SAN LUIS OBISPO FIRE DEPARTMENT STATISTICAL APPENDIX

Dataset Identification

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

The San Luis Obispo Fire Department has furnished CAD data for 33,679 apparatus responses dated for the 4-year period from 7/1/2004 through 6/30/2008. The NFIRS 5's Incident reporting system is not used.

Imported CAD data included the following 15 fields:

1. Incident Number
2. Vehicle ID
3. Alarm Timestamp
4. Dispatch Timestamp
5. Enroute Timestamp
6. On-scene Timestamp
7. Clear Timestamp
8. Nature of Call (CAD)
9. Condition (CAD)
10. Address
11. City
12. Zip
13. Fire Demand Zone
14. Longitude
15. Latitude.

Reporting Practices

Federal and state incident reporting mandates have established NFIRS 5 (National Fire Incident Reporting System Version 5) as the definitive reporting standard for fire departments. While NFIRS 5's "Basic" module is mandatory, best practices dictate use of the optional "Apparatus" module to document vehicle responses.

The NFIRS 5 incident reporting system should be supported by an underlying CAD (Computer Assisted Dispatching) system for tracking and achieving critical vehicle response data. In a CAD system time resolution should be tracked to the nearest second. To ensure consistency and accuracy CAD timestamps should be automatically triggered. CAD data should not rely on manual entries of dates and times.

NFIRS 5 and CAD systems should interface. CAD data should automatically populate the NFIRS 5 incident reporting system during data entry. The following CAD / NFIRS 5 timestamps should be considered mandatory in any fire department records management system:

1. Receipt of the request for assistance (Time of Call)
2. Communication of dispatch information to company (Dispatch Time)
3. Company starts travel to the scene (Enroute Time)
4. Company arrives on the scene (On Scene Time)
5. For certain types of Incidents - Incident under control (Control Time)
6. Company clears the scene. (Clear Time).

A formal audit program should hold company officers responsible for completing all reporting requirements for each incident. A fire department cannot afford to have emergency response data go undocumented.

In addition to federal and state mandates the reporting practices cited above are required to underwrite:

1. Operational measurements for meeting NFPA (National Fire Protection Association) and national accreditation performance standards.
2. Documentation of emergency response for criminal investigation.
3. Public record of emergency response for civil litigation.
4. Public accounting of use of emergency personnel and mobile assets.

Failure to maintain accurate emergency response records may cause fire departments unnecessary legal exposure.

It is desirable to automatically capture latitude / longitude of incidents in both CAD and RMS systems. This information is increasing required for geographic analysis and performance modeling. Lat / long tracking is especially important for fire departments providing emergency service in large outdoor areas where locations cannot be easily pin-pointed by a street address.

Data Quality

While San Luis Obispo does not use NFIRS 5 reporting CAD data was able to be processed from their dispatch center.

Dataset strengths include the following:

1. Collection of critical CAD timestamps
2. Use of seconds in all time fields
3. Use of X – Y Coordinates for geocoding incident locations.

Dataset weaknesses include the following:

1. NFIRS 5 incident reporting not in use
2. Considerable data conversion was required to recover raw CAD data.

Analysis Period

Annual trends for the 48-months of data are broken-down into four 12-month periods that will be referred to as fiscal years below.

FY 04-05	7/1/2004 – 6/30/2005
FY 05-06	7/1/2005 – 6/30/2006
FY 06-07	7/1/2006 – 6/30/2007
FY 07-08	7/1/2007 – 6/30/2008

Service Demand

Service demands are broken-down into CAD Nature of Call and CAD City.

Since NFIRS 5 incident reporting data is not available a precise incident count had to be reconstructed from CAD data. Of the 33,679 apparatus responses over the 48-month period, 15,757 responses were first apparatus arrivals on the scene of a distinct incident. This translates to an average of 328.27 per month or 10.76 incidents per day. On average each incident logged an average of 2.13 apparatus responses.

Breakdown by Nature of Call and City

Below is a list of San Luis Obispo "Nature of Call" counts for the 48-month period. These counts are based on first apparatus arrivals so they represent incidents as opposed to apparatus responses. Only call categories of 10 or more were included.

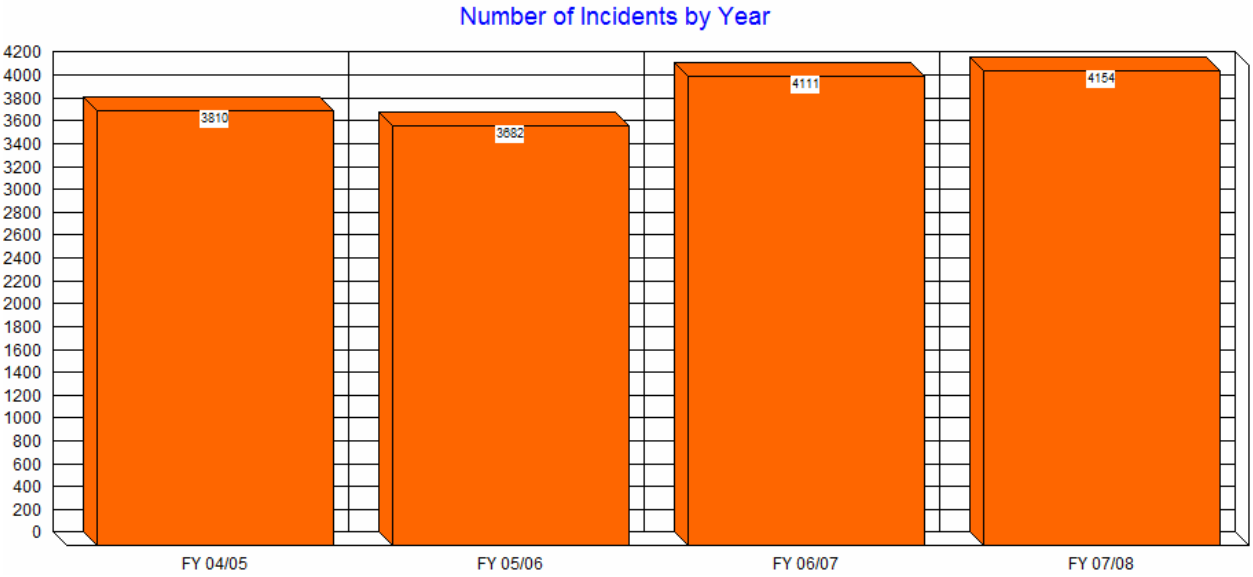
Nature of Call	Count
Medical	9,770
Alarm Fire	986
Public Assist	845
COLL MINOR INJ	844
Electrical Haz	209
Fire Ill Burn	173
Hazmat Small	151
Alarm WaterFlow	135
Fire Structure	131
Smoke Check Out	127
Fire Vehicle	111
Fire Sm Trash	106
Medical Non-Em	99
Fire Wildland	85
Smoke Check In	74
Fire Rpted Out	64
COLL FREEWAY	62
Gas Inside	58
COLL MAJOR INJ	57
Gas Outside	55
Fire Flames	39
Fire Flood	20

Nature of Call	Count
Fire Tamper	20
Fireworks	10

Here is a breakdown by city:

City	Count
San Luis Obispo	15,317
Cal Poly	288
SLO County	110
Atascadero	1
Morro Bay	1
Nipomo	1
Paso Robles	1

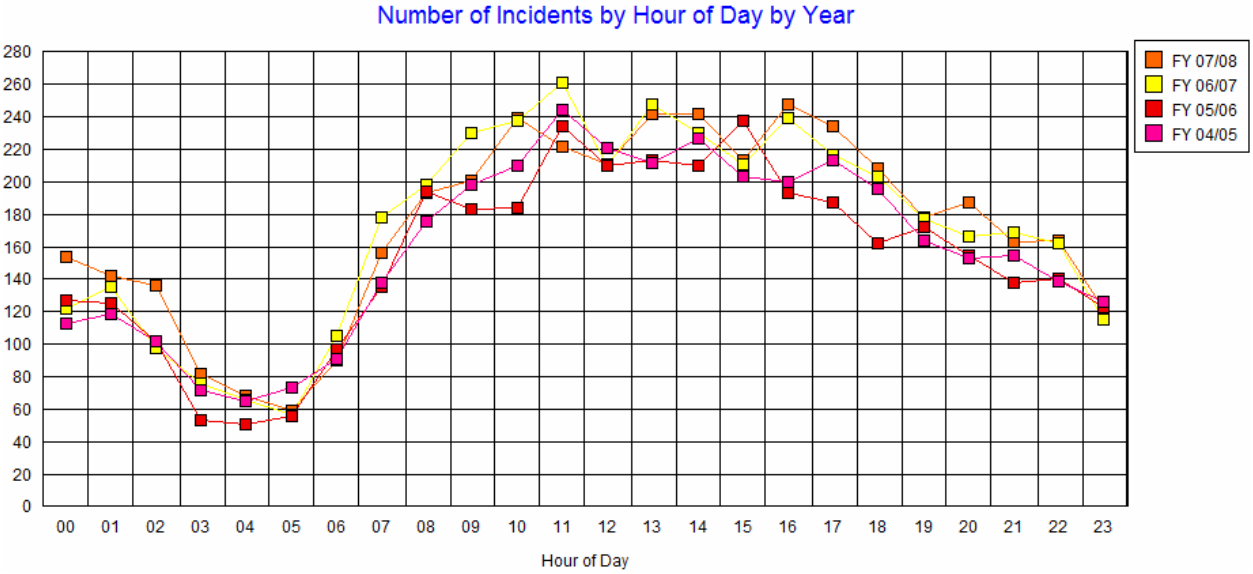
Here is a comparison of the number of incidents by calendar year. Notice a slight decrease from year one to year two with a jump from year two to year three.



Here is the numeric breakdown by year:

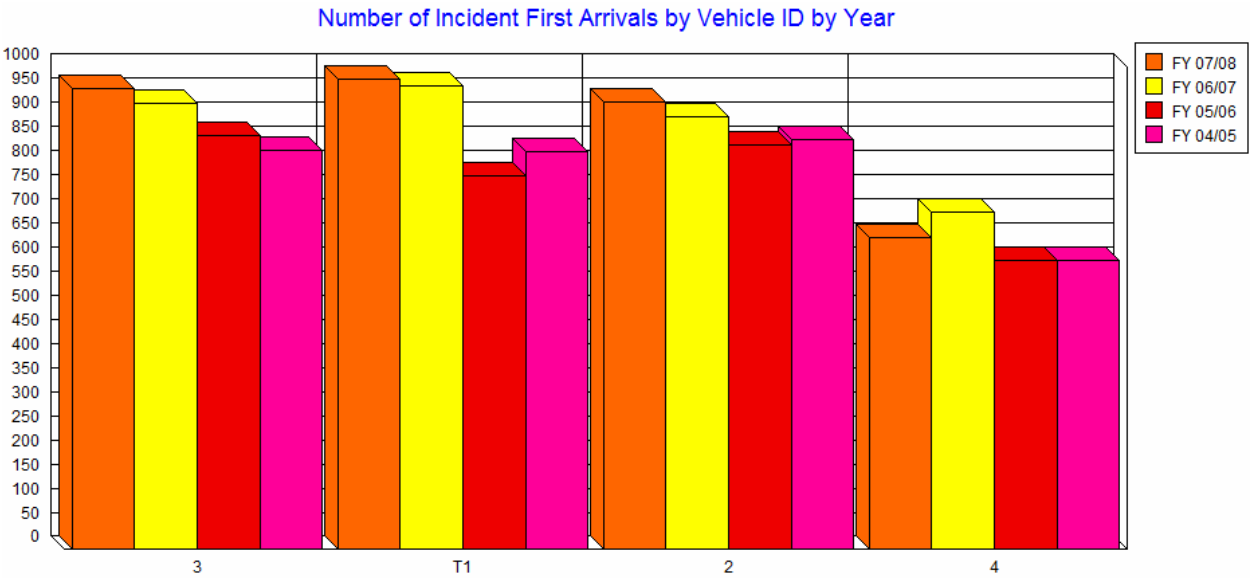
FY 04/05	3,810
FY 05/06	3,682
FY 06/07	4,111
FY 07/08	4,154

This graph compares incident activity by hour of day by year. Notice while incident activity closely tracks for each of the 4 years there was a slight increase in activity in FY 07/08 from 16:00 – 20:00 as well as from midnight through 03:00.



Demand by Vehicle ID

In general Engine 3 is seeing a steady increase in activity. T1 saw an increase in activity in the last two years. Engine 4 had a slight bump in activity in FY 06/07.



Because this study relies on CAD data no dollar loss data was available for analysis.

Overall Response Time

Response time can accurately be described using fractile breakdowns. Fractile breakdowns count the percentage (and number) of incidents meeting defined criteria, such as the first apparatus to reach the scene, within progressive time segments.

Here are the fractile breakdowns for San Luis Obispo incidents for the 48-month study period. To focus these calculations only apparatus dispatched to Code-3 (emergency) call types were analyzed out of the full data set. Also only apparatus arriving first on the scene were included in this calculation. Other apparatus responses and those exceeding a 20-minute response time were also eliminated. This Code 3 designation was selected from all "Medicals" using data provided by CAD. Non-medical Code 3 responses in CAD data were selected by the Nature of Call types including:

Alarm Fire
Electrical Haz
Alarm Water Flow
Fire Structure
Fire Vehicle
Fire Sm Trash
Fire Wildland
Smoke Check In
COLL FREEWAY
Gas Inside
COLL MAJOR INJ
Gas Outside
Fire Flames.

Here is how the new dataset was built.

CAD data identified 33,679 responses of apparatus over a 48-month period.

Out of this number 18,462 were responses by primary apparatus.

Out of this number 13,188 were responses of primary apparatus arriving on the scene first.

If those first arrivals are reduced to only Code 3 incidents of the medical and non-medical types listed above, the number of responses drops to 9,868.

If only Code 3 responses on or after 7/1/2006, which is after the mobile data system conversion was solidified, the number drops to 5,504.

In the sections below at key measurement points, the fractile performance measure from the full data set of 13,188 records (includes non-emergency and mobile data conversion period) will be listed in yellow highlight for comparative purposes.

All San Luis Obispo Principal Apparatus - Fire and EMS Incidents Only

Here is a fractile breakdown for San Luis Obispo Code 3 responses. Responses exceeding a 20-minute response time were also eliminated.

There are **5,395** Apparatus records being analyzed. *There were 10,282 records in the full records sort.*

4 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 .0% (2)
1st Apparatus On Scene <= 00:00:30 .1% (3)
1st Apparatus On Scene <= 00:00:45 .1% (3)
1st Apparatus On Scene <= 00:01:00 .1% (6)
1st Apparatus On Scene <= 00:01:15 .1% (8)
1st Apparatus On Scene <= 00:01:30 .3% (15)
1st Apparatus On Scene <= 00:01:45 .5% (27)
1st Apparatus On Scene <= 00:02:00 1.0% (54)
1st Apparatus On Scene <= 00:02:15 1.5% (82)
1st Apparatus On Scene <= 00:02:30 2.3% (123)
1st Apparatus On Scene <= 00:02:45 3.1% (168)
1st Apparatus On Scene <= 00:03:00 4.5% (244)
1st Apparatus On Scene <= 00:03:15 6.9% (373)
1st Apparatus On Scene <= 00:03:30 9.4% (508)
1st Apparatus On Scene <= 00:03:45 12.5% (676)
1st Apparatus On Scene <= 00:04:00 15.8% (850)
1st Apparatus On Scene <= 00:04:15 20.4% (1,101)
1st Apparatus On Scene <= 00:04:30 24.6% (1,324)
1st Apparatus On Scene <= 00:04:45 29.2% (1,576)
1st Apparatus On Scene <= 00:05:00 34.3% (1,851)
1st Apparatus On Scene <= 00:05:15 39.5% (2,129)
1st Apparatus On Scene <= 00:05:30 44.6% (2,404)
1st Apparatus On Scene <= 00:05:45 49.8% (2,684)
1st Apparatus On Scene <= 00:**06:00 54.7%** (2,948) **Full set = 55.8%**
1st Apparatus On Scene <= 00:06:15 59.0% (3,181)
1st Apparatus On Scene <= 00:06:30 63.3% (3,415)
1st Apparatus On Scene <= 00:06:45 67.5% (3,640)
1st Apparatus On Scene <= 00:**07:00 71.6%** (3,861) **Full set = 71.9%**
1st Apparatus On Scene <= 00:07:15 75.2% (4,055)
1st Apparatus On Scene <= 00:07:30 78.1% (4,212)
1st Apparatus On Scene <= 00:07:45 81.2% (4,376)
1st Apparatus On Scene <= 00:08:00 83.2% (4,488)
1st Apparatus On Scene <= 00:08:15 85.2% (4,593)
1st Apparatus On Scene <= 00:08:30 87.3% (4,709)
1st Apparatus On Scene <= 00:08:45 88.9% (4,795)
1st Apparatus On Scene <= 00:**09:00 90.6%** (4,884) **Same as Full set**
1st Apparatus On Scene <= 00:09:15 91.6% (4,939)
1st Apparatus On Scene <= 00:09:30 92.6% (4,994)

1st Apparatus On Scene <= 00:09:45 93.3% (5,032)
1st Apparatus On Scene <= 00:10:00 94.0% (5,065)
1st Apparatus On Scene <= 00:10:15 94.5% (5,096)
1st Apparatus On Scene <= 00:10:30 94.8% (5,113)
1st Apparatus On Scene <= 00:10:45 95.4% (5,145)
1st Apparatus On Scene <= 00:11:00 95.9% (5,170)
1st Apparatus On Scene <= 00:11:15 96.3% (5,192)
1st Apparatus On Scene <= 00:11:30 96.7% (5,211)
1st Apparatus On Scene <= 00:11:45 97.0% (5,229)
1st Apparatus On Scene <= 00:12:00 97.2% (5,241)
1st Apparatus On Scene <= 00:12:15 97.4% (5,250)
1st Apparatus On Scene <= 00:12:30 97.7% (5,266)
1st Apparatus On Scene <= 00:12:45 97.8% (5,271)
1st Apparatus On Scene <= 00:13:00 98.0% (5,282)
1st Apparatus On Scene <= 00:13:15 98.1% (5,291)
1st Apparatus On Scene <= 00:13:30 98.3% (5,297)
1st Apparatus On Scene <= 00:13:45 98.4% (5,306)
1st Apparatus On Scene <= 00:14:00 98.5% (5,310)
1st Apparatus On Scene <= 00:14:15 98.7% (5,320)
1st Apparatus On Scene <= 00:14:30 98.8% (5,329)
1st Apparatus On Scene <= 00:14:45 98.9% (5,332)
1st Apparatus On Scene <= 00:15:00 99.0% (5,337)
1st Apparatus On Scene <= 00:15:15 99.1% (5,340)
1st Apparatus On Scene <= 00:15:30 99.1% (5,343)
1st Apparatus On Scene <= 00:15:45 99.1% (5,345)
1st Apparatus On Scene <= 00:16:00 99.2% (5,348)
1st Apparatus On Scene <= 00:16:15 99.3% (5,353)
1st Apparatus On Scene <= 00:16:30 99.4% (5,361)
1st Apparatus On Scene <= 00:16:45 99.5% (5,365)
1st Apparatus On Scene <= 00:17:00 99.5% (5,365)
1st Apparatus On Scene <= 00:17:15 99.6% (5,367)
1st Apparatus On Scene <= 00:17:30 99.6% (5,370)
1st Apparatus On Scene <= 00:17:45 99.6% (5,371)
1st Apparatus On Scene <= 00:18:00 99.7% (5,375)
1st Apparatus On Scene <= 00:18:15 99.7% (5,376)
1st Apparatus On Scene <= 00:18:30 99.8% (5,378)
1st Apparatus On Scene <= 00:18:45 99.8% (5,378)
1st Apparatus On Scene <= 00:19:00 99.8% (5,380)
1st Apparatus On Scene <= 00:19:15 99.8% (5,382)
1st Apparatus On Scene <= 00:19:30 99.9% (5,383)
1st Apparatus On Scene <= 00:19:45 99.9% (5,387)
1st Apparatus On Scene <= 00:20:00 100.0% (5,391)

Median 1st Apparatus On Scene 00:05:46 (5.77 minutes)
Average 1st Apparatus On Scene 00:06:08 (6.14 minutes)

Structure Fires Only

The following fractile breaks down responses to **structure fires** that occurred after 7/1/2006.

There are **33** Apparatus records being analyzed. *There were 73 records in the full data sort.*

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 .0% (0)
1st Apparatus On Scene <= 00:00:45 .0% (0)
1st Apparatus On Scene <= 00:01:00 .0% (0)
1st Apparatus On Scene <= 00:01:15 .0% (0)
1st Apparatus On Scene <= 00:01:30 .0% (0)
1st Apparatus On Scene <= 00:01:45 .0% (0)
1st Apparatus On Scene <= 00:02:00 .0% (0)
1st Apparatus On Scene <= 00:02:15 .0% (0)
1st Apparatus On Scene <= 00:02:30 .0% (0)
1st Apparatus On Scene <= 00:02:45 3.0% (1)
1st Apparatus On Scene <= 00:03:00 6.1% (2)
1st Apparatus On Scene <= 00:03:15 12.1% (4)
1st Apparatus On Scene <= 00:03:30 12.1% (4)
1st Apparatus On Scene <= 00:03:45 15.2% (5)
1st Apparatus On Scene <= 00:04:00 18.2% (6)
1st Apparatus On Scene <= 00:04:15 30.3% (10)
1st Apparatus On Scene <= 00:04:30 36.4% (12)
1st Apparatus On Scene <= 00:04:45 45.5% (15)
1st Apparatus On Scene <= 00:05:00 51.5% (17)
1st Apparatus On Scene <= 00:05:15 54.5% (18)
1st Apparatus On Scene <= 00:05:30 57.6% (19)
1st Apparatus On Scene <= 00:05:45 57.6% (19)
1st Apparatus On Scene <= 00:**06:00 69.7%** (23) **Full set = 69.9%**
1st Apparatus On Scene <= 00:06:15 69.7% (23)
1st Apparatus On Scene <= 00:06:30 72.7% (24)
1st Apparatus On Scene <= 00:06:45 75.8% (25)
1st Apparatus On Scene <= 00:**07:00 75.8%** (25) **Full set = 82.2%**
1st Apparatus On Scene <= 00:07:15 78.8% (26)
1st Apparatus On Scene <= 00:07:30 84.8% (28)
1st Apparatus On Scene <= 00:07:45 87.9% (29)
1st Apparatus On Scene <= 00:08:00 87.9% (29)
1st Apparatus On Scene <= 00:08:15 87.9% (29)
1st Apparatus On Scene <= 00:**08:30 90.9%** (30) **Full set = 90% @ 07:45**
1st Apparatus On Scene <= 00:08:45 90.9% (30)
1st Apparatus On Scene <= 00:09:00 97.0% (32)
1st Apparatus On Scene <= 00:09:15 97.0% (32)
1st Apparatus On Scene <= 00:09:30 97.0% (32)
1st Apparatus On Scene <= 00:09:45 97.0% (32)
1st Apparatus On Scene <= 00:10:00 97.0% (32)
1st Apparatus On Scene <= 00:10:15 97.0% (32)

1st Apparatus On Scene <= 00:10:30 97.0% (32)
1st Apparatus On Scene <= 00:10:45 97.0% (32)
1st Apparatus On Scene <= 00:11:00 97.0% (32)
1st Apparatus On Scene <= 00:11:15 97.0% (32)
1st Apparatus On Scene <= 00:11:30 97.0% (32)
1st Apparatus On Scene <= 00:11:45 97.0% (32)
1st Apparatus On Scene <= 00:12:00 97.0% (32)
1st Apparatus On Scene <= 00:12:15 97.0% (32)
1st Apparatus On Scene <= 00:12:30 100.0% (33)

Median 1st Apparatus On Scene 00:04:49 (4.82 minutes)
Average 1st Apparatus On Scene 00:05:33 (5.55 minutes)

Call Processing Fractiles

Call processing time measures the time from the start of the CAD record until the time one or more apparatus are dispatched.

Incidents with a call processing time greater than 5 minutes were eliminated.

There are 5,350 Apparatus records being analyzed. *There were 10,282 records in the full records sort.*

10 records were ignored because of a zero time value.

Call Processing <= 00:00:00 .0% (0)
Call Processing <= 00:00:15 .3% (14)
Call Processing <= 00:00:30 2.3% (123)
Call Processing <= 00:00:45 10.6% (565)
Call Processing <= 00:**01:00 25.7%** (1,372) **Full set = 24.1%**
Call Processing <= 00:01:15 43.4% (2,317)
Call Processing <= 00:01:30 60.1% (3,209)
Call Processing <= 00:01:45 71.2% (3,800)
Call Processing <= 00:02:00 79.5% (4,247)
Call Processing <= 00:02:15 85.8% (4,581)
Call Processing <= 00:**02:30 90.5%** (4,832) **Full set was the same**
Call Processing <= 00:02:45 93.1% (4,970)
Call Processing <= 00:03:00 95.0% (5,075)
Call Processing <= 00:03:15 96.3% (5,141)
Call Processing <= 00:03:30 97.2% (5,191)
Call Processing <= 00:03:45 98.1% (5,241)
Call Processing <= 00:04:00 98.8% (5,274)
Call Processing <= 00:04:15 99.2% (5,299)
Call Processing <= 00:04:30 99.6% (5,320)
Call Processing <= 00:04:45 99.8% (5,329)
Call Processing <= 00:05:00 100.0% (5,340)

Median Call Processing 00:01:21 (1.35 minutes)
Average Call Processing 00:01:31 (1.51 minutes)

Turnout Fractiles

Turnout time measures the time from the fire crew receiving dispatch notification until they begin traveling to the scene of the emergency.

Incidents with a turnout time greater than 5 minutes were eliminated.

There are 5,331 Apparatus records being analyzed. *There were 10,282 records in the full data set sort.*

9 records were ignored because of a zero time value.

Call Processing <= 00:00:00 .0% (0)
Call Processing <= 00:00:15 .3% (14)
Call Processing <= 00:00:30 2.3% (123)
Call Processing <= 00:00:45 10.5% (561)
Call Processing <= 00:01:00 25.6% (1,364)
Call Processing <= 00:01:15 43.2% (2,300)
Call Processing <= 00:01:30 59.8% (3,181)
Call Processing <= 00:01:45 70.8% (3,767)
Call Processing <= 00:**02:00 79.0%** (4,205) **Full set = 73.2%**
Call Processing <= 00:02:15 85.2% (4,536)
Call Processing <= 00:**02:30 89.9%** (4,784) **Full set = 90% @ 02:45**
Call Processing <= 00:02:45 92.5% (4,921)
Call Processing <= 00:03:00 94.4% (5,025)
Call Processing <= 00:03:15 95.6% (5,087)
Call Processing <= 00:03:30 96.4% (5,132)
Call Processing <= 00:03:45 97.4% (5,182)
Call Processing <= 00:04:00 98.0% (5,213)
Call Processing <= 00:04:15 98.4% (5,238)
Call Processing <= 00:04:30 98.8% (5,259)
Call Processing <= 00:04:45 99.0% (5,268)
Call Processing <= 00:05:00 99.2% (5,279)

Median Call Processing 00:01:22 (1.37 minutes)
Average Call Processing 00:01:33 (1.55 minutes)

Travel Time Fractiles

Travel time measures the time it takes a company to travel to the scene of a fire or EMS incident. This measure begins at wheels turning and ends when the apparatus arrives on the scene.

Incidents with a travel time greater than 20 minutes were eliminated.

There are 5,394 Apparatus records being analyzed. *There were 10,282 records in the full data set sort.*

132 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 4.2% (223)
Travel <= 00:00:30 5.8% (306)

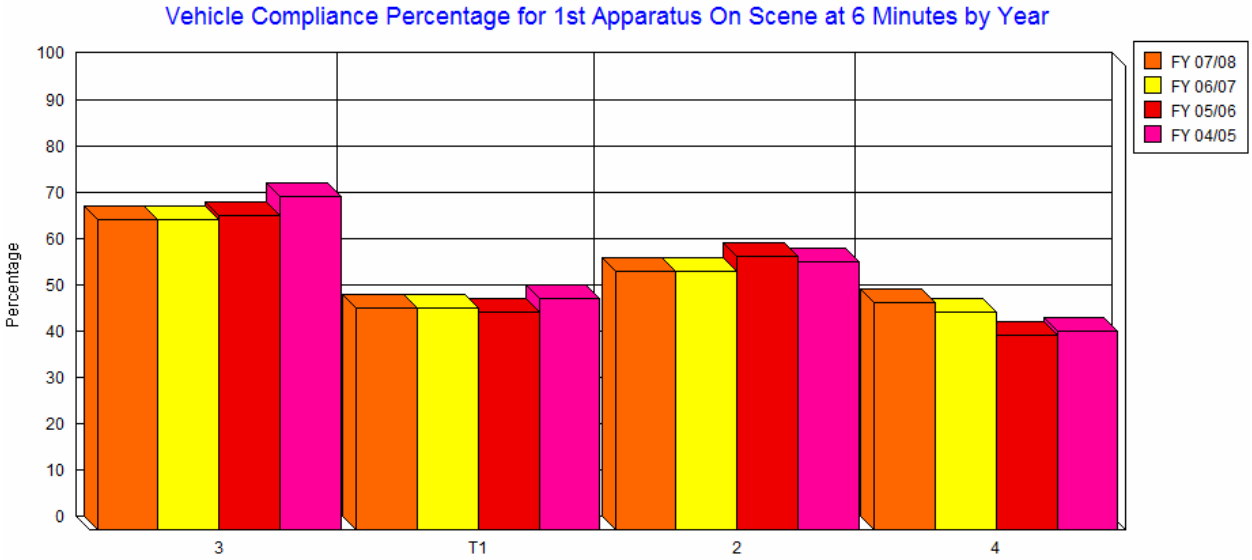
Travel <= 00:00:45 8.0% (419)
Travel <= 00:01:00 11.0% (578)
Travel <= 00:01:15 15.6% (820)
Travel <= 00:01:30 20.5% (1,077)
Travel <= 00:01:45 26.2% (1,377)
Travel <= 00:02:00 32.1% (1,689)
Travel <= 00:02:15 38.4% (2,023)
Travel <= 00:02:30 45.2% (2,376)
Travel <= 00:02:45 51.3% (2,700)
Travel <= 00:03:00 57.4% (3,018)
Travel <= 00:03:15 62.9% (3,308)
Travel <= 00:03:30 67.9% (3,572)
Travel <= 00:03:45 72.7% (3,825)
Travel <= 00:**04:00 76.7%** (4,037) **Full set = 76.4%**
Travel <= 00:04:15 80.4% (4,233)
Travel <= 00:04:30 83.5% (4,394)
Travel <= 00:04:45 86.4% (4,544)
Travel <= 00:05:00 88.6% (4,662)
Travel <= 00:**05:15 90.3%** (4,753) **Full set = 90.2%**
Travel <= 00:05:30 91.9% (4,834)
Travel <= 00:05:45 93.1% (4,899)
Travel <= 00:06:00 94.1% (4,951)
Travel <= 00:06:15 94.8% (4,988)
Travel <= 00:06:30 95.5% (5,026)
Travel <= 00:06:45 95.9% (5,046)
Travel <= 00:07:00 96.4% (5,070)
Travel <= 00:07:15 96.7% (5,088)
Travel <= 00:07:30 97.0% (5,104)
Travel <= 00:07:45 97.2% (5,116)
Travel <= 00:08:00 97.5% (5,131)
Travel <= 00:08:15 97.7% (5,140)
Travel <= 00:08:30 97.8% (5,145)
Travel <= 00:08:45 98.0% (5,158)
Travel <= 00:09:00 98.2% (5,167)
Travel <= 00:09:15 98.3% (5,174)
Travel <= 00:09:30 98.3% (5,175)
Travel <= 00:09:45 98.5% (5,184)
Travel <= 00:10:00 98.7% (5,194)
Travel <= 00:10:15 98.8% (5,197)
Travel <= 00:10:30 98.9% (5,204)
Travel <= 00:10:45 99.0% (5,207)
Travel <= 00:11:00 99.1% (5,213)
Travel <= 00:11:15 99.1% (5,213)
Travel <= 00:11:30 99.2% (5,221)
Travel <= 00:11:45 99.2% (5,222)
Travel <= 00:12:00 99.3% (5,224)

Travel <= 00:12:15 99.4% (5,228)
Travel <= 00:12:30 99.4% (5,230)
Travel <= 00:12:45 99.5% (5,234)
Travel <= 00:13:00 99.6% (5,240)
Travel <= 00:13:15 99.6% (5,242)
Travel <= 00:13:30 99.6% (5,242)
Travel <= 00:13:45 99.7% (5,245)
Travel <= 00:14:00 99.7% (5,246)
Travel <= 00:14:15 99.7% (5,248)
Travel <= 00:14:30 99.8% (5,250)
Travel <= 00:14:45 99.8% (5,252)
Travel <= 00:15:00 99.8% (5,253)
Travel <= 00:15:15 99.8% (5,253)
Travel <= 00:15:30 99.8% (5,253)
Travel <= 00:15:45 99.9% (5,255)
Travel <= 00:16:00 99.9% (5,257)
Travel <= 00:16:15 99.9% (5,259)
Travel <= 00:16:30 99.9% (5,259)
Travel <= 00:16:45 100.0% (5,260)

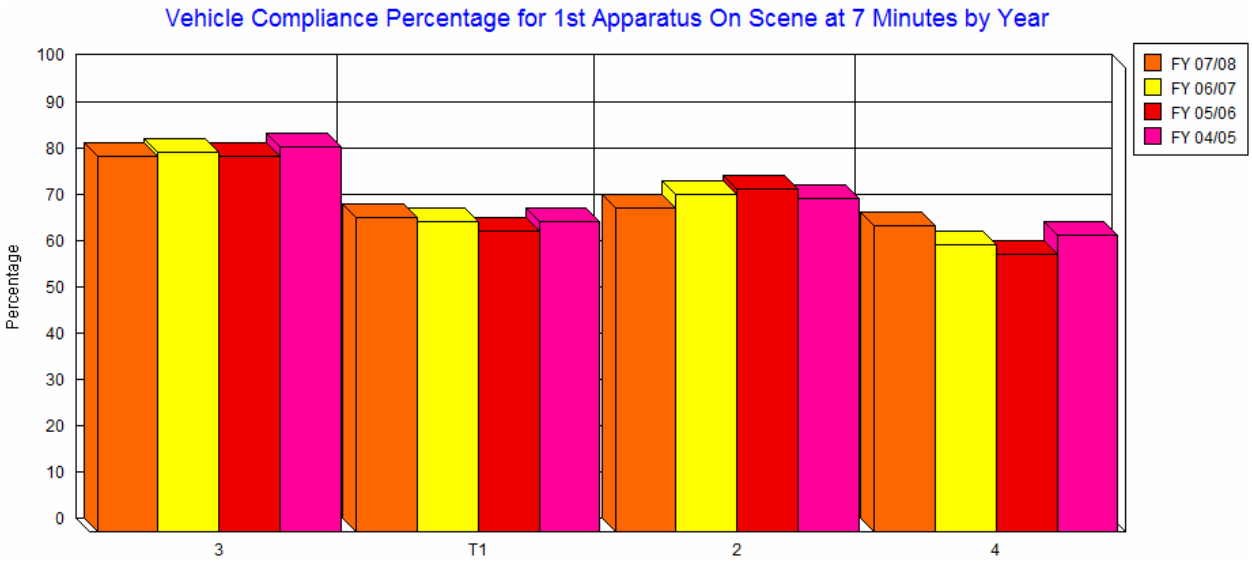
Median Travel 00:02:43 (2.72 minutes)
Average Travel 00:03:01 (3 minutes)

Response time trends are explored in the next few graphs. The first graph illustrates compliance with an NFPA 1710, 6-minute first apparatus on scene standard by primary vehicle by calendar year. This graph only includes station responses to fire and EMS incidents.

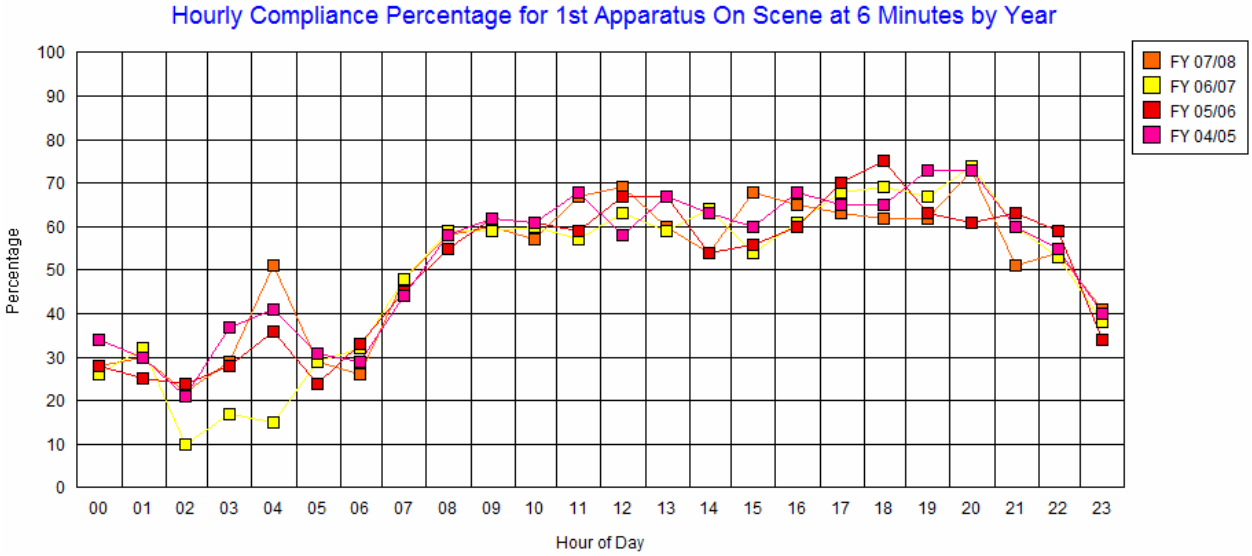
Notice performance is dropping marginally for Engine 3, Truck 1 and Engine 2. Engine 4 performance, while lower, improves slightly in recent years.



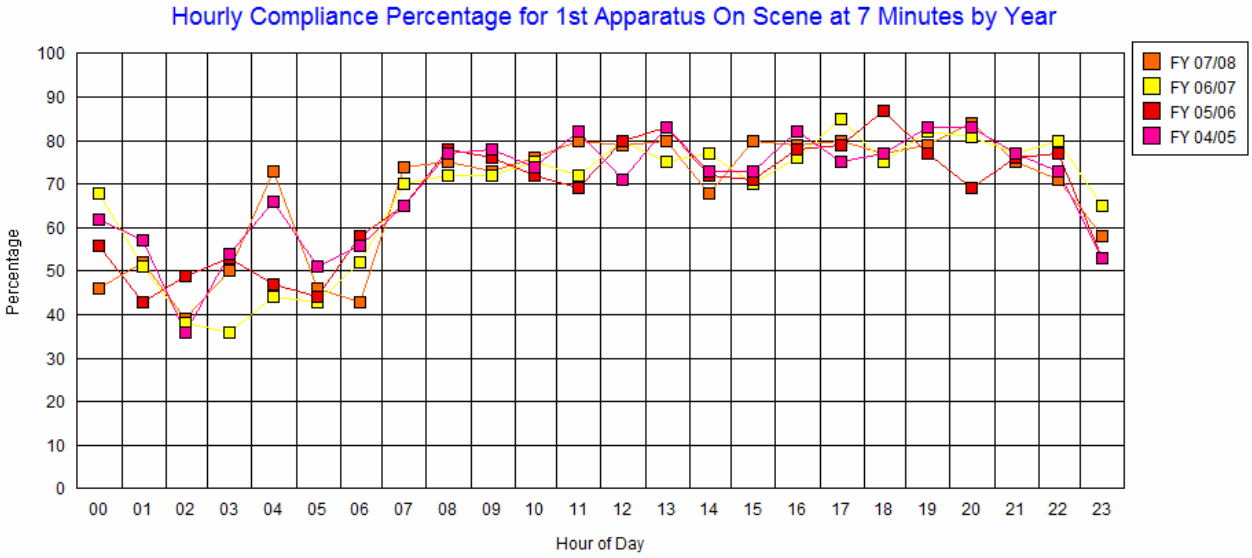
If 1-minute is added (for a more realistic 2-minute turnout time) the percentage of compliance rises substantially. Here are the compliance figures for a 7-minute first apparatus on scene standard.



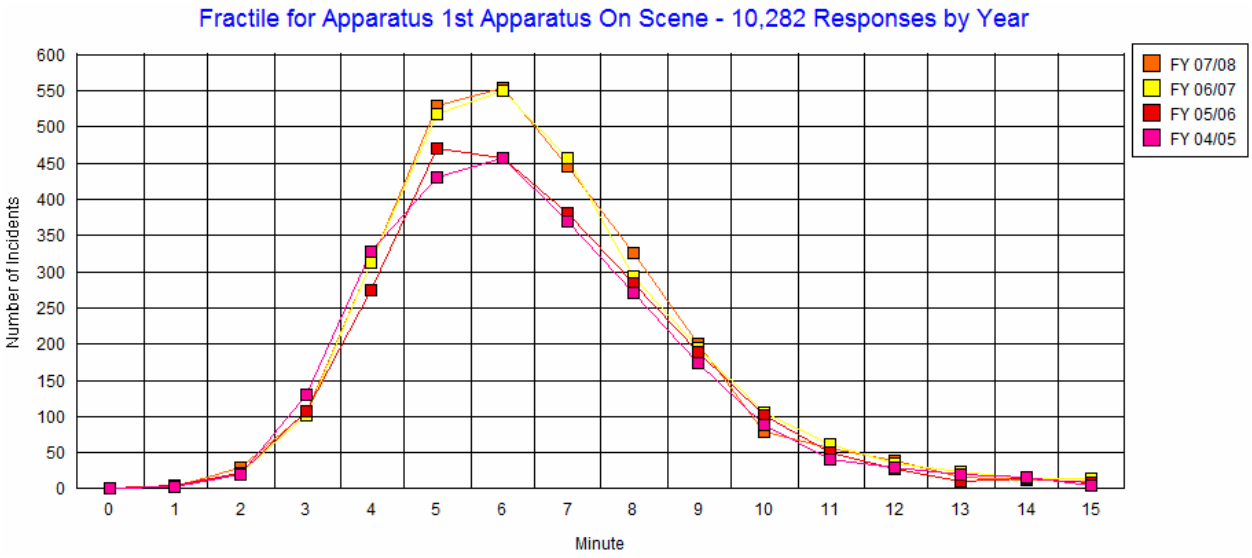
First apparatus on scene compliance is best from late morning to evening. It falls below 40 percent during early morning hours.



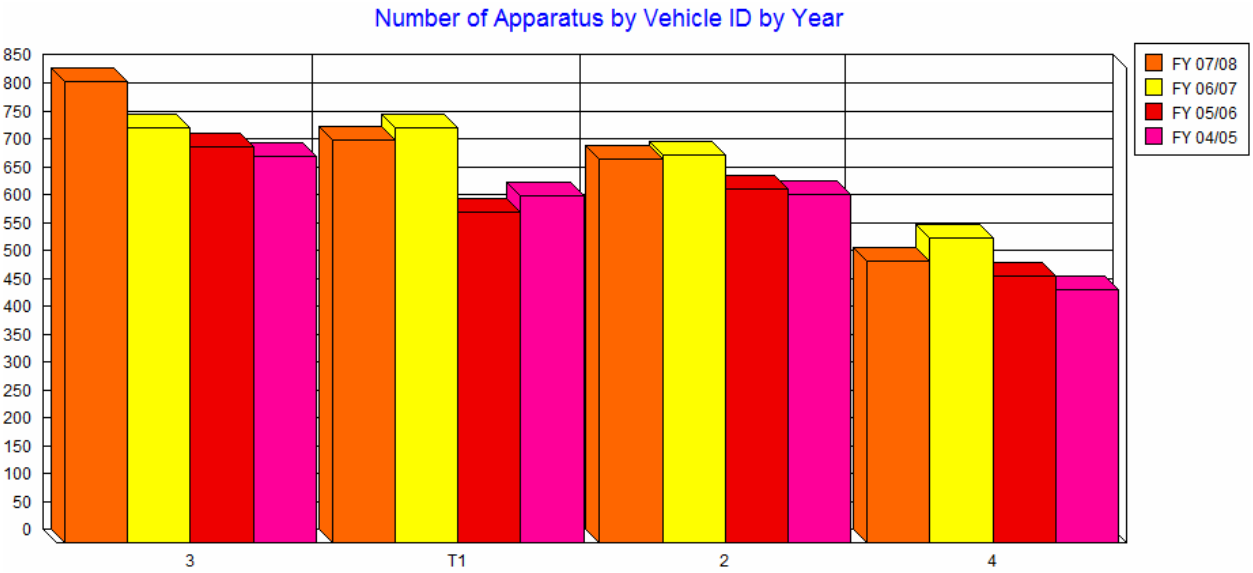
Compliance rises using a 7-minute first apparatus on scene standard. Notice during daytime several hours meet an 80 percent compliance standard.



The graph below illustrates the number of incidents by response time minute by year. This pattern is fairly consistent in each year. Notice the increase in incidents in FY 07/08 appears to be in incidents with longer 5 and 7-minute first apparatus on scene times.

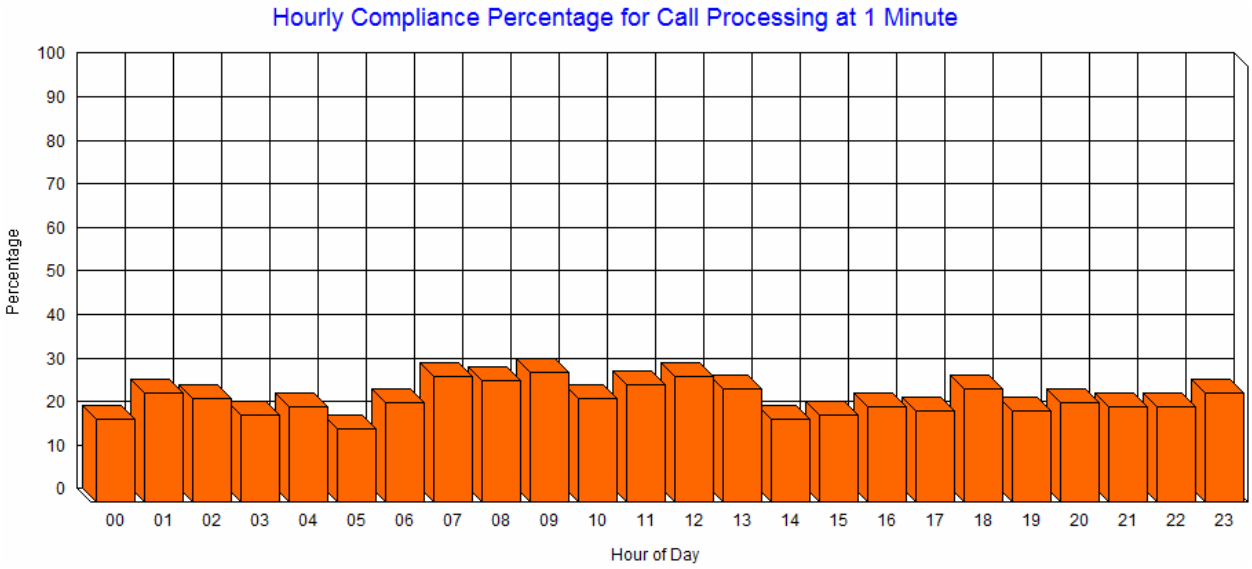


The following graph illustrates the number first arrivals (incidents) by primary apparatus by year.

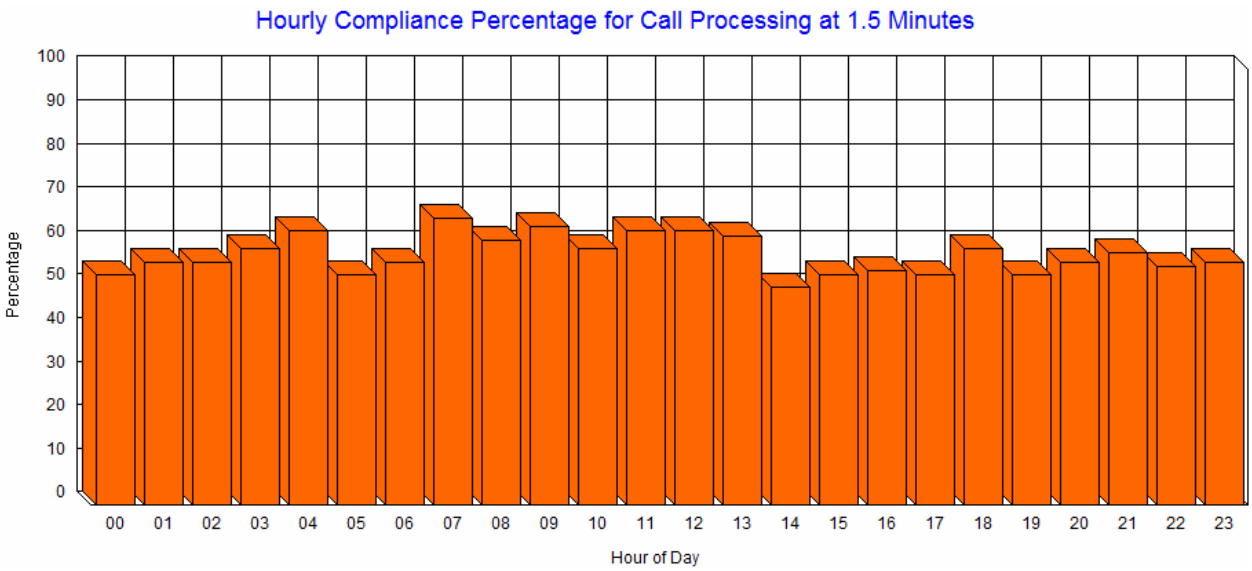


Call Processing Fractiles

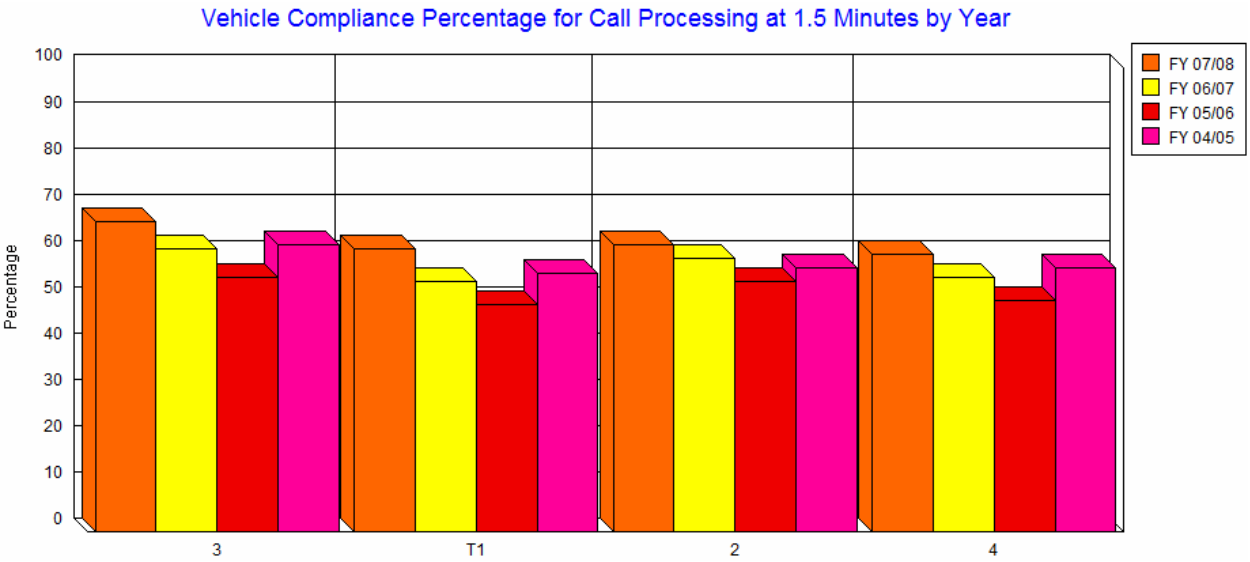
To test whether workload is a problem in call processing, compliance was broken down into hourly segments. Although CAD activity ebbs and flows by hour of day, compliance at 1-minute remains relatively consistent.



We see the same results at 1.5 minutes.



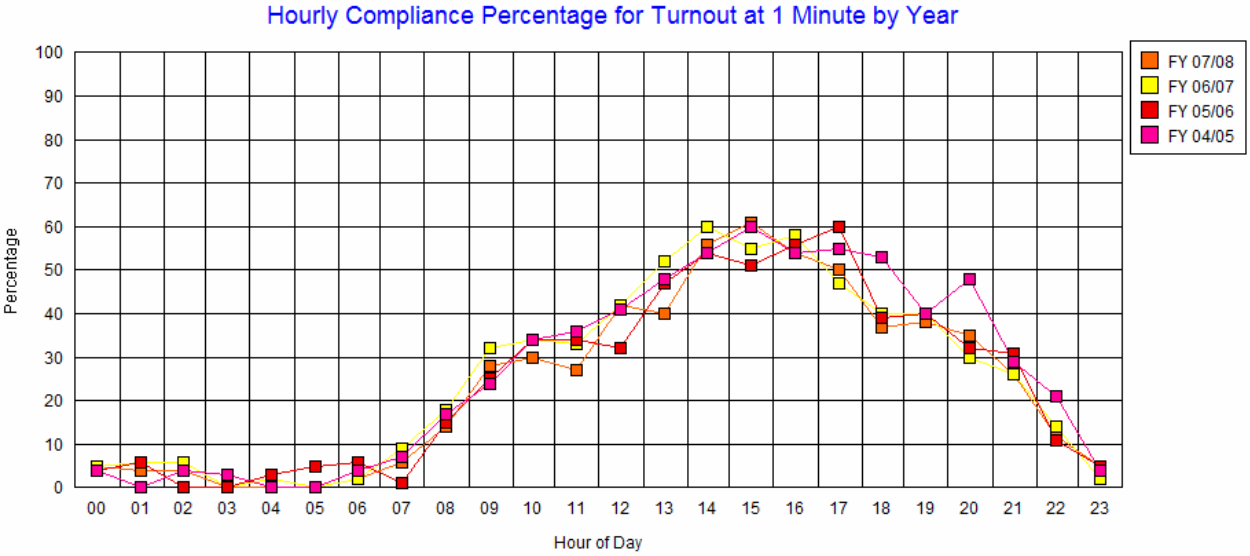
Another factor that could be affecting CAD performance is the complexity or rural nature of the road network in different geographic areas. To test if this is a factor in call processing performance, compliance was broken down by first arriving apparatus by year.



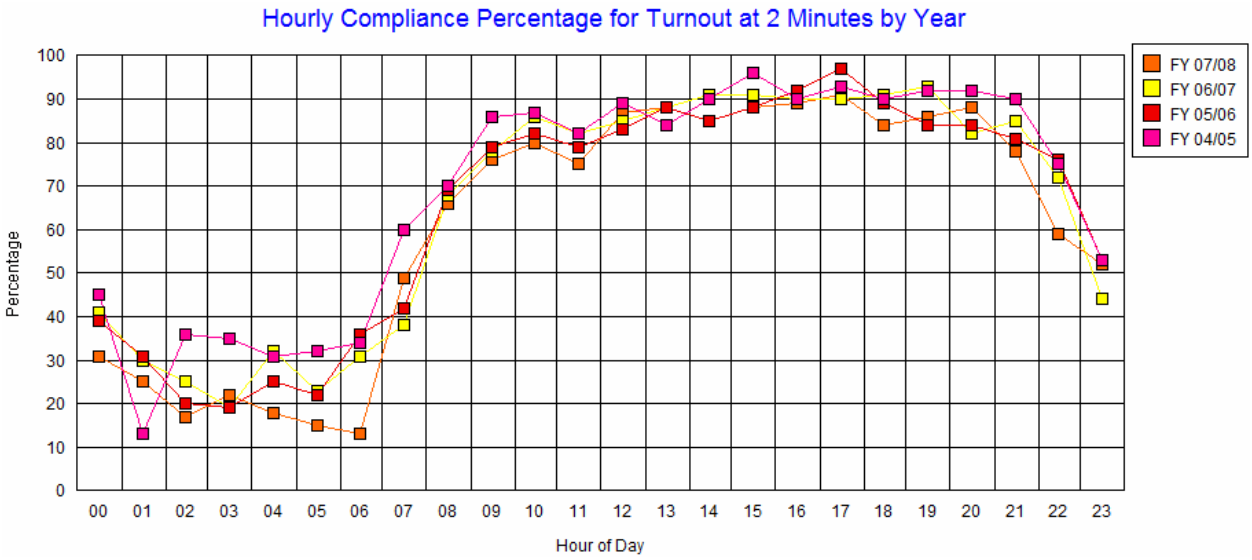
Here we see changes in geography have little effect on call processing performance. However, we do see a trend for improved performance in recent fiscal years.

Turnout Fractiles

Here is a comparison of turnout times by primary apparatus. First using a 1-minute standard then using a 2-minute turnout time standard. Very few responses meet a 1-minute standard prior to 08:00.

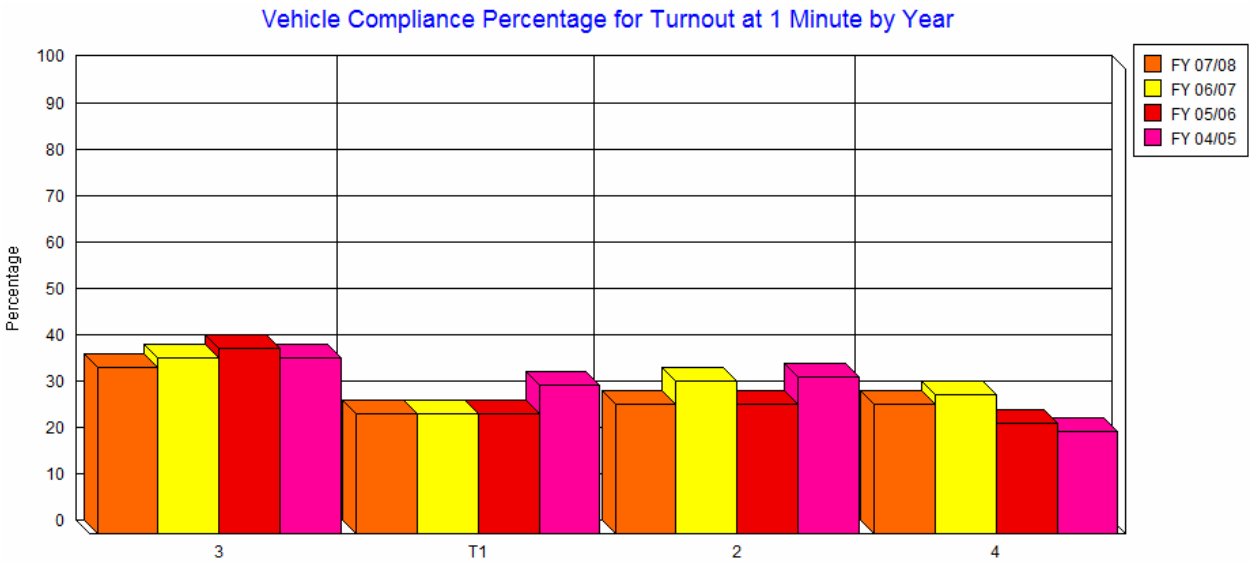


The next graph illustrates compliance with a 2-minute standard. Notice turnout time compliance between 03:00 and 06:00 dropped markedly in the most recent fiscal year.

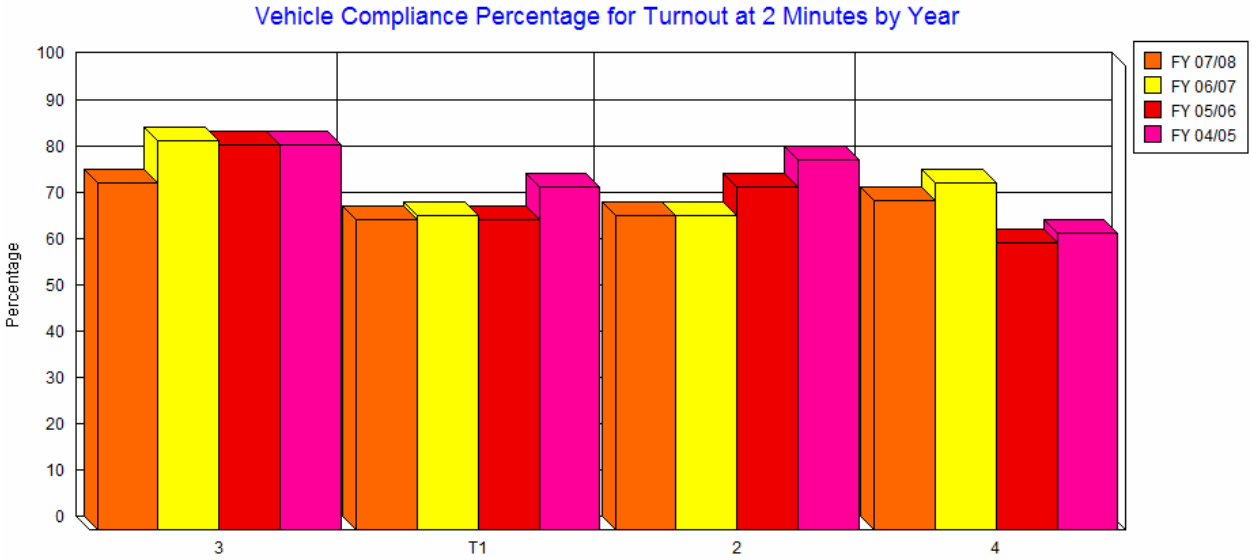


Here is compliance for the same record set broken-down by primary apparatus by year.

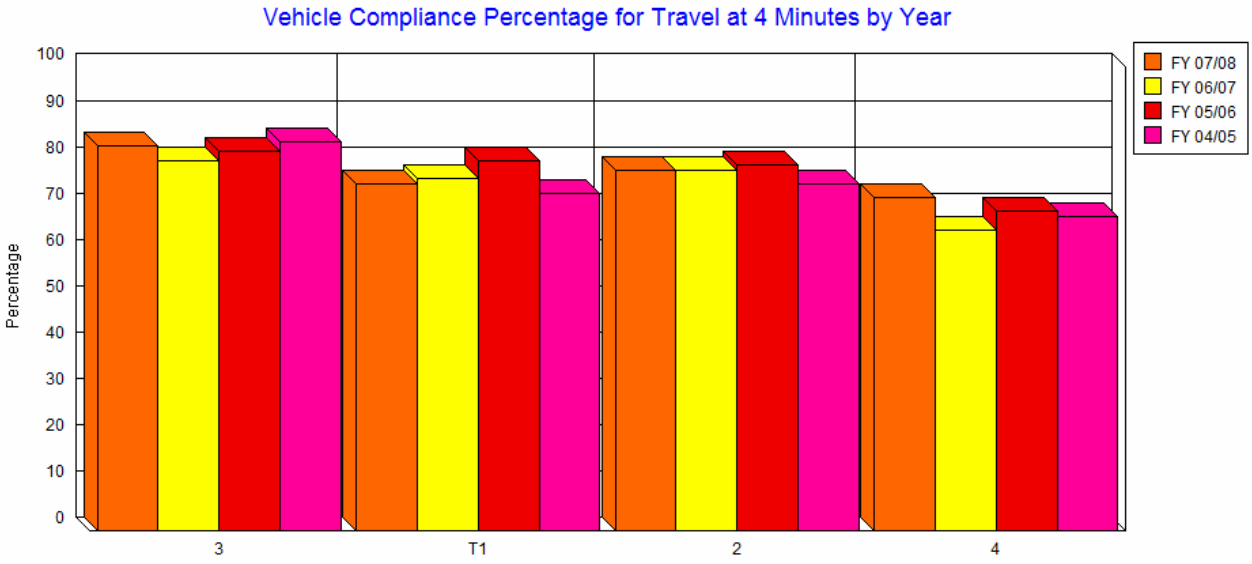
First, 1-minute turnout time compliance never breaks 40 percent.



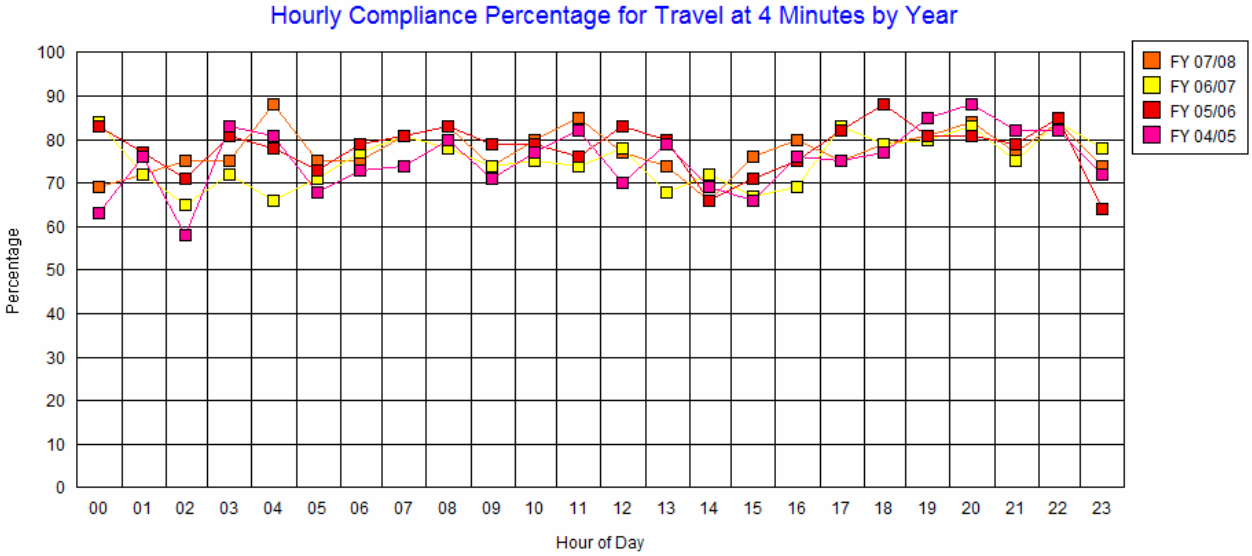
The next graph illustrates 2-minute turnout time compliance by year.



Travel Time Fractiles



Here is the breakdown of Travel Time compliance by hour of day by year. Notice compliance averages a fairly flat 80 percent during the day.



Primary Company Statistical Summary

This section provides a statistical comparison of each primary company.

Overall Summary – 3 Years of Data

Station	Incidents	90% RT	% at 6:00	% at 7:00	90% Travel
T1	2,682	9:15	48.4%	67.0%	5:15
E2	2,642	9:00	57.1%	72.2%	5:15
E3	2,975	8:00	68.3%	81.9%	4:45
E4	1,983	9:30	45.2%	63.0%	5:45

The following response time performance measures by station area are from the full data set that included non-emergency (Code-2) responses.

T1 1st Apparatus on Scene

There are 2,682 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 .0% (1)
1st Apparatus On Scene <= 00:00:45 .1% (2)
1st Apparatus On Scene <= 00:01:00 .1% (3)
1st Apparatus On Scene <= 00:01:15 .2% (5)
1st Apparatus On Scene <= 00:01:30 .4% (10)
1st Apparatus On Scene <= 00:01:45 .6% (15)

1st Apparatus On Scene <= 00:02:00 .9% (24)
1st Apparatus On Scene <= 00:02:15 1.1% (30)
1st Apparatus On Scene <= 00:02:30 1.8% (48)
1st Apparatus On Scene <= 00:02:45 2.5% (67)
1st Apparatus On Scene <= 00:03:00 3.1% (84)
1st Apparatus On Scene <= 00:03:15 4.3% (115)
1st Apparatus On Scene <= 00:03:30 5.8% (156)
1st Apparatus On Scene <= 00:03:45 7.9% (211)
1st Apparatus On Scene <= 00:04:00 10.3% (276)
1st Apparatus On Scene <= 00:04:15 13.8% (369)
1st Apparatus On Scene <= 00:04:30 17.6% (471)
1st Apparatus On Scene <= 00:04:45 21.4% (575)
1st Apparatus On Scene <= 00:05:00 26.4% (709)
1st Apparatus On Scene <= 00:05:15 32.3% (865)
1st Apparatus On Scene <= 00:05:30 37.5% (1,005)
1st Apparatus On Scene <= 00:05:45 43.0% (1,154)
1st Apparatus On Scene <= 00:06:00 48.4% (1,299)
1st Apparatus On Scene <= 00:06:15 52.9% (1,418)
1st Apparatus On Scene <= 00:06:30 57.8% (1,550)
1st Apparatus On Scene <= 00:06:45 62.6% (1,678)
1st Apparatus On Scene <= 00:07:00 67.0% (1,796)
1st Apparatus On Scene <= 00:07:15 70.7% (1,895)
1st Apparatus On Scene <= 00:07:30 73.9% (1,982)
1st Apparatus On Scene <= 00:07:45 77.6% (2,082)
1st Apparatus On Scene <= 00:08:00 80.5% (2,158)
1st Apparatus On Scene <= 00:08:15 82.9% (2,224)
1st Apparatus On Scene <= 00:08:30 85.3% (2,287)
1st Apparatus On Scene <= 00:08:45 87.4% (2,344)
1st Apparatus On Scene <= 00:09:00 89.0% (2,387)
1st Apparatus On Scene <= 00:09:15 90.4% (2,425)
1st Apparatus On Scene <= 00:09:30 91.5% (2,455)
1st Apparatus On Scene <= 00:09:45 92.7% (2,487)
1st Apparatus On Scene <= 00:10:00 93.6% (2,510)
1st Apparatus On Scene <= 00:10:15 94.4% (2,533)
1st Apparatus On Scene <= 00:10:30 94.8% (2,543)
1st Apparatus On Scene <= 00:10:45 95.4% (2,558)
1st Apparatus On Scene <= 00:11:00 95.8% (2,570)
1st Apparatus On Scene <= 00:11:15 96.2% (2,580)
1st Apparatus On Scene <= 00:11:30 96.5% (2,587)
1st Apparatus On Scene <= 00:11:45 96.8% (2,596)
1st Apparatus On Scene <= 00:12:00 97.2% (2,606)
1st Apparatus On Scene <= 00:12:15 97.3% (2,609)
1st Apparatus On Scene <= 00:12:30 97.5% (2,614)
1st Apparatus On Scene <= 00:12:45 97.6% (2,617)
1st Apparatus On Scene <= 00:13:00 97.8% (2,624)
1st Apparatus On Scene <= 00:13:15 98.0% (2,629)

1st Apparatus On Scene <= 00:13:30 98.1% (2,631)
1st Apparatus On Scene <= 00:13:45 98.4% (2,638)
1st Apparatus On Scene <= 00:14:00 98.4% (2,639)
1st Apparatus On Scene <= 00:14:15 98.5% (2,642)
1st Apparatus On Scene <= 00:14:30 98.7% (2,646)
1st Apparatus On Scene <= 00:14:45 98.8% (2,651)
1st Apparatus On Scene <= 00:15:00 98.9% (2,652)
1st Apparatus On Scene <= 00:15:15 99.0% (2,654)
1st Apparatus On Scene <= 00:15:30 99.0% (2,655)
1st Apparatus On Scene <= 00:15:45 99.1% (2,657)
1st Apparatus On Scene <= 00:16:00 99.1% (2,658)
1st Apparatus On Scene <= 00:16:15 99.2% (2,660)
1st Apparatus On Scene <= 00:16:30 99.2% (2,661)
1st Apparatus On Scene <= 00:16:45 99.3% (2,662)
1st Apparatus On Scene <= 00:17:00 99.3% (2,663)
1st Apparatus On Scene <= 00:17:15 99.3% (2,664)
1st Apparatus On Scene <= 00:17:30 99.4% (2,667)
1st Apparatus On Scene <= 00:17:45 99.6% (2,671)
1st Apparatus On Scene <= 00:18:00 99.7% (2,673)
1st Apparatus On Scene <= 00:18:15 99.7% (2,673)
1st Apparatus On Scene <= 00:18:30 99.7% (2,674)
1st Apparatus On Scene <= 00:18:45 99.7% (2,674)
1st Apparatus On Scene <= 00:19:00 99.8% (2,677)
1st Apparatus On Scene <= 00:19:15 99.9% (2,679)
1st Apparatus On Scene <= 00:19:30 99.9% (2,680)
1st Apparatus On Scene <= 00:19:45 99.9% (2,680)
1st Apparatus On Scene <= 00:20:00 100.0% (2,682)

Median 1st Apparatus On Scene 00:06:05 (6.08 minutes)
Average 1st Apparatus On Scene 00:06:28 (6.45 minutes)

T1 Travel Time

There are 2,682 Apparatus records being analyzed.

104 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 3.3% (85)
Travel <= 00:00:30 4.2% (109)
Travel <= 00:00:45 5.6% (145)
Travel <= 00:01:00 7.1% (184)
Travel <= 00:01:15 9.4% (243)
Travel <= 00:01:30 12.5% (322)
Travel <= 00:01:45 16.0% (413)
Travel <= 00:02:00 21.4% (551)
Travel <= 00:02:15 28.0% (722)
Travel <= 00:02:30 35.6% (917)

Travel <= 00:02:45 43.1% (1,111)
Travel <= 00:03:00 50.3% (1,296)
Travel <= 00:03:15 57.9% (1,493)
Travel <= 00:03:30 64.9% (1,672)
Travel <= 00:03:45 70.9% (1,828)
Travel <= 00:04:00 75.8% (1,954)
Travel <= 00:04:15 80.6% (2,078)
Travel <= 00:04:30 83.3% (2,148)
Travel <= 00:04:45 85.7% (2,210)
Travel <= 00:05:00 88.3% (2,276)
Travel <= 00:05:15 90.1% (2,324)
Travel <= 00:05:30 91.5% (2,360)
Travel <= 00:05:45 93.0% (2,398)
Travel <= 00:06:00 93.8% (2,418)
Travel <= 00:06:15 94.5% (2,437)
Travel <= 00:06:30 95.4% (2,460)
Travel <= 00:06:45 95.8% (2,471)
Travel <= 00:07:00 96.4% (2,484)
Travel <= 00:07:15 96.8% (2,495)
Travel <= 00:07:30 97.1% (2,502)
Travel <= 00:07:45 97.3% (2,509)
Travel <= 00:08:00 97.5% (2,513)
Travel <= 00:08:15 97.6% (2,516)
Travel <= 00:08:30 97.8% (2,520)
Travel <= 00:08:45 98.0% (2,526)
Travel <= 00:09:00 98.1% (2,529)
Travel <= 00:09:15 98.2% (2,531)
Travel <= 00:09:30 98.3% (2,533)
Travel <= 00:09:45 98.4% (2,537)
Travel <= 00:10:00 98.6% (2,543)
Travel <= 00:10:15 98.6% (2,543)
Travel <= 00:10:30 98.8% (2,546)
Travel <= 00:10:45 98.8% (2,547)
Travel <= 00:11:00 98.8% (2,547)
Travel <= 00:11:15 98.8% (2,547)
Travel <= 00:11:30 99.0% (2,553)
Travel <= 00:11:45 99.1% (2,554)
Travel <= 00:12:00 99.1% (2,555)
Travel <= 00:12:15 99.2% (2,558)
Travel <= 00:12:30 99.3% (2,559)
Travel <= 00:12:45 99.3% (2,560)
Travel <= 00:13:00 99.4% (2,562)
Travel <= 00:13:15 99.4% (2,562)
Travel <= 00:13:30 99.4% (2,562)
Travel <= 00:13:45 99.4% (2,563)
Travel <= 00:14:00 99.5% (2,564)

Travel <= 00:14:15 99.5% (2,565)
Travel <= 00:14:30 99.6% (2,567)
Travel <= 00:14:45 99.6% (2,568)
Travel <= 00:15:00 99.6% (2,568)

Median Travel 00:03:00 (3 minutes)
Average Travel 00:03:15 (3.25 minutes)

E2 1st Apparatus on Scene

There are 2,642 Apparatus records being analyzed.

1st Apparatus On Scene <= 00:00:00 .0% (0)
1st Apparatus On Scene <= 00:00:15 .0% (1)
1st Apparatus On Scene <= 00:00:30 .1% (2)
1st Apparatus On Scene <= 00:00:45 .1% (3)
1st Apparatus On Scene <= 00:01:00 .2% (5)
1st Apparatus On Scene <= 00:01:15 .3% (7)
1st Apparatus On Scene <= 00:01:30 .5% (14)
1st Apparatus On Scene <= 00:01:45 1.0% (26)
1st Apparatus On Scene <= 00:02:00 1.5% (39)
1st Apparatus On Scene <= 00:02:15 2.0% (53)
1st Apparatus On Scene <= 00:02:30 2.4% (63)
1st Apparatus On Scene <= 00:02:45 3.4% (90)
1st Apparatus On Scene <= 00:03:00 5.9% (157)
1st Apparatus On Scene <= 00:03:15 8.1% (214)
1st Apparatus On Scene <= 00:03:30 10.9% (287)
1st Apparatus On Scene <= 00:03:45 13.9% (366)
1st Apparatus On Scene <= 00:04:00 17.7% (468)
1st Apparatus On Scene <= 00:04:15 22.0% (581)
1st Apparatus On Scene <= 00:04:30 26.6% (703)
1st Apparatus On Scene <= 00:04:45 32.3% (854)
1st Apparatus On Scene <= 00:05:00 38.0% (1,004)
1st Apparatus On Scene <= 00:05:15 42.6% (1,125)
1st Apparatus On Scene <= 00:05:30 47.4% (1,252)
1st Apparatus On Scene <= 00:05:45 51.9% (1,371)
1st Apparatus On Scene <= 00:06:00 57.1% (1,508)
1st Apparatus On Scene <= 00:06:15 61.1% (1,614)
1st Apparatus On Scene <= 00:06:30 64.8% (1,711)
1st Apparatus On Scene <= 00:06:45 67.9% (1,795)
1st Apparatus On Scene <= 00:07:00 72.2% (1,908)
1st Apparatus On Scene <= 00:07:15 75.4% (1,993)
1st Apparatus On Scene <= 00:07:30 78.7% (2,078)
1st Apparatus On Scene <= 00:07:45 81.6% (2,157)
1st Apparatus On Scene <= 00:08:00 83.7% (2,212)
1st Apparatus On Scene <= 00:08:15 85.8% (2,267)
1st Apparatus On Scene <= 00:08:30 87.6% (2,315)
1st Apparatus On Scene <= 00:08:45 88.9% (2,350)

1st Apparatus On Scene <= 00:09:00 90.6% (2,394)
1st Apparatus On Scene <= 00:09:15 91.6% (2,421)
1st Apparatus On Scene <= 00:09:30 92.5% (2,445)
1st Apparatus On Scene <= 00:09:45 93.3% (2,464)
1st Apparatus On Scene <= 00:10:00 94.0% (2,484)
1st Apparatus On Scene <= 00:10:15 94.7% (2,503)
1st Apparatus On Scene <= 00:10:30 95.2% (2,515)
1st Apparatus On Scene <= 00:10:45 95.8% (2,530)
1st Apparatus On Scene <= 00:11:00 96.2% (2,541)
1st Apparatus On Scene <= 00:11:15 96.6% (2,553)
1st Apparatus On Scene <= 00:11:30 97.2% (2,569)
1st Apparatus On Scene <= 00:11:45 97.5% (2,576)
1st Apparatus On Scene <= 00:12:00 97.6% (2,579)
1st Apparatus On Scene <= 00:12:15 97.7% (2,582)
1st Apparatus On Scene <= 00:12:30 97.9% (2,587)
1st Apparatus On Scene <= 00:12:45 98.1% (2,592)
1st Apparatus On Scene <= 00:13:00 98.3% (2,596)
1st Apparatus On Scene <= 00:13:15 98.5% (2,602)
1st Apparatus On Scene <= 00:13:30 98.6% (2,606)
1st Apparatus On Scene <= 00:13:45 98.8% (2,610)
1st Apparatus On Scene <= 00:14:00 98.8% (2,611)
1st Apparatus On Scene <= 00:14:15 98.9% (2,614)
1st Apparatus On Scene <= 00:14:30 99.0% (2,615)
1st Apparatus On Scene <= 00:14:45 99.0% (2,615)
1st Apparatus On Scene <= 00:15:00 99.1% (2,617)
1st Apparatus On Scene <= 00:15:15 99.2% (2,620)
1st Apparatus On Scene <= 00:15:30 99.2% (2,621)
1st Apparatus On Scene <= 00:15:45 99.4% (2,625)
1st Apparatus On Scene <= 00:16:00 99.4% (2,626)
1st Apparatus On Scene <= 00:16:15 99.4% (2,627)
1st Apparatus On Scene <= 00:16:30 99.5% (2,630)
1st Apparatus On Scene <= 00:16:45 99.6% (2,631)
1st Apparatus On Scene <= 00:17:00 99.6% (2,631)
1st Apparatus On Scene <= 00:17:15 99.6% (2,632)
1st Apparatus On Scene <= 00:17:30 99.7% (2,633)
1st Apparatus On Scene <= 00:17:45 99.7% (2,633)
1st Apparatus On Scene <= 00:18:00 99.7% (2,635)
1st Apparatus On Scene <= 00:18:15 99.7% (2,635)
1st Apparatus On Scene <= 00:18:30 99.7% (2,635)
1st Apparatus On Scene <= 00:18:45 99.8% (2,636)
1st Apparatus On Scene <= 00:19:00 99.8% (2,636)
1st Apparatus On Scene <= 00:19:15 99.8% (2,636)
1st Apparatus On Scene <= 00:19:30 99.9% (2,639)
1st Apparatus On Scene <= 00:19:45 100.0% (2,642)
1st Apparatus On Scene <= 00:20:00 100.0% (2,642)

Median 1st Apparatus On Scene 00:05:38 (5.63 minutes)
Average 1st Apparatus On Scene 00:06:02 (6.02 minutes)

E2 Travel Time

There are 2,642 Apparatus records being analyzed.

72 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 4.2% (109)
Travel <= 00:00:30 5.6% (145)
Travel <= 00:00:45 7.4% (189)
Travel <= 00:01:00 11.2% (287)
Travel <= 00:01:15 16.7% (429)
Travel <= 00:01:30 23.0% (590)
Travel <= 00:01:45 29.4% (756)
Travel <= 00:02:00 37.5% (965)
Travel <= 00:02:15 43.3% (1,114)
Travel <= 00:02:30 49.9% (1,282)
Travel <= 00:02:45 55.6% (1,430)
Travel <= 00:03:00 61.4% (1,579)
Travel <= 00:03:15 65.6% (1,687)
Travel <= 00:03:30 69.7% (1,791)
Travel <= 00:03:45 74.0% (1,902)
Travel <= 00:04:00 77.4% (1,990)
Travel <= 00:04:15 80.9% (2,079)
Travel <= 00:04:30 83.3% (2,142)
Travel <= 00:04:45 85.8% (2,204)
Travel <= 00:05:00 88.2% (2,267)
Travel <= 00:05:15 89.8% (2,308)
Travel <= 00:05:30 91.0% (2,339)
Travel <= 00:05:45 92.5% (2,378)
Travel <= 00:06:00 93.5% (2,403)
Travel <= 00:06:15 94.4% (2,426)
Travel <= 00:06:30 95.0% (2,442)
Travel <= 00:06:45 95.7% (2,459)
Travel <= 00:07:00 96.3% (2,474)
Travel <= 00:07:15 96.8% (2,487)
Travel <= 00:07:30 97.1% (2,495)
Travel <= 00:07:45 97.4% (2,503)
Travel <= 00:08:00 97.8% (2,513)
Travel <= 00:08:15 98.2% (2,523)
Travel <= 00:08:30 98.2% (2,525)
Travel <= 00:08:45 98.4% (2,529)
Travel <= 00:09:00 98.6% (2,534)
Travel <= 00:09:15 98.7% (2,537)
Travel <= 00:09:30 98.8% (2,539)

Travel <= 00:09:45 98.9% (2,541)
Travel <= 00:10:00 98.9% (2,541)
Travel <= 00:10:15 98.9% (2,542)
Travel <= 00:10:30 99.0% (2,544)
Travel <= 00:10:45 99.0% (2,544)
Travel <= 00:11:00 99.1% (2,548)
Travel <= 00:11:15 99.2% (2,549)
Travel <= 00:11:30 99.3% (2,553)
Travel <= 00:11:45 99.3% (2,553)
Travel <= 00:12:00 99.4% (2,554)
Travel <= 00:12:15 99.4% (2,555)
Travel <= 00:12:30 99.5% (2,556)
Travel <= 00:12:45 99.5% (2,558)
Travel <= 00:13:00 99.6% (2,560)
Travel <= 00:13:15 99.6% (2,561)
Travel <= 00:13:30 99.7% (2,562)
Travel <= 00:13:45 99.8% (2,564)
Travel <= 00:14:00 99.8% (2,565)
Travel <= 00:14:15 99.8% (2,566)
Travel <= 00:14:30 99.9% (2,567)
Travel <= 00:14:45 99.9% (2,567)
Travel <= 00:15:00 99.9% (2,568)

Median Travel 00:02:31 (2.52 minutes)
Average Travel 00:02:57 (2.95 minutes)

E3 1st Apparatus on Scene

There are 2,975 Apparatus records being analyzed.

1st Apparatus On Scene <= 00:00:00 .0% (0)
1st Apparatus On Scene <= 00:00:15 .0% (1)
1st Apparatus On Scene <= 00:00:30 .1% (2)
1st Apparatus On Scene <= 00:00:45 .1% (3)
1st Apparatus On Scene <= 00:01:00 .1% (4)
1st Apparatus On Scene <= 00:01:15 .2% (7)
1st Apparatus On Scene <= 00:01:30 .4% (12)
1st Apparatus On Scene <= 00:01:45 .6% (17)
1st Apparatus On Scene <= 00:02:00 1.1% (32)
1st Apparatus On Scene <= 00:02:15 2.1% (63)
1st Apparatus On Scene <= 00:02:30 3.4% (102)
1st Apparatus On Scene <= 00:02:45 5.5% (165)
1st Apparatus On Scene <= 00:03:00 8.2% (245)
1st Apparatus On Scene <= 00:03:15 12.4% (369)
1st Apparatus On Scene <= 00:03:30 17.4% (518)
1st Apparatus On Scene <= 00:03:45 22.4% (665)
1st Apparatus On Scene <= 00:04:00 27.7% (824)
1st Apparatus On Scene <= 00:04:15 34.1% (1,015)

1st Apparatus On Scene <= 00:04:30 39.6% (1,179)
1st Apparatus On Scene <= 00:04:45 45.4% (1,350)
1st Apparatus On Scene <= 00:05:00 50.1% (1,491)
1st Apparatus On Scene <= 00:05:15 54.8% (1,630)
1st Apparatus On Scene <= 00:05:30 59.8% (1,779)
1st Apparatus On Scene <= 00:05:45 64.2% (1,910)
1st Apparatus On Scene <= 00:06:00 68.3% (2,033)
1st Apparatus On Scene <= 00:06:15 72.1% (2,146)
1st Apparatus On Scene <= 00:06:30 75.5% (2,247)
1st Apparatus On Scene <= 00:06:45 78.7% (2,340)
1st Apparatus On Scene <= 00:07:00 81.9% (2,437)
1st Apparatus On Scene <= 00:07:15 84.3% (2,507)
1st Apparatus On Scene <= 00:07:30 86.4% (2,570)
1st Apparatus On Scene <= 00:07:45 87.9% (2,616)
1st Apparatus On Scene <= 00:08:00 89.5% (2,663)
1st Apparatus On Scene <= 00:08:15 90.9% (2,704)
1st Apparatus On Scene <= 00:08:30 91.9% (2,735)
1st Apparatus On Scene <= 00:08:45 93.2% (2,772)
1st Apparatus On Scene <= 00:09:00 94.6% (2,814)
1st Apparatus On Scene <= 00:09:15 95.2% (2,833)
1st Apparatus On Scene <= 00:09:30 96.0% (2,855)
1st Apparatus On Scene <= 00:09:45 96.4% (2,868)
1st Apparatus On Scene <= 00:10:00 96.7% (2,878)
1st Apparatus On Scene <= 00:10:15 97.2% (2,891)
1st Apparatus On Scene <= 00:10:30 97.5% (2,902)
1st Apparatus On Scene <= 00:10:45 97.7% (2,907)
1st Apparatus On Scene <= 00:11:00 98.0% (2,915)
1st Apparatus On Scene <= 00:11:15 98.1% (2,919)
1st Apparatus On Scene <= 00:11:30 98.3% (2,924)
1st Apparatus On Scene <= 00:11:45 98.4% (2,928)
1st Apparatus On Scene <= 00:12:00 98.6% (2,932)
1st Apparatus On Scene <= 00:12:15 98.6% (2,932)
1st Apparatus On Scene <= 00:12:30 98.7% (2,935)
1st Apparatus On Scene <= 00:12:45 98.8% (2,938)
1st Apparatus On Scene <= 00:13:00 98.9% (2,941)
1st Apparatus On Scene <= 00:13:15 98.9% (2,943)
1st Apparatus On Scene <= 00:13:30 99.0% (2,946)
1st Apparatus On Scene <= 00:13:45 99.1% (2,949)
1st Apparatus On Scene <= 00:14:00 99.2% (2,950)
1st Apparatus On Scene <= 00:14:15 99.2% (2,952)
1st Apparatus On Scene <= 00:14:30 99.4% (2,956)
1st Apparatus On Scene <= 00:14:45 99.4% (2,957)
1st Apparatus On Scene <= 00:15:00 99.5% (2,959)
1st Apparatus On Scene <= 00:15:15 99.5% (2,961)
1st Apparatus On Scene <= 00:15:30 99.5% (2,961)
1st Apparatus On Scene <= 00:15:45 99.5% (2,961)

1st Apparatus On Scene <= 00:16:00 99.6% (2,962)
1st Apparatus On Scene <= 00:16:15 99.6% (2,964)
1st Apparatus On Scene <= 00:16:30 99.8% (2,969)
1st Apparatus On Scene <= 00:16:45 99.8% (2,970)
1st Apparatus On Scene <= 00:17:00 99.8% (2,970)
1st Apparatus On Scene <= 00:17:15 99.8% (2,970)
1st Apparatus On Scene <= 00:17:30 99.8% (2,970)
1st Apparatus On Scene <= 00:17:45 99.9% (2,971)
1st Apparatus On Scene <= 00:18:00 99.9% (2,972)
1st Apparatus On Scene <= 00:18:15 99.9% (2,972)
1st Apparatus On Scene <= 00:18:30 99.9% (2,972)
1st Apparatus On Scene <= 00:18:45 99.9% (2,973)
1st Apparatus On Scene <= 00:19:00 99.9% (2,973)
1st Apparatus On Scene <= 00:19:15 99.9% (2,973)
1st Apparatus On Scene <= 00:19:30 100.0% (2,974)
1st Apparatus On Scene <= 00:19:45 100.0% (2,974)
1st Apparatus On Scene <= 00:20:00 100.0% (2,975)

Median 1st Apparatus On Scene 00:05:00 (5 minutes)
Average 1st Apparatus On Scene 00:05:23 (5.38 minutes)

E3 Travel Time

There are 2,975 Apparatus records being analyzed.

76 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 4.2% (123)
Travel <= 00:00:30 6.6% (191)
Travel <= 00:00:45 11.6% (335)
Travel <= 00:01:00 17.9% (519)
Travel <= 00:01:15 25.0% (725)
Travel <= 00:01:30 31.7% (920)
Travel <= 00:01:45 38.9% (1,129)
Travel <= 00:02:00 45.4% (1,315)
Travel <= 00:02:15 52.6% (1,526)
Travel <= 00:02:30 59.1% (1,713)
Travel <= 00:02:45 64.0% (1,856)
Travel <= 00:03:00 68.1% (1,973)
Travel <= 00:03:15 72.3% (2,096)
Travel <= 00:03:30 76.0% (2,204)
Travel <= 00:03:45 79.5% (2,304)
Travel <= 00:04:00 82.3% (2,385)
Travel <= 00:04:15 85.3% (2,472)
Travel <= 00:04:30 87.8% (2,546)
Travel <= 00:04:45 90.2% (2,615)
Travel <= 00:05:00 92.2% (2,673)

Travel <= 00:05:15 93.5% (2,711)
Travel <= 00:05:30 94.6% (2,743)
Travel <= 00:05:45 95.2% (2,761)
Travel <= 00:06:00 96.1% (2,785)
Travel <= 00:06:15 96.8% (2,806)
Travel <= 00:06:30 97.4% (2,824)
Travel <= 00:06:45 97.6% (2,830)
Travel <= 00:07:00 97.9% (2,838)
Travel <= 00:07:15 98.2% (2,846)
Travel <= 00:07:30 98.5% (2,856)
Travel <= 00:07:45 98.6% (2,859)
Travel <= 00:08:00 98.8% (2,864)
Travel <= 00:08:15 98.9% (2,866)
Travel <= 00:08:30 98.9% (2,868)
Travel <= 00:08:45 98.9% (2,868)
Travel <= 00:09:00 99.0% (2,869)
Travel <= 00:09:15 99.0% (2,870)
Travel <= 00:09:30 99.0% (2,870)
Travel <= 00:09:45 99.0% (2,871)
Travel <= 00:10:00 99.1% (2,874)
Travel <= 00:10:15 99.3% (2,878)
Travel <= 00:10:30 99.4% (2,881)
Travel <= 00:10:45 99.4% (2,883)
Travel <= 00:11:00 99.5% (2,885)
Travel <= 00:11:15 99.5% (2,885)
Travel <= 00:11:30 99.6% (2,887)
Travel <= 00:11:45 99.6% (2,887)
Travel <= 00:12:00 99.6% (2,887)
Travel <= 00:12:15 99.7% (2,889)
Travel <= 00:12:30 99.7% (2,889)
Travel <= 00:12:45 99.7% (2,890)
Travel <= 00:13:00 99.8% (2,892)
Travel <= 00:13:15 99.8% (2,894)
Travel <= 00:13:30 99.8% (2,894)
Travel <= 00:13:45 99.9% (2,895)
Travel <= 00:14:00 99.9% (2,895)
Travel <= 00:14:15 99.9% (2,897)
Travel <= 00:14:30 99.9% (2,897)
Travel <= 00:14:45 99.9% (2,897)
Travel <= 00:15:00 99.9% (2,897)

Median Travel 00:02:09 (2.15 minutes)
Average Travel 00:02:32 (2.53 minutes)

E4 1st Apparatus on Scene

There are 1,983 Apparatus records being analyzed.

1st Apparatus On Scene <= 00:00:00 .0% (0)
1st Apparatus On Scene <= 00:00:15 .1% (1)
1st Apparatus On Scene <= 00:00:30 .1% (1)
1st Apparatus On Scene <= 00:00:45 .2% (3)
1st Apparatus On Scene <= 00:01:00 .2% (3)
1st Apparatus On Scene <= 00:01:15 .2% (3)
1st Apparatus On Scene <= 00:01:30 .2% (3)
1st Apparatus On Scene <= 00:01:45 .3% (5)
1st Apparatus On Scene <= 00:02:00 .6% (11)
1st Apparatus On Scene <= 00:02:15 1.1% (21)
1st Apparatus On Scene <= 00:02:30 1.8% (35)
1st Apparatus On Scene <= 00:02:45 2.2% (44)
1st Apparatus On Scene <= 00:03:00 3.2% (64)
1st Apparatus On Scene <= 00:03:15 4.7% (93)
1st Apparatus On Scene <= 00:03:30 6.1% (120)
1st Apparatus On Scene <= 00:03:45 7.9% (157)
1st Apparatus On Scene <= 00:04:00 10.4% (207)
1st Apparatus On Scene <= 00:04:15 14.3% (283)
1st Apparatus On Scene <= 00:04:30 18.2% (361)
1st Apparatus On Scene <= 00:04:45 21.9% (435)
1st Apparatus On Scene <= 00:05:00 26.1% (517)
1st Apparatus On Scene <= 00:05:15 30.4% (603)
1st Apparatus On Scene <= 00:05:30 35.4% (701)
1st Apparatus On Scene <= 00:05:45 40.8% (810)
1st Apparatus On Scene <= 00:06:00 45.2% (897)
1st Apparatus On Scene <= 00:06:15 49.6% (984)
1st Apparatus On Scene <= 00:06:30 54.0% (1,071)
1st Apparatus On Scene <= 00:06:45 58.2% (1,154)
1st Apparatus On Scene <= 00:07:00 63.0% (1,249)
1st Apparatus On Scene <= 00:07:15 66.7% (1,322)
1st Apparatus On Scene <= 00:07:30 70.3% (1,395)
1st Apparatus On Scene <= 00:07:45 74.6% (1,480)
1st Apparatus On Scene <= 00:08:00 77.2% (1,530)
1st Apparatus On Scene <= 00:08:15 79.8% (1,582)
1st Apparatus On Scene <= 00:08:30 82.6% (1,637)
1st Apparatus On Scene <= 00:08:45 84.6% (1,678)
1st Apparatus On Scene <= 00:09:00 86.9% (1,724)
1st Apparatus On Scene <= 00:09:15 88.5% (1,755)
1st Apparatus On Scene <= 00:09:30 90.0% (1,784)
1st Apparatus On Scene <= 00:09:45 90.9% (1,802)
1st Apparatus On Scene <= 00:10:00 91.8% (1,820)
1st Apparatus On Scene <= 00:10:15 92.5% (1,835)
1st Apparatus On Scene <= 00:10:30 93.2% (1,848)
1st Apparatus On Scene <= 00:10:45 94.0% (1,864)

1st Apparatus On Scene <= 00:11:00 94.6% (1,875)
1st Apparatus On Scene <= 00:11:15 95.2% (1,888)
1st Apparatus On Scene <= 00:11:30 95.6% (1,896)
1st Apparatus On Scene <= 00:11:45 96.2% (1,907)
1st Apparatus On Scene <= 00:12:00 96.6% (1,916)
1st Apparatus On Scene <= 00:12:15 96.9% (1,921)
1st Apparatus On Scene <= 00:12:30 97.5% (1,933)
1st Apparatus On Scene <= 00:12:45 97.7% (1,938)
1st Apparatus On Scene <= 00:13:00 97.9% (1,941)
1st Apparatus On Scene <= 00:13:15 98.2% (1,947)
1st Apparatus On Scene <= 00:13:30 98.3% (1,950)
1st Apparatus On Scene <= 00:13:45 98.7% (1,957)
1st Apparatus On Scene <= 00:14:00 98.8% (1,959)
1st Apparatus On Scene <= 00:14:15 98.8% (1,960)
1st Apparatus On Scene <= 00:14:30 99.0% (1,963)
1st Apparatus On Scene <= 00:14:45 99.0% (1,964)
1st Apparatus On Scene <= 00:15:00 99.2% (1,967)
1st Apparatus On Scene <= 00:15:15 99.2% (1,967)
1st Apparatus On Scene <= 00:15:30 99.3% (1,969)
1st Apparatus On Scene <= 00:15:45 99.3% (1,970)
1st Apparatus On Scene <= 00:16:00 99.4% (1,971)
1st Apparatus On Scene <= 00:16:15 99.4% (1,971)
1st Apparatus On Scene <= 00:16:30 99.5% (1,973)
1st Apparatus On Scene <= 00:16:45 99.5% (1,974)
1st Apparatus On Scene <= 00:17:00 99.6% (1,976)
1st Apparatus On Scene <= 00:17:15 99.7% (1,978)
1st Apparatus On Scene <= 00:17:30 99.8% (1,979)
1st Apparatus On Scene <= 00:17:45 99.8% (1,980)
1st Apparatus On Scene <= 00:18:00 99.8% (1,980)
1st Apparatus On Scene <= 00:18:15 99.9% (1,981)
1st Apparatus On Scene <= 00:18:30 99.9% (1,981)
1st Apparatus On Scene <= 00:18:45 99.9% (1,981)
1st Apparatus On Scene <= 00:19:00 99.9% (1,981)
1st Apparatus On Scene <= 00:19:15 99.9% (1,981)
1st Apparatus On Scene <= 00:19:30 99.9% (1,981)
1st Apparatus On Scene <= 00:19:45 99.9% (1,982)
1st Apparatus On Scene <= 00:20:00 100.0% (1,983)

Median 1st Apparatus On Scene 00:06:16 (6.27 minutes)
Average 1st Apparatus On Scene 00:06:36 (6.60 minutes)

E4 Travel Time

There are 1,983 Apparatus records being analyzed.

85 records were ignored because of a zero time value.

Travel <= 00:00:00 .0% (0)
Travel <= 00:00:15 4.0% (75)
Travel <= 00:00:30 5.1% (97)
Travel <= 00:00:45 6.9% (131)
Travel <= 00:01:00 8.5% (161)
Travel <= 00:01:15 11.5% (218)
Travel <= 00:01:30 14.6% (278)
Travel <= 00:01:45 19.2% (365)
Travel <= 00:02:00 24.4% (464)
Travel <= 00:02:15 30.6% (581)
Travel <= 00:02:30 36.6% (694)
Travel <= 00:02:45 42.6% (808)
Travel <= 00:03:00 47.9% (909)
Travel <= 00:03:15 53.2% (1,009)
Travel <= 00:03:30 58.9% (1,117)
Travel <= 00:03:45 63.8% (1,210)
Travel <= 00:04:00 68.4% (1,298)
Travel <= 00:04:15 72.8% (1,381)
Travel <= 00:04:30 77.0% (1,461)
Travel <= 00:04:45 80.7% (1,532)
Travel <= 00:05:00 83.3% (1,581)
Travel <= 00:05:15 86.0% (1,632)
Travel <= 00:05:30 88.3% (1,675)
Travel <= 00:05:45 90.0% (1,709)
Travel <= 00:06:00 92.0% (1,746)
Travel <= 00:06:15 92.9% (1,763)
Travel <= 00:06:30 93.6% (1,776)
Travel <= 00:06:45 94.6% (1,796)
Travel <= 00:07:00 95.3% (1,809)
Travel <= 00:07:15 95.8% (1,818)
Travel <= 00:07:30 96.0% (1,822)
Travel <= 00:07:45 96.4% (1,829)
Travel <= 00:08:00 96.8% (1,837)
Travel <= 00:08:15 97.3% (1,847)
Travel <= 00:08:30 97.8% (1,856)
Travel <= 00:08:45 98.1% (1,862)
Travel <= 00:09:00 98.3% (1,865)
Travel <= 00:09:15 98.4% (1,868)
Travel <= 00:09:30 98.5% (1,869)
Travel <= 00:09:45 98.6% (1,872)
Travel <= 00:10:00 98.8% (1,876)
Travel <= 00:10:15 98.9% (1,877)

Travel <= 00:10:30 99.1% (1,880)
Travel <= 00:10:45 99.2% (1,882)
Travel <= 00:11:00 99.3% (1,885)
Travel <= 00:11:15 99.3% (1,885)
Travel <= 00:11:30 99.4% (1,886)
Travel <= 00:11:45 99.4% (1,886)
Travel <= 00:12:00 99.4% (1,887)
Travel <= 00:12:15 99.4% (1,887)
Travel <= 00:12:30 99.5% (1,888)
Travel <= 00:12:45 99.5% (1,889)
Travel <= 00:13:00 99.5% (1,889)
Travel <= 00:13:15 99.6% (1,890)
Travel <= 00:13:30 99.6% (1,890)
Travel <= 00:13:45 99.6% (1,891)
Travel <= 00:14:00 99.6% (1,891)
Travel <= 00:14:15 99.7% (1,892)
Travel <= 00:14:30 99.7% (1,893)
Travel <= 00:14:45 99.8% (1,895)
Travel <= 00:15:00 99.8% (1,895)

Median Travel 00:03:06 (3.1 minutes)
Average Travel 00:03:25 (3.42 minutes)

Simultaneous Call for Service Measurements

18.36%	at least 1 simultaneous incident
1.86%	at least 2 simultaneous incidents
.13%	at least 3 simultaneous incidents

This is for primary apparatus with distinct incidents being defined as primary apparatus first arrivals. Data is averaged for all years.