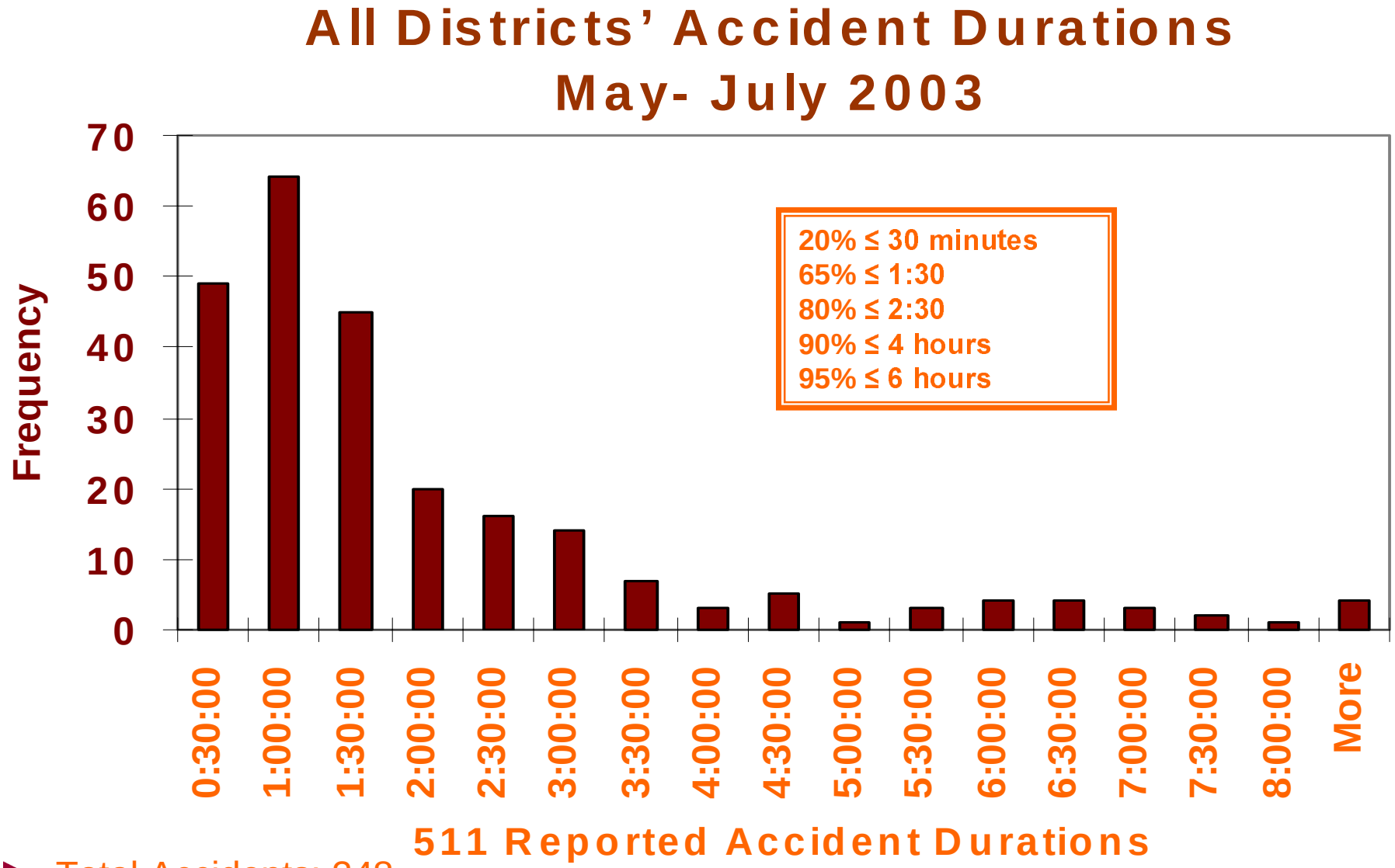
# I-81 Framework: Data Analysis for the Bristol District

*Compiled by Virginia Tech Transportation Institute*

# What’s New?

Corridor 511 Posted

Accident Duration Slide




- Total Accidents: 248
- Median (half are up/half are down): 1:03:00
- Mode (occurs the most): 0:44:00

# Information Derived from the Dispatcher Log

*Virginia Tech Transportation Institute*

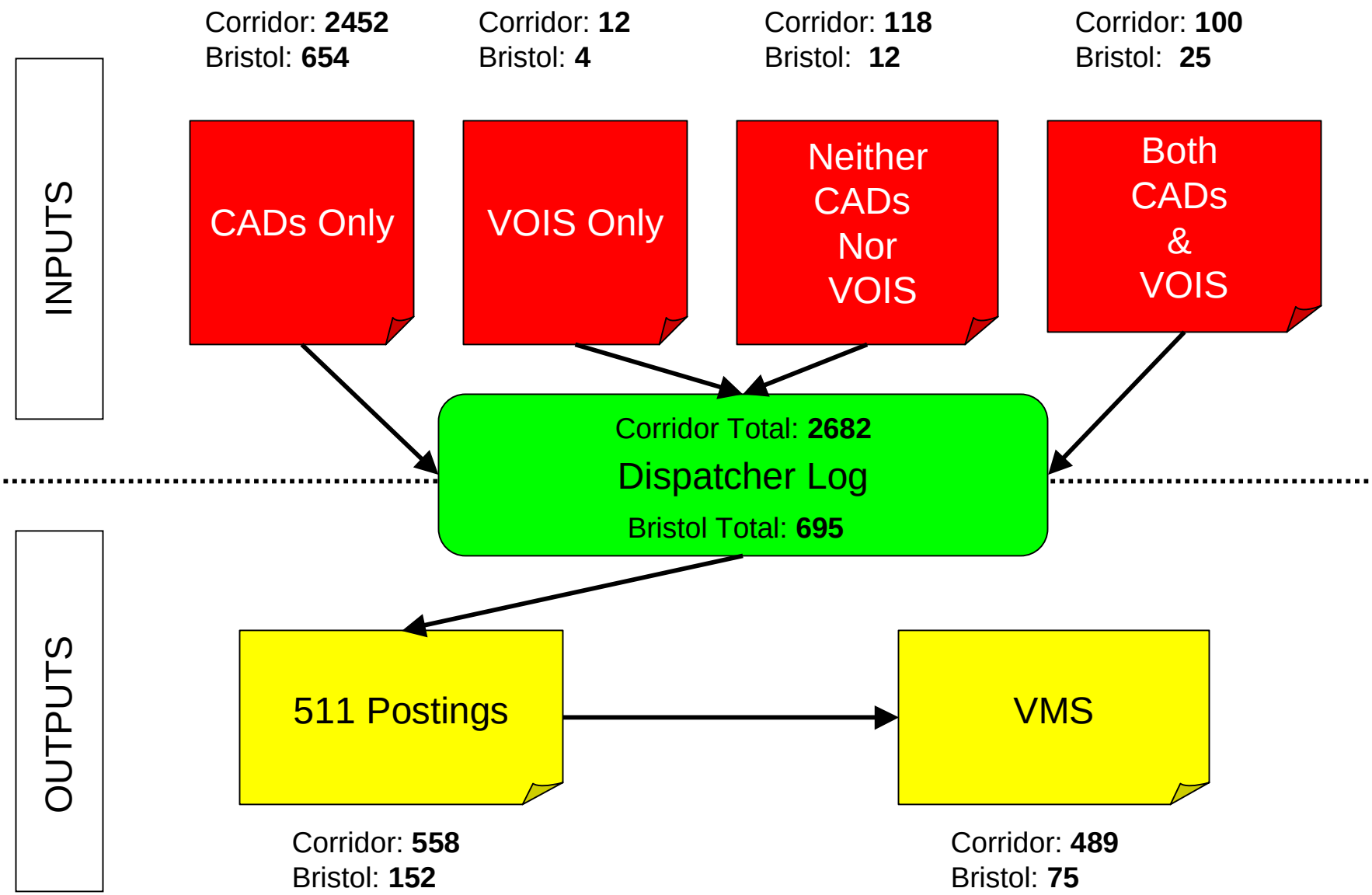
# Total Events Reported on 511 in May – July 2003

(All Districts)

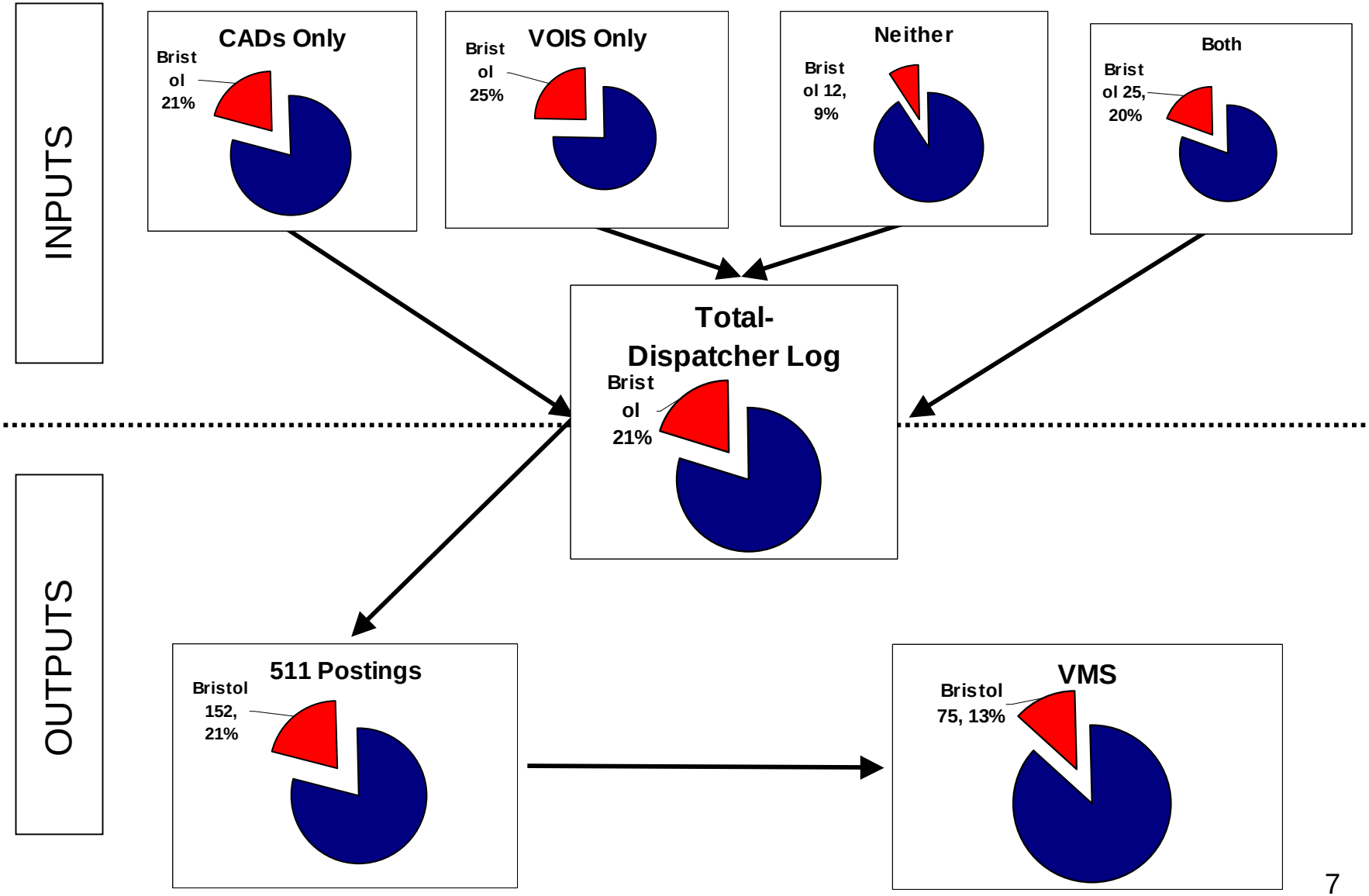
# 558

- Total Events Reported in CADS: 2,682
- 355 CADS Events posted to 511
- Percentage CADs events posted to 511:  13.2%
- 3 Reports from VOIS reported on 511
- 489 VMS Signs posted during this period

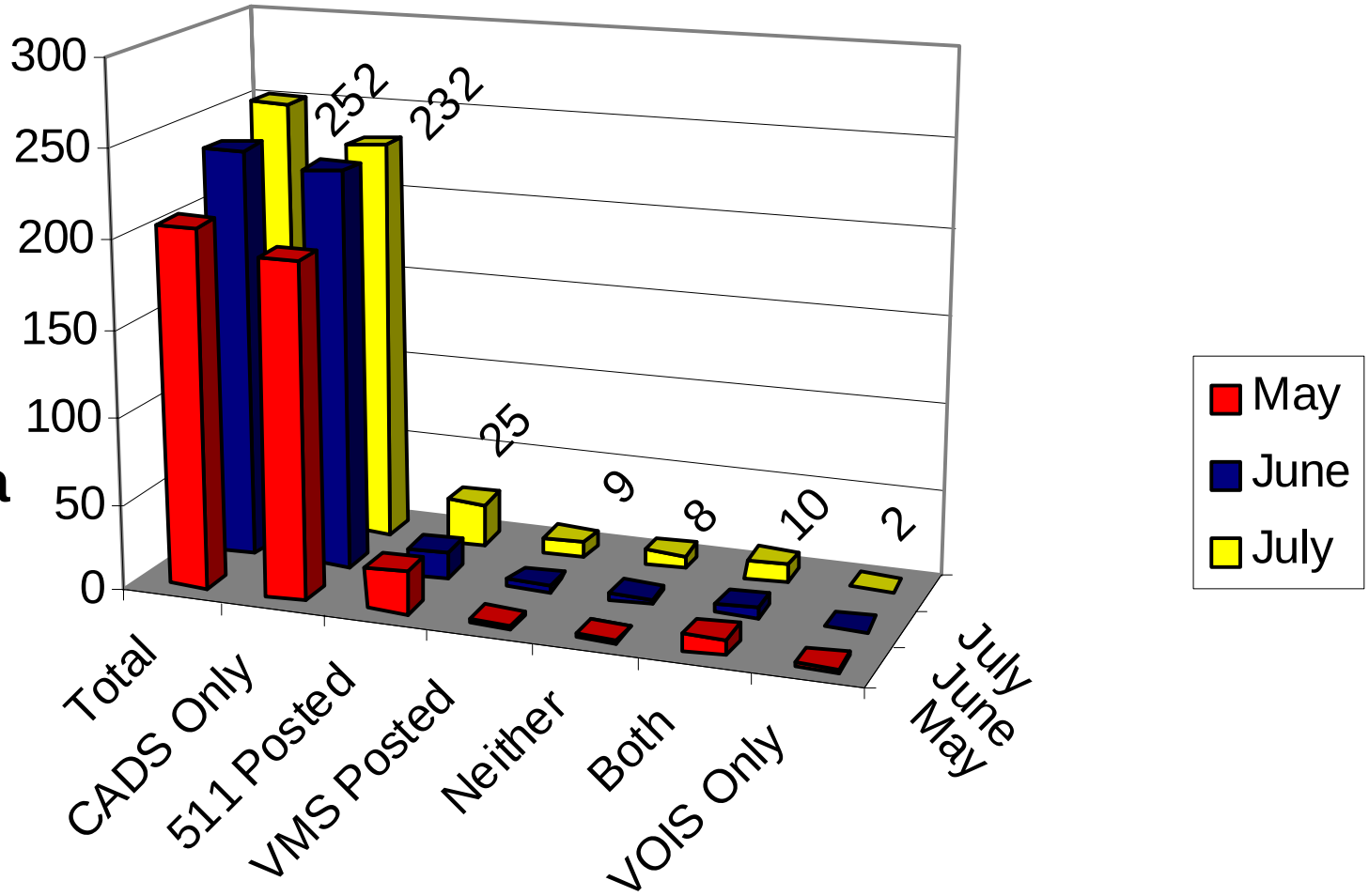
# May – July 2003 Clearinghouse Events



# May – July 2003 Clearinghouse Events



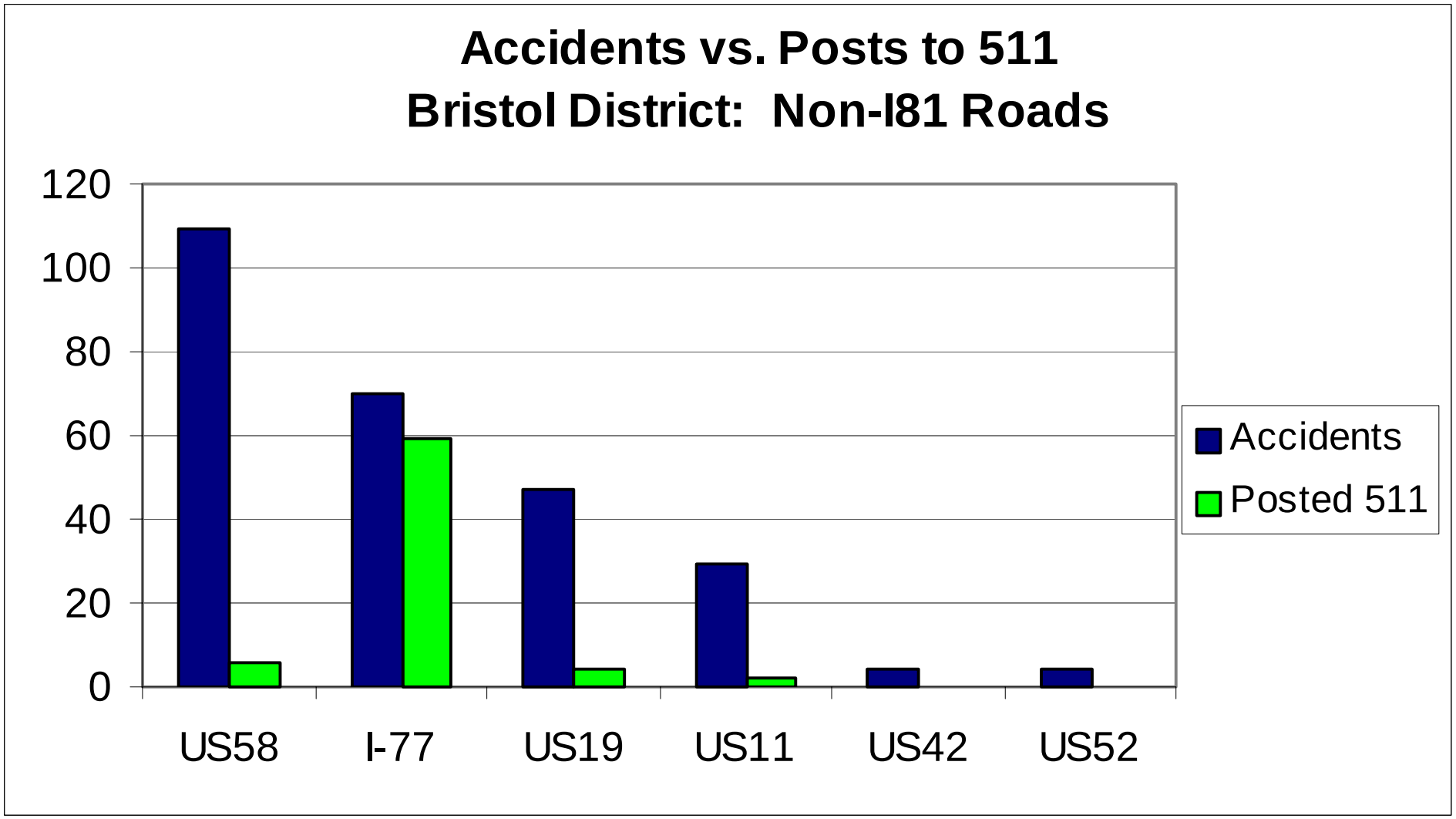
# Bristol's Quarterly Overview of CADS Data

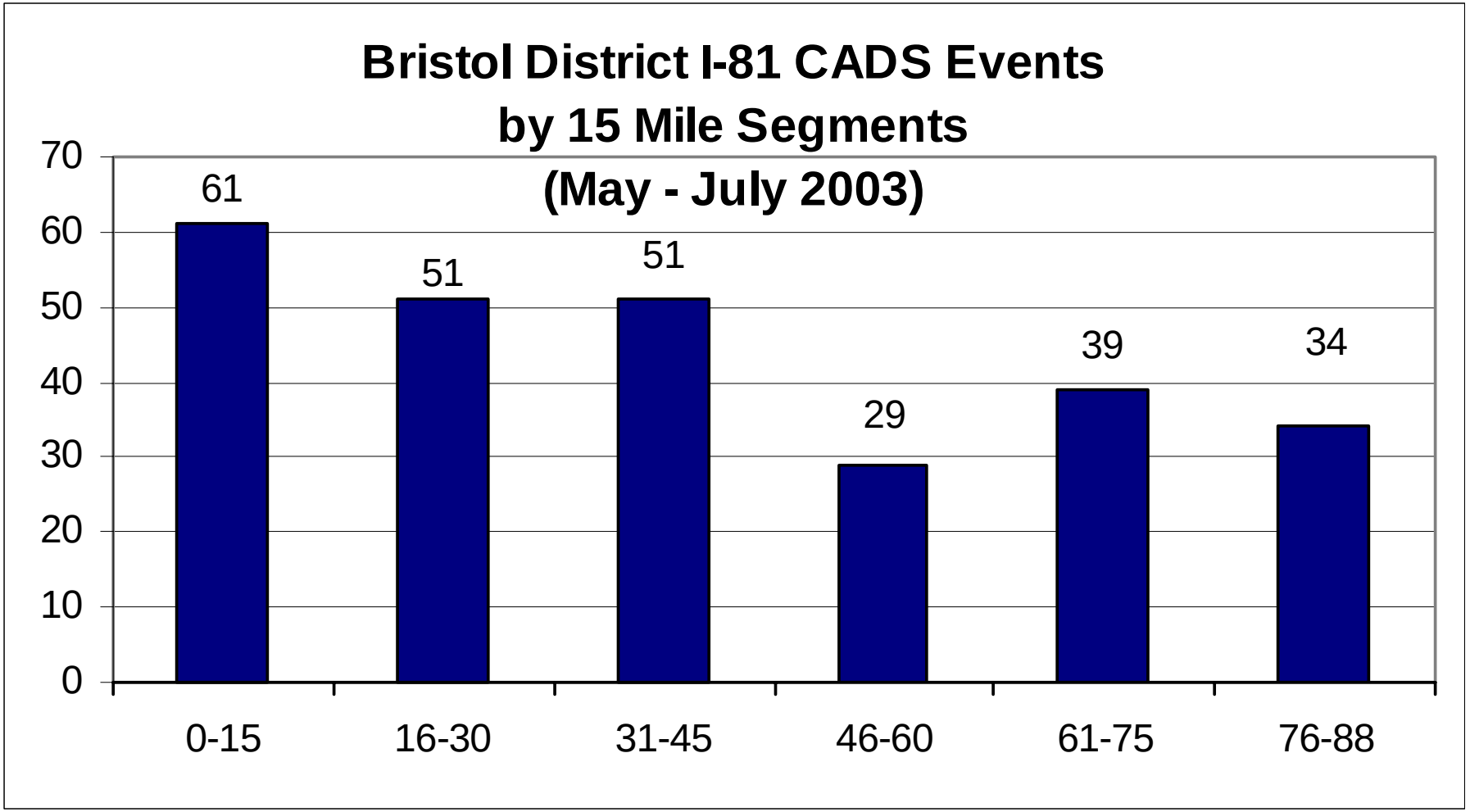


# Information by Mile Marker

*(Source: Dispatcher Log)*

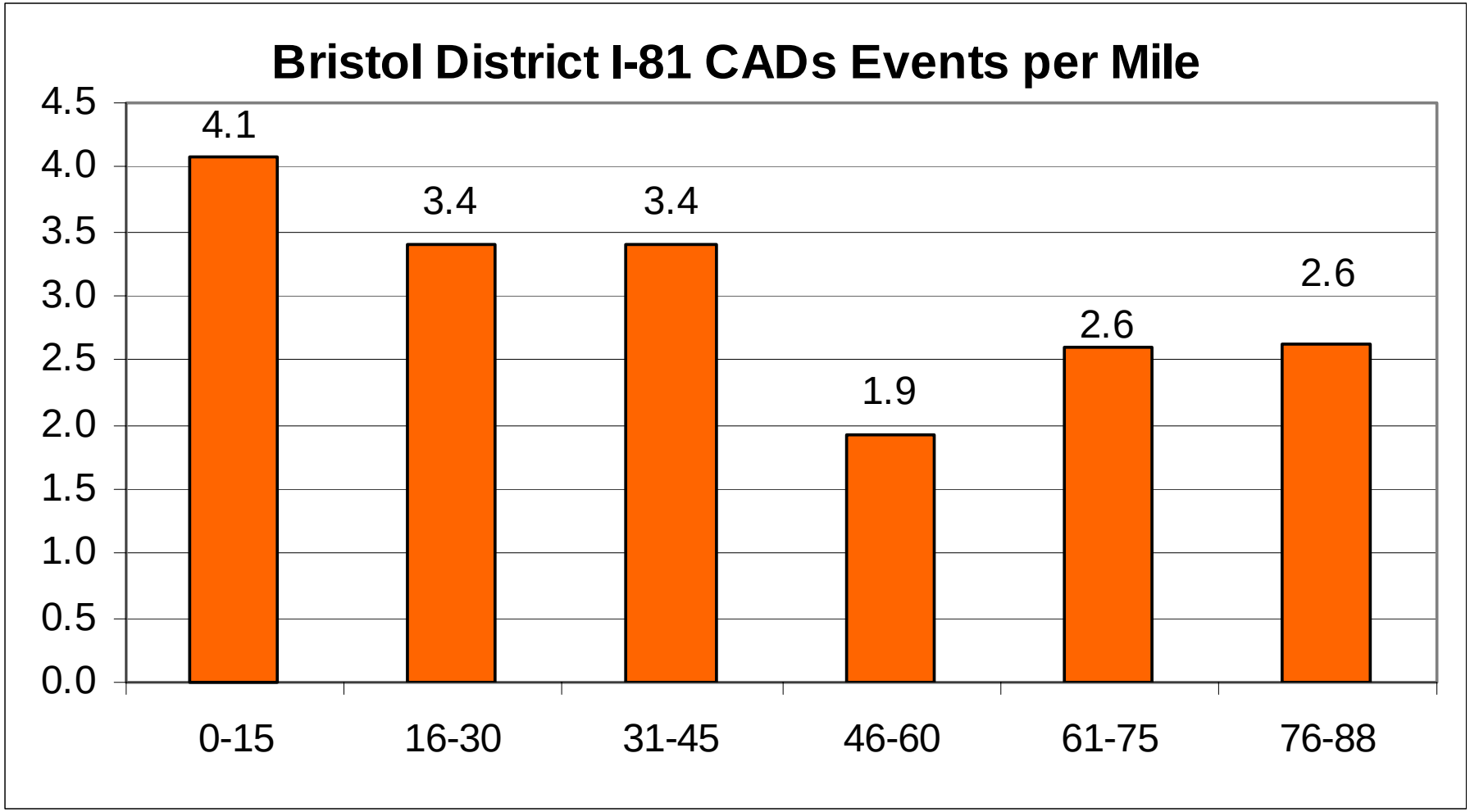
# May - July 2003
# Bristol's Non-I-81Events

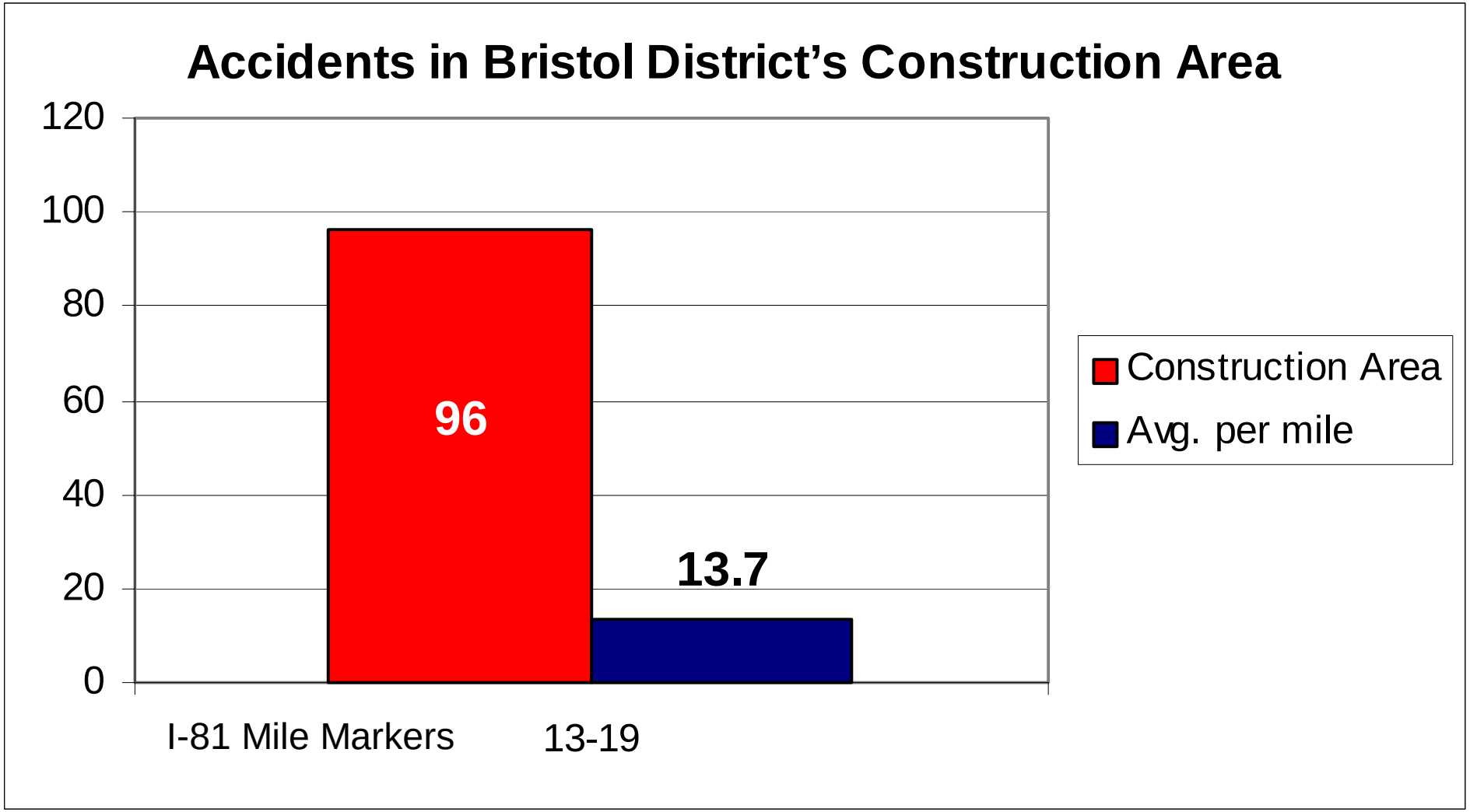


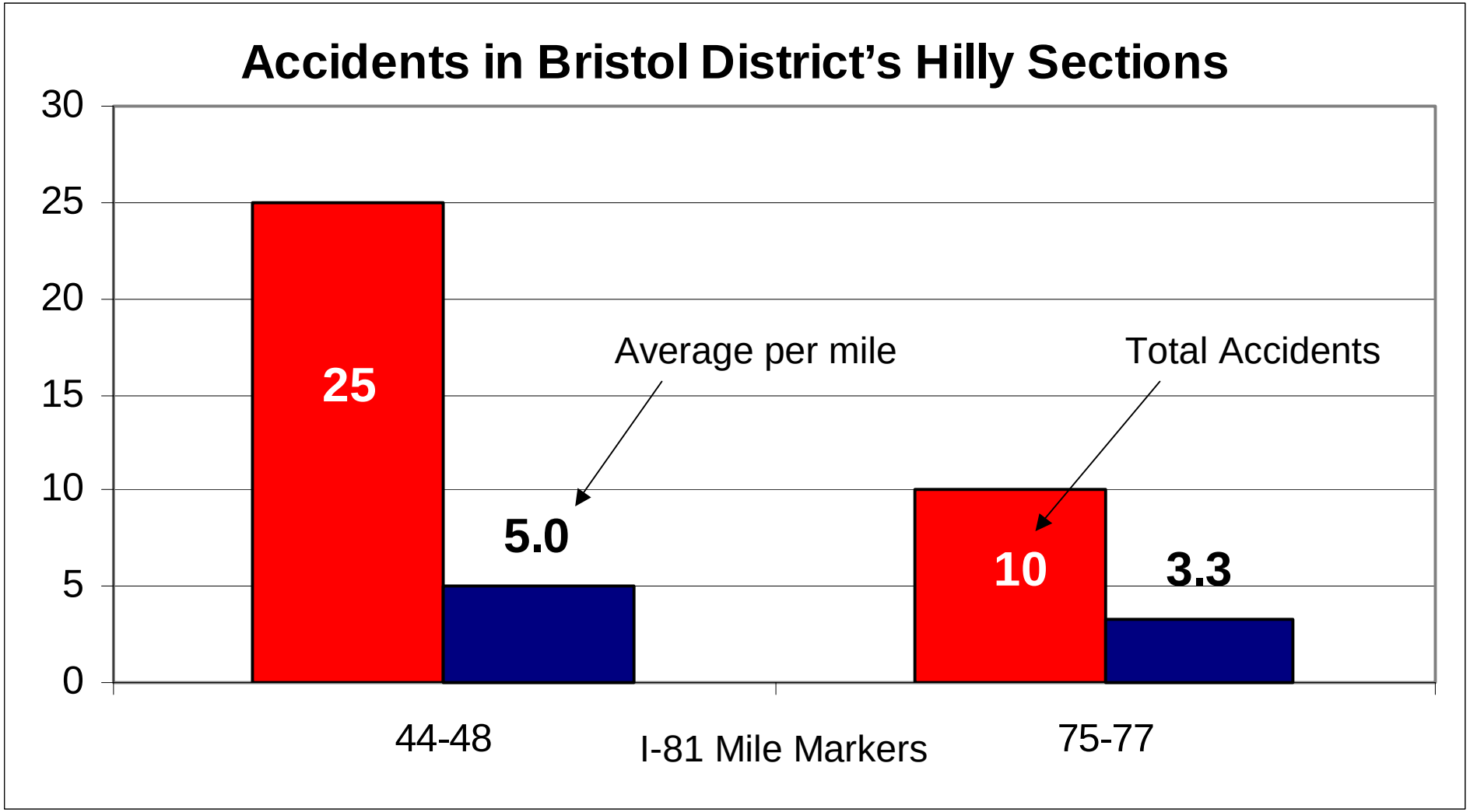

Bristol District I-81 CADS Events
by 15 Mile Segments
(May - July 2003)
70
60
50
40
30
20
10
0
61
51
51
29
39
34
0-15
16-30
31-45
46-60
61-75
76-88

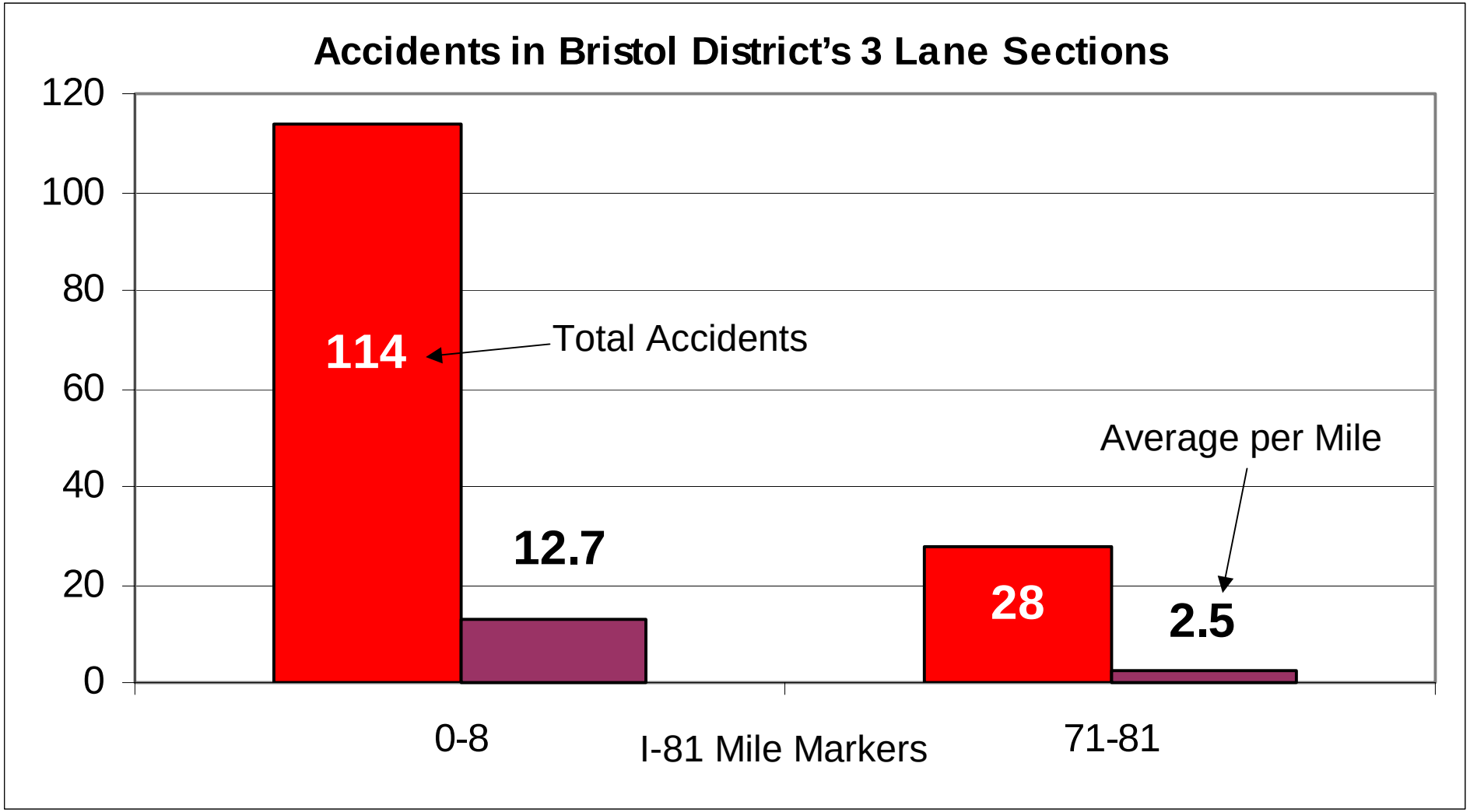
# Accidents per Mile

May – July 2003




Accidents in Bristol District's Construction Area
120
100
80
60
40
20
0
96
13.7
I-81 Mile Markers
13-19
Construction Area
Avg. per mile

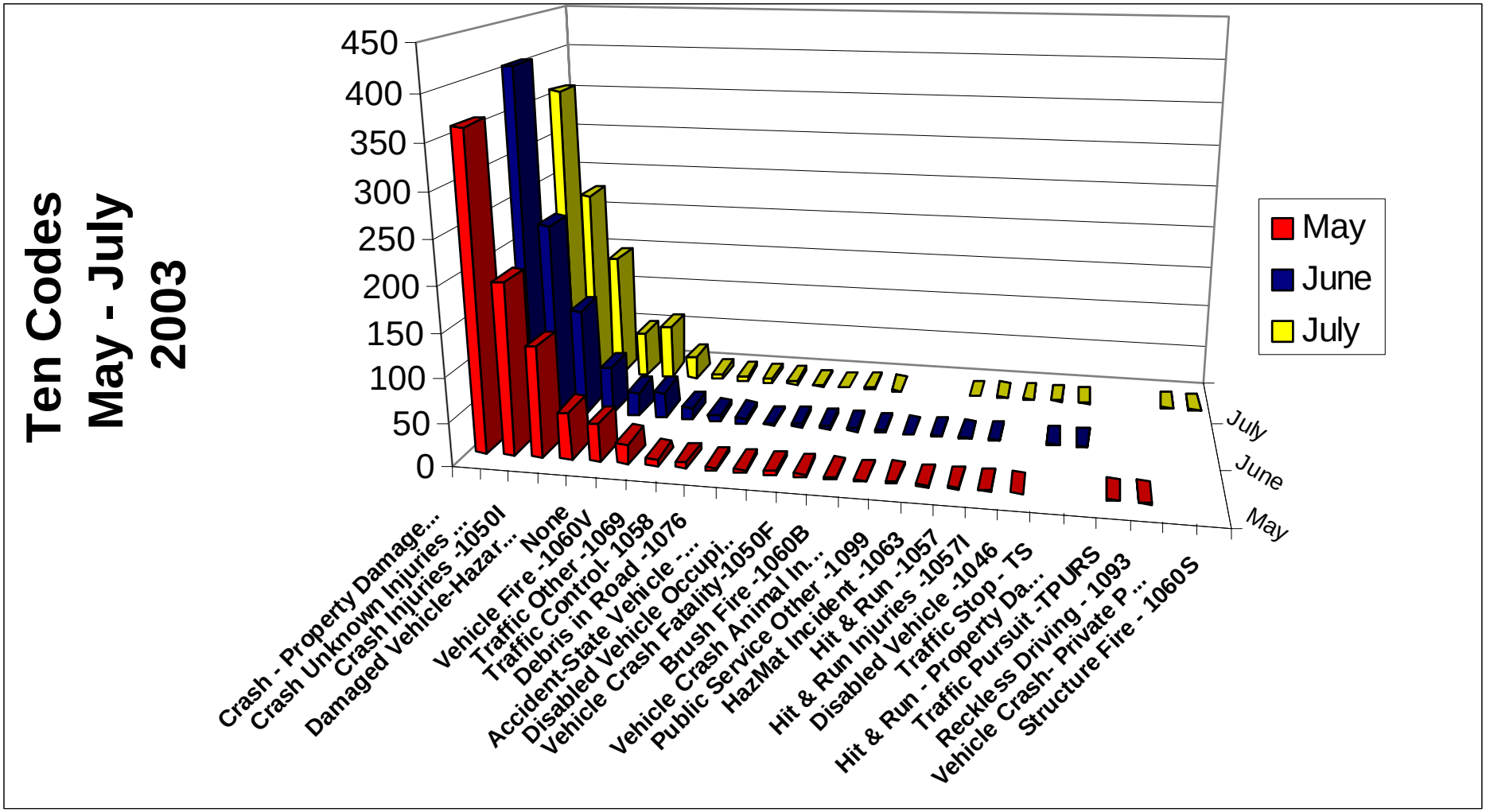

Accidents in Bristol District's Hilly Sections
30
25
20
15
10
5
0
25
5.0
10
3.3
Average per mile
Total Accidents
44-48
I-81 Mile Markers
75-77

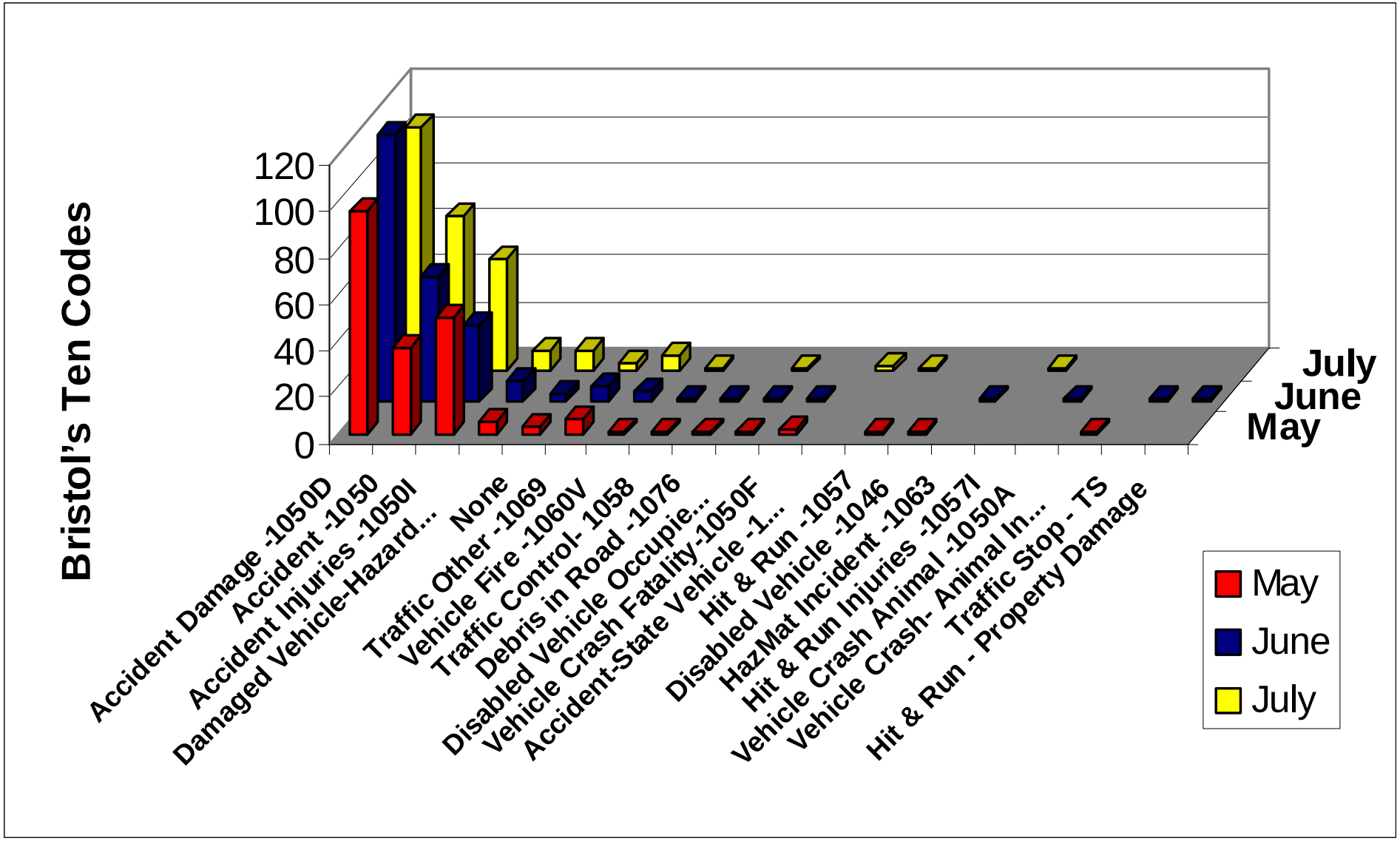

Accidents in Bristol District's 3 Lane Sections
120
100
80
60
40
20
0
114
Total Accidents
12.7
Average per Mile
28
2.5
0-8
I-81 Mile Markers
71-81

# Information by Type

*(Source: Dispatcher Log)*

All Districts

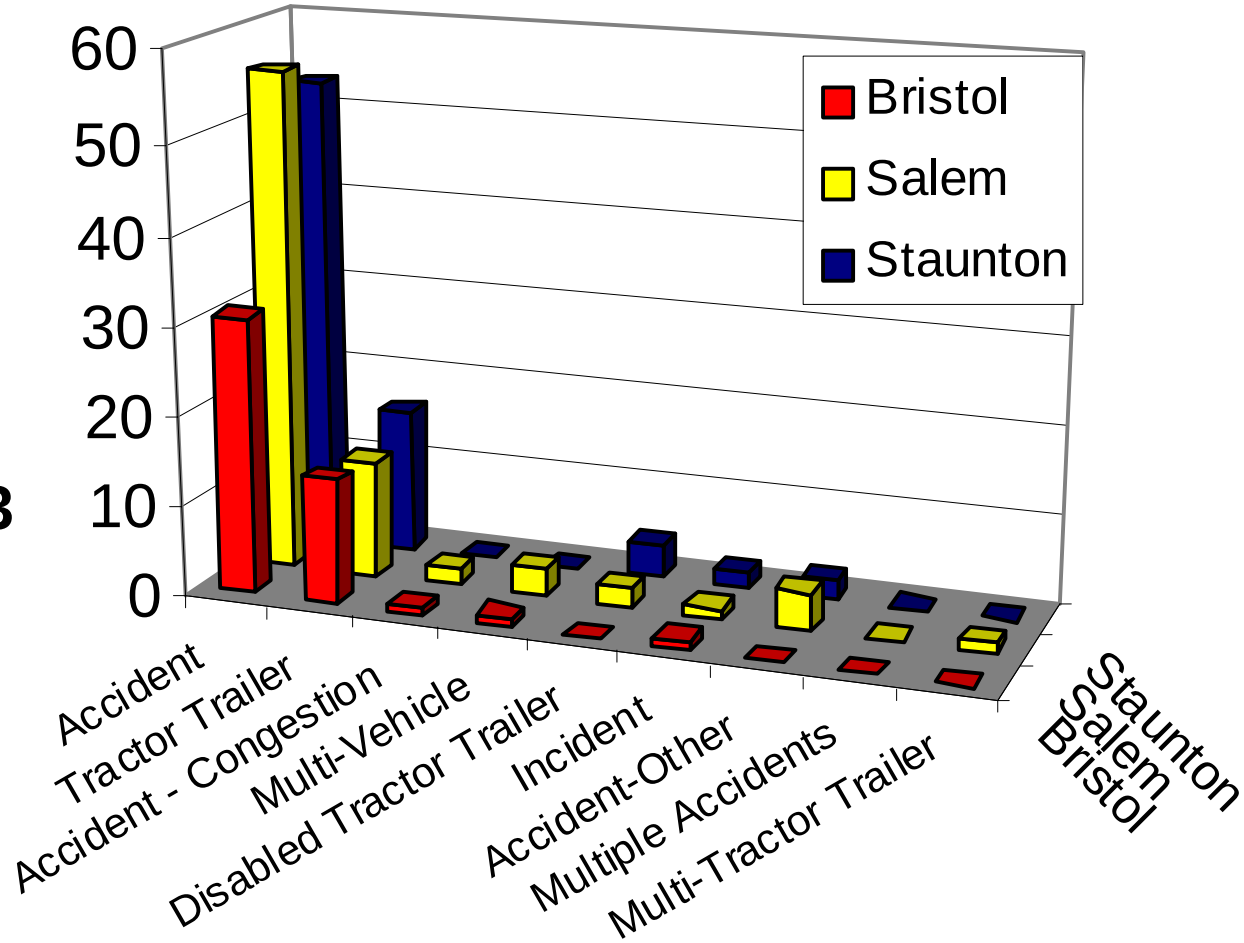



Bristol's Ten Codes
120
100
80
60
40
20
0
July
June
May
Accident Damage -1050D
Accident -1050
Accident Injuries -1050I
Damaged Vehicle-Hazard...
None
Traffic Other -1069
Vehicle Fire -1060V
Traffic Control- 1058
Debris in Road -1076
Disabled Vehicle Occupie...
Vehicle Crash Fatality-1050F
Accident-State Vehicle -1...
Hit & Run -1057
Disabled Vehicle -1046
HazMat Incident -1063
Hit & Run Injuries -1057I
Vehicle Crash Animal -1050A
Vehicle Crash- Animal In...
Traffic Stop - TS
Hit & Run - Property Damage
May
June
July

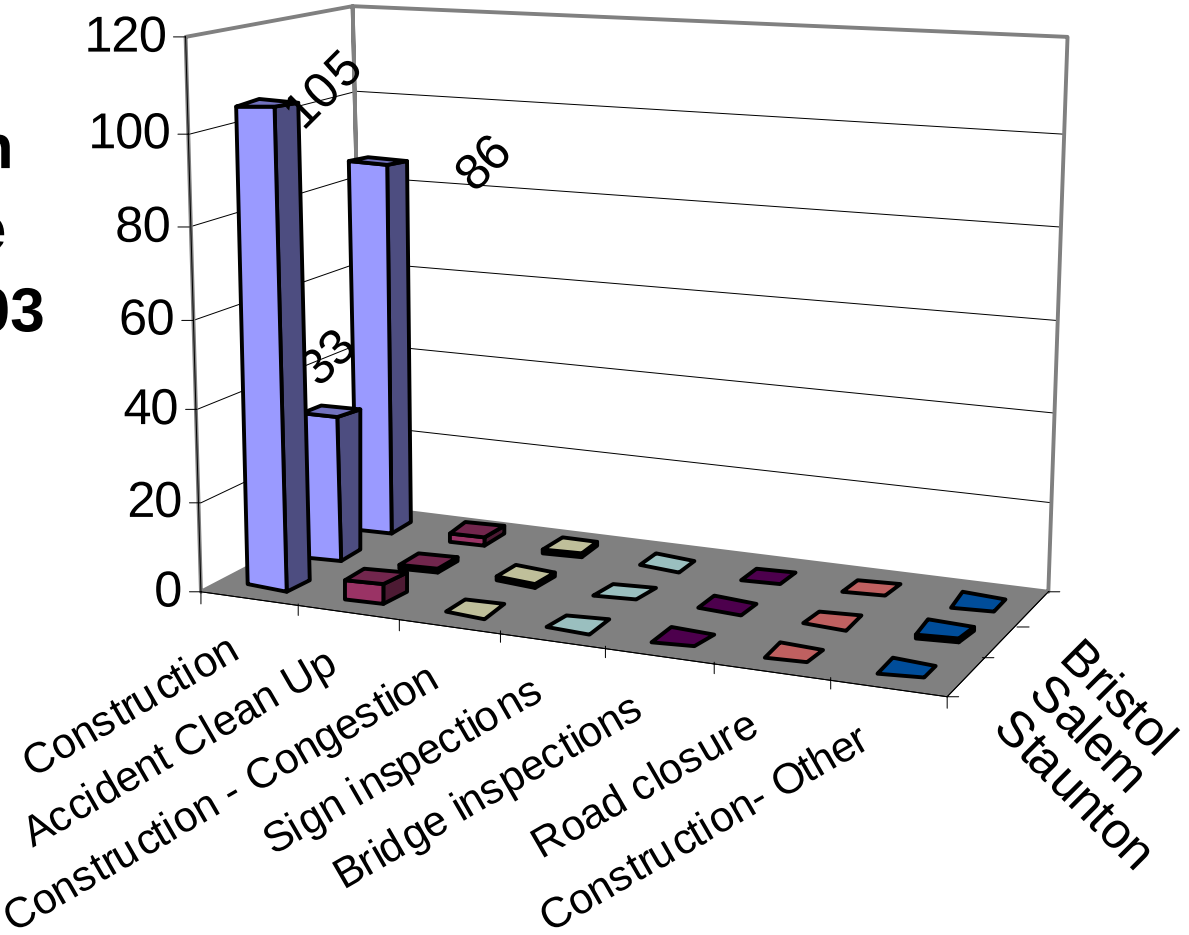
# Information Derived from the 511 Postings Log

*Virginia Tech Transportation Institute*

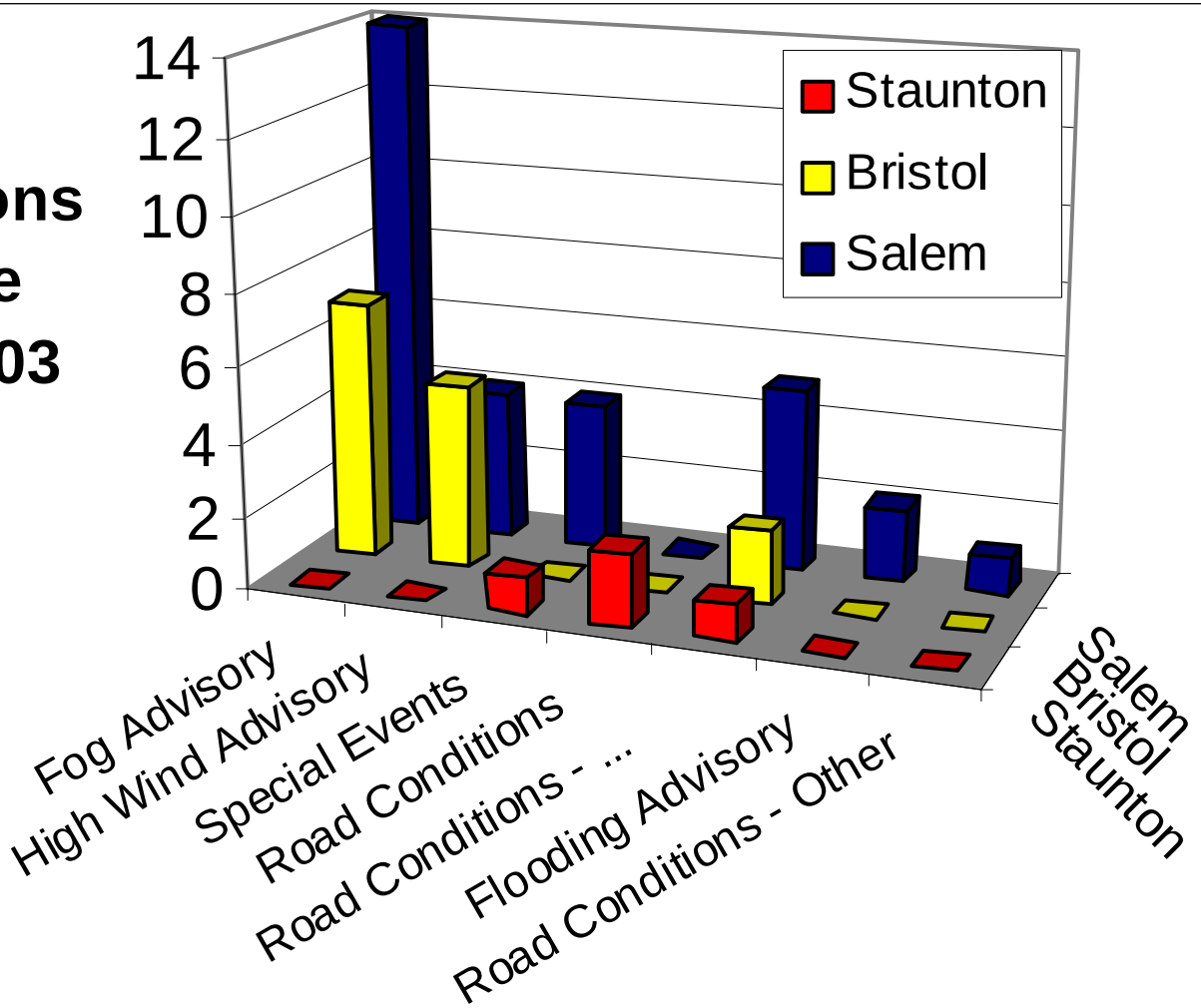
**Accidents by Sub Type May-July 2003**

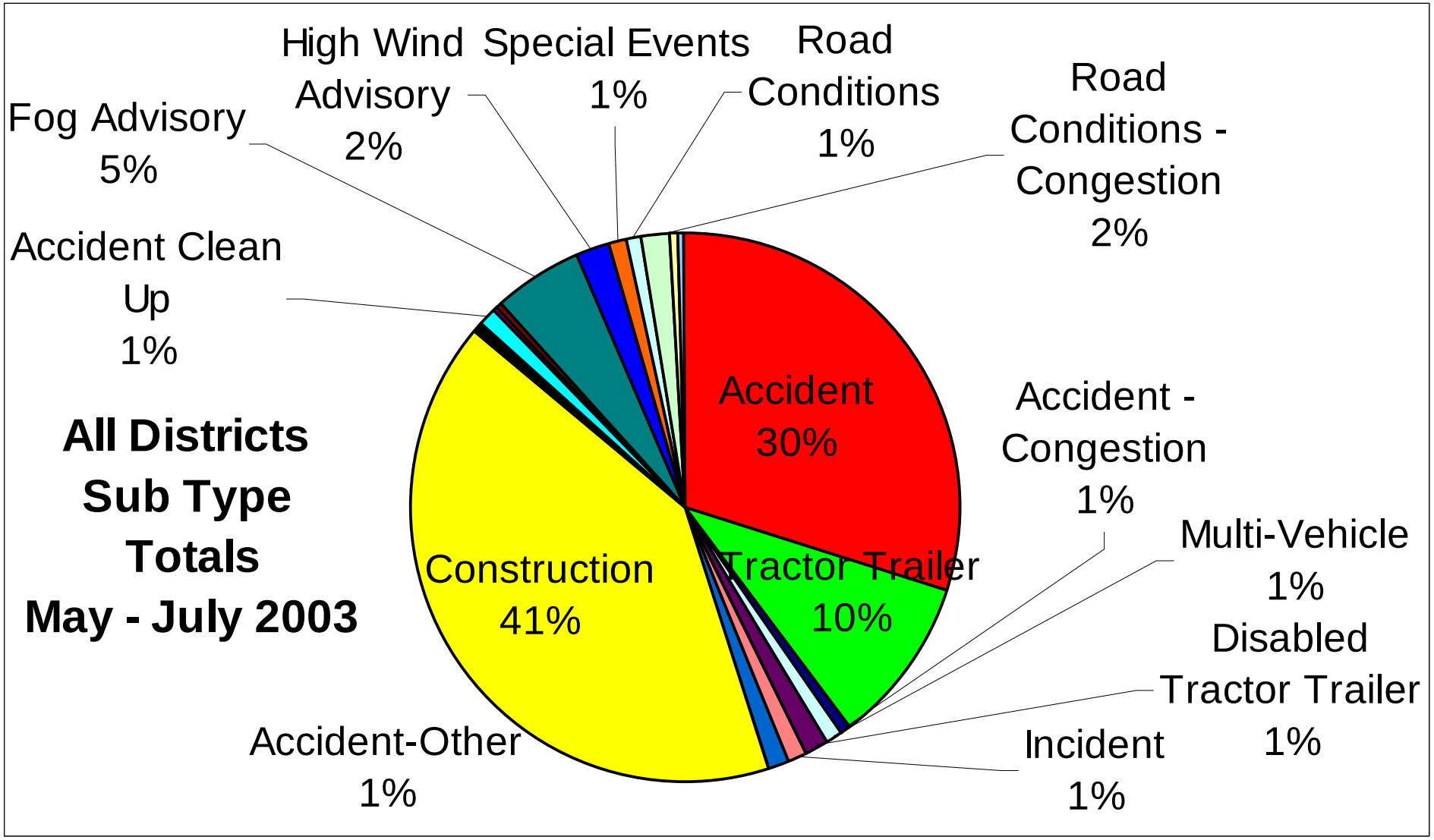


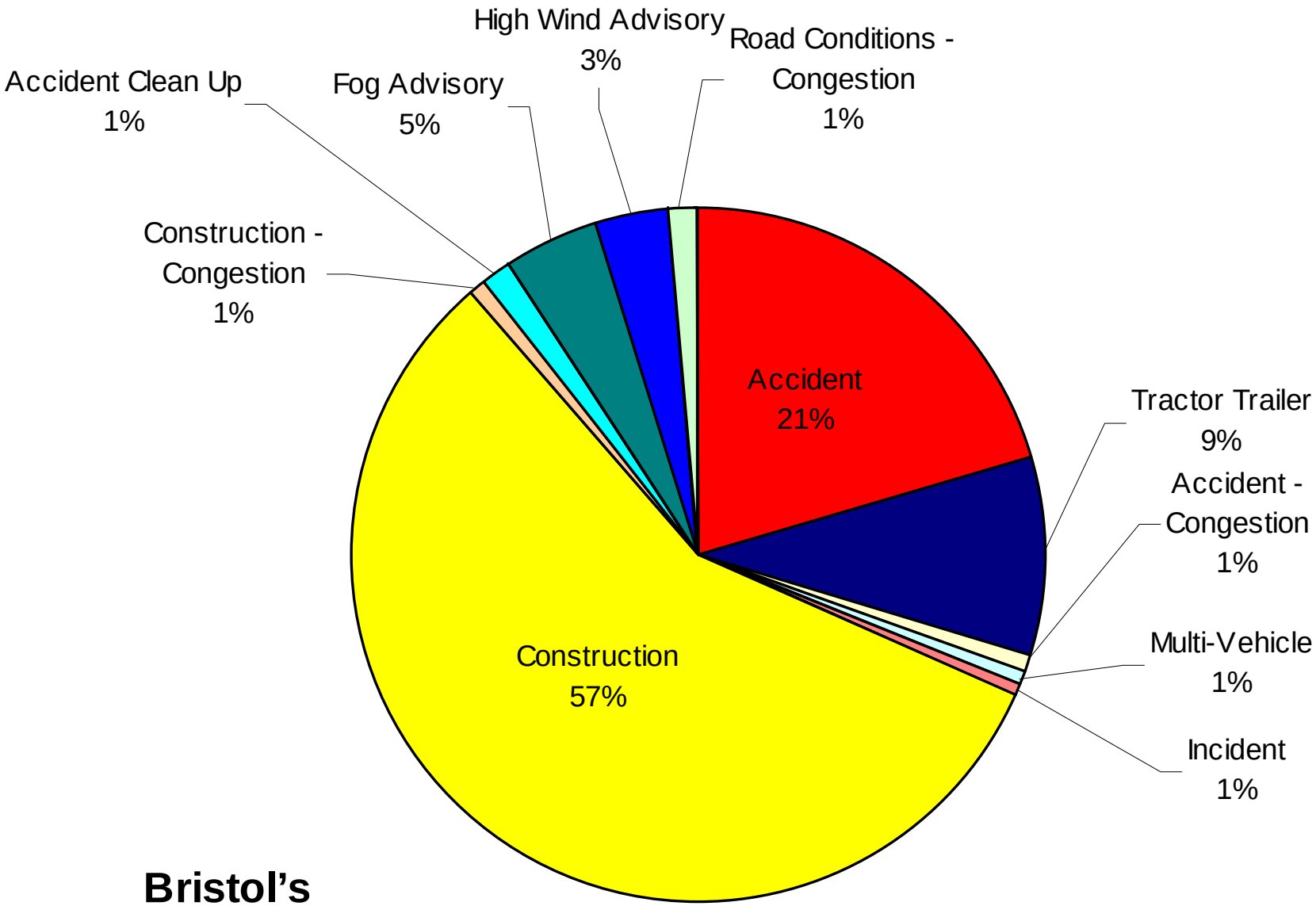
# Construction by Sub Type May - July 2003



**Road Conditions by Sub Type May - July 2003**

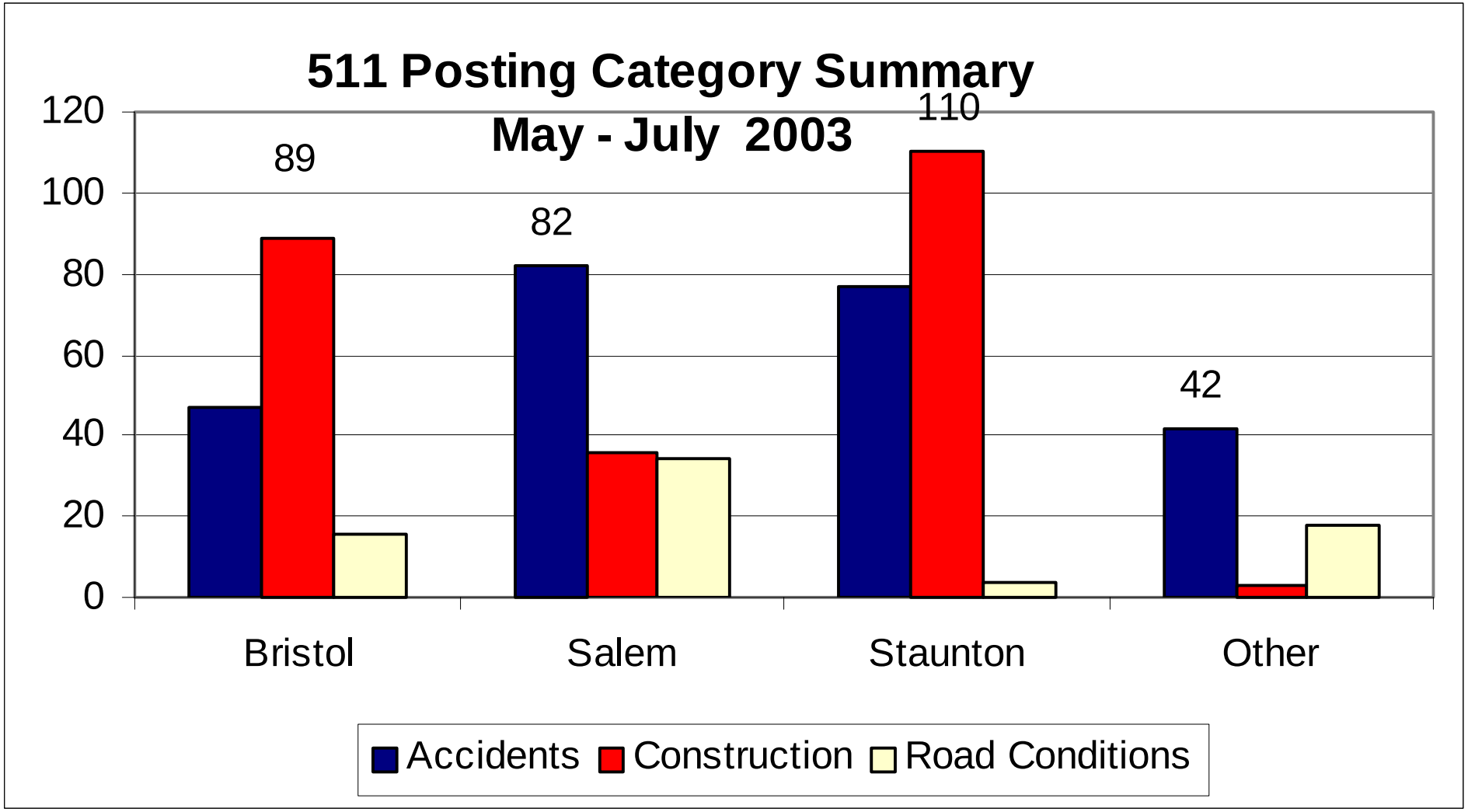


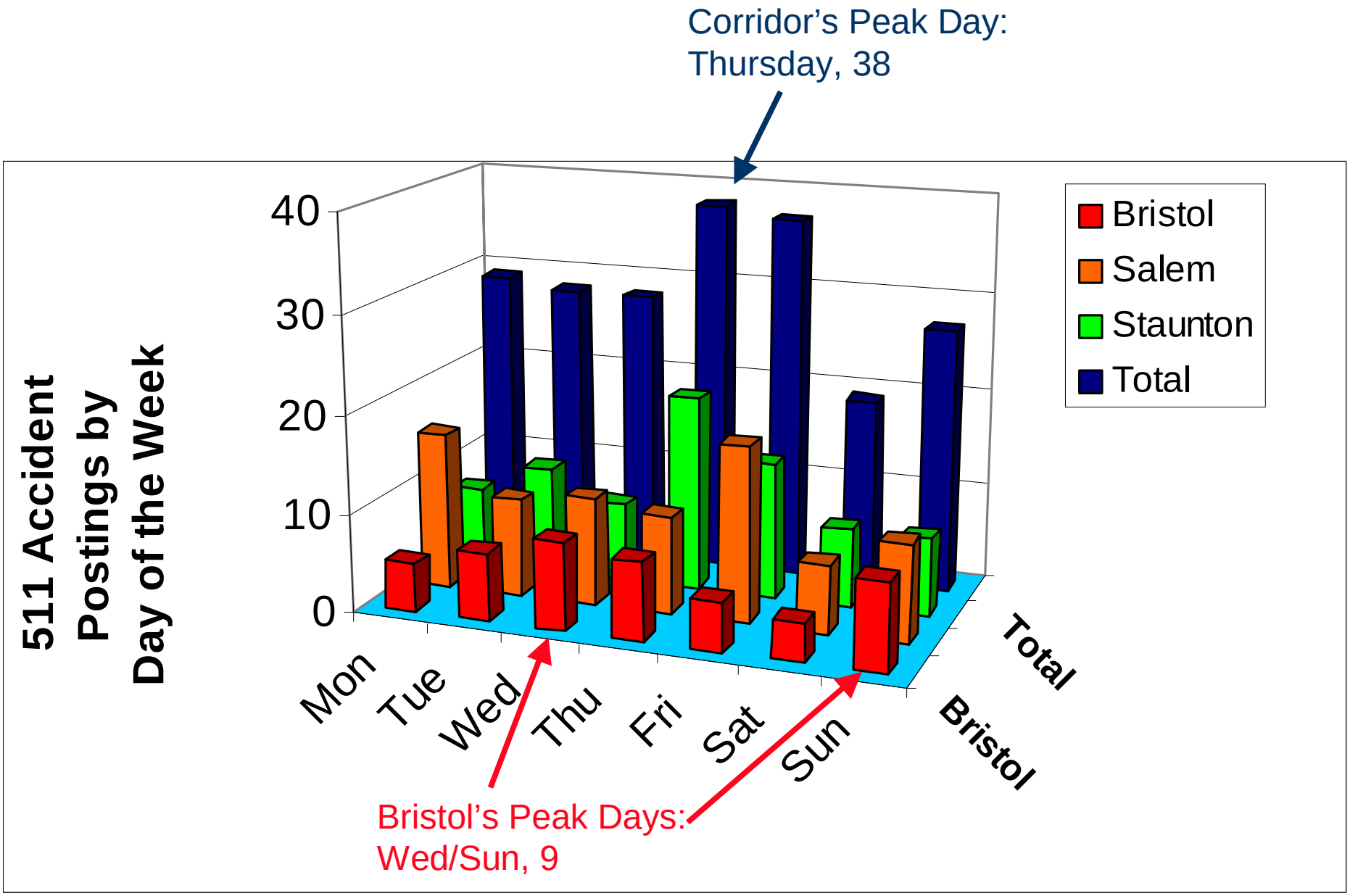

All Districts
Sub Type
Totals
May - July 2003
High Wind Advisory 2%
Special Events 1%
Road Conditions 1%
Road Conditions - Congestion 2%
Fog Advisory 5%
Accident Clean Up 1%
Accident 30%
Accident - Congestion 1%
Multi-Vehicle 1%
Disabled Tractor Trailer 1%
Tractor Trailer 10%
Construction 41%
Accident-Other 1%
Incident 1%

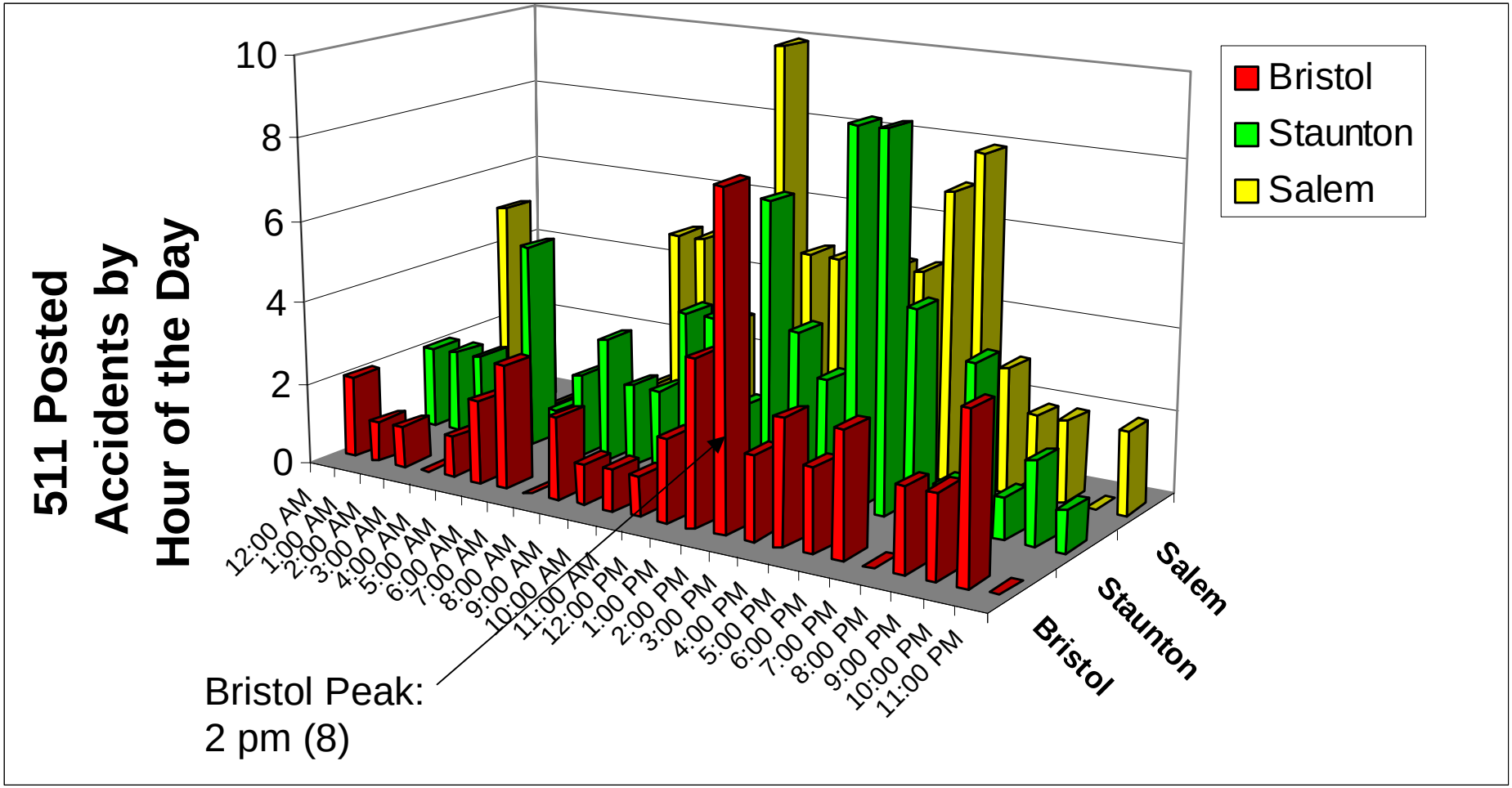



**Bristol's**
**Sub Type Percentages**

May – July 2003

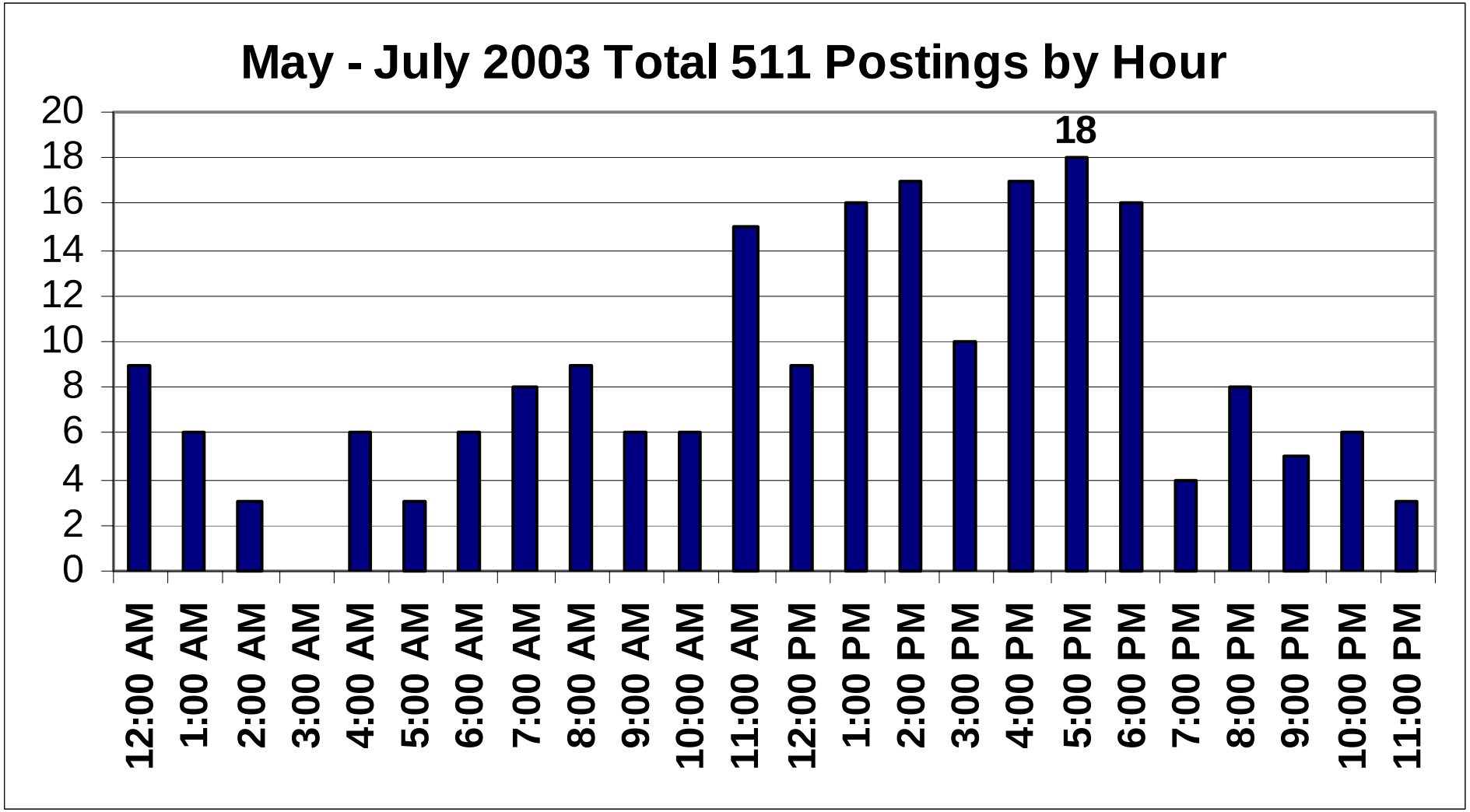

511 Posting Category Summary
May - July 2003
120
100
80
60
40
20
0
89
82
110
42
Bristol
Salem
Staunton
Other
Accidents
Construction
Road Conditions

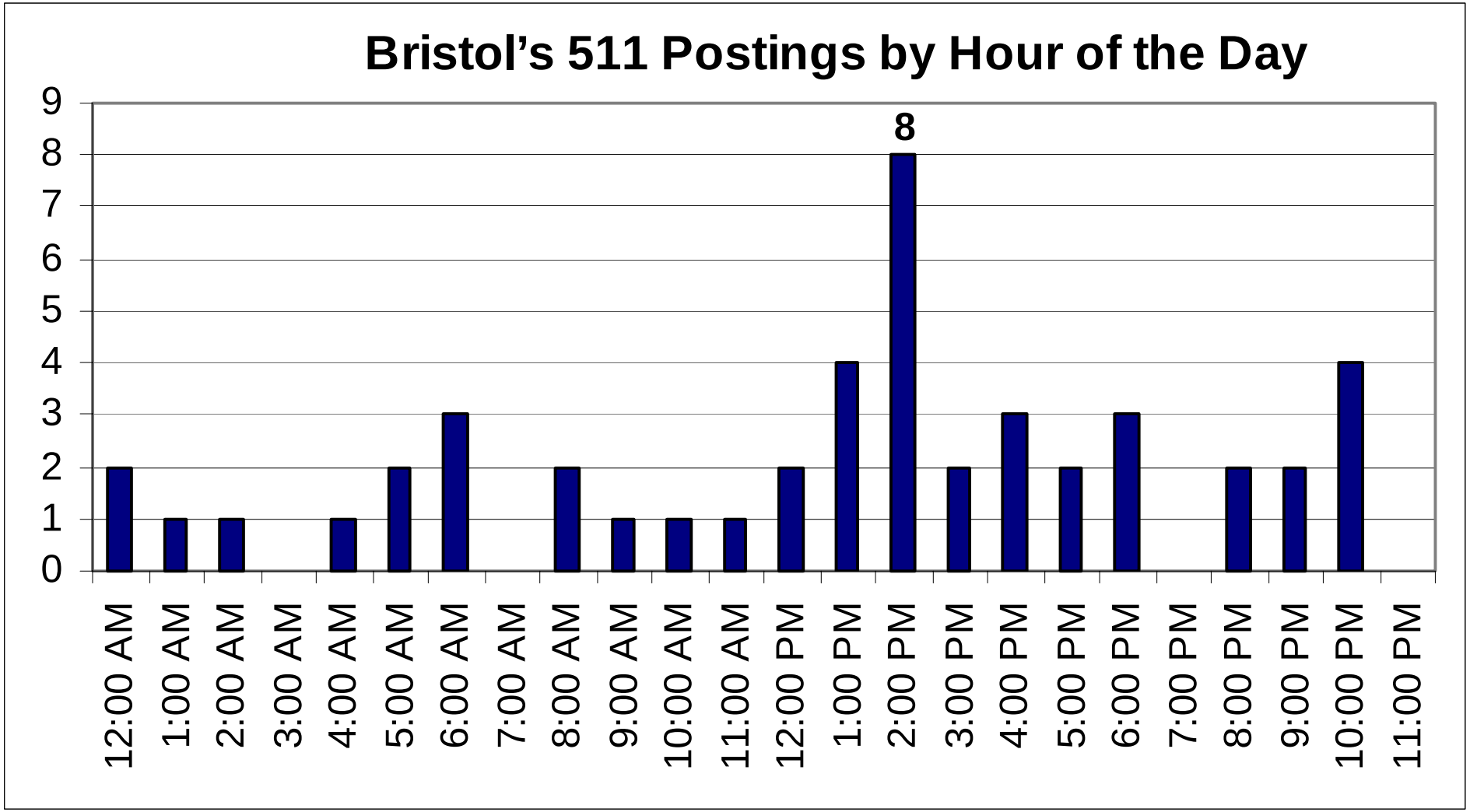

Corridor's Peak Day:
Thursday, 38
511 Accident Postings by Day of the Week
40
30
20
10
0
Mon
Tue
Wed
Thu
Fri
Sat
Sun
Total
Bristol
Salem
Staunton
Total
Bristol's Peak Days:
Wed/Sun, 9




Corridor Peak: 5pm (18)

Corridor Wide

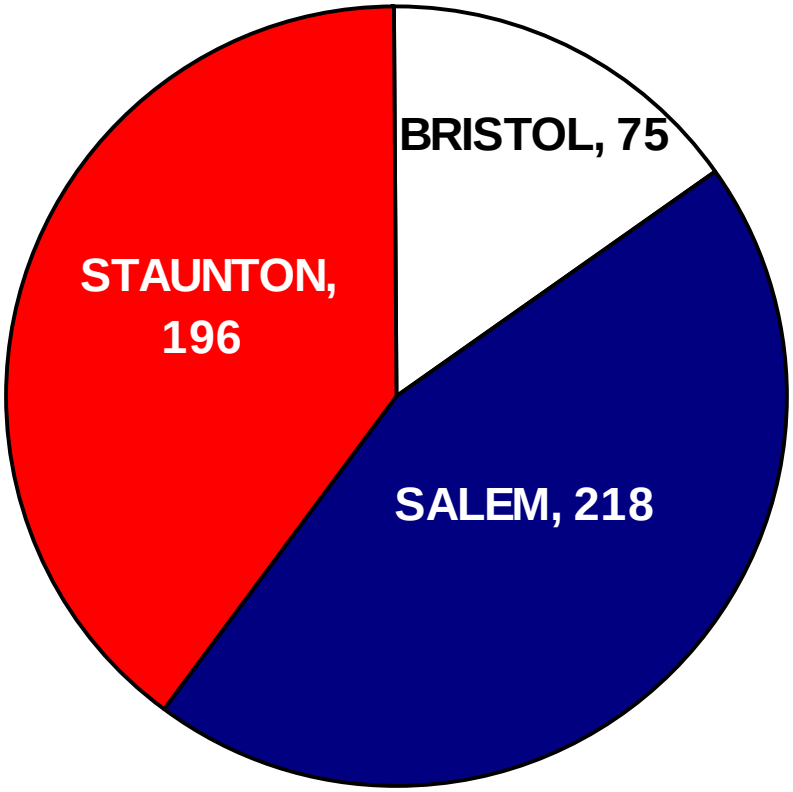



Bristol's 511 Postings by Hour of the Day
9
8
7
6
5
4
3
2
1
0
8
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM

# Information Derived from the VMS Log

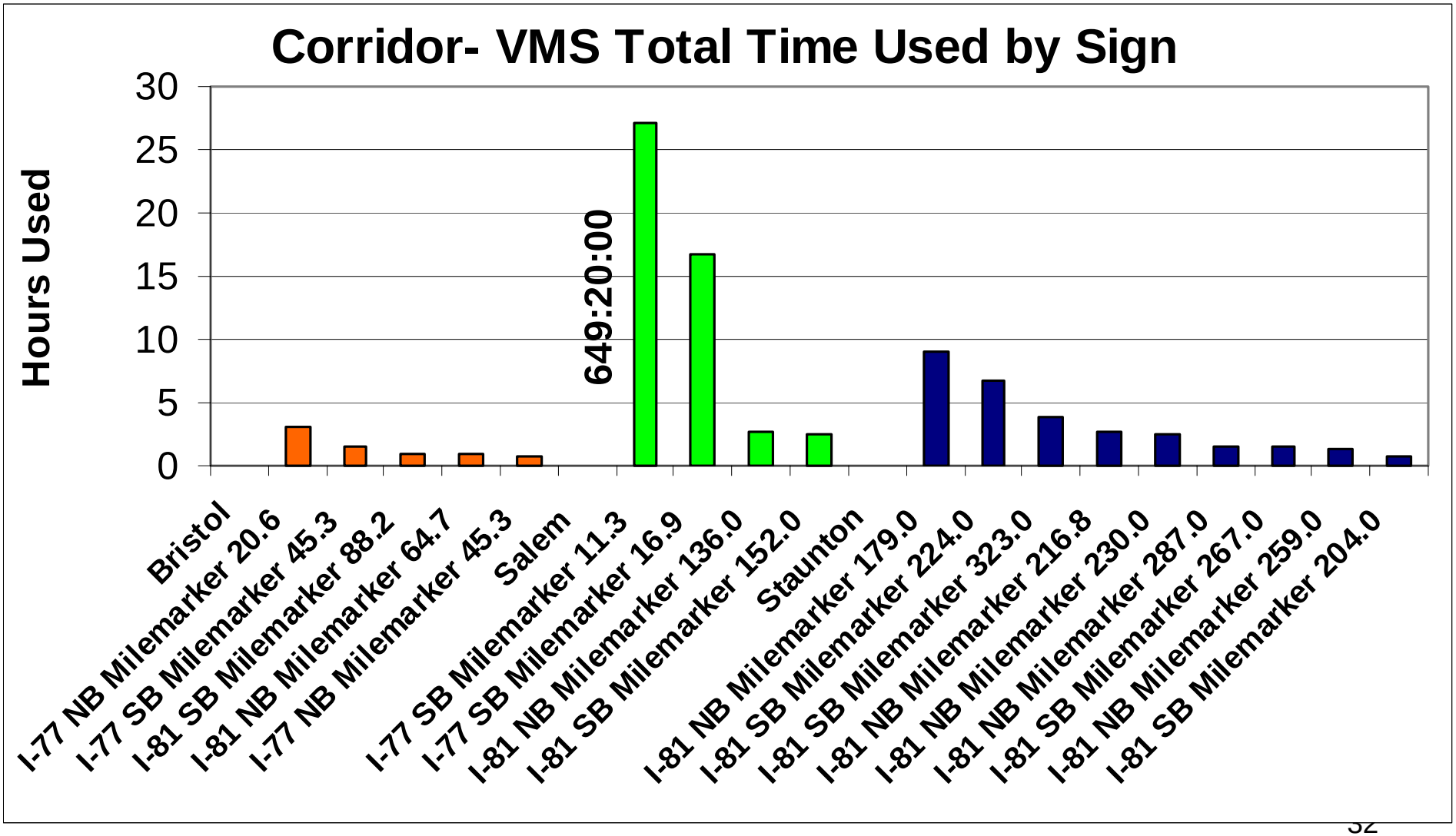
*Virginia Tech Transportation Institute*

## District Distribution of VMS Usage
## May - July 2003

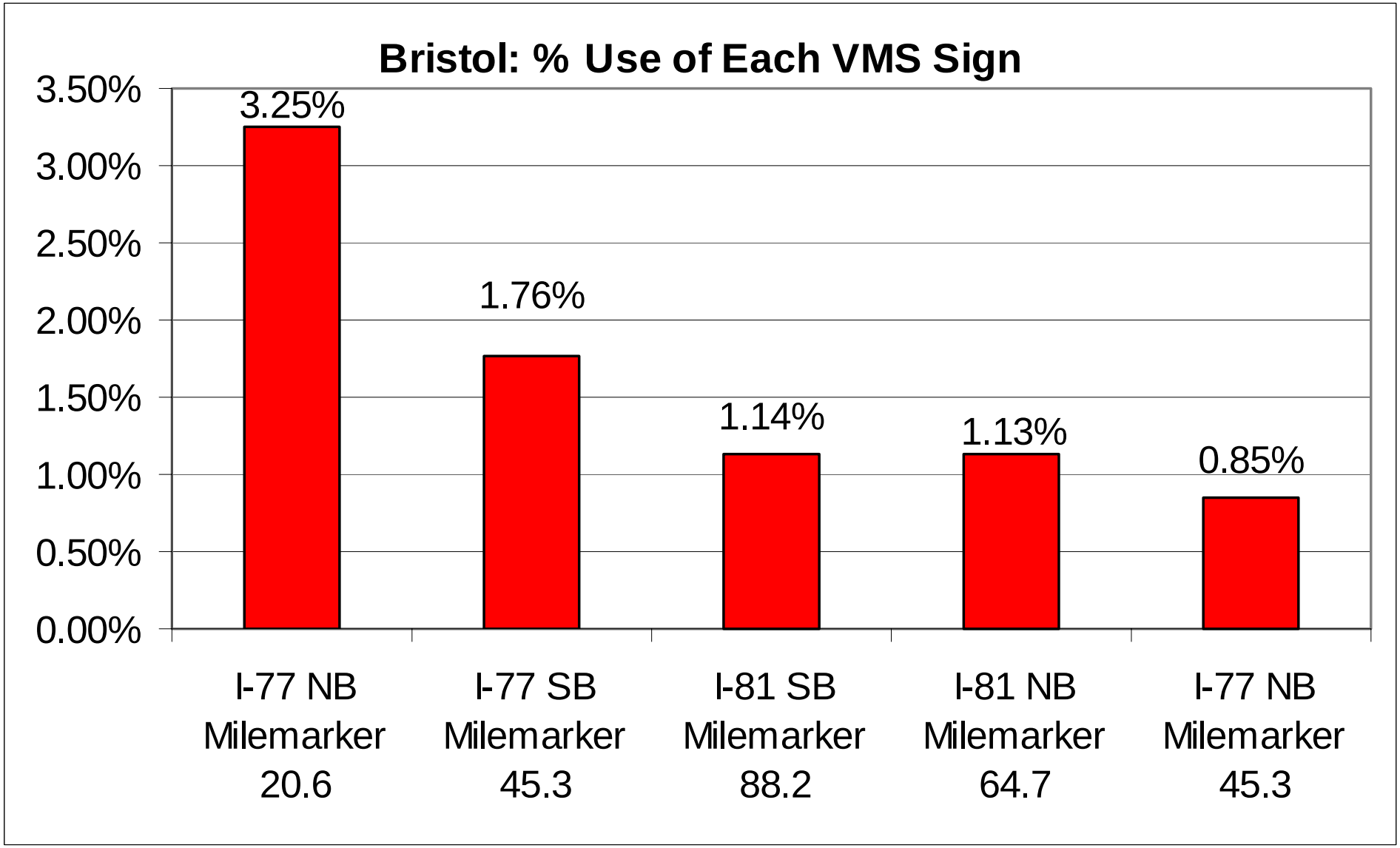


# VMS Usage- Corridor

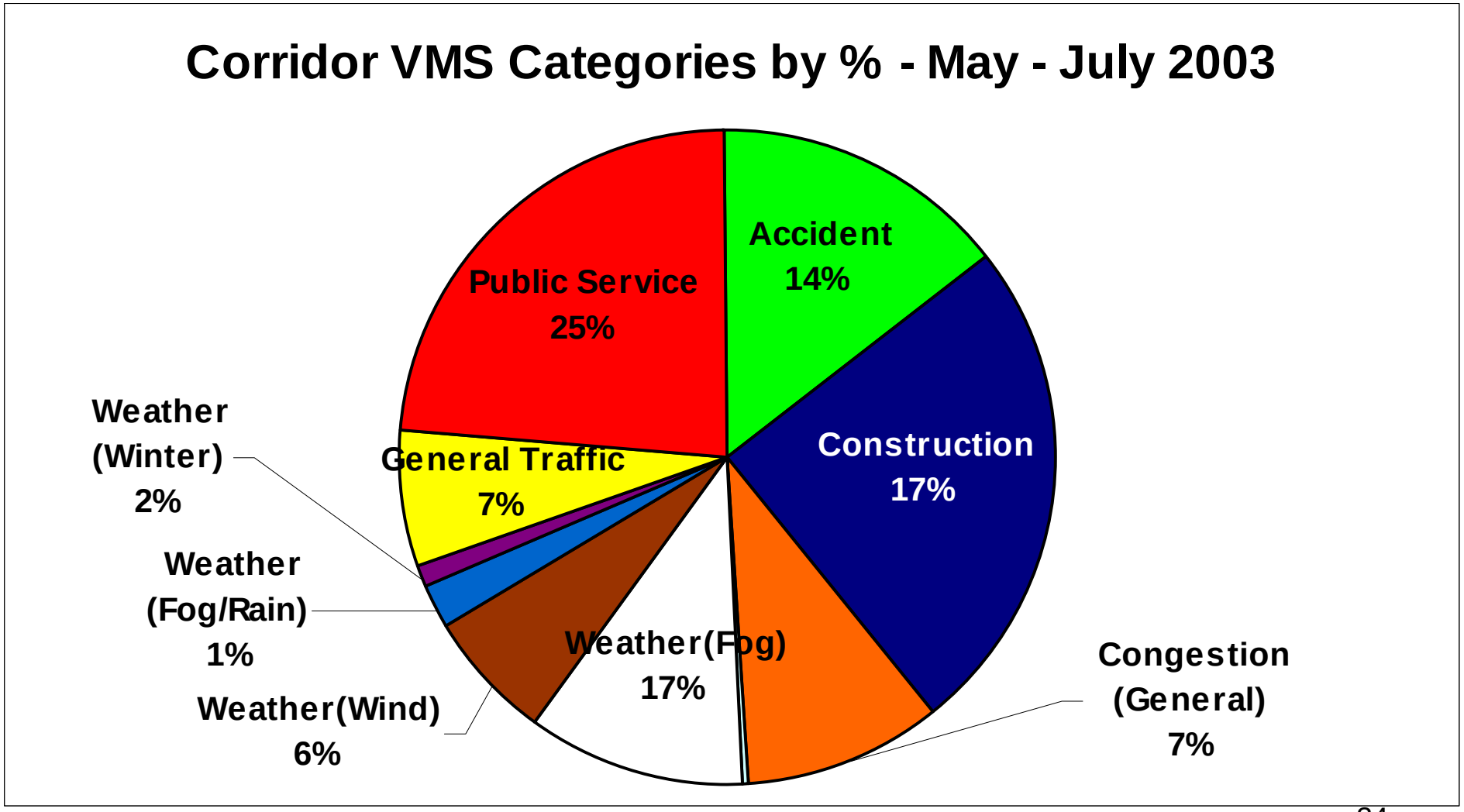
## May – June 2003



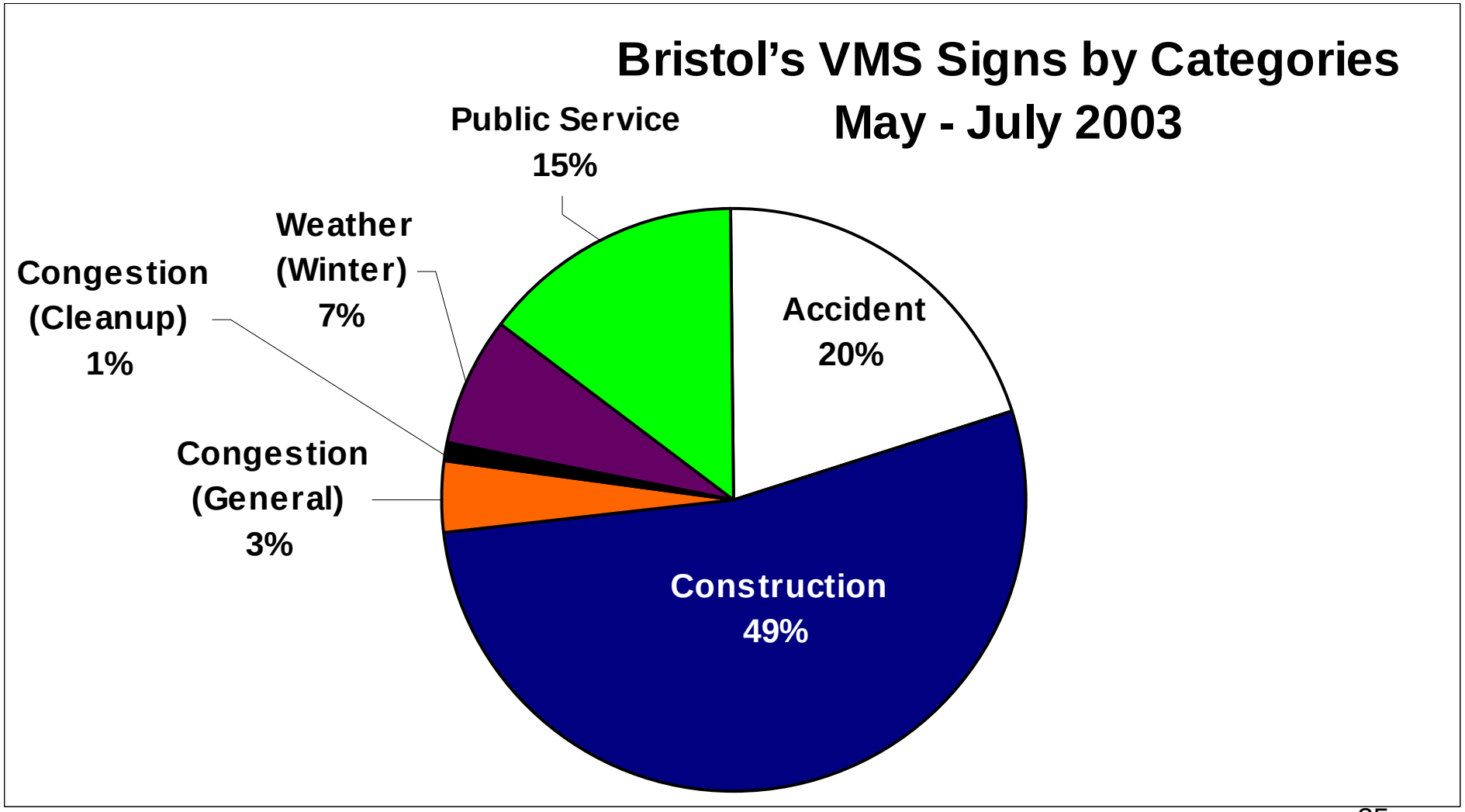
# May – July 2003



# VMS Categories - Corridor



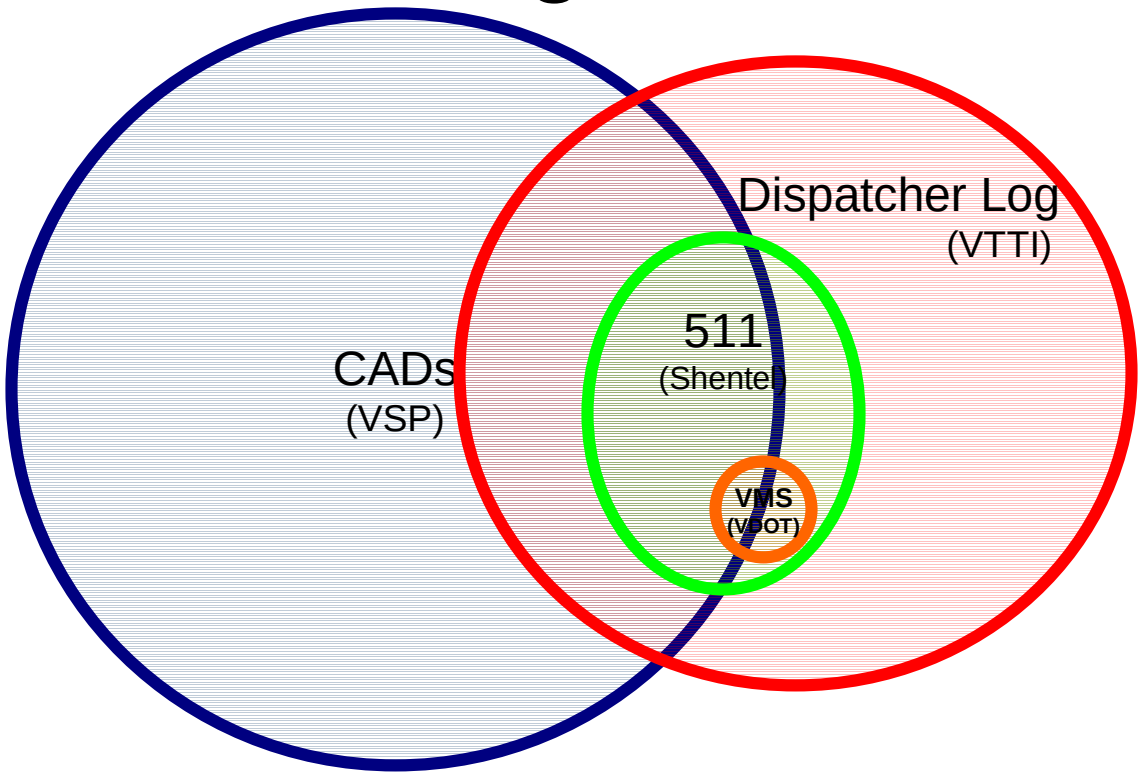
# VMS Categories - Bristol

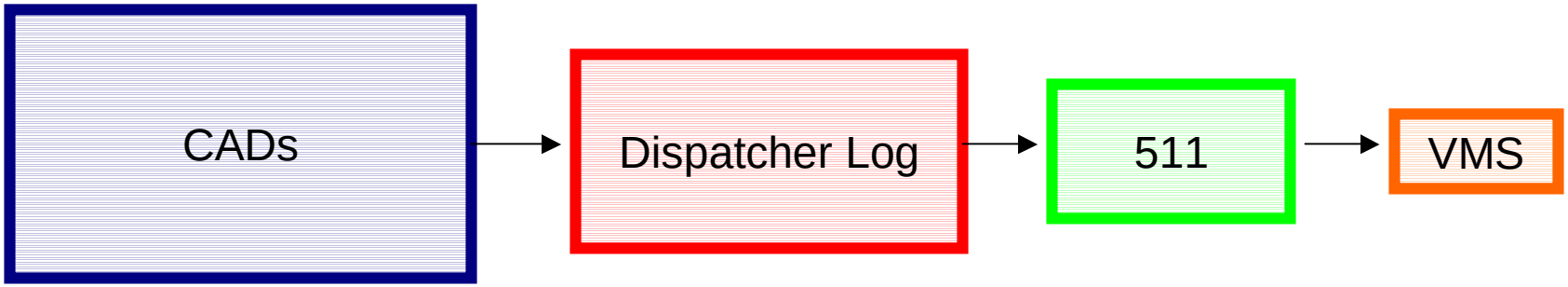


# Background Information

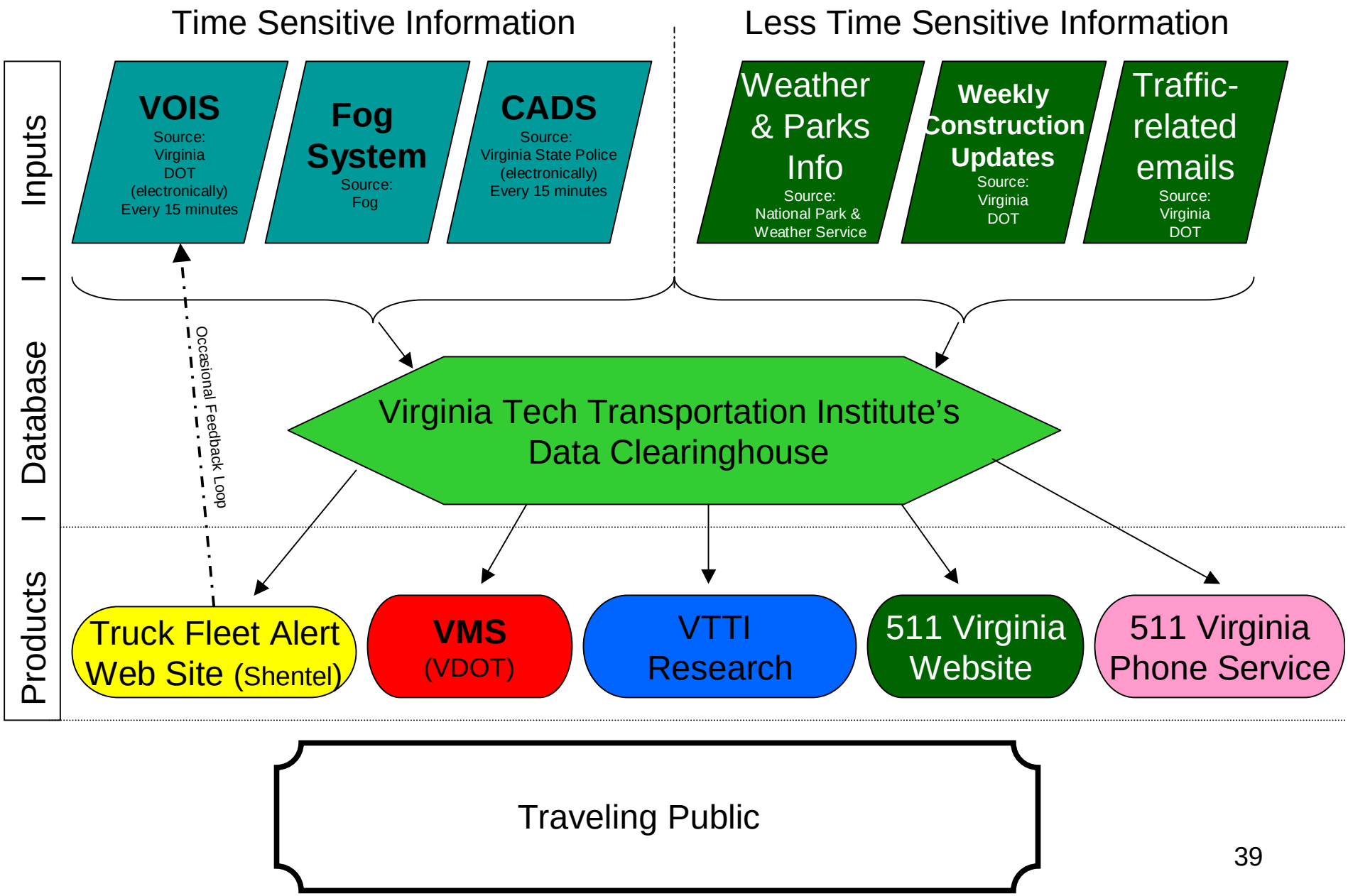
*VTTI's Data Clearinghouse*

# Source Relationships of Clearinghouse Data



# How the Data Flows in the IOC


Time Sensitive Information
Less Time Sensitive Information
Inputs
Database
Products
VOIS
Source: Virginia DOT (electronically) Every 15 minutes
Fog System
Source: Fog
CADS
Source: Virginia State Police (electronically) Every 15 minutes
Weather & Parks Info
Source: National Park & Weather Service
Weekly Construction Updates
Source: Virginia DOT
Traffic-related emails
Source: Virginia DOT
Occasional Feedback Loop
Virginia Tech Transportation Institute's Data Clearinghouse
Truck Fleet Alert Web Site (Shentel)
VMS (VDOT)
VTTI Research
511 Virginia Website
511 Virginia Phone Service
Traveling Public