

BUTTE COUNTY FIRE DEPARTMENT

RESPONSE STATISTICS ANALYSIS

Dataset Identification

Butte County Fire Department has furnished NFIRS 5 and supplemental CAD data. The NFIRS 5 data consisted of 48,934 incidents dated for the four calendar years of 2003, 2004, 2005 and 2006 as well as the first part of 2007. Submitted NFIRS 5 data also included a small number of apparatus response records as well as 10,473 Patient records.

Supplemental CAD data was submitted separately. The CAD data covered the dates from 2/10/2004 to 5/16/2007 and included 159,715 regional apparatus responses.

Data Quality

Butte County Fire uses the current NFIRS 5 incident-reporting standard. The adoption of this standard provides an opportunity to analyze response activity in a much more in-depth fashion than from CAD data alone.

Dataset strengths include the following:

1. Use of NFIRS 5 Incidents and Patients modules.

Dataset weaknesses include the following:

1. No consistent use of the Apparatus module
2. No seconds tracked in NFIRS 5 time fields
3. CAD incident numbers do not match NFIRS 5 incident numbers in earlier years
4. No consistent use of station field
5. No standardized and consistent use of district field.

Opportunities for Improving Data Quality

Implementing NFIRS 5 is a big step forward. Integration of the existing NFIRS 5 database with the CAD system would further improve data resources. Objectives should include:

1. Automatically capturing address and time data (including seconds) from CAD
2. Use common vehicle identifiers in CAD and RMS. (5-character maximum)
3. The CAD incident address should auto-populate station and district identifiers in NFIRS 5.

Data Processing

Four complete years of NFIRS 5 data were imported from NFIRS 5 state transaction files for Butte County, Gridley and Biggs. 45,009 incidents fell within the 4 year calendar range.

Here is the breakdown of incident count by fire department:

Butte	42,136
Gridley	2,370
Biggs	503
Total	45,009

CAD data was assembled into a standardized tab-delimited format to be used for this study. It appears from data study and personnel interviews CAD data prior to 2006 was not matching incident data. For this reason only 2006 CAD data will be used in this study.

Demand for Service

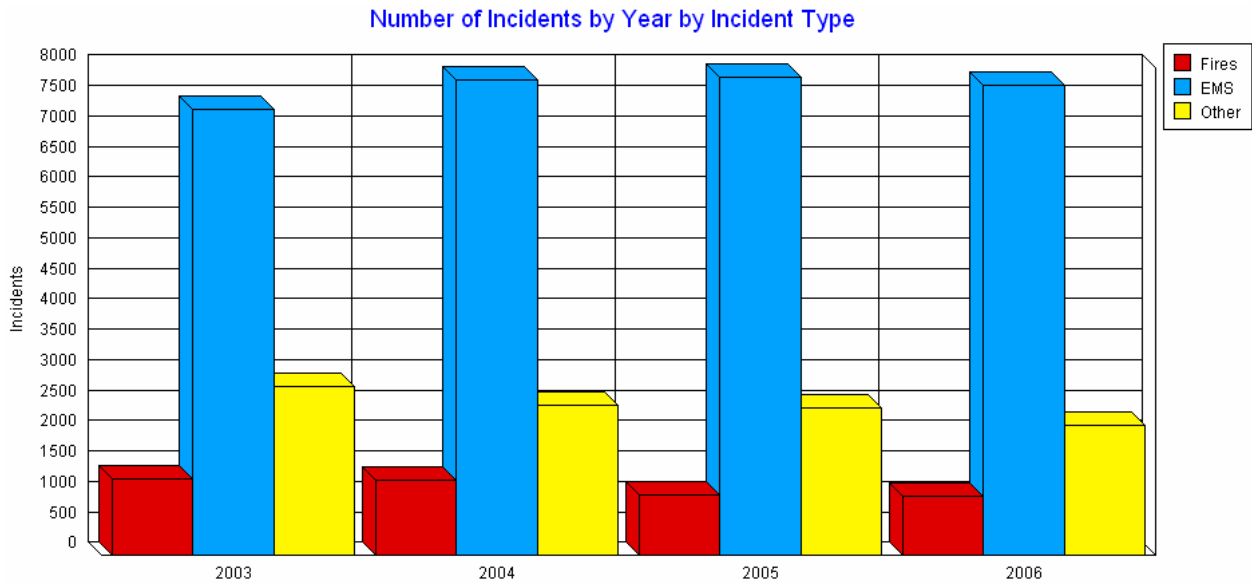
Over the 48-month data period Butte County Fire responded to an average of **30.82 incidents per day**. There were 21.04 EMS incidents per day as well as 3.06 fire incidents. Butte County averages 4.37 structure fires per week. For the 48-month time period 9.93 % of incident responses were to fire, 68.27% to EMS and 21.80% were to other types of incidents.

The four years of available data break down as follows:

	2003	2004	2005	2006	Total
Incidents	11,384	11,509	11,279	10,837	45,009
Fires and EMS	8,596	9,042	8,857	8,698	35,193
Fires	1,264	1,236	994	974	4,468
Structure Fires	260	228	235	185	908
EMS Only	7,332	7,806	7,863	7,724	30,725

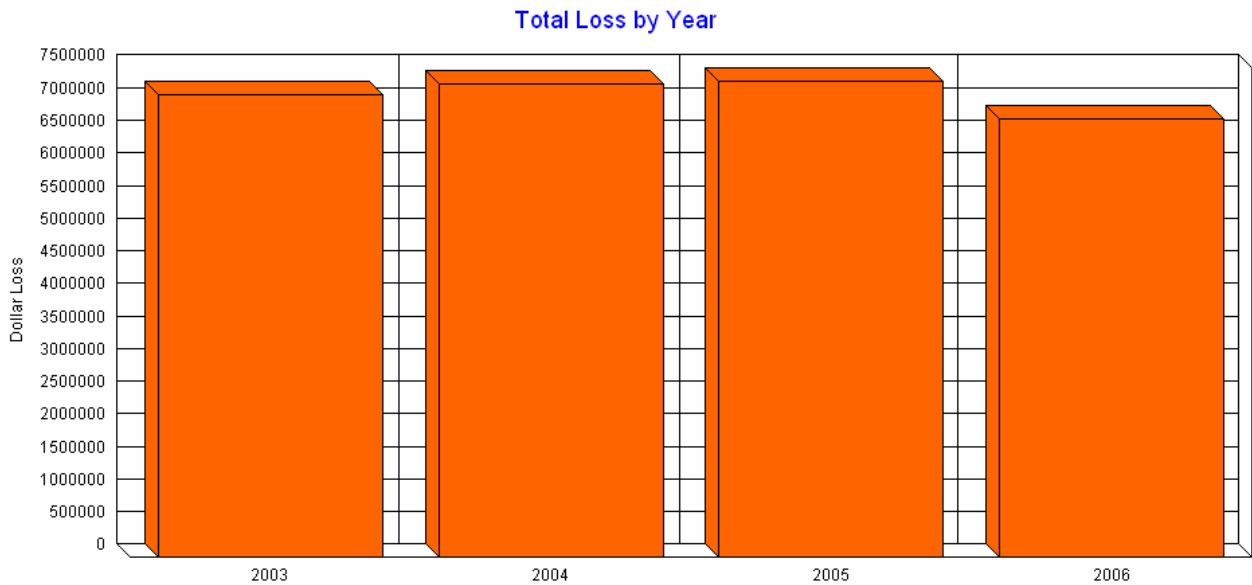
After a peak in incidents in 2004 the trend shows a slight decline in most incident categories.

Here is a graphic view of incident trends broken-down by Fire, EMS or Other incident types:

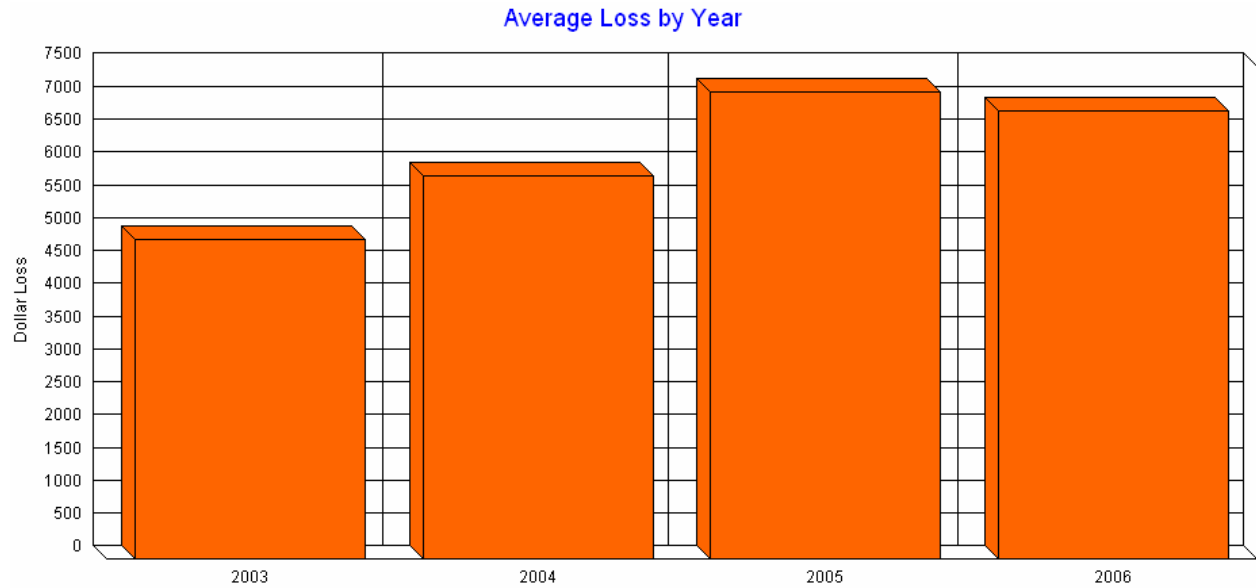


Total Dollar Loss Trends

Dollar loss has remained relatively constant through the years. However, in 2006 annual dollar loss slipped below 7 million dollars for the first time since 2003:



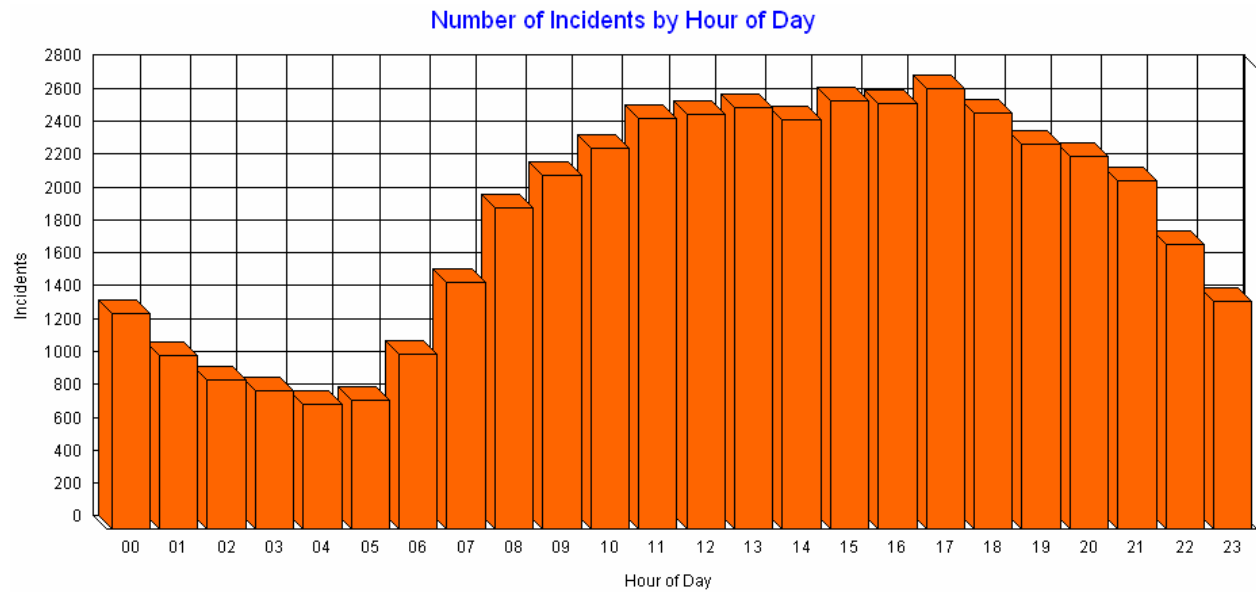
Selecting all fire incidents falling within the 4 calendar years of the study average annual dollar loss per fire can be calculated:



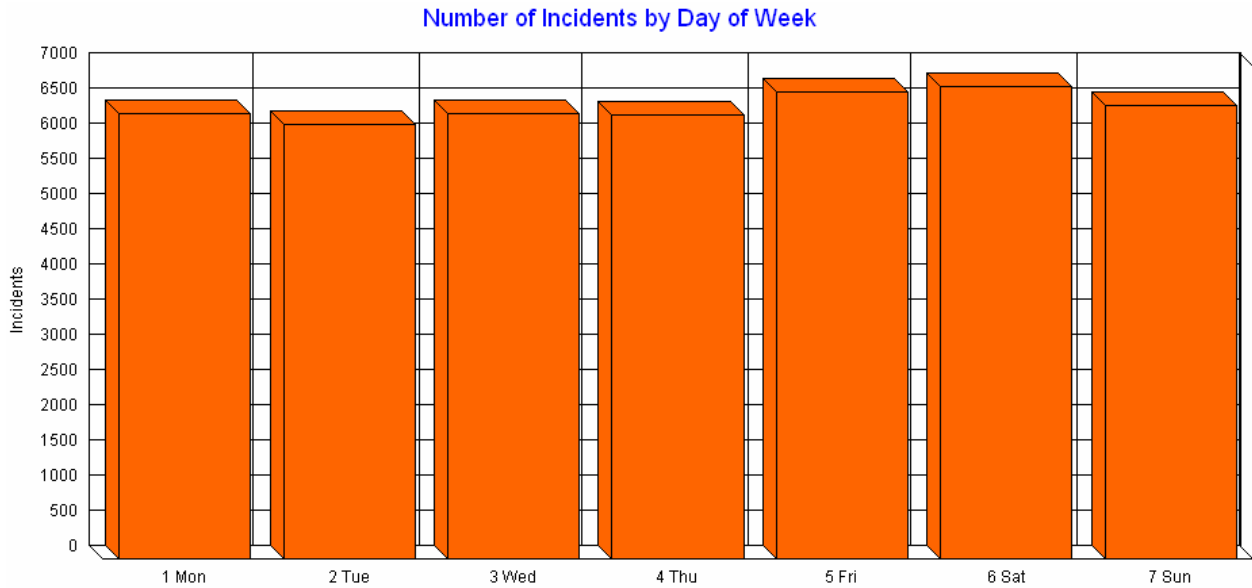
Notice the average loss rose steadily to a peak in 2005. It decreased only slightly in 2006.

Chronological Distributions

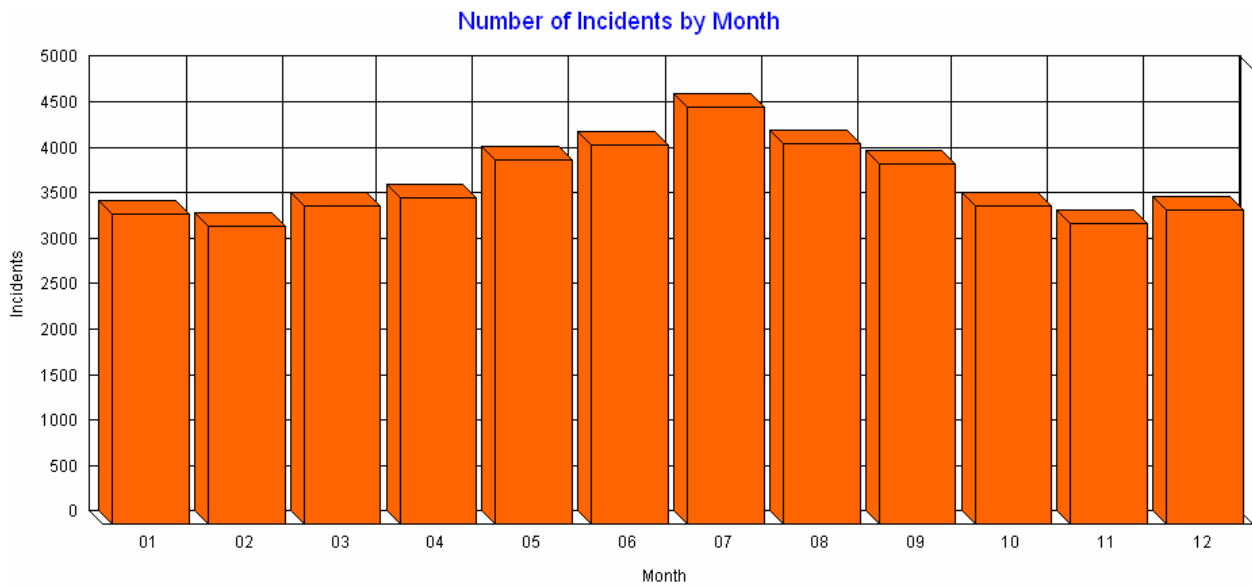
The following graph illustrates the number of incidents by hour of the day, day of week and month of year for the 4 years of available data. Notice a minimal number of incidents in the early morning. After 5:00am the number of incidents grows steadily through the early afternoon remaining fairly consistent until a gradual drop-off after at 6:00pm. This response graph is a fairly typical representation of fire department activity:



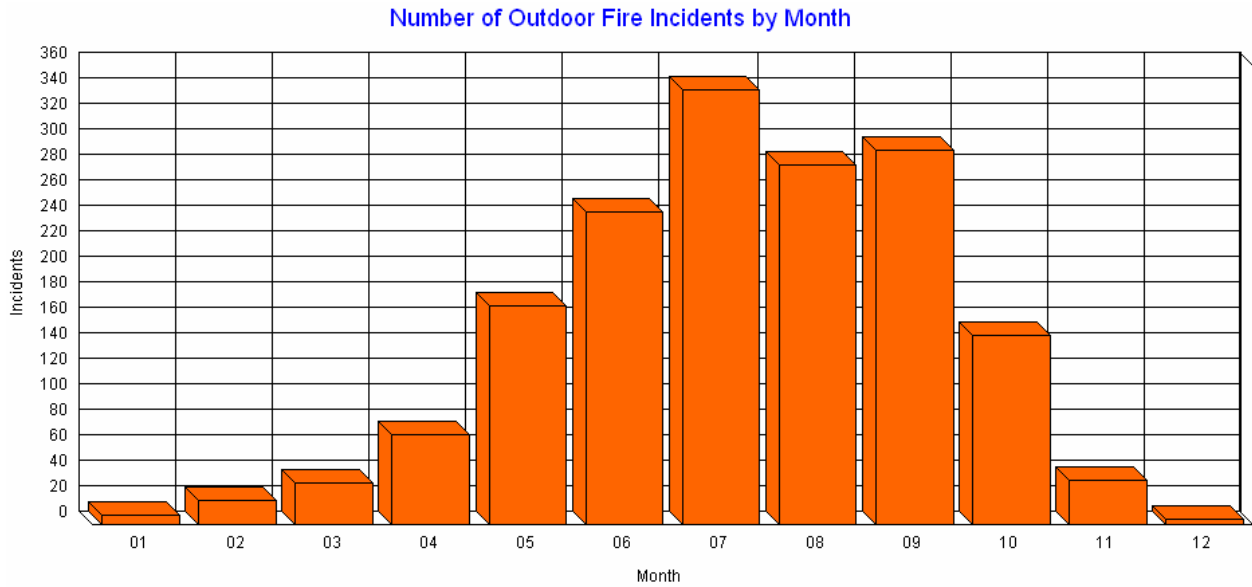
The number of incidents tends to remain relatively constant by day of week with a very slight increase from Friday into Saturday:



The following graph illustrates the number of incidents by month. The trend is increasing activity beginning in the late spring hitting a peak in July and tapering-off into the fall:

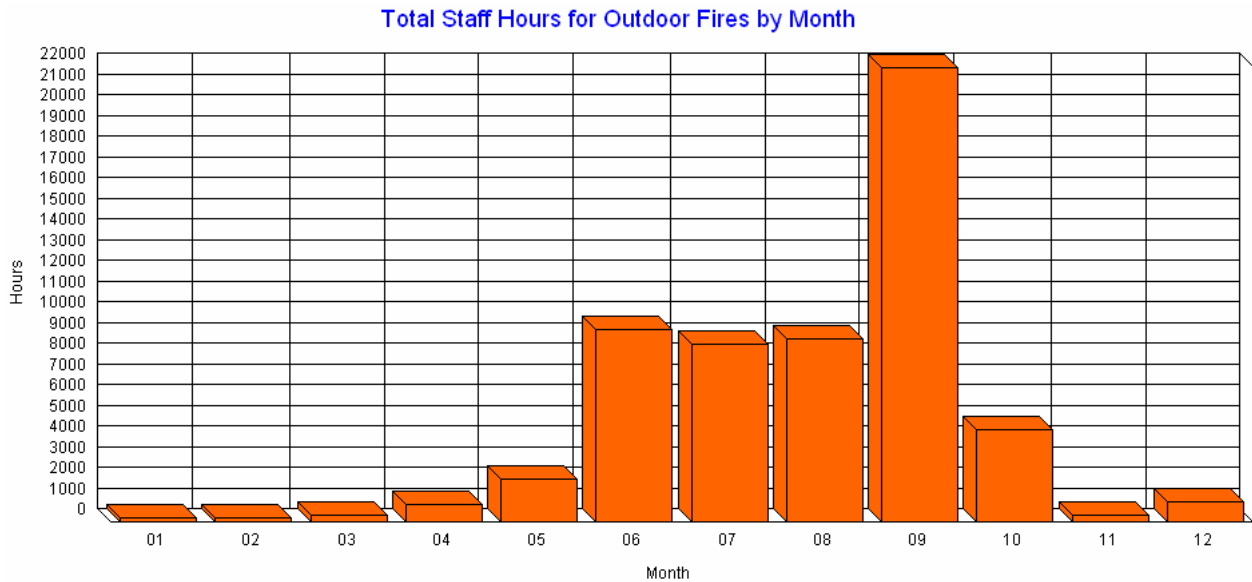


The rise in the number of incidents in the late spring and summer may be due to an increase in the number of outdoor fires. Here is the break down by month for brush, forest, grass and natural vegetation fires:



Notice the sharp rise in outdoor fires beginning in earnest in May.

The number of outdoor fires, however, does not accurately represent agency workload. Here is a break down by the number of staff hours dedicated to outdoor fires by month. Here we see a sharp rise demand for staff hours in the month of September:



Below is a list of the top incident types for the 48-month period. Incident types with fewer than 20 responses were eliminated from the list.

Incident Type	Count
321 EMS call, excluding vehicle accident with injury	19,308
311 Medical assist, assist EMS crew	5,550
700 False alarm or false call, other	3,094
300 Rescue, emergency medical call (EMS) call, other	2,925
322 Vehicle accident with injuries	2,130
143 Grass fire	822
111 Building fire	743
611 Dispatched and canceled en route	646
500 Service Call, other	581
131 Passenger vehicle fire	477
550 Public service assistance, other	469
510 Person in distress, other	440
400 Hazardous condition, other	384
600 Good intent call, other	366
142 Brush, or brush and grass mixture fire	325
631 Authorized controlled burning	319
553 Public service	310
151 Outside rubbish, trash or waste fire	304
150 Outside rubbish fire, other	296
900 Special type of incident, other	272
140 Natural vegetation fire, other	267
554 Assist invalid	262
100 Fire, other	257
352 Extrication of victim(s) from vehicle	228
141 Forest, woods or wild land fire	204
911 Citizen complaint	198
551 Assist police or other governmental agency	183
444 Power line down	179
531 Smoke or odor removal	166
323 Motor vehicle/pedestrian accident (MV Ped)	161
324 Motor vehicle accident no injuries	154
561 Unauthorized burning	146
381 Rescue or EMS standby	120
571 Cover assignment, standby, move up	120
130 Mobile property (vehicle) fire, other	100
463 Vehicle accident, general cleanup	98
114 Chimney or flue fire, confined to chimney or flue	95
412 Gas leak (natural gas or LPG)	88
520 Water problem, other	81
160 Special outside fire, other	75
740 Unintentional transmission of alarm, other	72
112 Fires in structures other than in a building	69
121 Fire in mobile home used as fixed residence	59

411 Gasoline or other flammable liquid spill	59
440 Electrical wiring/equipment problem, other	58
552 Police matter	58
113 Cooking fire, confined to container	54
511 Lock-out	54
460 Accident, potential accident, other	53
350 Extrication, rescue, other	52
730 System malfunction, other	52
154 Dumpster or other outside trash receptacle fire	51
445 Arcing, shorted electrical equipment	50
243 Fireworks explosion (no fire)	49
743 Smoke detector activation, no fire - unintentional	47
542 Animal rescue	46
735 Alarm system sounded due to malfunction	46
745 Alarm system sounded, no fire - unintentional	44
522 Water or steam leak	43
733 Smoke detector activation due to malfunction	40
421 Chemical hazard (no spill or leak)	34
132 Road freight or transport vehicle fire	32
661 EMS call, party transported by non-fire agency	32
541 Animal problem	30
744 Detector activation, no fire - unintentional	29
363 Swift water rescue	28
413 Oil or other combustible liquid spill	28
422 Chemical spill or leak	28
137 Camper or recreational vehicle (RV) fire	27
138 Off-road vehicle or heavy equipment fire	27
540 Animal problem, other	26
410 Flammable gas or liquid condition, other	24
170 Cultivated vegetation, crop fire, other	23
122 Fire in motor home, camper, recreational vehicle	22
471 Explosive, bomb removal (for bomb scare, use 721)	22
360 Water and ice related rescue, other	21
162 Outside equipment fire	20

The number of incidents by incident type does not provide a complete picture of workload since it does not account for the resources used for each incident type. The following chart displays the top dozen incident types listed by total number of staff hours. Notice while EMS incidents account for the greatest number of incidents, when ranked by staff hours brush, forest, building and grass fires also dominate the top spots.

Incident Type	Count	Avg Hrs	Total Hrs
142 Brush, or brush and grass mixture fire	325	81.28	26,415.13
321 EMS call, excluding vehicle accident with injury	19,308	1.27	24,613.70
141 Forest, woods or wild land fire	204	86.30	17,605.35
111 Building fire	743	16.93	12,581.59
143 Grass fire	822	12.45	10,232.46

322 Vehicle accident with injuries	2,130	3.45	7,353.42
311 Medical assist, assist EMS crew	5,550	1.13	6,292.23
300 Rescue, emergency medical call (EMS) call, other	2,925	1.66	4,844.38
700 False alarm or false call, other	3,094	1.18	3,651.99
900 Special type of incident, other	272	13.15	3,575.96
140 Natural vegetation fire, other	267	12.17	3,250.39
131 Passenger vehicle fire	477	4.54	2,164.84

The following chart quantifies the top property types receiving service from Butte County Fire during the 48-month data period. Property types with fewer than 20 responses were eliminated from the list.

Property Type	Count
419 1 or 2 family dwelling	22,073
400 Residential, other	2,688
961 Highway or divided highway	2,399
960 Street, other	1,720
931 Open land or field	1,153
NNN None	1,030
962 Residential street, road or residential driveway	772
429 Multifamily dwellings	657
144 Casino, gambling clubs	478
UUU Undetermined	433
900 Outside or special property, other	378
311 24-hour care Nursing homes, 4 or more persons	323
946 Lake, river, stream	172
519 Food and beverage sales, grocery store	161
655 Crops or orchard	156
963 Street or road in commercial area	136
936 Vacant lot	128
965 Vehicle parking area	127
215 High school/junior high school/middle school	125
940 Water area, other	115
213 Elementary school, including kindergarten	109
700 Manufacturing, processing	100
500 Mercantile, business, other	98
361 Jail, prison (not juvenile)	79
511 Convenience store	79
951 Railroad right of way	65
241 Adult education center, college classroom	60
938 Graded and cared-for plots of land	57
935 Campsite with utilities	56
600 Utility, defense, agriculture, mining, other	51
599 Business office	47
888 Fire station	47
131 Church, mosque, synagogue, temple, chapel	46
669 Forest, timberland, woodland	44

571 Service station, gas station	41
549 Specialty shop	40
300 Health care, detention, and correction, other	39
459 Residential board and care	39
150 Public or government, other	38
100 Assembly, other	37
321 Mental retardation/development disability facility	37
200 Educational, other	36
210 Schools, non-adult	36
580 General retail, other	34
331 Hospital - medical or psychiatric	28
449 Hotel/motel, commercial	28
921 Bridge, trestle	27
808 Outbuilding or shed	22
340 Clinics, Doctors offices, hemodialysis centers	21
579 Motor vehicle or boat sales, services, repair	21
659 Livestock production	20

The chart below highlights the top 12-property types by total staff hours. This property type listing by staff hours roughly matches property type rankings by incident count.

Property Type	Count	Avg Hrs	Staff Hrs
419 1 or 2 family dwelling	22,073	2.05	45,350.61
931 Open land or field	1,153	33.27	38,356.99
961 Highway or divided highway	2,399	3.88	9,302.76
400 Residential, other	2,688	2.21	5,950.30
960 Street, other	1,720	3.12	5,374.44
962 Residential street, road or residential driveway	772	5.82	4,495.88
900 Outside or special property, other	378	10.73	4,056.82
NNN None	1,030	3.06	3,154.93
946 Lake, river, stream	172	9.61	1,652.80
669 Forest, timberland, woodland	44	36.00	1,584.05
936 Vacant lot	128	12.29	1,572.82
UUU Undetermined	433	3.50	1,514.94

Simultaneous Incident Activity

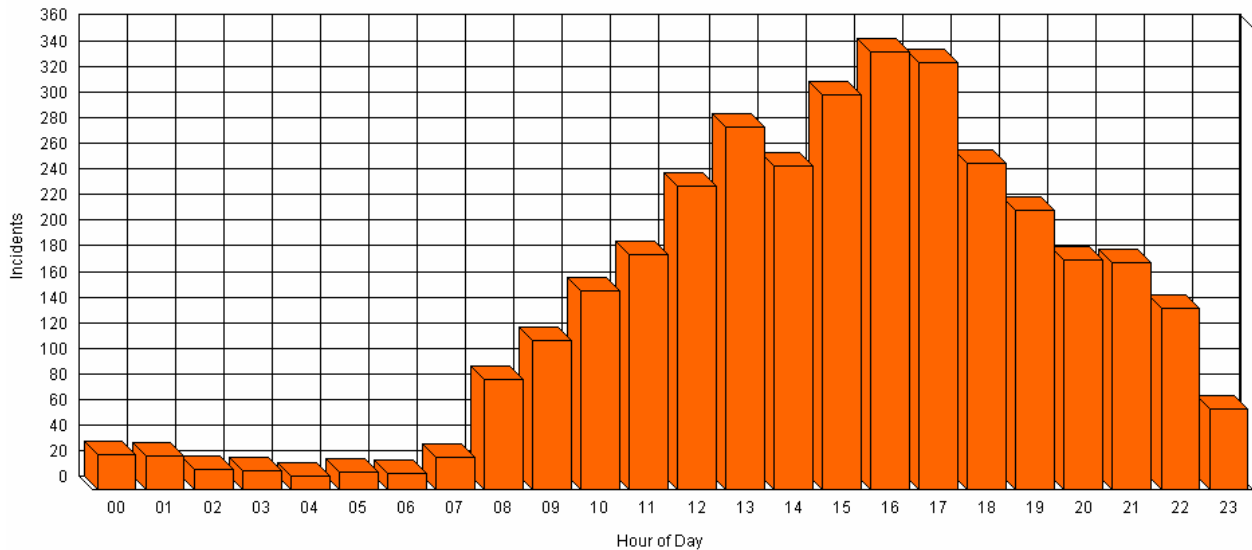
Obviously incidents that occur at the same time tax fire department resources more than those occurring when there is no other fire department response activity. Examining incident data for the 48-month period shows 52.60% of incidents occurred when the fire department was already engaged in other response activity.

Here is the breakdown by number of incidents:

At least 2 incidents occurring at the same time	52.60%
At least 3 incidents occurring at the same time	21.15%
At least 4 incidents occurring at the same time	07.11%
At least 5 incidents occurring at the same time	02.29%
At least 6 incidents occurring at the same time	00.78%

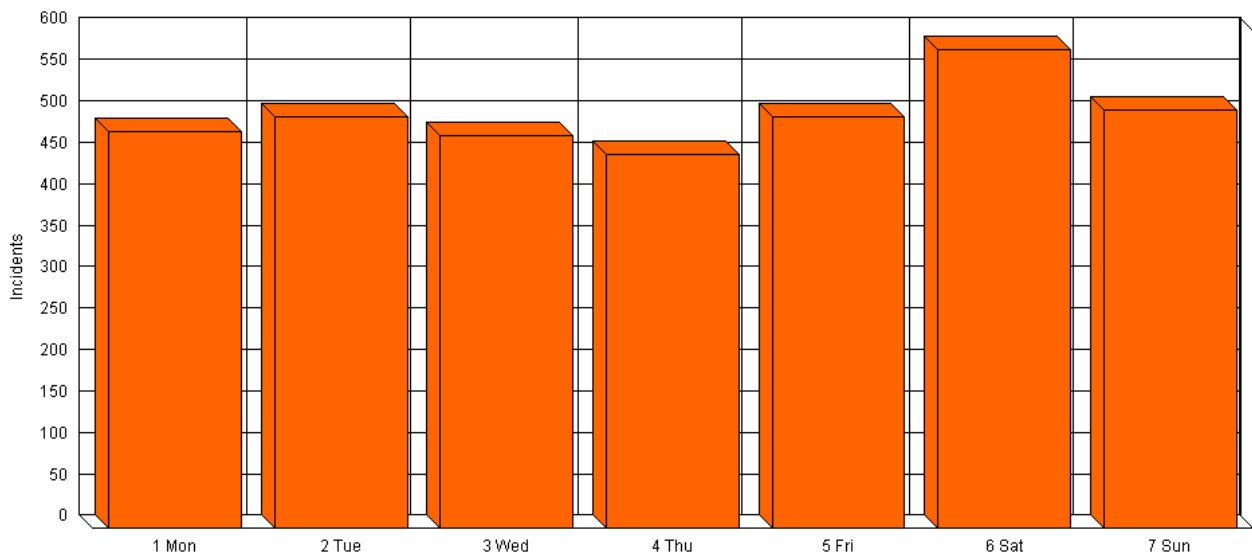
The graphs below illustrate the hourly distribution of 4 or more (7.11%) simultaneous incidents. The “hour of day” graph roughly follows the distribution frequency of this same graph of all incidents. Notice the largest share of simultaneous incidents occurs from 12:00 noon to 6:00pm. The pattern of simultaneous incidents roughly resembles total incident activity during the 24-hour day. This indicates simultaneous incidents are generally correlated with incident activity in general when examined by hour of day:

Four or More Incidents by Hour of Day

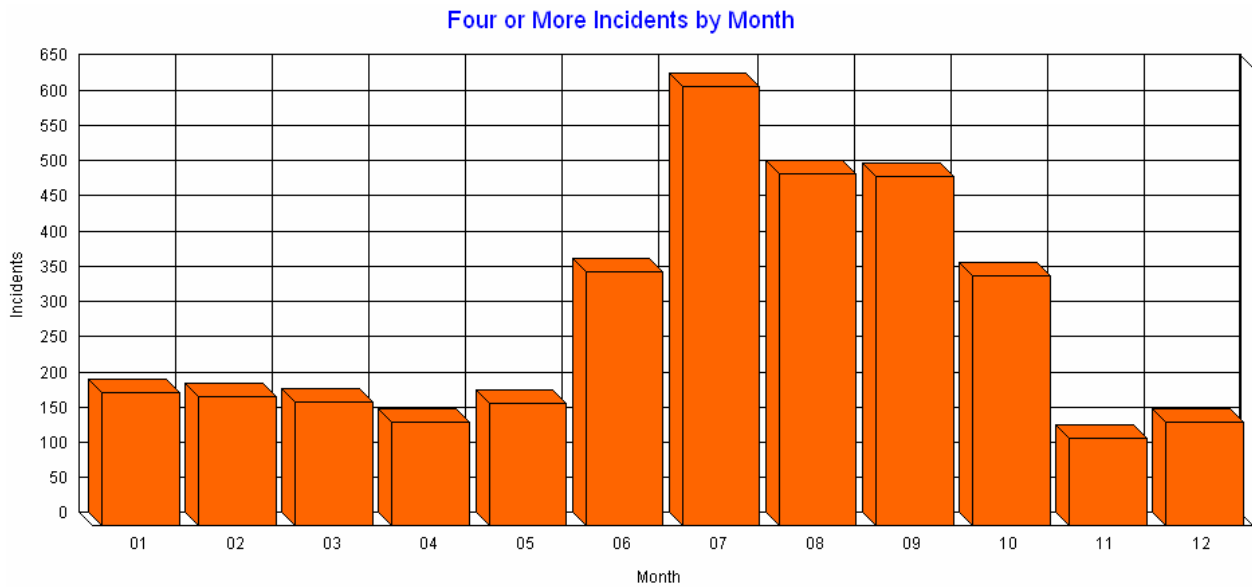


The likelihood of simultaneous incidents is highest on Saturday dropping-off to a low on Thursday:

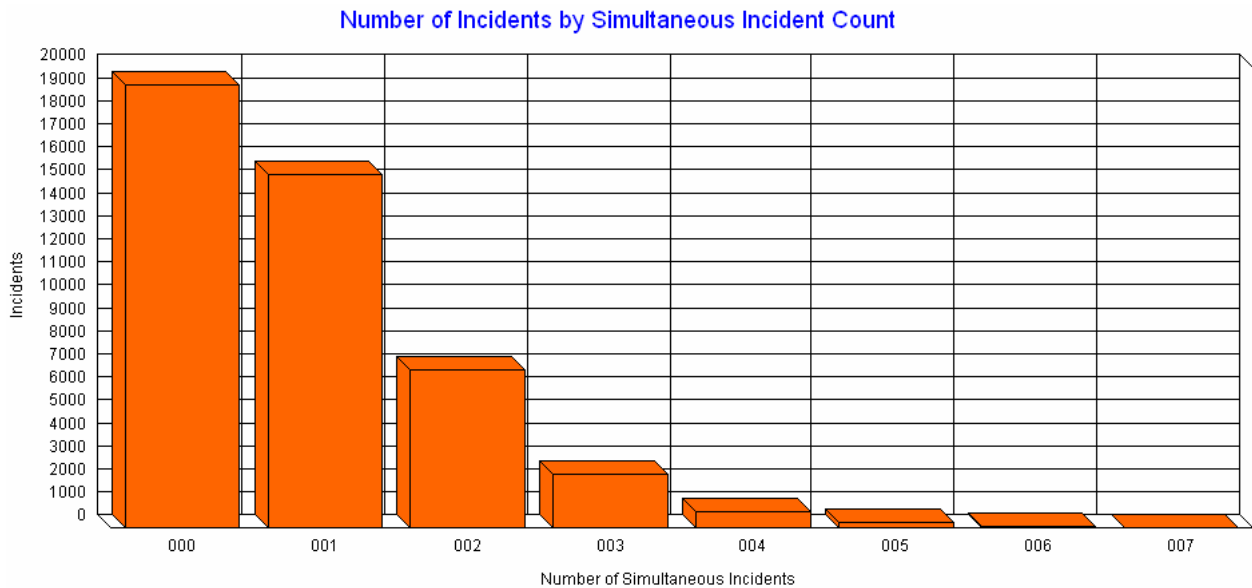
Four or More Incidents by Day of Week



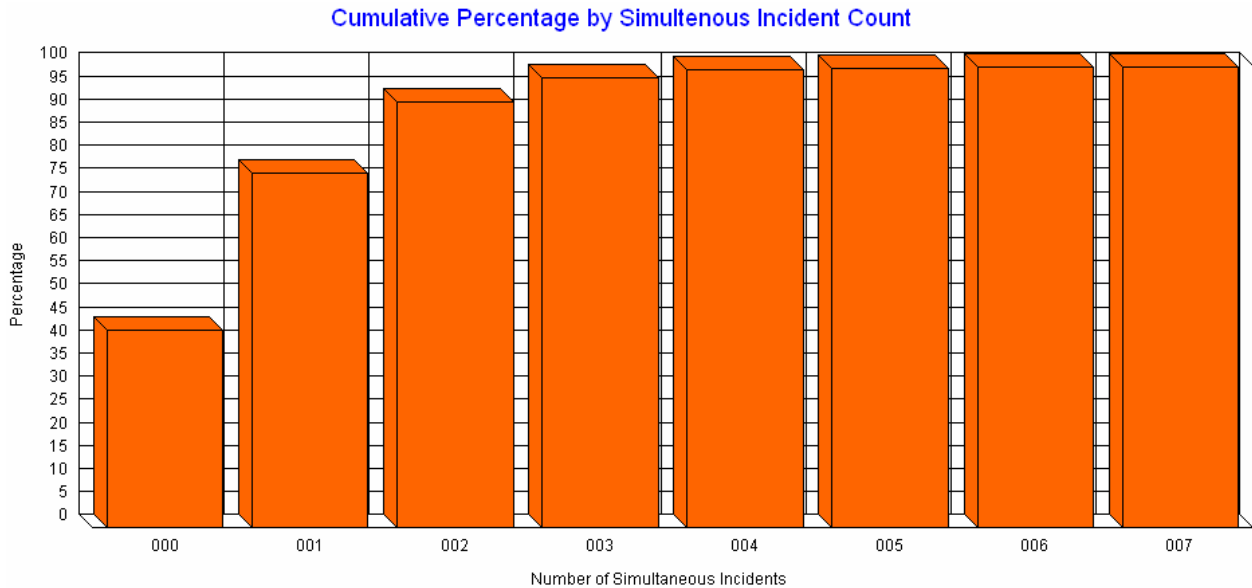
Since outdoor fires generally have longer durations than other incident types we see simultaneous incidents raise sharply in the late summer and early fall. During this time of year longer average incident durations contribute to an increase in simultaneous incidents:



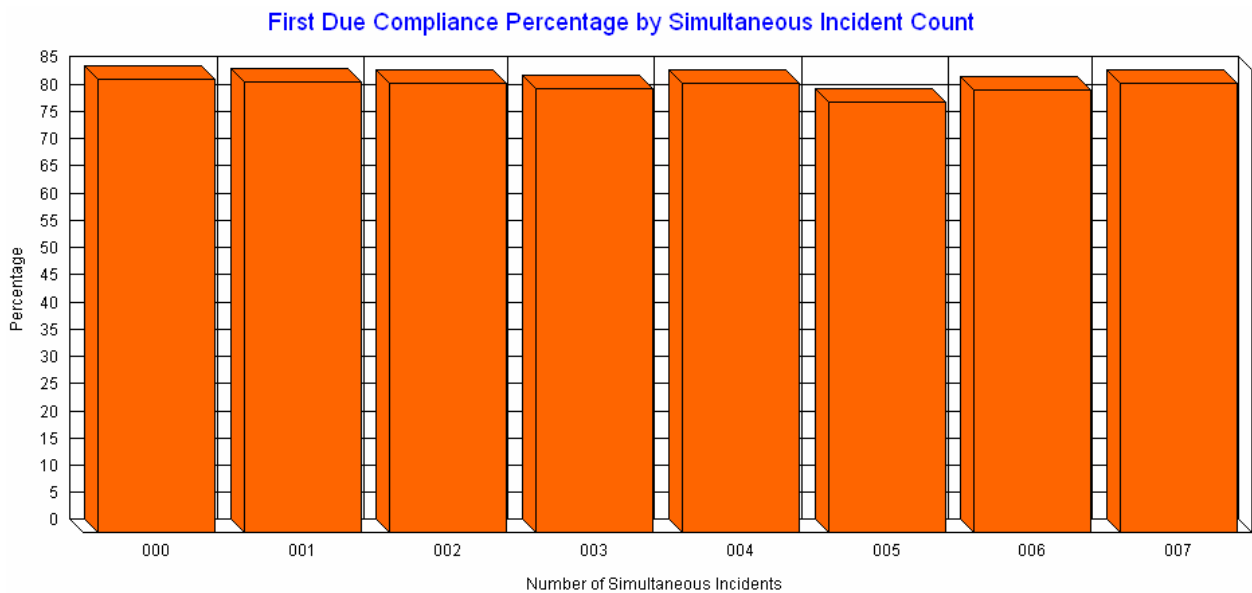
Let us shift gears to measure how simultaneous incidents affect performance. The following chart illustrates the number of incidents by simultaneous count:



This next graph is a cumulative percentage graph. This graph illustrates more than 95 percent of all incidents occur when there are 3 or fewer simultaneous incidents underway:

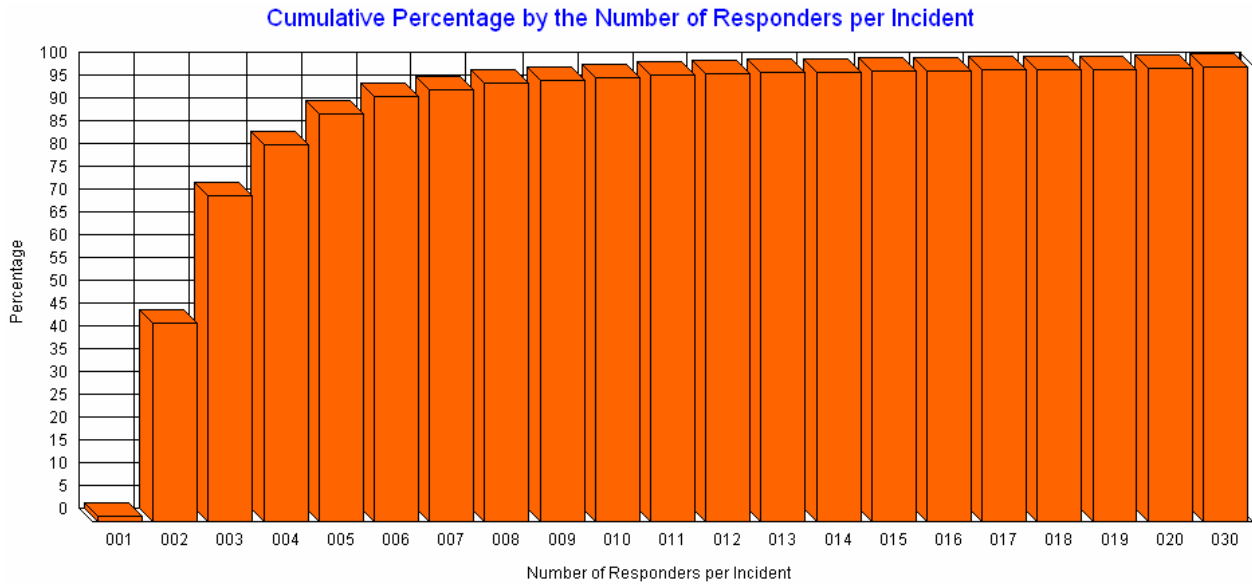


Now let us see how simultaneous incidents affect the percentage of compliance with a 7-minute total reflex time (first apparatus to reach the scene):

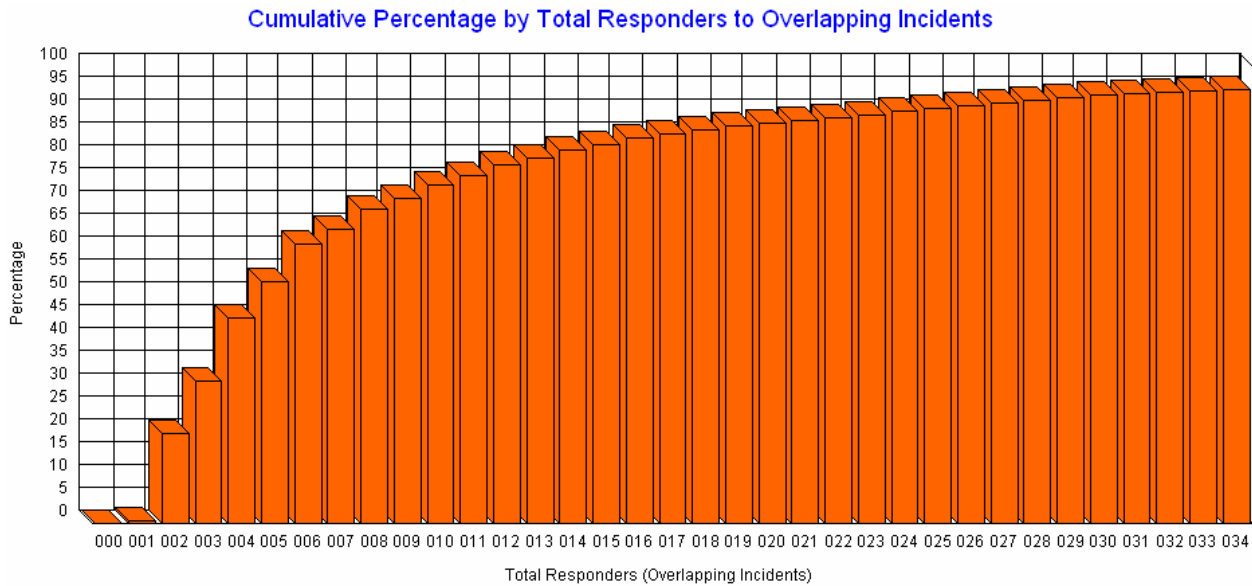


Notice with no simultaneous incidents compliance is approximately 83%. With each successive simultaneous incident there is generally a very slight decrease in compliance. In Butte County simultaneous incident activity can cause up to a 4% decrease in the compliance percentage for the first apparatus arriving on scene. This is not a very dramatic decrease.

Let us see how simultaneous incidents affect staffing requirements. The following graph illustrates the number of incidents by the number of responders. Notice 95% of incidents can be handled with 7 or fewer responders:



Now let us shift so rather than measuring responder requirements by incident we measure total responders required when incident overlap (simultaneous incidents) is considered:



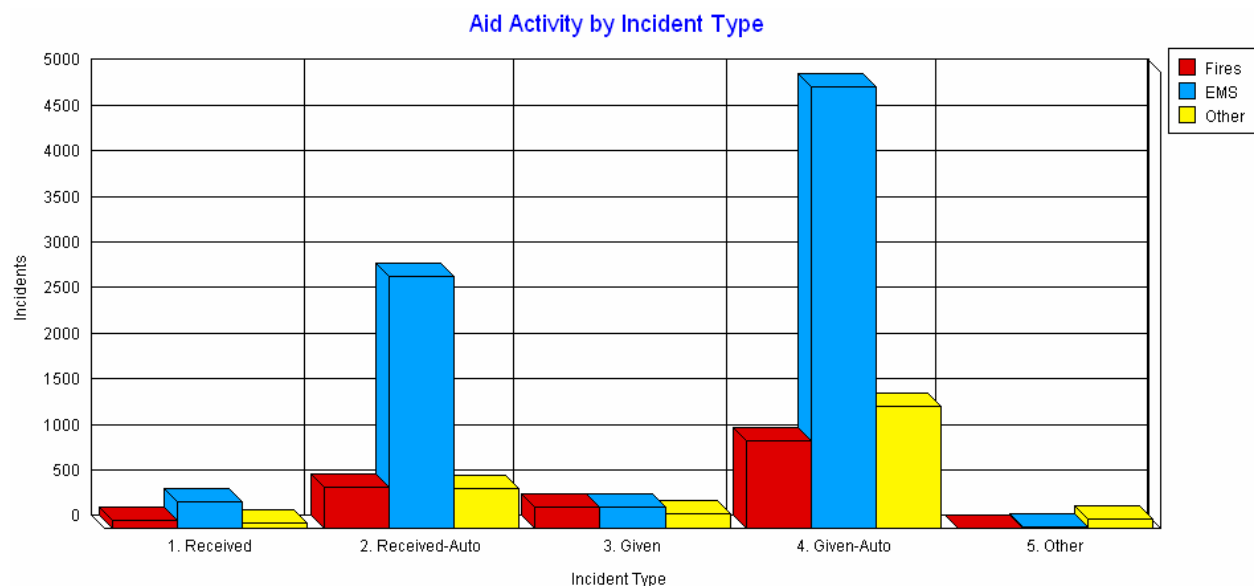
Here we see rather than 7 responders the frequency of simultaneous incidents pushes the total number of responders required to cover 95% of incidents to 33 responders. This is where volunteer resources can be employed to fill the gap when overlapping incident activity puts a demand on career resources.

Interdepartmental Aid

According to NFIRS 5 data Butte County Fire utilizes interdepartmental aid on a fairly regular basis. During 48 months of available data aid types breakdown as follows:

48-Month Aid Type	Count
1 Received	466
2 Automatic Aid Received	3,695
3 Given	647
4 Automatic Aid Given	7,178
5 Other Aid Given	146
N None	32,725

Here is a breakdown of Aid Activity by incident type:



Tactical Operations

This section moves from the analysis of broad trends over the 48-month NFIRS 5 dataset into a focus on company operations during 2006 using CAD data only. In 2006 17,761 apparatus responses furnished in the CAD data were successfully linked to NFIRS 5 incidents. These linked records were used in the following analysis.

Geographic Distributions

This section compares response times by city using the city designation furnished in raw CAD data. The response times below are for the first unit arriving on the scene of the incident. Only cities with 5 or more incidents are listed. Only incidents having a response time greater than zero minutes and less than 120 minutes are included.

City	Incidents	Min RT	Max RT	Avg RT
OROVILLE	2,319	.23	84.87	8.28
CHICO	1,012	.18	55.85	7.67
MAGALIA	748	.23	96.53	7.82
GRIDLEY	551	.28	21.47	5.63
PALERMO	349	.40	34.50	7.59
MGLA	220	1.75	31.33	7.58
DURHAM	156	.22	21.02	7.97
BIGGS	145	.28	40.10	7.03
THERMALITO	138	3.40	14.45	6.95
GRD	119	.48	15.73	4.85
KELLY_RDGE	115	1.58	20.83	8.87
BERRY CREEK	97	.28	64.13	16.70
PARADISE	88	.32	44.75	12.85
BANGOR	81	1.25	79.02	13.88
GRDLY	65	2.08	40.62	8.77
FOREST RANCH	63	.22	54.20	12.51
STH_CHICO	57	.25	33.75	7.85
FORBESTOWN	56	.75	112.73	18.83
RICHVALE	56	.27	48.03	9.68
NOR_CHICO	52	2.15	12.97	6.13
CONCOW	51	.33	66.48	15.89
NORD	44	.38	24.57	7.86
DRHM	41	.50	17.58	7.27
BGS	38	3.95	99.67	11.51
BUTTE MEADOWS	35	.30	99.17	22.75
BIG	30	.15	13.13	4.69
COHASSET	29	1.72	34.35	13.67
BERRY_CRK	28	5.17	39.07	15.69
STIRLING CITY	28	.20	112.67	14.58
BNGR	25	6.42	29.13	12.67
WEST_CHICO	22	1.58	26.93	11.61
BUTTE VALLEY	19	.02	28.17	13.95
HONCUT	18	7.83	23.77	13.16
PDSE	18	9.85	29.37	16.43
FRST_RNCH	17	.47	38.15	11.03
ROB_MILL	17	6.82	55.40	15.71
S_OROVILLE	17	2.15	17.88	7.66
W_OROVILLE	17	1.68	9.98	6.37
FEATHER FALLS	15	1.42	36.58	21.32
N_OROVILLE	13	5.87	18.20	11.26
THERMOLITO	13	4.27	12.52	7.07
CHEROKEE	12	2.07	76.65	21.75
RCHVL	12	4.12	15.50	10.53
MOR_RANCH	11	2.67	13.58	7.75
TYME_RANCH	11	3.75	7.52	5.66

KELLY RIDGE	10	5.08	14.30	9.20
JARBO GAP	9	2.62	19.70	9.41
LIVE OAK	8	10.55	95.20	29.30
STRLNG_CTY	8	.20	53.20	14.57
YANKEE HILL	8	3.53	33.77	13.77
BT_CRK_CYN	7	12.68	20.92	16.55
BUTTE_MDWS	6	8.03	58.37	21.65
FRBSTWN	6	12.63	34.47	19.08
BT_COLL	5	13.27	18.72	15.21
DAYTON	5	8.62	11.95	9.86

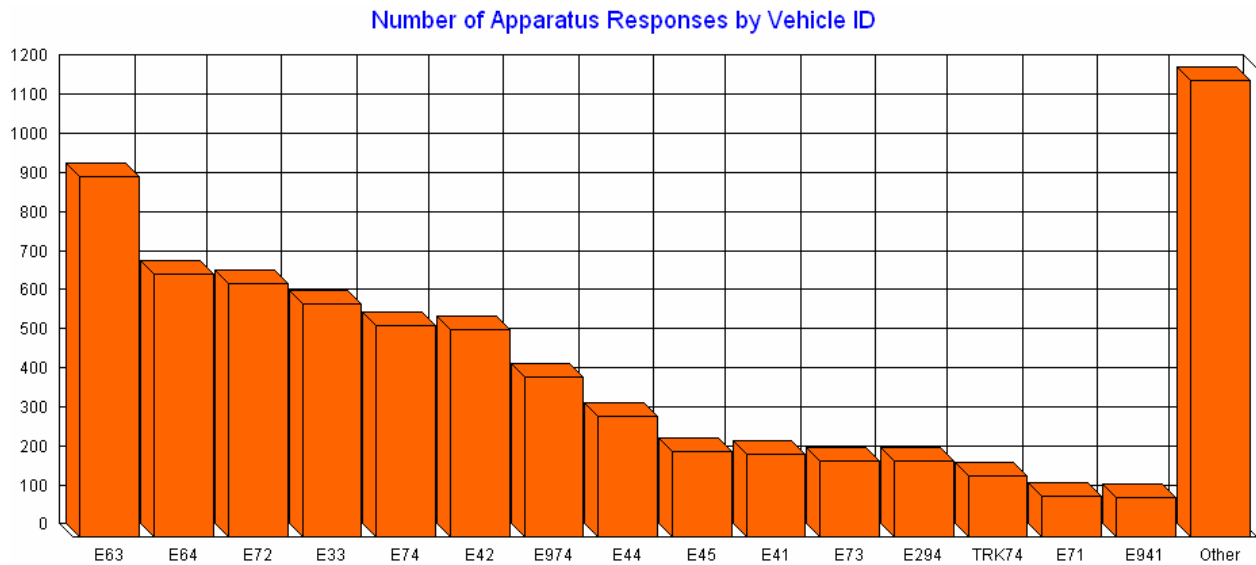
Career and Volunteer Resources

Butte County utilizes both career and volunteer resources. 70.83% of responding apparatus in 2006 was career; 29.17% was volunteer. Of the 17,761 apparatus responses in 2006 there were 12,581 career company responses. Of those responding career companies, 8,616 (68.48%) reached the incident scene. Of the career companies reaching the scene 7,002 (81.26%) arrived on the scene first.

During the same time period there were 5,180 volunteer company responses. Of those responding companies, 949 (18.32%) reached the incident scene. Of the volunteer companies reaching the scene 273 (28.76%) arrived on the scene first.

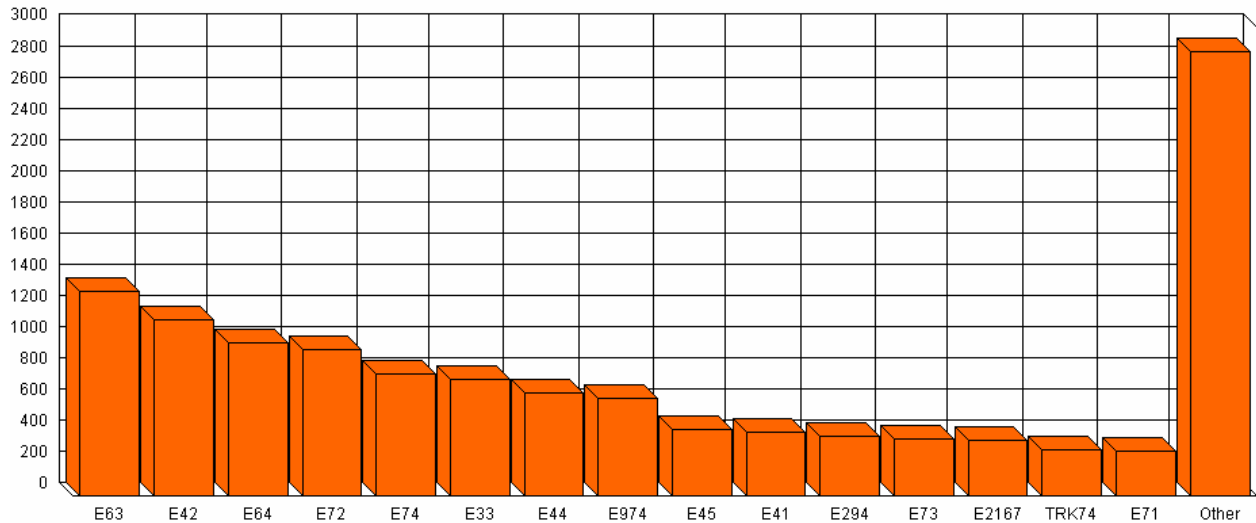
Career Resource Analysis

The following numbers represent data for career companies arriving first on the scene of the incident:



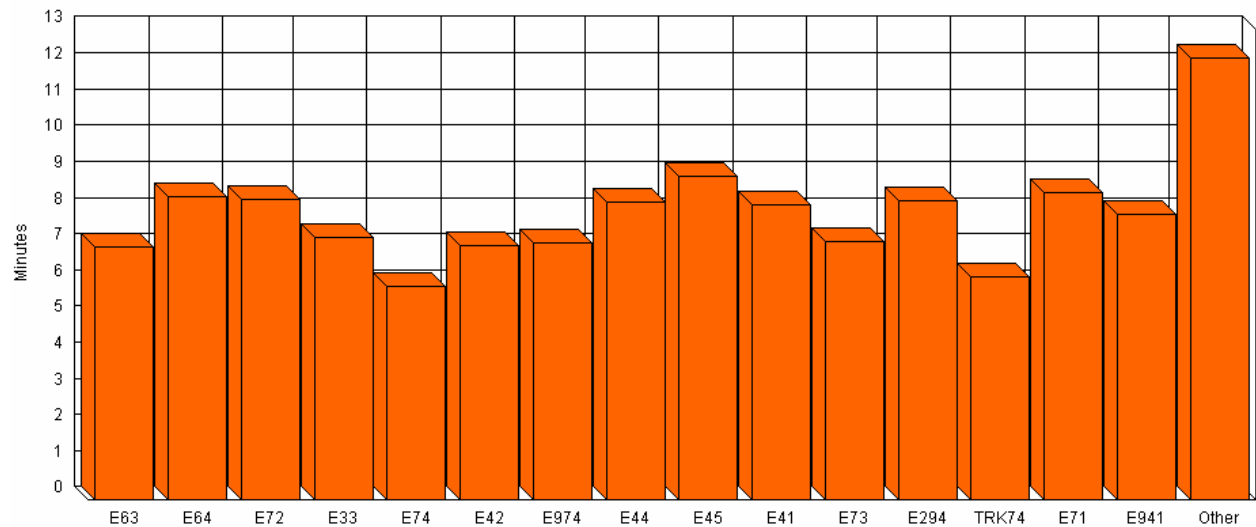
For comparison the following graph illustrates the number of apparatus responses in 2006 whether or not the apparatus reached the scene:

Number of Apparatus Responses by Vehicle ID

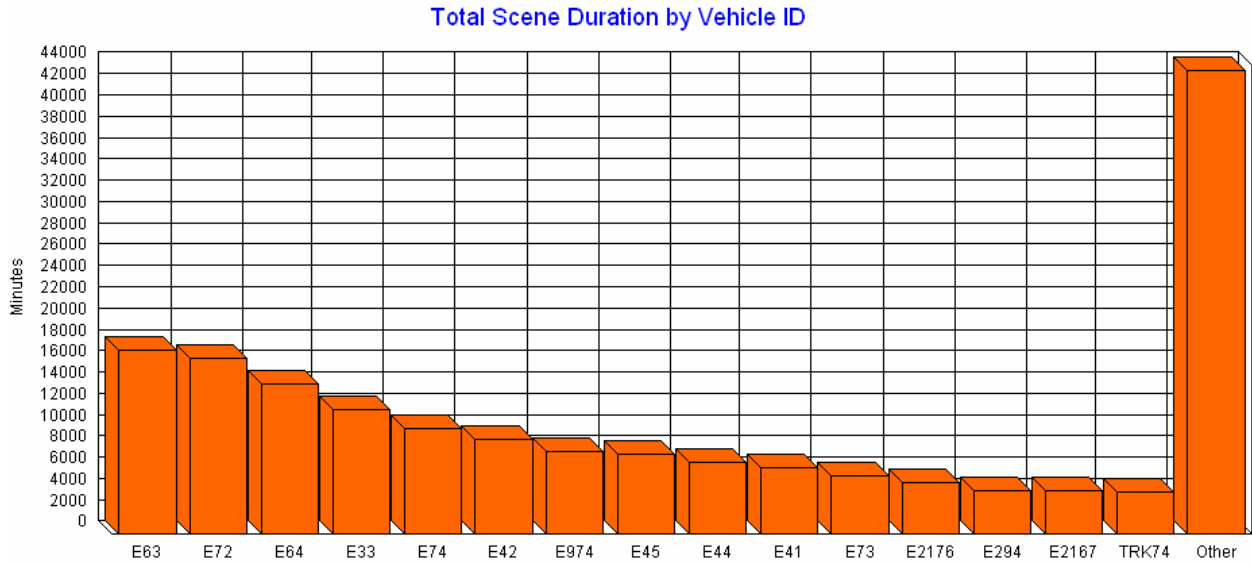


The graph below compares first apparatus arrival response time performance by company:

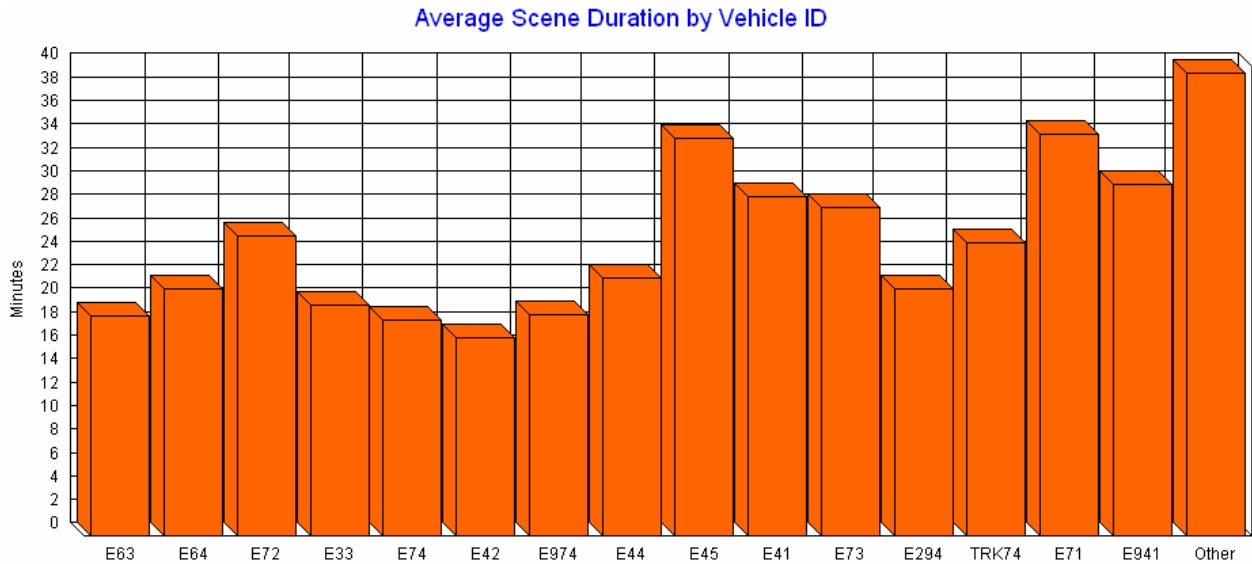
Average Response Time by Vehicle ID



Here is the total scene duration for first arriving apparatus in 2006:



Here is the average scene duration for each company when it arrived first on the scene of an incident in 2006:



Career Call Processing Time

Here is an analysis of call processing time for first arriving career companies in 2006.

There are 6,985 Apparatus records being analyzed.

24 records were ignored because of a zero time value.

Call Processing <= 00:00:00 .0% (0)
Call Processing <= 00:00:15 33.6% (2,337)
Call Processing <= 00:00:30 68.1% (4,742)
Call Processing <= 00:00:45 80.9% (5,633)
Call Processing <= 00:01:00 86.0% (5,983)
Call Processing <= 00:01:15 88.8% (6,180)
Call Processing <= 00:01:30 90.8% (6,319)
Call Processing <= 00:01:45 92.4% (6,435)
Call Processing <= 00:02:00 93.4% (6,502)
Call Processing <= 00:02:15 94.0% (6,546)
Call Processing <= 00:02:30 94.7% (6,590)
Call Processing <= 00:02:45 95.2% (6,625)
Call Processing <= 00:03:00 95.7% (6,660)
Call Processing <= 00:03:15 96.0% (6,680)
Call Processing <= 00:03:30 96.3% (6,703)
Call Processing <= 00:03:45 96.6% (6,727)
Call Processing <= 00:04:00 96.8% (6,740)
Call Processing <= 00:04:15 97.1% (6,759)
Call Processing <= 00:04:30 97.3% (6,773)
Call Processing <= 00:04:45 97.6% (6,791)
Call Processing <= 00:05:00 97.7% (6,802)
Call Processing <= 00:05:15 97.8% (6,811)
Call Processing <= 00:05:30 97.9% (6,816)
Call Processing <= 00:05:45 98.0% (6,825)
Call Processing <= 00:06:00 98.1% (6,829)
Call Processing <= 00:06:15 98.2% (6,835)
Call Processing <= 00:06:30 98.3% (6,842)
Call Processing <= 00:06:45 98.3% (6,845)
Call Processing <= 00:07:00 98.4% (6,849)
Call Processing <= 00:07:15 98.5% (6,854)
Call Processing <= 00:07:30 98.5% (6,860)
Call Processing <= 00:07:45 98.6% (6,865)
Call Processing <= 00:08:00 98.7% (6,868)
Call Processing <= 00:08:15 98.7% (6,870)
Call Processing <= 00:08:30 98.7% (6,873)
Call Processing <= 00:08:45 98.8% (6,879)
Call Processing <= 00:09:00 98.9% (6,881)
Call Processing <= 00:09:15 98.9% (6,882)
Call Processing <= 00:09:30 98.9% (6,886)
Call Processing <= 00:09:45 98.9% (6,887)
Call Processing <= 00:10:00 99.0% (6,893)

Median Call Processing 00:00:22 (.37 minutes)
Average Call Processing 00:00:50 (.82 minutes)

Career Turnout Time

Below is an analysis of turnout time for all career companies arriving first on the scene in 2006.

There are 6,985 Apparatus records being analyzed.

710 records were ignored because of a zero time value.

Turnout <= 00:00:00 .0% (0)
Turnout <= 00:00:15 3.8% (237)
Turnout <= 00:00:30 4.8% (300)
Turnout <= 00:00:45 5.7% (356)
Turnout <= 00:01:00 8.1% (511)
Turnout <= 00:01:15 15.9% (999)
Turnout <= 00:01:30 26.6% (1,668)
Turnout <= 00:01:45 39.0% (2,448)
Turnout <= 00:02:00 48.7% (3,058)
Turnout <= 00:02:15 56.2% (3,526)
Turnout <= 00:02:30 63.2% (3,967)
Turnout <= 00:02:45 68.9% (4,325)
Turnout <= 00:03:00 74.4% (4,668)
Turnout <= 00:03:15 79.4% (4,981)
Turnout <= 00:03:30 83.7% (5,255)
Turnout <= 00:03:45 87.1% (5,466)
Turnout <= 00:04:00 90.0% (5,648)
Turnout <= 00:04:15 92.2% (5,786)
Turnout <= 00:04:30 93.7% (5,882)
Turnout <= 00:04:45 95.2% (5,971)
Turnout <= 00:05:00 96.3% (6,043)
Turnout <= 00:05:15 97.2% (6,098)
Turnout <= 00:05:30 97.7% (6,130)
Turnout <= 00:05:45 98.1% (6,155)
Turnout <= 00:06:00 98.4% (6,174)
Turnout <= 00:06:15 98.6% (6,190)
Turnout <= 00:06:30 98.8% (6,200)
Turnout <= 00:06:45 99.0% (6,210)
Turnout <= 00:07:00 99.2% (6,224)
Turnout <= 00:07:15 99.3% (6,232)
Turnout <= 00:07:30 99.4% (6,240)
Turnout <= 00:07:45 99.5% (6,245)
Turnout <= 00:08:00 99.6% (6,251)
Turnout <= 00:08:15 99.7% (6,254)
Turnout <= 00:08:30 99.7% (6,255)
Turnout <= 00:08:45 99.7% (6,257)
Turnout <= 00:09:00 99.7% (6,258)
Turnout <= 00:09:15 99.8% (6,261)

Turnout <= 00:09:30 99.8% (6,263)
 Turnout <= 00:09:45 99.8% (6,265)
 Turnout <= 00:10:00 99.9% (6,266)
 Median Turnout 00:02:03 (2.05 minutes)
 Average Turnout 00:02:22 (2.36 minutes)

Career Travel Time

Here are travel time fractiles for career companies arriving first on the scene of incidents in 2006.

There are 6,985 Apparatus records being analyzed.

542 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
 Travel <= 00:00:15 1.3% (81)
 Travel <= 00:00:30 2.0% (132)
 Travel <= 00:00:45 3.3% (213)
 Travel <= 00:01:00 5.1% (329)
 Travel <= 00:01:15 7.3% (472)
 Travel <= 00:01:30 10.4% (673)
 Travel <= 00:01:45 13.6% (876)
 Travel <= 00:02:00 16.8% (1,080)
 Travel <= 00:02:15 20.6% (1,329)
 Travel <= 00:02:30 24.1% (1,552)
 Travel <= 00:02:45 27.8% (1,793)
 Travel <= 00:03:00 31.7% (2,040)
 Travel <= 00:03:15 35.4% (2,280)
 Travel <= 00:03:30 39.0% (2,513)
 Travel <= 00:03:45 42.7% (2,750)
Travel <= 00:04:00 46.0% (2,966)
 Travel <= 00:04:15 49.3% (3,175)
 Travel <= 00:04:30 52.9% (3,409)
 Travel <= 00:04:45 56.0% (3,607)
 Travel <= 00:05:00 59.3% (3,822)
 Travel <= 00:05:15 62.3% (4,012)
 Travel <= 00:05:30 65.0% (4,187)
 Travel <= 00:05:45 67.7% (4,364)
 Travel <= 00:06:00 70.3% (4,532)
 Travel <= 00:06:15 72.2% (4,655)
 Travel <= 00:06:30 74.0% (4,770)
 Travel <= 00:06:45 75.6% (4,874)
 Travel <= 00:07:00 77.4% (4,986)
 Travel <= 00:07:15 78.6% (5,066)
 Travel <= 00:07:30 79.7% (5,134)
 Travel <= 00:07:45 80.9% (5,211)
 Travel <= 00:08:00 81.9% (5,280)
 Travel <= 00:08:15 83.0% (5,350)

Travel <= 00:08:30 83.5% (5,383)
 Travel <= 00:08:45 84.5% (5,442)
 Travel <= 00:09:00 85.3% (5,494)
 Travel <= 00:09:15 86.0% (5,539)
 Travel <= 00:09:30 86.6% (5,579)
 Travel <= 00:09:45 87.2% (5,617)
 Travel <= 00:10:00 87.7% (5,648)
 Travel <= 00:10:15 88.3% (5,692)
 Travel <= 00:10:30 88.9% (5,729)
 Travel <= 00:10:45 89.5% (5,765)
Travel <= 00:11:00 90.0% (5,800)
 Travel <= 00:11:15 90.4% (5,826)
 Travel <= 00:11:30 91.0% (5,860)
 Travel <= 00:11:45 91.4% (5,889)
 Travel <= 00:12:00 91.8% (5,917)
 Travel <= 00:12:15 92.1% (5,937)
 Travel <= 00:12:30 92.4% (5,956)
 Travel <= 00:12:45 92.8% (5,976)
 Travel <= 00:13:00 93.0% (5,992)
 Travel <= 00:13:15 93.3% (6,013)
 Travel <= 00:13:30 93.6% (6,032)
 Travel <= 00:13:45 93.9% (6,050)
 Travel <= 00:14:00 94.2% (6,071)
 Travel <= 00:14:15 94.5% (6,089)
 Travel <= 00:14:30 94.8% (6,106)
 Travel <= 00:14:45 95.0% (6,122)
 Travel <= 00:15:00 95.2% (6,132)
 Travel <= 00:15:15 95.4% (6,147)
 Travel <= 00:15:30 95.6% (6,161)
 Travel <= 00:15:45 95.7% (6,166)
 Travel <= 00:16:00 95.9% (6,178)
 Travel <= 00:16:15 96.0% (6,184)
 Travel <= 00:16:30 96.2% (6,196)
 Travel <= 00:16:45 96.3% (6,203)
 Travel <= 00:17:00 96.4% (6,213)
 Travel <= 00:17:15 96.6% (6,223)
 Travel <= 00:17:30 96.7% (6,233)
 Travel <= 00:17:45 96.8% (6,238)
 Travel <= 00:18:00 96.9% (6,245)
 Travel <= 00:18:15 97.1% (6,255)
 Travel <= 00:18:30 97.2% (6,262)
 Travel <= 00:18:45 97.3% (6,269)
 Travel <= 00:19:00 97.4% (6,278)
 Travel <= 00:19:15 97.5% (6,283)
 Travel <= 00:19:30 97.5% (6,285)
 Travel <= 00:19:45 97.6% (6,291)

Travel <= 00:20:00 97.7% (6,295)
 Travel <= 00:20:15 97.8% (6,300)
 Travel <= 00:20:30 97.8% (6,302)
 Travel <= 00:20:45 97.9% (6,306)
 Travel <= 00:21:00 97.9% (6,309)
 Travel <= 00:21:15 98.0% (6,314)
 Travel <= 00:21:30 98.1% (6,319)
 Travel <= 00:21:45 98.1% (6,321)
 Travel <= 00:22:00 98.2% (6,327)
 Travel <= 00:22:15 98.2% (6,328)
 Travel <= 00:22:30 98.2% (6,330)
 Travel <= 00:22:45 98.3% (6,332)
 Travel <= 00:23:00 98.3% (6,335)
 Travel <= 00:23:15 98.4% (6,340)
 Travel <= 00:23:30 98.5% (6,344)
 Travel <= 00:23:45 98.5% (6,347)
 Travel <= 00:24:00 98.6% (6,350)
 Travel <= 00:24:15 98.6% (6,353)
 Travel <= 00:24:30 98.6% (6,355)
 Travel <= 00:24:45 98.7% (6,359)
 Travel <= 00:25:00 98.7% (6,360)
 Travel <= 00:25:15 98.7% (6,362)
 Travel <= 00:25:30 98.8% (6,363)
 Travel <= 00:25:45 98.8% (6,366)
 Travel <= 00:26:00 98.8% (6,367)
 Travel <= 00:26:15 98.9% (6,370)
 Travel <= 00:26:30 98.9% (6,370)
 Travel <= 00:26:45 98.9% (6,371)
 Travel <= 00:27:00 98.9% (6,372)
 Travel <= 00:27:15 98.9% (6,373)
 Travel <= 00:27:30 99.0% (6,378)
 Travel <= 00:27:45 99.0% (6,379)
 Travel <= 00:28:00 99.0% (6,381)
 Travel <= 00:28:15 99.1% (6,382)
 Travel <= 00:28:30 99.1% (6,385)
 Travel <= 00:28:45 99.1% (6,386)
 Travel <= 00:29:00 99.2% (6,390)
 Travel <= 00:29:15 99.2% (6,392)
 Travel <= 00:29:30 99.2% (6,392)
 Travel <= 00:29:45 99.2% (6,392)
 Travel <= 00:30:00 99.2% (6,392)

Median Travel 00:04:19 (4.32 minutes)
 Average Travel 00:05:35 (5.59 minutes)

Career Total Reflex Time

Here are total reflex time fractiles for career companies in 2006.

There are 6,985 Apparatus records being analyzed.

3 records were ignored because of a zero time value.

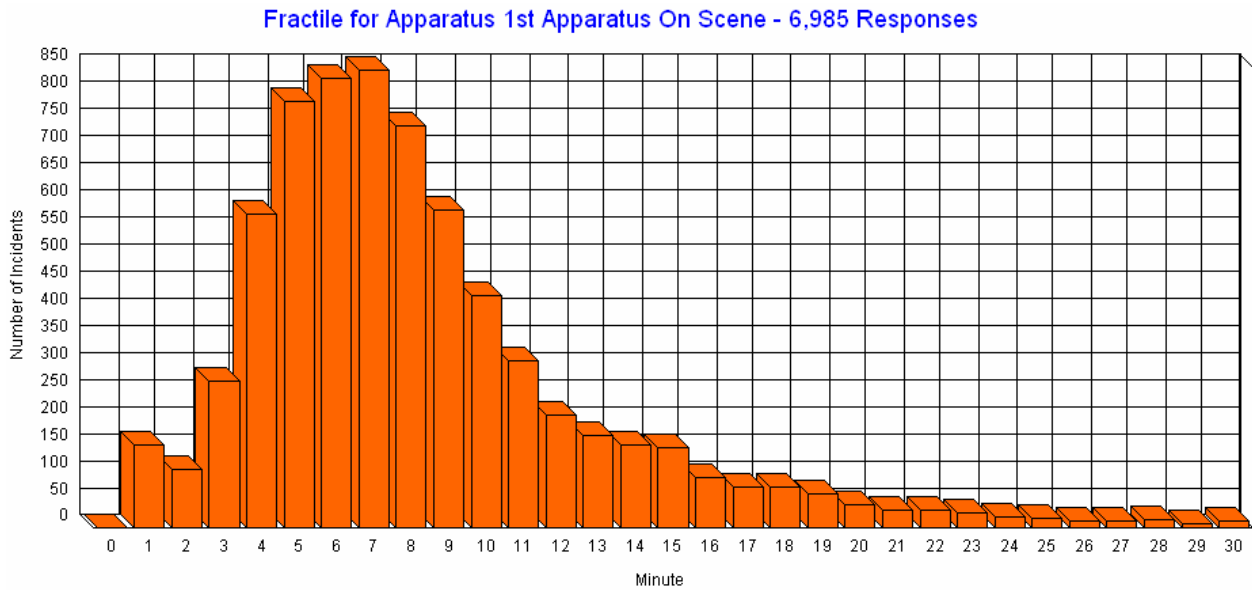
1st Apparatus On Scene <= 00:00:00 .0% (0)
1st Apparatus On Scene <= 00:00:15 .4% (27)
1st Apparatus On Scene <= 00:00:30 1.4% (100)
1st Apparatus On Scene <= 00:00:45 1.9% (136)
1st Apparatus On Scene <= 00:01:00 2.2% (153)
1st Apparatus On Scene <= 00:01:15 2.4% (167)
1st Apparatus On Scene <= 00:01:30 2.7% (189)
1st Apparatus On Scene <= 00:01:45 3.2% (220)
1st Apparatus On Scene <= 00:02:00 3.7% (261)
1st Apparatus On Scene <= 00:02:15 4.5% (312)
1st Apparatus On Scene <= 00:02:30 5.1% (355)
1st Apparatus On Scene <= 00:02:45 6.2% (433)
1st Apparatus On Scene <= 00:03:00 7.6% (532)
1st Apparatus On Scene <= 00:03:15 9.3% (650)
1st Apparatus On Scene <= 00:03:30 11.4% (794)
1st Apparatus On Scene <= 00:03:45 13.4% (939)
1st Apparatus On Scene <= 00:04:00 15.9% (1,112)
1st Apparatus On Scene <= 00:04:15 18.5% (1,294)
1st Apparatus On Scene <= 00:04:30 21.4% (1,492)
1st Apparatus On Scene <= 00:04:45 24.4% (1,707)
1st Apparatus On Scene <= 00:05:00 27.2% (1,901)
1st Apparatus On Scene <= 00:05:15 30.1% (2,102)
1st Apparatus On Scene <= 00:05:30 33.1% (2,309)
1st Apparatus On Scene <= 00:05:45 35.8% (2,503)
1st Apparatus On Scene <= 00:06:00 39.1% (2,732)
1st Apparatus On Scene <= 00:06:15 42.4% (2,961)
1st Apparatus On Scene <= 00:06:30 45.4% (3,168)
1st Apparatus On Scene <= 00:06:45 48.2% (3,368)
1st Apparatus On Scene <= 00:07:00 51.2% (3,577)
1st Apparatus On Scene <= 00:07:15 54.1% (3,775)
1st Apparatus On Scene <= 00:07:30 57.0% (3,980)
1st Apparatus On Scene <= 00:07:45 59.5% (4,157)
1st Apparatus On Scene <= 00:08:00 61.9% (4,320)
1st Apparatus On Scene <= 00:08:15 64.4% (4,498)
1st Apparatus On Scene <= 00:08:30 66.6% (4,648)
1st Apparatus On Scene <= 00:08:45 68.4% (4,777)
1st Apparatus On Scene <= 00:09:00 70.3% (4,907)
1st Apparatus On Scene <= 00:09:15 71.8% (5,011)
1st Apparatus On Scene <= 00:09:30 73.5% (5,130)
1st Apparatus On Scene <= 00:09:45 75.1% (5,244)
1st Apparatus On Scene <= 00:10:00 76.4% (5,336)

1st Apparatus On Scene <= 00:10:15 77.7% (5,428)
 1st Apparatus On Scene <= 00:10:30 78.9% (5,507)
 1st Apparatus On Scene <= 00:10:45 79.9% (5,582)
 1st Apparatus On Scene <= 00:11:00 80.9% (5,645)
 1st Apparatus On Scene <= 00:11:15 81.7% (5,705)
 1st Apparatus On Scene <= 00:11:30 82.5% (5,758)
 1st Apparatus On Scene <= 00:11:45 83.3% (5,817)
 1st Apparatus On Scene <= 00:12:00 83.9% (5,855)
 1st Apparatus On Scene <= 00:12:15 84.5% (5,898)
 1st Apparatus On Scene <= 00:12:30 85.1% (5,940)
 1st Apparatus On Scene <= 00:12:45 85.8% (5,988)
 1st Apparatus On Scene <= 00:13:00 86.3% (6,028)
 1st Apparatus On Scene <= 00:13:15 86.9% (6,067)
 1st Apparatus On Scene <= 00:13:30 87.4% (6,101)
 1st Apparatus On Scene <= 00:13:45 87.9% (6,140)
 1st Apparatus On Scene <= 00:14:00 88.5% (6,181)
 1st Apparatus On Scene <= 00:14:15 89.1% (6,222)
 1st Apparatus On Scene <= 00:14:30 89.7% (6,264)
 1st Apparatus On Scene <= 00:14:45 90.2% (6,295)
1st Apparatus On Scene <= 00:15:00 90.7% (6,331)
 1st Apparatus On Scene <= 00:15:15 91.0% (6,354)
 1st Apparatus On Scene <= 00:15:30 91.3% (6,378)
 1st Apparatus On Scene <= 00:15:45 91.7% (6,401)
 1st Apparatus On Scene <= 00:16:00 92.0% (6,425)
 1st Apparatus On Scene <= 00:16:15 92.4% (6,449)
 1st Apparatus On Scene <= 00:16:30 92.6% (6,468)
 1st Apparatus On Scene <= 00:16:45 92.9% (6,485)
 1st Apparatus On Scene <= 00:17:00 93.1% (6,501)
 1st Apparatus On Scene <= 00:17:15 93.4% (6,524)
 1st Apparatus On Scene <= 00:17:30 93.7% (6,543)
 1st Apparatus On Scene <= 00:17:45 94.0% (6,560)
 1st Apparatus On Scene <= 00:18:00 94.2% (6,577)
 1st Apparatus On Scene <= 00:18:15 94.4% (6,593)
 1st Apparatus On Scene <= 00:18:30 94.7% (6,609)
 1st Apparatus On Scene <= 00:18:45 94.8% (6,620)
 1st Apparatus On Scene <= 00:19:00 95.1% (6,640)
 1st Apparatus On Scene <= 00:19:15 95.3% (6,651)
 1st Apparatus On Scene <= 00:19:30 95.4% (6,658)
 1st Apparatus On Scene <= 00:19:45 95.6% (6,678)
 1st Apparatus On Scene <= 00:20:00 95.7% (6,685)
 1st Apparatus On Scene <= 00:20:15 95.8% (6,689)
 1st Apparatus On Scene <= 00:20:30 96.0% (6,700)
 1st Apparatus On Scene <= 00:20:45 96.0% (6,706)
 1st Apparatus On Scene <= 00:21:00 96.2% (6,719)
 1st Apparatus On Scene <= 00:21:15 96.4% (6,731)
 1st Apparatus On Scene <= 00:21:30 96.5% (6,738)

1st Apparatus On Scene <= 00:21:45 96.6% (6,745)
 1st Apparatus On Scene <= 00:22:00 96.7% (6,753)
 1st Apparatus On Scene <= 00:22:15 96.8% (6,759)
 1st Apparatus On Scene <= 00:22:30 96.9% (6,765)
 1st Apparatus On Scene <= 00:22:45 97.0% (6,772)
 1st Apparatus On Scene <= 00:23:00 97.1% (6,783)
 1st Apparatus On Scene <= 00:23:15 97.3% (6,794)
 1st Apparatus On Scene <= 00:23:30 97.3% (6,794)
 1st Apparatus On Scene <= 00:23:45 97.4% (6,798)
 1st Apparatus On Scene <= 00:24:00 97.5% (6,804)
 1st Apparatus On Scene <= 00:24:15 97.5% (6,810)
 1st Apparatus On Scene <= 00:24:30 97.6% (6,813)
 1st Apparatus On Scene <= 00:24:45 97.7% (6,820)
 1st Apparatus On Scene <= 00:25:00 97.7% (6,822)
 1st Apparatus On Scene <= 00:25:15 97.7% (6,824)
 1st Apparatus On Scene <= 00:25:30 97.8% (6,828)
 1st Apparatus On Scene <= 00:25:45 97.8% (6,831)
 1st Apparatus On Scene <= 00:26:00 97.9% (6,835)
 1st Apparatus On Scene <= 00:26:15 98.0% (6,839)
 1st Apparatus On Scene <= 00:26:30 98.0% (6,843)
 1st Apparatus On Scene <= 00:26:45 98.1% (6,847)
 1st Apparatus On Scene <= 00:27:00 98.1% (6,850)
 1st Apparatus On Scene <= 00:27:15 98.1% (6,852)
 1st Apparatus On Scene <= 00:27:30 98.2% (6,857)
 1st Apparatus On Scene <= 00:27:45 98.2% (6,859)
 1st Apparatus On Scene <= 00:28:00 98.3% (6,866)
 1st Apparatus On Scene <= 00:28:15 98.4% (6,870)
 1st Apparatus On Scene <= 00:28:30 98.4% (6,873)
 1st Apparatus On Scene <= 00:28:45 98.5% (6,874)
 1st Apparatus On Scene <= 00:29:00 98.5% (6,876)
 1st Apparatus On Scene <= 00:29:15 98.6% (6,881)
 1st Apparatus On Scene <= 00:29:30 98.6% (6,887)
 1st Apparatus On Scene <= 00:29:45 98.7% (6,888)
 1st Apparatus On Scene <= 00:30:00 98.7% (6,889)

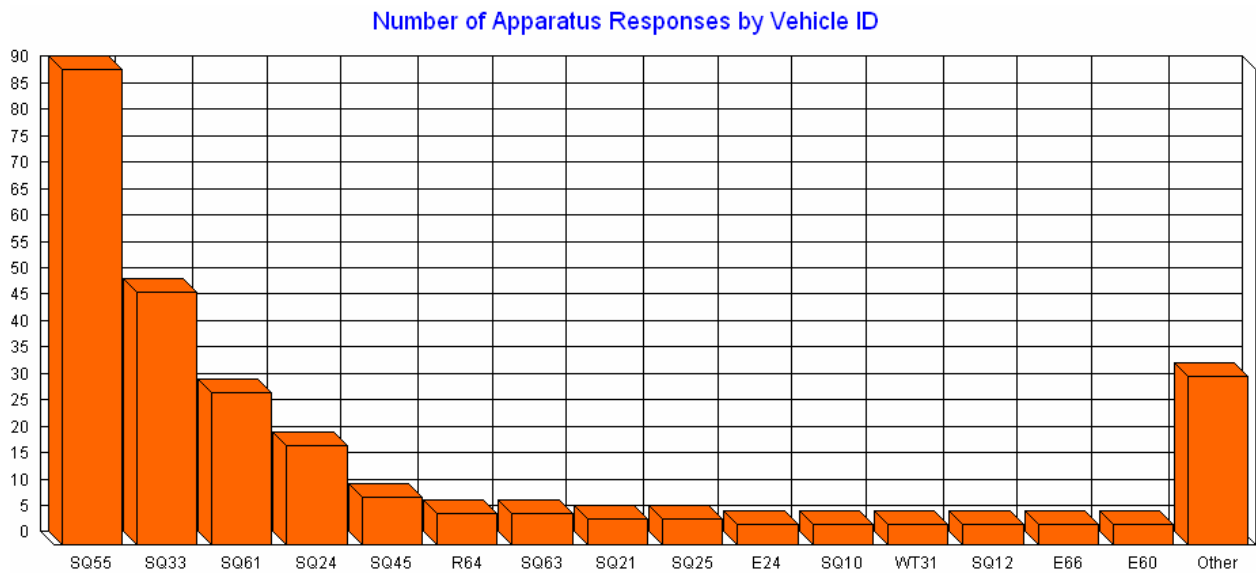
 Median 1st Apparatus On Scene 00:06:55 (6.92 minutes)
 Average 1st Apparatus On Scene 00:08:17 (8.29 minutes)

Here is a graph for total reflex time using the same measurement above:



Volunteer Resource Analysis

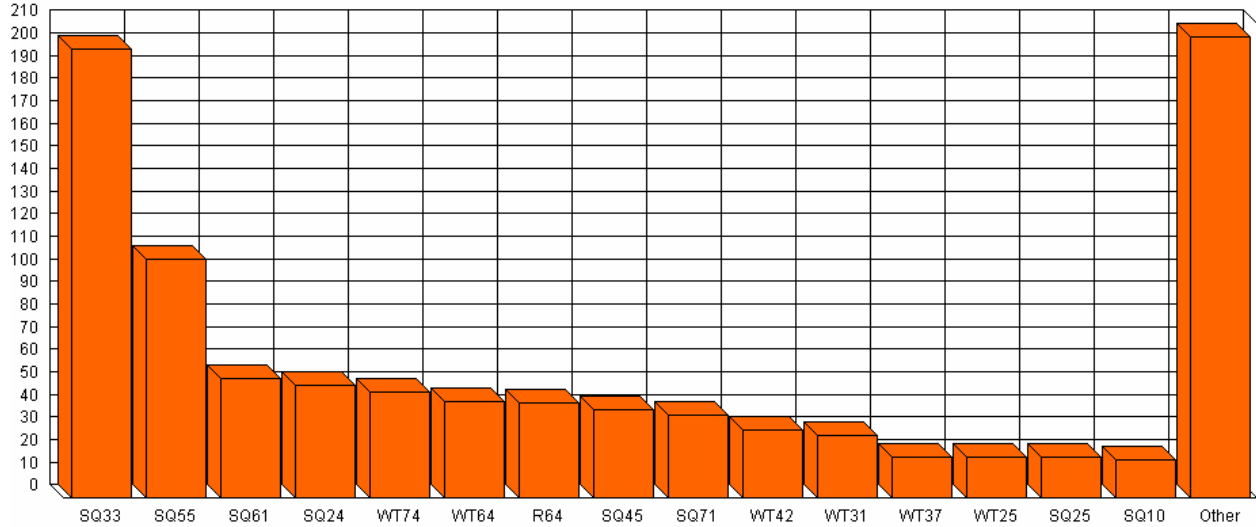
The most active volunteer companies were located and separated-out for performance analysis. The following graph represents data for each company when it arrived first on the scene of an incident:



Notice the vast majority of volunteer responses arriving first on the scene are rescue responses.

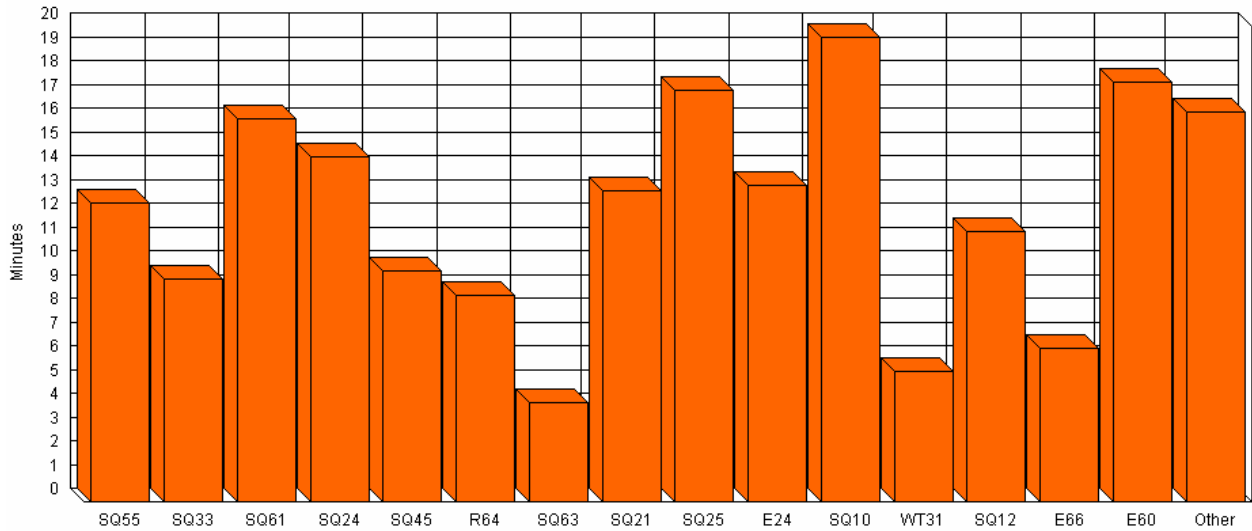
For comparison the following graph illustrates the number of volunteer apparatus responses in 2006 that arrived on the scene whether or not the apparatus reached the scene first. While there is significantly more tanker activity this category is still dominated by rescue responses:

Number of Apparatus Responses by Vehicle ID

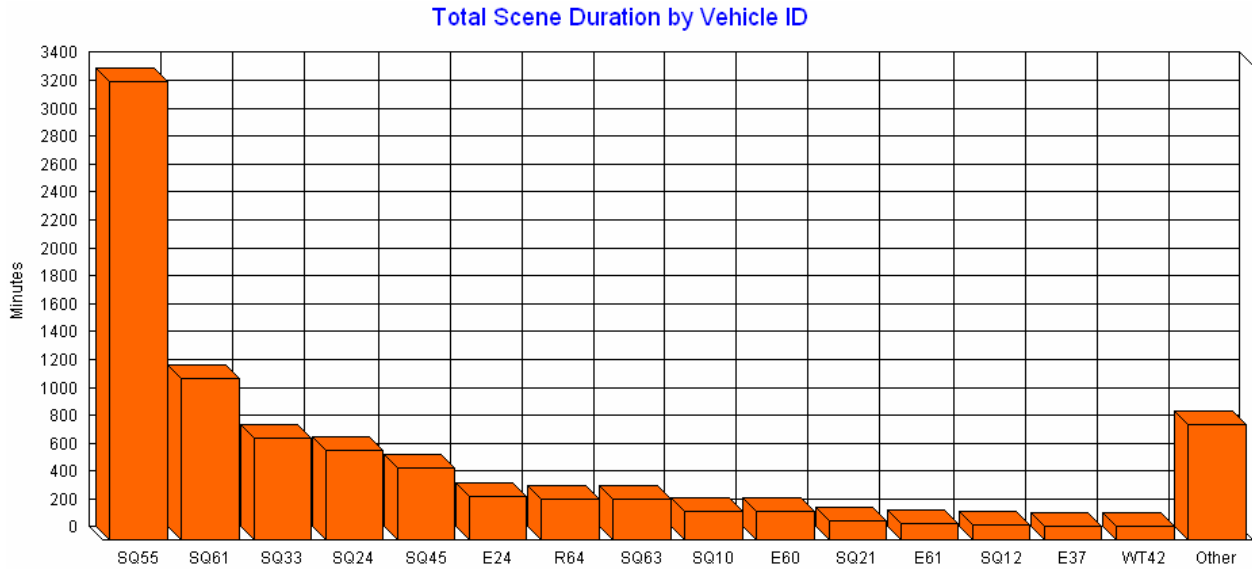


The graph below compares first apparatus arrival response time performance by company:

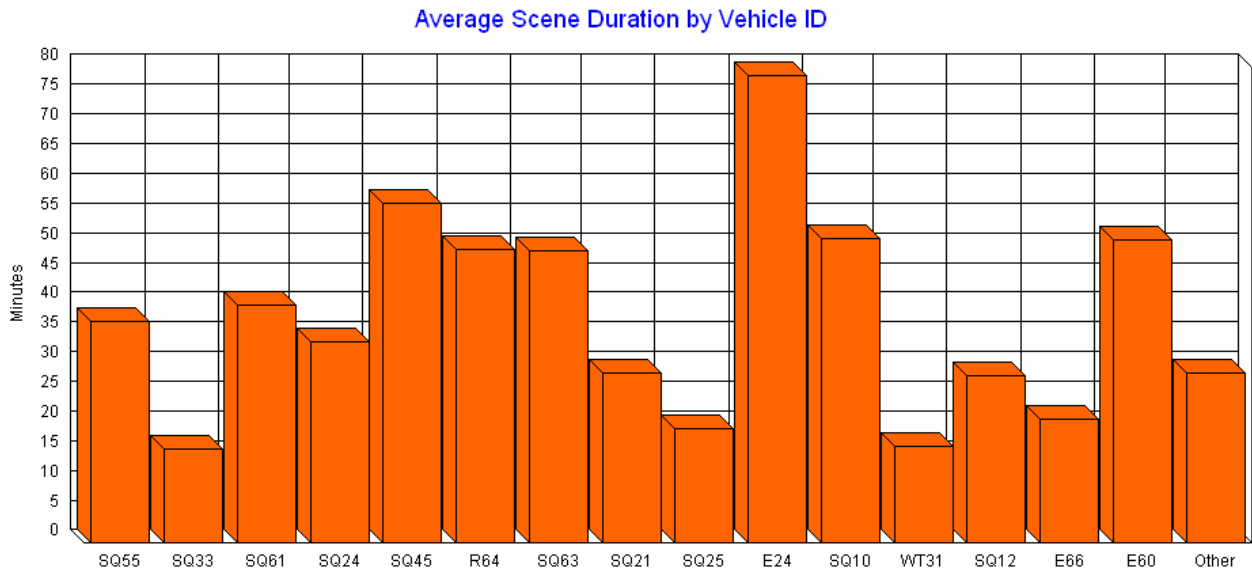
Average Response Time by Vehicle ID



Here is the total scene duration for first arriving apparatus in 2006:



Here is the average scene duration for each volunteer company when it arrived first on the scene of an incident in 2006:



Volunteer Call Processing

Here is a fractile analysis of call processing time for first arriving volunteer companies in 2006. Call processing time is measured from the time a request for assistance is received until the apparatus is dispatched.

There are 269 Apparatus records being analyzed.

One record was ignored because of a zero time value.

Call Processing <= 00:00:00 .0% (0)
Call Processing <= 00:00:15 25.0% (67)
Call Processing <= 00:00:30 57.1% (153)
Call Processing <= 00:00:45 67.9% (182)
Call Processing <= 00:01:00 72.8% (195)
Call Processing <= 00:01:15 75.7% (203)
Call Processing <= 00:01:30 77.6% (208)
Call Processing <= 00:01:45 79.1% (212)
Call Processing <= 00:02:00 81.0% (217)
Call Processing <= 00:02:15 82.5% (221)
Call Processing <= 00:02:30 83.6% (224)
Call Processing <= 00:02:45 84.7% (227)
Call Processing <= 00:03:00 85.4% (229)
Call Processing <= 00:03:15 86.6% (232)
Call Processing <= 00:03:30 87.3% (234)
Call Processing <= 00:03:45 87.7% (235)
Call Processing <= 00:04:00 88.4% (237)
Call Processing <= 00:04:15 88.4% (237)
Call Processing <= 00:04:30 88.8% (238)
Call Processing <= 00:04:45 89.6% (240)
Call Processing <= 00:05:00 89.6% (240)
Call Processing <= 00:05:15 89.9% (241)
Call Processing <= 00:05:30 90.3% (242)
Call Processing <= 00:05:45 90.3% (242)
Call Processing <= 00:06:00 91.4% (245)
Call Processing <= 00:06:15 91.4% (245)
Call Processing <= 00:06:30 91.4% (245)
Call Processing <= 00:06:45 91.8% (246)
Call Processing <= 00:07:00 91.8% (246)
Call Processing <= 00:07:15 91.8% (246)
Call Processing <= 00:07:30 92.2% (247)
Call Processing <= 00:07:45 92.2% (247)
Call Processing <= 00:08:00 92.9% (249)
Call Processing <= 00:08:15 92.9% (249)
Call Processing <= 00:08:30 93.7% (251)
Call Processing <= 00:08:45 93.7% (251)
Call Processing <= 00:09:00 93.7% (251)
Call Processing <= 00:09:15 93.7% (251)
Call Processing <= 00:09:30 94.4% (253)

Call Processing <= 00:09:45 94.4% (253)
 Call Processing <= 00:10:00 94.4% (253)
 Call Processing <= 00:10:15 94.8% (254)
 Call Processing <= 00:10:30 95.1% (255)
 Call Processing <= 00:10:45 95.1% (255)
 Call Processing <= 00:11:00 95.5% (256)
 Call Processing <= 00:11:15 95.5% (256)
 Call Processing <= 00:11:30 96.3% (258)
 Call Processing <= 00:11:45 96.6% (259)
 Call Processing <= 00:12:00 96.6% (259)
 Call Processing <= 00:12:15 97.0% (260)
 Call Processing <= 00:12:30 97.0% (260)
 Call Processing <= 00:12:45 97.4% (261)
 Call Processing <= 00:13:00 97.4% (261)
 Call Processing <= 00:13:15 97.4% (261)
 Call Processing <= 00:13:30 97.4% (261)
 Call Processing <= 00:13:45 97.4% (261)
 Call Processing <= 00:14:00 97.8% (262)
 Call Processing <= 00:14:15 97.8% (262)
 Call Processing <= 00:14:30 97.8% (262)
 Call Processing <= 00:14:45 97.8% (262)
 Call Processing <= 00:15:00 97.8% (262)

Median Call Processing 00:00:27 (.45 minutes)
 Average Call Processing 00:01:58 (1.96 minutes)

Volunteer Turnout Time

There are 269 Apparatus records being analyzed.

68 records were ignored because of a zero time value.

Turnout <= 00:00:00 .0% (0)
 Turnout <= 00:00:15 2.0% (4)
 Turnout <= 00:00:30 2.0% (4)
 Turnout <= 00:00:45 2.5% (5)
 Turnout <= 00:01:00 2.5% (5)
 Turnout <= 00:01:15 5.0% (10)
 Turnout <= 00:01:30 6.5% (13)
 Turnout <= 00:01:45 9.5% (19)
Turnout <= 00:02:00 12.4% (25)
 Turnout <= 00:02:15 16.9% (34)
 Turnout <= 00:02:30 19.4% (39)
 Turnout <= 00:02:45 20.9% (42)
 Turnout <= 00:03:00 24.9% (50)
 Turnout <= 00:03:15 26.4% (53)
 Turnout <= 00:03:30 27.9% (56)
 Turnout <= 00:03:45 30.3% (61)
 Turnout <= 00:04:00 33.8% (68)

Turnout <= 00:04:15 36.8% (74)
 Turnout <= 00:04:30 38.8% (78)
 Turnout <= 00:04:45 41.8% (84)
 Turnout <= 00:05:00 45.8% (92)
 Turnout <= 00:05:15 47.3% (95)
 Turnout <= 00:05:30 48.3% (97)
 Turnout <= 00:05:45 50.2% (101)
 Turnout <= 00:06:00 51.7% (104)
 Turnout <= 00:06:15 55.2% (111)
 Turnout <= 00:06:30 57.2% (115)
 Turnout <= 00:06:45 60.7% (122)
 Turnout <= 00:07:00 63.7% (128)
 Turnout <= 00:07:15 68.2% (137)
 Turnout <= 00:07:30 70.1% (141)
 Turnout <= 00:07:45 71.1% (143)
 Turnout <= 00:08:00 73.1% (147)
 Turnout <= 00:08:15 75.1% (151)
 Turnout <= 00:08:30 77.1% (155)
 Turnout <= 00:08:45 81.6% (164)
 Turnout <= 00:09:00 83.1% (167)
 Turnout <= 00:09:15 83.6% (168)
 Turnout <= 00:09:30 85.1% (171)
 Turnout <= 00:09:45 87.6% (176)
 Turnout <= 00:10:00 89.6% (180)
Turnout <= 00:10:15 89.6% (180)
 Turnout <= 00:10:30 91.0% (183)
 Turnout <= 00:10:45 92.0% (185)
 Turnout <= 00:11:00 93.0% (187)
 Turnout <= 00:11:15 94.0% (189)
 Turnout <= 00:11:30 95.0% (191)
 Turnout <= 00:11:45 96.5% (194)
 Turnout <= 00:12:00 96.5% (194)
 Turnout <= 00:12:15 96.5% (194)
 Turnout <= 00:12:30 96.5% (194)
 Turnout <= 00:12:45 96.5% (194)
 Turnout <= 00:13:00 96.5% (194)
 Turnout <= 00:13:15 96.5% (194)
 Turnout <= 00:13:30 96.5% (194)
 Turnout <= 00:13:45 96.5% (194)
 Turnout <= 00:14:00 97.0% (195)
 Turnout <= 00:14:15 97.5% (196)
 Turnout <= 00:14:30 97.5% (196)
 Turnout <= 00:14:45 97.5% (196)
 Turnout <= 00:15:00 98.0% (197)
 Turnout <= 00:15:15 98.0% (197)
 Turnout <= 00:15:30 98.0% (197)

Turnout <= 00:15:45 98.0% (197)
Turnout <= 00:16:00 98.0% (197)
Turnout <= 00:16:15 98.0% (197)
Turnout <= 00:16:30 98.5% (198)
Turnout <= 00:16:45 98.5% (198)
Turnout <= 00:17:00 98.5% (198)
Turnout <= 00:17:15 98.5% (198)
Turnout <= 00:17:30 98.5% (198)
Turnout <= 00:17:45 98.5% (198)
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Turnout <= 00:18:15 99.0% (199)
Turnout <= 00:18:30 99.0% (199)
Turnout <= 00:18:45 99.0% (199)
Turnout <= 00:19:00 99.0% (199)
Turnout <= 00:19:15 99.0% (199)
Turnout <= 00:19:30 99.0% (199)
Turnout <= 00:19:45 99.0% (199)
Turnout <= 00:20:00 99.0% (199)
Turnout <= 00:20:15 99.0% (199)
Turnout <= 00:20:30 99.0% (199)
Turnout <= 00:20:45 99.0% (199)
Turnout <= 00:21:00 99.0% (199)
Turnout <= 00:21:15 99.0% (199)
Turnout <= 00:21:30 99.0% (199)
Turnout <= 00:21:45 99.5% (200)
Turnout <= 00:22:00 99.5% (200)
Turnout <= 00:22:15 99.5% (200)
Turnout <= 00:22:30 99.5% (200)
Turnout <= 00:22:45 99.5% (200)
Turnout <= 00:23:00 99.5% (200)
Turnout <= 00:23:15 99.5% (200)
Turnout <= 00:23:30 99.5% (200)
Turnout <= 00:23:45 99.5% (200)
Turnout <= 00:24:00 99.5% (200)
Turnout <= 00:24:15 99.5% (200)
Turnout <= 00:24:30 99.5% (200)
Turnout <= 00:24:45 99.5% (200)
Turnout <= 00:25:00 99.5% (200)
Turnout <= 00:25:15 100.0% (201)
Turnout <= 00:25:30 100.0% (201)
Turnout <= 00:25:45 100.0% (201)
Turnout <= 00:26:00 100.0% (201)
Turnout <= 00:26:15 100.0% (201)
Turnout <= 00:26:30 100.0% (201)
Turnout <= 00:26:45 100.0% (201)
Turnout <= 00:27:00 100.0% (201)

Turnout <= 00:27:15 100.0% (201)
Turnout <= 00:27:30 100.0% (201)
Turnout <= 00:27:45 100.0% (201)
Turnout <= 00:28:00 100.0% (201)
Turnout <= 00:28:15 100.0% (201)
Turnout <= 00:28:30 100.0% (201)
Turnout <= 00:28:45 100.0% (201)
Turnout <= 00:29:00 100.0% (201)
Turnout <= 00:29:15 100.0% (201)
Turnout <= 00:29:30 100.0% (201)
Turnout <= 00:29:45 100.0% (201)
Turnout <= 00:30:00 100.0% (201)

Median Turnout 00:05:35 (5.58 minutes)
Average Turnout 00:06:00 (5.99 minutes)

Volunteer Travel Time

Here are travel time fractiles for volunteer companies arriving first on the scene of incidents in 2006. Notice a significant number had “zero” travel times again indicating a potential problem with dispatch timestamps.

There are 269 Apparatus records being analyzed.

40 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 2.2% (5)
Travel <= 00:00:30 4.8% (11)
Travel <= 00:00:45 4.8% (11)
Travel <= 00:01:00 6.6% (15)
Travel <= 00:01:15 7.0% (16)
Travel <= 00:01:30 9.2% (21)
Travel <= 00:01:45 10.5% (24)
Travel <= 00:02:00 12.2% (28)
Travel <= 00:02:15 15.3% (35)
Travel <= 00:02:30 17.0% (39)
Travel <= 00:02:45 21.8% (50)
Travel <= 00:03:00 26.2% (60)
Travel <= 00:03:15 31.0% (71)
Travel <= 00:03:30 34.5% (79)
Travel <= 00:03:45 40.6% (93)
Travel <= 00:04:00 45.0% (103)
Travel <= 00:04:15 47.2% (108)
Travel <= 00:04:30 50.2% (115)
Travel <= 00:04:45 53.3% (122)
Travel <= 00:05:00 56.3% (129)
Travel <= 00:05:15 58.5% (134)
Travel <= 00:05:30 61.6% (141)

Travel <= 00:05:45 63.3% (145)
 Travel <= 00:06:00 63.8% (146)
 Travel <= 00:06:15 64.6% (148)
 Travel <= 00:06:30 65.5% (150)
 Travel <= 00:06:45 67.2% (154)
 Travel <= 00:07:00 68.6% (157)
 Travel <= 00:07:15 70.7% (162)
 Travel <= 00:07:30 72.5% (166)
 Travel <= 00:07:45 73.4% (168)
 Travel <= 00:08:00 74.2% (170)
 Travel <= 00:08:15 75.1% (172)
 Travel <= 00:08:30 75.1% (172)
 Travel <= 00:08:45 76.4% (175)
 Travel <= 00:09:00 77.3% (177)
 Travel <= 00:09:15 79.5% (182)
 Travel <= 00:09:30 80.8% (185)
 Travel <= 00:09:45 81.7% (187)
 Travel <= 00:10:00 83.0% (190)
 Travel <= 00:10:15 83.8% (192)
 Travel <= 00:10:30 84.3% (193)
 Travel <= 00:10:45 84.7% (194)
 Travel <= 00:11:00 85.6% (196)
 Travel <= 00:11:15 86.0% (197)
 Travel <= 00:11:30 86.5% (198)
 Travel <= 00:11:45 87.3% (200)
 Travel <= 00:12:00 87.3% (200)
 Travel <= 00:12:15 87.8% (201)
 Travel <= 00:12:30 88.2% (202)
 Travel <= 00:12:45 88.2% (202)
 Travel <= 00:13:00 88.2% (202)
 Travel <= 00:13:15 89.1% (204)
 Travel <= 00:13:30 89.5% (205)
Travel <= 00:13:45 90.4% (207)
 Travel <= 00:14:00 90.8% (208)
 Travel <= 00:14:15 91.3% (209)
 Travel <= 00:14:30 91.3% (209)
 Travel <= 00:14:45 91.3% (209)
 Travel <= 00:15:00 92.1% (211)
 Travel <= 00:15:15 92.1% (211)
 Travel <= 00:15:30 93.4% (214)
 Travel <= 00:15:45 93.4% (214)
 Travel <= 00:16:00 93.4% (214)
 Travel <= 00:16:15 93.4% (214)
 Travel <= 00:16:30 93.4% (214)
 Travel <= 00:16:45 93.9% (215)
 Travel <= 00:17:00 93.9% (215)

Travel <= 00:17:15 94.3% (216)
Travel <= 00:17:30 94.3% (216)
Travel <= 00:17:45 94.3% (216)
Travel <= 00:18:00 94.3% (216)
Travel <= 00:18:15 94.3% (216)
Travel <= 00:18:30 94.3% (216)
Travel <= 00:18:45 94.8% (217)
Travel <= 00:19:00 94.8% (217)
Travel <= 00:19:15 94.8% (217)
Travel <= 00:19:30 94.8% (217)
Travel <= 00:19:45 94.8% (217)
Travel <= 00:20:00 94.8% (217)
Travel <= 00:20:15 95.2% (218)
Travel <= 00:20:30 95.6% (219)
Travel <= 00:20:45 95.6% (219)
Travel <= 00:21:00 95.6% (219)
Travel <= 00:21:15 95.6% (219)
Travel <= 00:21:30 95.6% (219)
Travel <= 00:21:45 95.6% (219)
Travel <= 00:22:00 95.6% (219)
Travel <= 00:22:15 95.6% (219)
Travel <= 00:22:30 95.6% (219)
Travel <= 00:22:45 96.1% (220)
Travel <= 00:23:00 96.1% (220)
Travel <= 00:23:15 96.1% (220)
Travel <= 00:23:30 96.1% (220)
Travel <= 00:23:45 96.5% (221)
Travel <= 00:24:00 96.5% (221)
Travel <= 00:24:15 96.5% (221)
Travel <= 00:24:30 96.5% (221)
Travel <= 00:24:45 96.5% (221)
Travel <= 00:25:00 96.5% (221)
Travel <= 00:25:15 96.5% (221)
Travel <= 00:25:30 96.5% (221)
Travel <= 00:25:45 96.5% (221)
Travel <= 00:26:00 96.5% (221)
Travel <= 00:26:15 96.5% (221)
Travel <= 00:26:30 96.5% (221)
Travel <= 00:26:45 96.5% (221)
Travel <= 00:27:00 96.9% (222)
Travel <= 00:27:15 96.9% (222)
Travel <= 00:27:30 96.9% (222)
Travel <= 00:27:45 96.9% (222)
Travel <= 00:28:00 96.9% (222)
Travel <= 00:28:15 97.4% (223)
Travel <= 00:28:30 97.8% (224)

Travel <= 00:28:45 97.8% (224)
Travel <= 00:29:00 97.8% (224)
Travel <= 00:29:15 97.8% (224)
Travel <= 00:29:30 97.8% (224)
Travel <= 00:29:45 97.8% (224)
Travel <= 00:30:00 97.8% (224)

Median Travel 00:04:25 (4.42 minutes)
Average Travel 00:06:46 (6.76 minutes)

Volunteer Total Reflex Time

Here is the total reflex time fractile for volunteer companies arriving first on the scene in 2006.

There are 269 Apparatus records being analyzed.

1st Apparatus On Scene <= 00:00:00 .0% (0)
1st Apparatus On Scene <= 00:00:15 .0% (0)
1st Apparatus On Scene <= 00:00:30 .7% (2)
1st Apparatus On Scene <= 00:00:45 .7% (2)
1st Apparatus On Scene <= 00:01:00 1.1% (3)
1st Apparatus On Scene <= 00:01:15 1.5% (4)
1st Apparatus On Scene <= 00:01:30 1.5% (4)
1st Apparatus On Scene <= 00:01:45 2.2% (6)
1st Apparatus On Scene <= 00:02:00 2.6% (7)
1st Apparatus On Scene <= 00:02:15 3.3% (9)
1st Apparatus On Scene <= 00:02:30 3.3% (9)
1st Apparatus On Scene <= 00:02:45 4.1% (11)
1st Apparatus On Scene <= 00:03:00 4.5% (12)
1st Apparatus On Scene <= 00:03:15 4.8% (13)
1st Apparatus On Scene <= 00:03:30 5.9% (16)
1st Apparatus On Scene <= 00:03:45 5.9% (16)
1st Apparatus On Scene <= 00:04:00 5.9% (16)
1st Apparatus On Scene <= 00:04:15 7.8% (21)
1st Apparatus On Scene <= 00:04:30 7.8% (21)
1st Apparatus On Scene <= 00:04:45 8.6% (23)
1st Apparatus On Scene <= 00:05:00 9.7% (26)
1st Apparatus On Scene <= 00:05:15 11.5% (31)
1st Apparatus On Scene <= 00:05:30 13.0% (35)
1st Apparatus On Scene <= 00:05:45 13.8% (37)
1st Apparatus On Scene <= 00:06:00 15.2% (41)
1st Apparatus On Scene <= 00:06:15 18.2% (49)
1st Apparatus On Scene <= 00:06:30 20.8% (56)
1st Apparatus On Scene <= 00:06:45 22.3% (60)
1st Apparatus On Scene <= 00:07:00 24.5% (66)
1st Apparatus On Scene <= 00:07:15 26.8% (72)
1st Apparatus On Scene <= 00:07:30 27.9% (75)
1st Apparatus On Scene <= 00:07:45 29.0% (78)
1st Apparatus On Scene <= 00:08:00 30.5% (82)

1st Apparatus On Scene <= 00:08:15 30.9% (83)
 1st Apparatus On Scene <= 00:08:30 32.3% (87)
 1st Apparatus On Scene <= 00:08:45 34.2% (92)
 1st Apparatus On Scene <= 00:09:00 36.4% (98)
 1st Apparatus On Scene <= 00:09:15 40.5% (109)
 1st Apparatus On Scene <= 00:09:30 42.4% (114)
 1st Apparatus On Scene <= 00:09:45 43.9% (118)
 1st Apparatus On Scene <= 00:10:00 45.7% (123)
 1st Apparatus On Scene <= 00:10:15 46.8% (126)
 1st Apparatus On Scene <= 00:10:30 49.4% (133)
 1st Apparatus On Scene <= 00:10:45 51.3% (138)
 1st Apparatus On Scene <= 00:11:00 52.4% (141)
 1st Apparatus On Scene <= 00:11:15 53.9% (145)
 1st Apparatus On Scene <= 00:11:30 56.1% (151)
 1st Apparatus On Scene <= 00:11:45 58.0% (156)
 1st Apparatus On Scene <= 00:12:00 59.1% (159)
 1st Apparatus On Scene <= 00:12:15 59.5% (160)
 1st Apparatus On Scene <= 00:12:30 61.0% (164)
 1st Apparatus On Scene <= 00:12:45 63.2% (170)
 1st Apparatus On Scene <= 00:13:00 63.6% (171)
 1st Apparatus On Scene <= 00:13:15 64.3% (173)
 1st Apparatus On Scene <= 00:13:30 66.2% (178)
 1st Apparatus On Scene <= 00:13:45 68.4% (184)
 1st Apparatus On Scene <= 00:14:00 68.8% (185)
 1st Apparatus On Scene <= 00:14:15 69.5% (187)
 1st Apparatus On Scene <= 00:14:30 70.6% (190)
 1st Apparatus On Scene <= 00:14:45 71.4% (192)
 1st Apparatus On Scene <= 00:15:00 72.9% (196)
 1st Apparatus On Scene <= 00:15:15 74.3% (200)
 1st Apparatus On Scene <= 00:15:30 74.7% (201)
 1st Apparatus On Scene <= 00:15:45 75.1% (202)
 1st Apparatus On Scene <= 00:16:00 76.2% (205)
 1st Apparatus On Scene <= 00:16:15 77.3% (208)
 1st Apparatus On Scene <= 00:16:30 77.7% (209)
 1st Apparatus On Scene <= 00:16:45 77.7% (209)
 1st Apparatus On Scene <= 00:17:00 78.4% (211)
 1st Apparatus On Scene <= 00:17:15 79.9% (215)
 1st Apparatus On Scene <= 00:17:30 80.7% (217)
 1st Apparatus On Scene <= 00:17:45 81.0% (218)
 1st Apparatus On Scene <= 00:18:00 83.3% (224)
 1st Apparatus On Scene <= 00:18:15 83.3% (224)
 1st Apparatus On Scene <= 00:18:30 84.0% (226)
 1st Apparatus On Scene <= 00:18:45 85.1% (229)
 1st Apparatus On Scene <= 00:19:00 85.5% (230)
 1st Apparatus On Scene <= 00:19:15 85.9% (231)
 1st Apparatus On Scene <= 00:19:30 86.2% (232)

1st Apparatus On Scene <= 00:19:45 86.6% (233)
 1st Apparatus On Scene <= 00:20:00 87.0% (234)
 1st Apparatus On Scene <= 00:20:15 87.4% (235)
 1st Apparatus On Scene <= 00:20:30 87.7% (236)
 1st Apparatus On Scene <= 00:20:45 88.5% (238)
1st Apparatus On Scene <= 00:21:00 90.0% (242)
 1st Apparatus On Scene <= 00:21:15 90.3% (243)
 1st Apparatus On Scene <= 00:21:30 90.7% (244)
 1st Apparatus On Scene <= 00:21:45 90.7% (244)
 1st Apparatus On Scene <= 00:22:00 90.7% (244)
 1st Apparatus On Scene <= 00:22:15 90.7% (244)
 1st Apparatus On Scene <= 00:22:30 90.7% (244)
 1st Apparatus On Scene <= 00:22:45 90.7% (244)
 1st Apparatus On Scene <= 00:23:00 90.7% (244)
 1st Apparatus On Scene <= 00:23:15 91.1% (245)
 1st Apparatus On Scene <= 00:23:30 91.1% (245)
 1st Apparatus On Scene <= 00:23:45 91.1% (245)
 1st Apparatus On Scene <= 00:24:00 91.1% (245)
 1st Apparatus On Scene <= 00:24:15 91.1% (245)
 1st Apparatus On Scene <= 00:24:30 91.1% (245)
 1st Apparatus On Scene <= 00:24:45 91.1% (245)
 1st Apparatus On Scene <= 00:25:00 91.4% (246)
 1st Apparatus On Scene <= 00:25:15 91.8% (247)
 1st Apparatus On Scene <= 00:25:30 92.2% (248)
 1st Apparatus On Scene <= 00:25:45 92.2% (248)
 1st Apparatus On Scene <= 00:26:00 92.2% (248)
 1st Apparatus On Scene <= 00:26:15 92.2% (248)
 1st Apparatus On Scene <= 00:26:30 92.2% (248)
 1st Apparatus On Scene <= 00:26:45 92.2% (248)
 1st Apparatus On Scene <= 00:27:00 92.2% (248)
 1st Apparatus On Scene <= 00:27:15 92.2% (248)
 1st Apparatus On Scene <= 00:27:30 92.6% (249)
 1st Apparatus On Scene <= 00:27:45 92.9% (250)
 1st Apparatus On Scene <= 00:28:00 92.9% (250)
 1st Apparatus On Scene <= 00:28:15 93.3% (251)
 1st Apparatus On Scene <= 00:28:30 93.7% (252)
 1st Apparatus On Scene <= 00:28:45 94.1% (253)
 1st Apparatus On Scene <= 00:29:00 94.1% (253)
 1st Apparatus On Scene <= 00:29:15 94.8% (255)
 1st Apparatus On Scene <= 00:29:30 94.8% (255)
 1st Apparatus On Scene <= 00:29:45 94.8% (255)
 1st Apparatus On Scene <= 00:30:00 94.8% (255)

Median 1st Apparatus On Scene 00:10:36 (10.6 minutes)

Average 1st Apparatus On Scene 00:12:44 (12.73 minutes)

Here is a graph for total reflex time using the same measurement above:

