Automating and visualizing fire department data to inform management and operations

Until recently Seattle Fire Department's complex data sources were highly siloed and difficult to access, much less crossreferenced. The FireSTAT program and the data warehouse have dramatically changed that. The data warehouse – expertly built and administered by Seattle IT – provides a one-stop shop for a growing number of data sources, allowing easy analysis, visualization, and export. We are already seeing the benefits of this system as it reduces manual, repetitive data analysis and provides a window for department leadership into trends and hotspots.

- Jon Ehrenfeld, SFD Mobile Integrated Health Program Manager

THE NEED

The Seattle Fire Department (SFD) identified an opportunity to drive performance with its own operational data, but faced a series of obstacles:

- Disparate and inaccessible data sets: Operational data was stored in 13 unconnected data systems, in a wide variety of formats.
- Reporting tools that for worked for some, but not all: Many of SFD's systems for monitoring
 and interrogating performance were static spreadsheets containing department-level data.
 Many found them difficult to interpret; those who had narrower operational responsibilities
 often could not easily isolate the performance of their battalion or unit.
- Few opportunities to bring data to operational problem solving: With few regular opportunities for department-wide interrogation of operational measures, performance management often relied upon ad-hoc communications from leadership to operational groups.

OUR APPROACH

Innovation & Performance (IP) worked with SFD to design and build a program of data warehousing and performance management. The project delivered infrastructure - in the automation and transformation of key datasets across 13 disparate data sources maintained by the department - and interactive performance dashboards that allowed data to be interrogated from the department to unit-and shiftlevel staff.



DEPARTMENT

PARTNERS Seattle Fire Department

Seattle IT

PROJECT DURATION January - June 2018

IMPACT

Enables SFD operational decision-makers to identify, analyze and respond to key trends in fire and EMS demand

KEY DEPARTMENT CONTACTS

Jon Ehrenfeld (SFD)

FOR MORE INFORMATION CONTACT

- Richard Todd (IP)
- Mike Wypyszinski (IP)

THE RESULTS

FireSTAT deepens the use of data and performance measures by SFD management, with back-end automation and visualization allowing performance measures to be better integrated into management. Not only did the work support collaborative problem solving around SFD's key performance indicators, but the automation process has provided a platform for deeper data analysis and shared problem-solving around these issues.

