

Survey of Mental Health Resources for North and South Carolina Fire Departments

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Introduction

Firefighters face repeated exposure to traumatic incidents, **increasing their risk of developing behavioral health conditions**, including Post-traumatic Stress Disorder (PTSD), suicidal ideations (SI), and substance abuse.

Traditional recovery strategies practiced in the workplace are often not adequate for firefighters given their strenuous occupational environment. **Stigma** and a **culture of toughness** act as barriers to care, leaving firefighters **disproportionately vulnerable to mental health challenges**.

While multiple studies over the last 10-15 years have shown the **need for Mental/Behavioral Health (MBH) Resources tailored to firefighters**, the number of fire departments actually providing MBH resources to their firefighters is unknown.

Objectives

- Better understand **barriers to care** that firefighters experience in accessing mental and behavioral health resources
- Use data from the study to justify the need for **better resource allocation**

Method

A survey created last summer was reviewed by the UNC Charlotte Institutional Review Board (IRB) and was found to be "Not Human Subjects Research:"

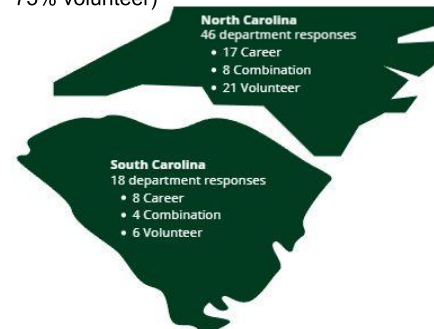
- **Who:** Fire chiefs
- **Where:** departments in **North and South Carolina**, with approval to expand surveyed area to all of the southeastern United States
- **What:** demographic information (including call volume and annual occurrence of potential critical incidents) and **behavioral health offerings** at their department
- Participation was voluntary

An additional survey was developed to ask fire chiefs about the **cost of behavioral health programs** at their department to help determine if cost efficiency (program cost/firefighter) may be a limiting factor, especially for small departments.

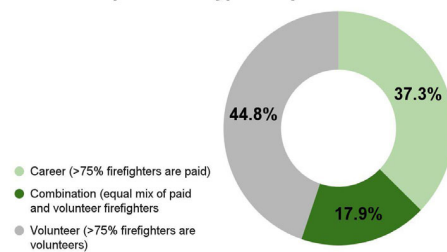
Collected Data

Survey responses represented **68 departments** across North and South Carolina. Departments were categorized by the following criteria:

- **State:** North Carolina or South Carolina
- **Size:** number of firefighters, with each part-time firefighter counting as 0.5
- **Type:** Career (over 75% paid), Combination (mix of paid and volunteer), or Volunteer (over 75% volunteer)

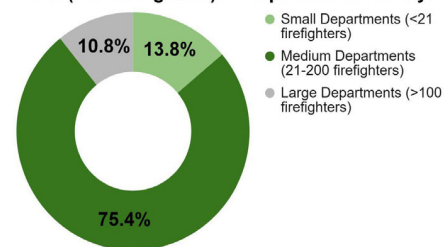


Department Types Represented



Career, volunteer, and combination fire departments were included in surveys

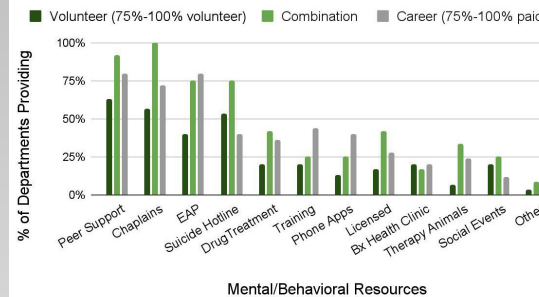
Size (# of firefighters) of Departments Surveyed



Size, measured in number of firefighters, of each department surveyed

Results

Resources by Department Type

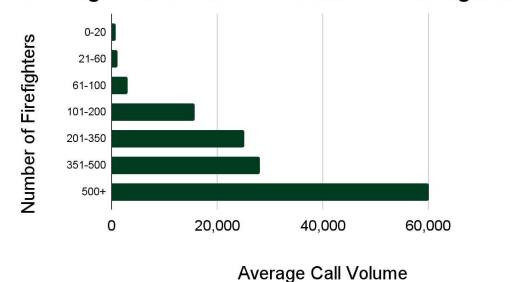


Logistic regression was performed on the survey results, with North Carolina and Volunteer set as baseline levels (for state and department type as predictor variables).

Results of logistic regression analysis show that:

- 1) SC was more likely than NC to offer all of the different kinds of services, but it was not statistically significant.
- 2) By department type, Career > Combination > Volunteer represent the likelihood of offering each MBH resource, but the relationship is not statistically significant in most cases.
- 3) The lack of significance is likely due to low sample size across all categories.

Average Call Volume vs. Number of Firefighters



Fire chiefs were asked to provide the **annual call volume** for their departments, including frequency of potentially critical incidents. On average, larger departments demonstrated higher call volumes, as well as higher rates of potentially critical incidents. **Number of firefighters in a department and higher call volumes generally correlated to a wider variety of available mental health resources.**



Higbee, therapy K9 at Charlotte Fire Department

Conclusions

- The study highlights **differences in availability of behavioral health resources** to firefighters of different department types
- Large departments, with over 100 firefighters, and career departments demonstrated the **strongest association with variety of resources available to firefighters**
- 57.45% of North Carolina departments and 88.89% of South Carolina departments **indicated interest in participating in a statewide comprehensive behavioral health program**
- Findings, especially statistical significance, were limited due to a small sample size
- Future research directions look to increase the sample size, by surveying departments across the United States
- Our findings may be useful to persuade future researchers and law-makers that **increased funding** is needed towards behavioral health programs for firefighters

References & Acknowledgements

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