An Analysis of East Greenwich Fire Department Data

What data did we use?

- Data was provided by the Town of East Greenwich
- The Town provided information taken from 'Accountability Sheets' that was put into Excel files
- The Town provided Call Log information that was put into Excel files
- We imported this data into our proprietary system for analyzing sets of data
- Accountability Sheet data from 1/1/2017 to 5/24/2018
- Call log data from 1/1/2017 to 6/5/2018

Injured on Duty Data

- We looked at this data for the date range of 7/1/2017 5/24/2018
- This was done so that we could compare data with Warwick, which we have data for 7/1/2016 – 5/31/2017
- Warwick had **501** shifts lost to firefighters who were injured on duty
- East Greenwich had 696 shifts lost to firefighters who were injured on duty
- Warwick has over **200** firefighters while East Greenwich has **36**

More Injured on Duty Data

- 27 Warwick firefighters used Injured on Duty days
- 14 East Greenwich firefighters used Injured on Duty days
- The average Warwick firefighter who used IOD days used 18 days
- The average East Greenwich firefighter who used IOD days used 49 days
- More than 38% of East Greenwich firefighters used an IOD day, while 12% of Warwick firefighters used an IOD day

Call Log Data

- Call log data from 1/1/2017 through 6/5/2018
- Roughly 5,050 calls
- 17.7% of the calls came in between 10pm and 7am
- 1 actual fire during this time
- 82.3% of the calls came in between 7am and 10pm
- Less than 30 actual fires according to the logs

More call log data

- 1/1/2017 6/5/2018 is 520 days
- 160 night shifts from midnight to 7am had no calls in this time period
- 30% of the night shifts from midnight to 7am had no calls

An analysis of overtime

- Per the contract, overtime is paid to employees who 'work beyond their normally assigned work schedule' (Section 39-1)
- Overtime is paid at 'time and half' (1.5 times the normal rate of pay)
- Nearly 25% of the shifts worked were overtime shifts
- A 'week' is defined as an 8 day period where a firefighter works 4 days in a row (1 ten-hour day shift, followed by another ten-hour day shift, followed by a 14-hour night shift and then another 14-hour night shift), followed by four full days off
- Each 'week' consists of 48 hours of scheduled work

Why does overtime occur?

• Overtime is mostly made possible when a firefighter does not work his or her regularly scheduled shift

Weeks where overtime was paid but fewer than 48 hours of regular shifts were worked

- 560 firefighter weeks were worked where fewer than 4 regularly scheduled shifts were worked
- This covers at least 25% of the overtime shifts worked in total
- There are extreme examples of weeks where no regular shifts were worked yet overtime shifts were paid
- The decision to eliminate 'floater' positions in the last contract negotiation is directly responsible for a portion of the increase in overtime.

Key for the graphical data

ON A regularly scheduled shift that was worked

ON An overtime shift that was paid at time and a half

VC A paid vacation day

COS (swap time) A regularly scheduled day given up by the firefighter that is worked by another firefighter. The original firefighter is paid for that day and must pay back the substitute firefighter by working a shift in return

SL A shift missed due to an illness

IOD A shift missed due to Injury on Duty

COS (swap time) A shift worked by this firefighter substituting for another firefighter