# Charlotte Fire Department

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# 1. Executive Summary

## 1.1 Project Purpose

A brief overview of the project purpose.

## 1.2 Methodology Overview

Brief overview of methodology (1-2 sentences); refer to methodology section and appendix.

## 1.3 Key Findings

- Finding 1

- Finding 2

- Finding 3

- Finding 4

- Finding 5

## 1.4 Conclusions

1-3 conclusions summarized here.

# 2. Methodology Summary

## 2.1 Source Data and Initial Processing

### 2.1.1 Analogy Source and Destination Processing

Description of analogy source and destination processing.

### 2.1.2 Incident Data Processing

Description of incident data processing.

## 2.2 Demand Modeling

### 2.2.1 Overview

Overview of the process, definition of analogy, and intrinsic modeling.

### 2.2.2 Analogy Modeling

Description of analogy modeling.

### 2.2.3 Intrinsic Modeling: Motor Vehicle Accidents

Details of intrinsic modeling for motor vehicle accidents.

### 2.2.4 Intrinsic Modeling: Unchanging Land Uses

Details of intrinsic modeling for unchanging land uses.

## 2.3 Validation Procedures

Overview of validation procedures.

# 3. Findings and Conclusions

## 3.1 Growth and Change Environment

### 3.1.1 Planned Land Use Changes

Characterization of destination regions—numbers, sizes, maps.

### 3.1.2 Historical Patterns of Demand Change

Discussion of MVA and citywide intrinsic growth model outputs.

## 3.2 Workload / Demand Change Patterns

### 3.2.1 Geographic Demand Change Patterns

- Quantify magnitude, percentage, and variability of change.

- Tables and choropleth maps by station area, battalion, and city council ward.

- Citywide workload change heatmap.

- Emphasize metrics of uncertainty.

## 3.3 Predicted Impacts on Operations

- Trends by level 2 cause.

- Trends by severity level (0-6).

- Predicted UHU changes.

- Predicted change in 90th percentile IRT by station area.

- Predicted change in 90th percentile ERF for critical events by station area.

- Comparison of numbers of "missed calls" by station area or PZ.

## 3.4 Conclusions

TBD.

# 4. Appendix: Detailed Methodology

Detailed explanation of the methodology. Include any necessary diagrams, tables, or references as required.