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Abstract

The data provides details about Emergency Medical Services provided by fire departments across two states: California and Florida. It has been seen that metrics to evaluate fire department performance during such emergency situations is lacking in its ability to judge or fairness. The general trends over period and type of emergency is visualized and hot spots for the improvement is identified. Moreover, fair metrics to evaluate the efficiency of each fire department has been introduced. The described metrics are Response time efficiency and Site Efficiency. These pair of fair metrics provide the insights where the fire department is lacking: In Arriving at site or inefficiency at handling the situation. With the new metric the fire departments can be ranked all over the state and even the Nation.

Metrics

LU_Clear-Alarm time=Total Time

Response Efficiency= (Arrival time-Alarm time)/(Total Time)

Site Efficiency=(LU_Clear- Arrival time)/(Total Time)

Conclusion

It has been seen that for both states the greatest number of incident has occurred during afternoon between 11 AM to 4 PM. Moreover, California has observed most of the incidents in the month of march and Florida has observed most of the incidents in the month of August. Tampa has seen the greatest number of the incidents in Florida. On the other hand, in California Lancaster has the observed the greatest number of incidents. From our new metric we can compare two fire department for same category of Initial level care category. For IL_care 2, CDFEHAMA has 60% Response time efficiency where, Little lake has 99% site efficiency. There are 10 fire departments all over two states who has optimum response time of less than 9 mins.