% (337)	98.3% (1,066)
Travel (CAD) at ** 6 minutes **	99.3% (297)	92.2% (342)	98.5% (1,068)
Travel (CAD) at 0370 secs	99.3% (297)	92.5% (343)	98.7% (1,070)
Travel (CAD) at 0380 secs	99.7% (298)	93.5% (347)	98.8% (1,071)
Travel (CAD) at 0390 secs	99.7% (298)	94.3% (350)	98.9% (1,072)
Travel (CAD) at 0400 secs	99.7% (298)	95.1% (353)	98.9% (1,072)
Travel (CAD) at 0410 secs	99.7% (298)	97.0% (360)	98.9% (1,072)
Travel (CAD) at ** 7 minutes **	99.7% (298)	97.8% (363)	98.9% (1,072)
Travel (CAD) at 0430 secs	99.7% (298)	98.1% (364)	98.9% (1,072)
Travel (CAD) at 0440 secs	99.7% (298)	98.4% (365)	99.0% (1,073)
Travel (CAD) at 0450 secs	99.7% (298)	98.7% (366)	99.0% (1,073)
Travel (CAD) at 0460 secs	99.7% (298)	98.7% (366)	99.0% (1,073)
Travel (CAD) at 0470 secs	99.7% (298)	99.2% (368)	99.1% (1,074)
Travel (CAD) at ** 8 minutes **	99.7% (298)	99.5% (369)	99.1% (1,074)
Travel (CAD) at 0490 secs	99.7% (298)	99.5% (369)	99.1% (1,074)
Travel (CAD) at 0500 secs	99.7% (298)	99.5% (369)	99.2% (1,075)
Travel (CAD) at 0510 secs	99.7% (298)	99.5% (369)	99.3% (1,076)
Travel (CAD) at 0520 secs	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at 0530 secs	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at ** 9 minutes **	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at 0550 secs	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at 0560 secs	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at 0570 secs	99.7% (298)	100.0% (371)	99.3% (1,076)
Travel (CAD) at 0580 secs	99.7% (298)	100.0% (371)	99.4% (1,077)
Travel (CAD) at 0590 secs	99.7% (298)	100.0% (371)	99.4% (1,077)
Travel (CAD) at ** 10 minutes **	100.0% (299)	100.0% (371)	99.4% (1,078)

	1	2	3
Travel (CAD) at 0610 secs	100.0% (299)	100.0% (371)	99.4% (1,078)
Travel (CAD) at 0620 secs	100.0% (299)	100.0% (371)	99.4% (1,078)
Travel (CAD) at 0630 secs	100.0% (299)	100.0% (371)	99.4% (1,078)
Travel (CAD) at 0640 secs	100.0% (299)	100.0% (371)	99.4% (1,078)
Travel (CAD) at 0650 secs	100.0% (299)	100.0% (371)	99.4% (1,078)
Travel (CAD) at ** 11 minutes **	100.0% (299)	100.0% (371)	99.5% (1,079)
Travel (CAD) at 0670 secs	100.0% (299)	100.0% (371)	99.5% (1,079)
Travel (CAD) at 0680 secs	100.0% (299)	100.0% (371)	99.5% (1,079)
Travel (CAD) at 0690 secs	100.0% (299)	100.0% (371)	99.5% (1,079)
Travel (CAD) at 0700 secs	100.0% (299)	100.0% (371)	99.5% (1,079)
Travel (CAD) at 0710 secs	100.0% (299)	100.0% (371)	99.6% (1,080)
Travel (CAD) at ** 12 minutes **	100.0% (299)	100.0% (371)	99.6% (1,080)
Travel (CAD) at 0730 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0740 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0750 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0760 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0770 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at ** 13 minutes **	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0790 secs	100.0% (299)	100.0% (371)	99.7% (1,081)
Travel (CAD) at 0800 secs	100.0% (299)	100.0% (371)	99.8% (1,082)
Travel (CAD) at 0810 secs	100.0% (299)	100.0% (371)	99.9% (1,083)
Travel (CAD) at 0820 secs	100.0% (299)	100.0% (371)	99.9% (1,083)
Travel (CAD) at 0830 secs	100.0% (299)	100.0% (371)	99.9% (1,083)
Travel (CAD) at ** 14 minutes **	100.0% (299)	100.0% (371)	99.9% (1,083)
Travel (CAD) at 0850 secs	100.0% (299)	100.0% (371)	99.9% (1,083)
Travel (CAD) at 0860 secs	100.0% (299)	100.0% (371)	100.0% (1,084)
Travel (CAD) at 0870 secs	100.0% (299)	100.0% (371)	100.0% (1,084)
Travel (CAD) at 0880 secs	100.0% (299)	100.0% (371)	100.0% (1,084)
Travel (CAD) at 0890 secs	100.0% (299)	100.0% (371)	100.0% (1,084)
Travel (CAD) at ** 15 minutes **	100.0% (299)	100.0% (371)	100.0% (1,084)
secs (mins) to 90%	200 (3.33)	350 (5.83)	230 (3.83)
secs (mins) to 80%	170 (2.83)	270 (4.5)	200 (3.33)

Here are the **travel** time percentages for all *1<sup>st</sup> arriving apparatus in District 2* for the three years:

Unit ID	Responses	Zero Values	Structures	Secs to 90%	% @ 240 Secs	% @ 300 Secs
E2	1,175	136	4	345	71.79%	83.34%
R1	300	29		355	76.38%	83.76%
E1	54	13		400	78.04%	82.92%
R2	50	8		295	64.28%	92.85%
E8	24	3		410	66.66%	71.42%
T4	17	2		350	53.33%	80.00%

### Interdepartmental Aid

*Interdepartmental aid quantifies the number of incidents in which the fire department received tactical assistance for other fire departments or provided assistance to other fire departments.*

Only a small percentage of Beverly Hills' incidents involve aid:

#### Incidents: Count - Aid Type by Year

There are 17,961 Incident records being analyzed.

Year		2007	2008	2009	Totals
Aid Type		Count			
1	Received	13	11	12	36
2	Auto Aid Received	23	52	60	135
3	Given	35	25	46	106
4	Automatic Aid Given	176	197	232	605
5	Other Aid Given	15	7	13	35
N	None	5,622	5,843	5,579	17,044
Totals		5,884	6,135	5,942	17,961

Beverly Hills is far more likely to give automatic aid than to receive. Auto aid incidents have increased significantly each year. Here is a summary:

***Department Aid Report for Beverly Hills Fire Department.***

Total Incidents: 17,961

Incidents Involving Aid:	917	Percentage:	5.11%
Aid Incidents for Fires:	122	Percentage:	13.30%
Aid Incidents for EMS:	326	Percentage:	35.55%
Aid Incidents for Others:	469	Percentage:	51.15%
Incidents Involving Aid Received:	171	Percentage:	18.65%.
Incidents Involving Requested Aid Received:	36	Percentage:	3.93%
Incidents Involving Automatic Aid Received:	135	Percentage:	14.72%
Incidents Involving Aid Given:	746	Percentage:	81.35%.
Incidents Involving Requested Aid Given:	106	Percentage:	11.56%
Incidents Involving Automatic Aid Given:	605	Percentage:	65.98%
Incidents Involving Other Types of Aid Given:	35	Percentage:	3.82%

***Departments Providing Aid to BHFD***

**Apparatus: Count - Year Desc by Vehicle ID**

**Aid Apparatus by Fire Department**

Year	2007	2008	2009	Totals
Agency	Count			
LACOFD	93	111	148	352
LAFD		1	2	3
LAFD1			2	2

NFIRS Fire Department Identification Number FDID of departments receiving aid was *not* recorded in *NFIRS 5* data.

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*Responses Outside of Beverly Hills*

**Incidents: Count - Year by City of Incident**

There are 41 Incident records being analyzed.

Year	2007	2008	2009	Totals
City of Incident	Count			
Chico		2		2
LOS ANGELES	3	13	5	21
Malibu	1			1
Moorpark			1	1
Santa Barbara			1	1
West Hollywood	8	3	3	14
WESTWOOD			1	1
Totals	12	19	11	41

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## ISSUE ANALYSIS

### ***ENGINE 5 / R3***

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The following calculations involve Apparatus responses by Engine 5 and Rescue 3 for the 3-year data study.

#### **Apparatus: Count - District by Vehicle**

There are 1,378 Apparatus records being analyzed.

District	1	2	3	Totals
Vehicle	Count			
E5	670	67	286	1,023
R3	158	52	145	355
Totals	828	119	431	1,378

Here is the breakdown by year.

#### **Apparatus: Count - Year by Vehicle**

There are 1,378 Apparatus records being analyzed.

Year	2007	2008	2009	Totals
Vehicle	Count			
E5	388	336	299	1,023
R3	89	130	136	355
Totals	477	466	435	1,378

On the next page E5 and R3 responses are broken-down by Incident Type by Year.

**Apparatus: Count - Vehicle by Incident Type Code**

There are 1,378 Apparatus records being analyzed.

<b>Vehicle</b>	<b>E5</b>	<b>R3</b>	<b>Totals</b>
<b>Incident Type Code</b>	<b>Count</b>		
100 Fire, other_2007	2		2
100 Fire, other_2008	7		7
100 Fire, other_2009	9		9
111 Building fire_2007	7		7
111 Building fire_2008	11		11
111 Building fire_2009	11		11
113 Cooking fire, confined to container_2007	5		5
113 Cooking fire, confined to container_2008	8		8
113 Cooking fire, confined to container_2009	14		14
114 Chimney or flue fire, confined to chimney or flue_2007	1		1
114 Chimney or flue fire, confined to chimney or flue_2008	1		1
116 Fuel burner/boiler malfunction, fire confined_2009	1		1
118 Trash or rubbish fire, contained_2007	5		5
118 Trash or rubbish fire, contained_2008	3		3
131 Passenger vehicle fire_2007	6		6
131 Passenger vehicle fire_2008	3		3
131 Passenger vehicle fire_2009	5		5
132 Road freight or transport vehicle fire_2007	1		1
138 Off-road vehicle or heavy equipment fire_2008	2		2
140 Natural vegetation fire, other_2007	1		1
140 Natural vegetation fire, other_2008	1		1
140 Natural vegetation fire, other_2009	2		2
142 Brush, or brush and grass mixture fire_2007	1		1
142 Brush, or brush and grass mixture fire_2008	1		1
150 Outside rubbish fire, other_2007	2		2
151 Outside rubbish, trash or waste fire_2007	3		3
151 Outside rubbish, trash or waste fire_2008	3		3
151 Outside rubbish, trash or waste fire_2009	4		4
154 Dumpster or other outside trash receptacle fire_2007	3		3
154 Dumpster or other outside trash receptacle fire_2008	3		3

Vehicle	E5	R3	Totals
Incident Type Code	Count		
160 Special outside fire, other_2007	4		4
160 Special outside fire, other_2009	2		2
162 Outside equipment fire_2007	1		1
162 Outside equipment fire_2008	1		1
163 Outside gas or vapor combustion explosion_2009	2		2
170 Cultivated vegetation, crop fire, other_2007	1		1
173 Cultivated trees or nursery stock fire_2007	1		1
173 Cultivated trees or nursery stock fire_2008	1		1
200 Overpressure rupture, explosion, overheat other_2008	1		1
200 Overpressure rupture, explosion, overheat other_2009	2		2
220 Overpressure rupture from air or gas, other_2007	1		1
240 Explosion (no fire), other_2009	3		3
251 Excessive heat, scorch burns with no ignition_2007	3		3
251 Excessive heat, scorch burns with no ignition_2008	2		2
251 Excessive heat, scorch burns with no ignition_2009	1		1
300 Rescue, emergency medical call (EMS) call, other_2007	6	9	15
300 Rescue, emergency medical call (EMS) call, other_2008	3	17	20
300 Rescue, emergency medical call (EMS) call, other_2009	1	22	23
311 Medical assist, assist EMS crew_2007		3	3
311 Medical assist, assist EMS crew_2008	1	7	8
311 Medical assist, assist EMS crew_2009		6	6
321 EMS call, excluding vehicle accident with injury_2007	13	65	78
321 EMS call, excluding vehicle accident with injury_2008	1	84	85
321 EMS call, excluding vehicle accident with injury_2009	4	85	89
322 Vehicle accident with injuries_2007	1	4	5
322 Vehicle accident with injuries_2008		11	11
322 Vehicle accident with injuries_2009		9	9
323 Motor vehicle/pedestrian accident (MV Ped)_2007	2		2
323 Motor vehicle/pedestrian accident (MV Ped)_2008	1	2	3
323 Motor vehicle/pedestrian accident (MV Ped)_2009		2	2
324 Motor vehicle accident no injuries_2007		2	2
324 Motor vehicle accident no injuries_2008		2	2

Vehicle	E5	R3	Totals
Incident Type Code	Count		
324 Motor vehicle accident no injuries_2009		3	3
353 Removal of victim(s) from stalled elevator_2007	1		1
353 Removal of victim(s) from stalled elevator_2008	3		3
353 Removal of victim(s) from stalled elevator_2009	1		1
400 Hazardous condition, other_2008	2		2
400 Hazardous condition, other_2009	2		2
410 Flammable gas or liquid condition, other_2007	2		2
412 Gas leak (natural gas or LPG)_2007	5		5
412 Gas leak (natural gas or LPG)_2008	4		4
412 Gas leak (natural gas or LPG)_2009	7		7
413 Oil or other combustible liquid spill_2009	1		1
423 Refrigeration leak_2008	1		1
440 Electrical wiring/equipment problem, other_2007	9		9
440 Electrical wiring/equipment problem, other_2008	6		6
440 Electrical wiring/equipment problem, other_2009	5		5
441 Heat from short circuit (wiring), defective/worn_2008	1		1
441 Heat from short circuit (wiring), defective/worn_2009	2		2
442 Overheated motor_2007	1		1
442 Overheated motor_2008	5		5
442 Overheated motor_2009	5		5
444 Power line down_2007	2		2
444 Power line down_2009	2		2
445 Arcing, shorted electrical equipment_2007	2		2
445 Arcing, shorted electrical equipment_2008	3		3
445 Arcing, shorted electrical equipment_2009	1		1
480 Attempted burning, illegal action, other_2008	1		1
500 Service Call, other_2007	7	1	8
500 Service Call, other_2008	4		4
500 Service Call, other_2009	4		4
510 Person in distress, other_2007	1		1
520 Water problem, other_2008	1		1
521 Water evacuation_2007	1		1

Vehicle	E5	R3	Totals
Incident Type Code	Count		
521 Water evacuation_2009	1		1
522 Water or steam leak_2007	3		3
522 Water or steam leak_2008	1		1
522 Water or steam leak_2009	1		1
531 Smoke or odor removal_2007	13		13
531 Smoke or odor removal_2008	20		20
531 Smoke or odor removal_2009	17		17
540 Animal problem, other_2008	1		1
540 Animal problem, other_2009	2		2
541 Animal problem_2007	2		2
542 Animal rescue_2007	1		1
554 Assist invalid_2008		1	1
554 Assist invalid_2009		1	1
561 Unauthorized burning_2008	2		2
600 Good intent call, other_2007	6		6
600 Good intent call, other_2008	2	2	4
600 Good intent call, other_2009	4		4
611 Dispatched & canceled en route_2007	86	2	88
611 Dispatched & canceled en route_2008	68	4	72
611 Dispatched & canceled en route_2009	66	3	69
621 Wrong location_2008	1		1
622 No incident found on arrival of incident address_2007	1		1
622 No incident found on arrival of incident address_2009		2	2
650 Steam, other gas mistaken for smoke, other_2007	1		1
650 Steam, other gas mistaken for smoke, other_2008	1		1
650 Steam, other gas mistaken for smoke, other_2009	3		3
651 Smoke scare, odor of smoke_2007	12		12
651 Smoke scare, odor of smoke_2008	11		11
651 Smoke scare, odor of smoke_2009	11		11
652 Steam, vapor, fog or dust thought to be smoke_2007	3		3
652 Steam, vapor, fog or dust thought to be smoke_2008	2		2
652 Steam, vapor, fog or dust thought to be smoke_2009	2		2

Vehicle	E5	R3	Totals
Incident Type Code	Count		
653 Barbecue, tar kettle_2007	1		1
653 Barbecue, tar kettle_2008	5		5
661 EMS call, party transported by non-fire agency_2009	1		1
671 Hazmat release investigation w/ no hazmat_2009	1		1
700 False alarm or false call, other_2007	80	2	82
700 False alarm or false call, other_2008	97		97
700 False alarm or false call, other_2009	52	2	54
710 Malicious, mischievous false call, other_2007	2		2
710 Malicious, mischievous false call, other_2009	3	1	4
711 Municipal alarm system, malicious false alarm_2007	1		1
711 Municipal alarm system, malicious false alarm_2009	3		3
714 Central station, malicious false alarm_2007	1		1
715 Local alarm system, malicious false alarm_2007	1		1
715 Local alarm system, malicious false alarm_2009	1		1
730 System malfunction, other_2007	5		5
730 System malfunction, other_2008	3		3
730 System malfunction, other_2009	6		6
731 Sprinkler activation due to malfunction_2008	1		1
733 Smoke detector activation due to malfunction_2007	5		5
733 Smoke detector activation due to malfunction_2008	5		5
733 Smoke detector activation due to malfunction_2009	3		3
735 Alarm system sounded due to malfunction_2007	3		3
735 Alarm system sounded due to malfunction_2008	8		8
735 Alarm system sounded due to malfunction_2009	5		5
736 CO detector activation due to malfunction_2009	1		1
740 Unintentional transmission of alarm, other_2007	11	1	12
740 Unintentional transmission of alarm, other_2008	4		4
740 Unintentional transmission of alarm, other_2009	5		5
741 Sprinkler activation, no fire - unintentional_2007	5		5
741 Sprinkler activation, no fire - unintentional_2008	1		1
743 Smoke detector activation, no fire - unintentional_2007	25		25
743 Smoke detector activation, no fire - unintentional_2008	10		10

Vehicle	E5	R3	Totals
Incident Type Code	Count		
743 Smoke detector activation, no fire - unintentional_2009	10		10
744 Detector activation, no fire - unintentional_2007	9		9
744 Detector activation, no fire - unintentional_2008	4		4
745 Alarm system sounded, no fire - unintentional_2007	10		10
745 Alarm system sounded, no fire - unintentional_2008	1		1
745 Alarm system sounded, no fire - unintentional_2009	9		9
812 Flood assessment_2008	1		1
900 Special type of incident, other_2008	2		2
900 Special type of incident, other_2009	1		1
Totals	1,023	355	1,378

***E5 / R3 Apparatus Counts by Response Area***

**Apparatus: Count - Year by Response Area**

There are 1,392 Apparatus records being analyzed.

Year	2007	2008	2009	Totals
Response Area	Count			
203	23	26	25	74
304	15	24	24	63
202	26	20	12	58
1216	21	19	13	53
201	15	14	9	38
1113	18	11	7	36
302	17	10	7	34
128	8	13	13	34
121	11	10	9	30
112	4	11	9	24
129	7	7	7	21
119	6	7	7	20
419	6	7	6	19
415	4	10	5	19
1116	7	4	8	19
110	10	4	5	19

Year	2007	2008	2009	Totals
Response Area	Count			
1211	10	7	1	18
1108		6	12	18
1106	5	5	7	17
510	3	7	6	16
414	7	4	5	16
103	2	8	6	16
102	7	6	3	16
3402	3	10	2	15
301	2	12	1	15
126	3	2	10	15
114	4	5	6	15
113	6	5	4	15
1110	9	2	3	14
1102	4	3	7	14
418	4	3	6	13
3101	7	4	2	13
2104	6	6	1	13
2102	5	4	4	13
130	3	7	3	13
1201	7	4	2	13
508	1	7	4	12
1215	6	3	3	12
120	4	5	3	12
116	4	4	4	12
1119	6	4	2	12
1115	7	5		12
104	3	5	4	12
2110	6	3	2	11
1210	6	2	3	11
118	5	5	1	11
1117	6	5		11
108	3	1	7	11

Year	2007	2008	2009	Totals
Response Area	Count			
107	3	5	3	11
503	2	2	6	10
413	3	4	3	10
2106	1		9	10
122	3	1	6	10
1214	3	4	3	10
1111	4	3	3	10
511	3	2	4	9
416	2	2	5	9
3104	8	1		9
2111		4	5	9
123	3	5	1	9
1203	6	2	1	9
504	4	1	3	8
412	4		4	8
405	3	1	4	8
303	4	3	1	8
125	3	2	3	8
1213	2	4	2	8
1207	3	1	4	8
115	3	2	3	8
407	1	3	3	7
1208	3	3	1	7
117	2	4	1	7
1112	3	3	1	7
507	2		4	6
502	2		4	6
420	2	1	3	6
406		2	4	6
404	2	2	2	6
1305	1	2	3	6
1204	2		4	6

Year	2007	2008	2009	Totals
Response Area	Count			
111	1	2	3	6
1104	3	1	2	6
131		2	3	5
1202	4		1	5
109	1	2	2	5
506		1	3	4
505	2	2		4
501	2		2	4
402	2	2		4
3502			4	4
1303	2		2	4
124		3	1	4
1205		3	1	4
1109	3		1	4
105		1	3	4
	1		3	4
900	2	1		3
408	2		1	3
403		2	1	3
3501	1	1	1	3
2112	1	1	1	3
2108	1	1	1	3
1304	2	1		3
127		2	1	3
1114		3		3
1105	2	1		3
100		3		3
808	2			2
411	2			2
410	1	1		2
2402	1		1	2
2107		1	1	2

Year	2007	2008	2009	Totals
Response Area	Count			
1217	2			2
1209	1		1	2
1118			2	2
1103	1	1		2
101			2	2
409			1	1
401	1			1
400	1			1
3203			1	1
3202		1		1
2401		1		1
2109		1		1
2101	1			1
1401	1			1
1302		1		1
1206			1	1
Totals	485	467	440	1,392

Here is a temporal activity breakdown for both Vehicles:

E5 / R3 Temporal Activity

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Total
00:00-00:59	2	4	1	4	3	7	3	24
01:00-01:59	0	1	3	1	3	4	3	15
02:00-02:59	5	2	3	0	0	5	3	18
03:00-03:59	3	4	4	2	6	5	1	25
04:00-04:59	4	2	2	3	3	3	2	19
05:00-05:59	4	0	0	1	2	1	1	9
06:00-06:59	4	4	1	9	3	2	1	24
07:00-07:59	5	2	8	4	8	6	4	37
08:00-08:59	8	14	7	7	10	3	7	56
09:00-09:59	13	13	9	12	16	13	9	85
10:00-10:59	18	19	23	11	8	18	10	107
11:00-11:59	19	13	21	16	12	7	6	94
12:00-12:59	12	15	19	15	13	16	5	95
13:00-13:59	18	12	12	17	16	10	4	89
14:00-14:59	11	15	20	19	16	9	11	101
15:00-15:59	23	26	15	24	12	15	2	117
16:00-16:59	15	19	21	11	16	7	6	95
17:00-17:59	18	10	12	10	7	5	6	68
18:00-18:59	7	6	16	6	8	5	1	49
19:00-19:59	8	9	7	12	11	10	11	68
20:00-20:59	6	6	7	8	13	7	3	50
21:00-21:59	6	5	8	12	10	7	7	55
22:00-22:59	11	5	5	6	8	7	7	49
23:00-23:59	5	8	2	4	6	2	2	29
<b>Total</b>	<b>225</b>	<b>214</b>	<b>226</b>	<b>214</b>	<b>210</b>	<b>174</b>	<b>115</b>	<b>1,378</b>

Here is the Temporal Turnout Time performance for E5 / R3 at 120 seconds. Apparently it takes a while to deploy these companies.

Turnout (CAD) @ 120 seconds

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Hourly %
00:00-00:59	0%	0%		0%	0%	0%	0%	0%
01:00-01:59		0%	0%	0%	0%	100%	0%	9%
02:00-02:59	0%	0%	33%			0%	0%	7%
03:00-03:59	0%	0%	0%	0%	0%	25%	0%	5%
04:00-04:59	0%	0%	0%		0%	0%	0%	0%
05:00-05:59	0%			0%	0%	0%	0%	0%
06:00-06:59	0%	0%	100%	0%	0%	0%	0%	5%
07:00-07:59	0%		0%	0%	0%	0%	0%	0%
08:00-08:59	0%	0%	0%	0%	0%	0%	0%	0%
09:00-09:59	0%	0%	0%	0%	8%	0%	0%	2%
10:00-10:59	29%	9%	7%	17%	0%	0%	56%	16%
11:00-11:59	0%	20%	14%	14%	13%	14%	40%	15%
12:00-12:59	0%	0%	0%	11%	10%	0%	0%	3%
13:00-13:59	10%	10%	0%	23%	11%	11%	0%	11%
14:00-14:59	0%	22%	8%	0%	22%	17%	0%	9%
15:00-15:59	6%	13%	17%	21%	10%	20%	0%	14%
16:00-16:59	17%	7%	23%	29%	18%	17%	0%	16%
17:00-17:59	0%	0%	0%	0%	17%	0%	0%	2%
18:00-18:59	0%	0%	9%	0%	0%	40%	0%	7%
19:00-19:59	0%	0%	0%	10%	50%	13%	0%	11%
20:00-20:59	0%	0%	0%	0%	0%	0%	0%	0%
21:00-21:59	0%	0%	0%	0%	13%	0%	0%	2%
22:00-22:59	0%	0%	25%	0%	0%	0%	0%	3%
23:00-23:59	0%	0%	0%	0%	0%	0%	0%	0%
Daily %	5%	6%	8%	9%	10%	8%	7%	8%

Here is the temporal Travel Time performance for E5 / R3 at 240 seconds.

Temporal Performance

Travel (CAD) @ 240 seconds

	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun	Hourly %
00:00-00:59	100%	100%		100%	100%	60%	100%	87%
01:00-01:59			100%	100%	100%		100%	100%
02:00-02:59	100%	100%	100%			67%	67%	83%
03:00-03:59	50%	100%	100%	0%	100%	67%		80%
04:00-04:59	100%	100%	100%		50%	0%	100%	67%
05:00-05:59	100%				100%	100%	100%	100%
06:00-06:59	100%			67%	100%	0%	100%	78%
07:00-07:59	100%		50%	50%	67%	100%	100%	72%
08:00-08:59	100%	80%	100%	100%	67%	50%	60%	77%
09:00-09:59	88%	100%	33%	50%	75%	71%	88%	77%
10:00-10:59	70%	80%	89%	75%	50%	100%	71%	79%
11:00-11:59	83%	88%	100%	57%	67%	100%	60%	81%
12:00-12:59	100%	33%	83%	75%	75%	100%	100%	82%
13:00-13:59	40%	63%	86%	67%	100%	83%	100%	75%
14:00-14:59	71%	83%	89%	80%	67%	25%	83%	76%
15:00-15:59	80%	82%	100%	69%	100%	100%	100%	84%
16:00-16:59	100%	80%	89%	86%	43%	50%	67%	77%
17:00-17:59	75%	80%	100%	50%	33%	100%	100%	76%
18:00-18:59	100%	100%	67%	100%	80%	100%		87%
19:00-19:59	83%	100%	100%	86%	100%	100%	100%	95%
20:00-20:59	100%	100%	50%	80%	50%	83%	100%	79%
21:00-21:59	100%	75%	83%	71%	100%	100%	67%	84%
22:00-22:59	75%	100%	100%	100%	83%	80%	75%	85%
23:00-23:59	100%	100%	100%	67%	100%	100%	100%	94%
Daily %	84%	85%	85%	74%	77%	80%	84%	81%