

RETENTION AND RECRUITMENT FOR TODAY'S FIRE SERVICE

Research Presented in Partial Fulfillment
of the Requirements for the
Executive Fire Officer Program

by
Don Wesley Williams

National Fire Academy

April 2024

Abstract

The fire service is experiencing a decrease in qualified applicants. In addition to the number of applicants, firefighters are moving between departments at an increased rate. The fire service was a sought-after profession in previous years, and employees were less apt to change departments. The American Fire Service was now seeing a decline in the number of applicants, creating a need to compete with other agencies and professions for staffing and lowering requirements for application. This research was focused on identifying how fire departments can be more attractive to future applicants and retain current employees. Qualitative data were collected by interviewing members of the Grapevine Fire Department. New and current employees are more fiscally driven and expect a better work-life balance than previous generations. Different age groups of firefighters were interviewed and categorized to gain insight into how the expectations for employment have changed and how the American fire service must respond. At the conclusion of the study, several themes were identified that relate to retention and recruitment. The culture of the Grapevine Fire Department contributed to increased job satisfaction. Salary is a factor in the recruitment and retention of employees. Fleet reliability issues negatively impacted employee job satisfaction. Excessive overtime, specifically forced overtime, decreased employee satisfaction and burnout was not a factor for the Grapevine Fire Department at the time the study was conducted.

Acknowledgments

I want to thank/acknowledge the Grapevine Fire Department and the participants of this study.

My affiliation with the Grapevine Fire Department is provided as biographical information. No official sponsorship or endorsement of this Capstone Research Paper by the Grapevine Fire Department was provided or should be inferred.

The views expressed in this Capstone Research Paper are the views of the author and participants' alone and do not represent the official views of the U.S. Government or any fire department. Certain commercial entities, equipment, or materials may be identified in order to describe a concept or experimental procedure adequately. Use of company names or devices does not imply recommendation or endorsement by the Grapevine Fire Department, nor is it intended to imply that the entities, materials, or equipment are the best available for the purpose.

Contents

CHAPTER 1. INTRODUCTION	6
Background	7
Significance of the Study	8
Problem Statement	9
Purpose Statement	9
Research Question	9
Summary	10
CHAPTER 2: LITERATURE REVIEW	11
Introduction	11
Existing Literature	11
Synthesis of the Existing Literature	16
Summary	17
CHAPTER 3: METHODOLOGY	18
Introduction	18
Research Design	18
Population and Sample Size	19
Instrument	21
Research Process	23
Ethical Considerations	25
Summary	27
CHAPTER 4: STUDY RESULTS	28
Introduction – Demographics of the Participants	28

Research Results	28
Summary	35
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS	36
Summary of the Results	36
Conclusions Based Upon the Results	37
Limitations	38
Implications and Recommendations to the Field.....	39
Recommendations for Future Research	42
Conclusion	43
REFERENCES	44
APPENDIX A: Frontline Mobile Health-Burnout	49
APPENDIX B: Take Home Salary	50
APPENDIX C: Salary Minimums	51
APPENDIX D: RQ with Interview Questions.....	52
APPENDIX E: Interview Consent Form	54
APPENDIX F: Participant Recruitment Letter	56
APPENDIX G: Research Approval Letter	57
APPENDIX H: Data Analysis	58

CHAPTER 1. INTRODUCTION

The American Fire Service is facing a decline in applicants for available positions. Departments nationwide are experiencing challenges with the recruitment and retention of firefighters. Current fire service employees nearing retirement will be more difficult than ever to replace due to decreased interest in emergency service. The younger generation's interest in public safety work appears to be decreasing, as indicated by the low number of applicants for firefighter jobs at the St. Louis Fire Department (Ludwig, 2023). The Grapevine Fire Department and surrounding cities in the Dallas Fort Worth (DFW) metroplex are experiencing low applicant numbers and decreased experience and certification levels of applicants. Departments must focus more on recruiting new employees and incentives to retain current firefighters.

This qualitative study explored how the fire service can target new employees and incentivize current employees to retain the current workforce. Recruitment tactics must evolve to encourage participants to join both career and volunteer organizations (Ludwig, 2023). Fire service leaders must be creative and explore new ways to increase the number of applicants and keep the current workforce morale high. Decreased staffing issues are trending and may worsen as department members retire and less of the working-age population fills public safety jobs (Ludwig, 2023). Research is needed to explore the expectations of younger generations regarding job satisfaction.

Culture is identified as having a significant impact on the workforce (Center for Public Safety Excellence [CPSE] & International City/County Management Association [ICMA], 2020). A better understanding of generations would be a key to solving the staffing issues organizations would continue to face (CPSE & ICMA, 2020). The Center for Public Safety

Excellence has suggested that to succeed, organizations must understand generational dissimilarity and formulate strategies based on those factors (CPSE & ICMA, 2020).

Background

Career departments are facing issues similar to those of volunteer fire departments. Recruitment numbers are low, and staffing shortages are present in career departments. These issues are causing fire service leaders to inquire about the next generation's interest in emergency services. A possible strategy to combat issues with recruitment is to invest in programs that included inclusiveness and utilized apprenticeships (Stein, 2023). A search of firefighter staffing shortages exposed a problem from coast to coast. Career and volunteer organizations are experiencing staffing shortages. Initially, the fire service started to see low numbers of interested members in the volunteer fire service in the 1980s (Fahy et al., 2020). Career fire departments began experiencing a decrease in the number of applicants for paid departments that extended to departments that do general hire and paid-for training, including structural firefighter and emergency medical service (EMS) training. At one time, the Grapevine Fire Department had an approximate 10:1 ratio of applicants to available positions. Basic Structural Firefighter and Paramedic certifications were required for applicants. The April 2023 hiring cycle produced one trained Firefighter/Paramedic and 14 Firefighter/Emergency Medical Technician Basic (EMT-B) applicants for seven positions available at the Grapevine Fire Department. This demonstrates the challenges faced in recruiting applicants to the fire service. Recruitment of certified members was not an issue in the Grapevine Fire Department in past years, but with the number of applicants continuing to decrease, a different approach is needed.

Significance of the Study

Firefighters are needed to meet the demands of the United States' growing population. The United States Department of Labor projected over 26,000 open positions for firefighters each year and expected this trend to last a decade (U.S. Bureau of Labor Statistics, 2023). For example, the Houston Fire Department listed four applicant tests for firefighters in five months. The Dallas Fire Department listed the date for closing as "continuous," indicating an ongoing cycle of low staffing and a constant effort to hire firefighters. Staffing issues are present across the United States. Exploration into recruitment strategies by fire service leaders is needed to identify how to increase appeal to young Americans and institute cultural change to strengthen employees' bond to their department and the fire service. Low staffing levels and a high overtime rate compounded the problem of keeping sufficient fire and EMS personnel on staff to respond to increasing incidents as the population grew and emergency services were overutilized. The difference between how things were previously and how they are now is interpreted differently by newer generations in the fire service (Lexipol Team, 2022). Fire service leaders need to identify what newer generations are seeking and how to recruit today's youth into the fire service. The U.S. Fire Administrator's Summit 2023 identified retention and recruitment as critical issues for the fire service. A constant decline of firefighters in the United States surfaced, impacting career and volunteer organizations (U.S. Fire Administration, 2023).

The research project focused on identifying ways to better retain current employees, including initiatives and methods to recruit new fire department personnel. The impact of low job satisfaction as a contributing factor of low staffing was explored. Increased salary may not be a viable option for organizations to retain employees. As such, strategies for increasing job satisfaction and incentivizing should be explored.

Problem Statement

The problem addressed in this study is low recruitment numbers and difficulty retaining current fire service employees. The U.S. Fire Administration and fire service leaders identified retention and recruitment as critical issues and identified the stress that staffing shortages place on communities (U.S. Fire Administration, 2023). Fire departments employ most emergency medical service personnel, indicating the need to remain at target staffing levels (Byron, 2018). Communities face numerous challenges from low staffing levels in local fire departments that provide emergency medical care and fire suppression. COVID-19, active shooter situations, and general civil unrest contributed to staffing issues as emergency responders faced new systemic issues (Stein, 2023). The fire service has lacked an understanding of successfully recruiting new generations into the organization or did not implement published recommendations (Bryon, 2018). A better understanding of the underlying issues in recruitment and retention is needed.

Purpose Statement

The purpose of this study was to explore retention and recruitment tactics by the fire service to address staffing deficiencies. The research focused on increasing appeal to applicants by exploring ways to improve recruitment strategies. Job satisfaction was also explored as a potential factor of employee retention. The qualitative research focused on recruitment methods that applied to a new generation of firefighters.

Research Question

Qualitative research questions were developed to explore strategies to improve new employee recruitment and increase current firefighters' retention. Impacts on job satisfaction, burnout, and staffing shortages were explored. Generational ideology may be a contributing factor in retention and recruitment. Traditional tactics are failing to reach young people, and

there are more attractive options available (Neal, 2017). The following questions were developed to guide the study:

RQ1: How can the fire service improve employee satisfaction and retention?

RQ2: How can fire department leadership meet recruitment goals?

RQ3: What challenges exist regarding employee retention in the fire service?

RQ4: How do staffing shortages impact retention and recruitment in the fire service?

Summary

The fire service has identified retention and recruitment as a significant issue. Staffing shortages will increase as populations rise and fire departments' call volumes increase. There is an immediate need to identify an effective recruitment strategy for fire service employees and increase the retention of current employees in emergency service positions. In the following chapters, the available literature will be reviewed, as well as the approach used to gain insight into areas that need improvement in retention and recruitment.

CHAPTER 2: LITERATURE REVIEW

Introduction

The literature review focused on gathering scholarly and peer-reviewed published sources related to deficiencies in recruitment strategies, identifying potential improvements in retention for fire-based emergency medical transport systems, and identifying attractive incentives for the younger generation of emergency responders. The literature was utilized to identify retention issues and potential advances in diversity recruitment and to suggest possible incentive strategies that appealed to a new generation of firefighters. Similar work fields, such as the branches of the military and hospitals, were reviewed to add perspective to generation issues, job satisfaction, recruitment, and retention strategies. Several studies data analyses specific to the Grapevine Fire Department became available during the research project. These studies resulted from a salary parity inquiry and the annual wellness study of the Grapevine Fire Department.

Existing Literature

Peer-reviewed and scholarly published literature is lacking regarding why the fire service and EMS are less appealing to the younger generations. There was recent literature available that directly pertained to volunteer firefighter decline and the need to recruit women and minorities into the fire service. Literature specific to career fire department staffing shortages was limited during the literature review. The literature search was expanded to include generational issues in the fire service specific to the millennial generation that will be responsible for emergency service needs as the baby boomers and Generation X near retirement. The U.S. Navy indicated that job satisfaction is related to retention (Taylor et al., 2021). Fire service leaders needed to understand retention issues from low job satisfaction and burnout in emergency service fields. In multiple U.S. Navy studies, career continuance resulted from an individual's job satisfaction

(Taylor et al., 2021). The generational essentials of employees needed to be redefined in recruitment strategies. Fire service traits that previously attracted prior generations may be less attractive to newer generations (Neal, 2017).

Staffing Issues

Fire departments need qualified individuals to keep up with the population growth and the increased utilization of emergency services. For example, in 2022, the Seattle Fire Department was short by 75 positions and only met its staffing requirement 32% of the time. The department attributed this deficiency to retirements and the inability to recruit personnel (Gilbert, 2022). Additional literature identified a conflict between the four generations present regarding job satisfaction while working in the hospital emergency department (Guptill, 2022). One study was specific to hospital workers as a whole but suggested that more information specific to the emergency department was needed individually (Guptill, 2022). Fire service generational issues could be similar to those of hospital emergency departments. Job satisfaction also contributed to fire department staffing issues. A study of Central Florida firefighters found that leadership style contributed to the retention decisions of newer generations (Greek, 2021). New employee job satisfaction may be linked to certain leadership styles that create an ideal workplace.

Fire Service Culture

Culture was listed as one of the most considerable obstacles to retaining new employees in the 21st Century White Paper (CPSE & ICMA, 2020). It has been reported that to increase recruitment to their target numbers, the United States Military would have to undo a decade of downsizing and monetary issues (McMahon, 2019). Millennials are expected to represent much of the workforce by 2025 (McMahon, 2019). The generation known as millennials or Generation Y is defined as individuals born from 1981 to 1996.

Several challenges exist for those interested in careers in the fire service. Firefighting is an inherently dangerous job. It is not only physically demanding but can also be mentally challenging. Research has identified emergency service work itself as exciting, and many interviewees in the qualitative study stated that shift work is viewed as a benefit and that the 48 hours off was well worth the 24-hour work shift (Firmin, 2018). Motivating factors that attract potential firefighters should be considered to improve recruitment.

Helping others was found to be the most significant factor in choosing fire service as a career, although that particular study did not identify age or generational characteristics (Firmin, 2018). In addition, the study focused on what the fire service was in 2018 and did not include enough minorities or women to identify additional staffing groups for future recruitment as the fire service continued to be comprised of White males (Firmin, 2018). The analysis lacked insight into the generational differences between the younger members of society who will inherit the emergency service and the generations nearing retirement. Compared to older generations, the millennial generation had low interest in jobs that contributed to society and a higher rate of depression (Badar, 2023). Emergency services are public service careers and are considered high-stress jobs. Individuals have certain personality traits that draw them to the fire service and EMS systems. The study identified a non-age-descript sample of White males to relate what personality traits were present (Badar, 2023). More research is needed to determine what will apply to all generations in the workforce in 2023 to include differentiation between age groups, minorities, and females.

Inclusion for Recruitment

Emergency medical service (EMS) personnel and firefighters are primarily White males. In 2019, those who recertified their EMS licenses were 85% Caucasian and 76% male (Rivard,

2020). The total population at that time was exceptionally close to an equal male-to-female split. Increasing the number of women in emergency services would lessen staffing issues. The number of female firefighters was 8% overall compared to military branches, where women comprise over 17% (Koeppel, 2022). The statistics suggest that women physically and mentally operate proficiently in the armed forces. The rate of women in the fire service could stabilize at a similar number compared to the branches of the armed forces if an effective recruitment strategy were implemented, including educating young females about the opportunities available and addressing inclusiveness issues associated with a male-dominated workforce (Koeppel, 2022). The military recruitment strategies doubled enlistment as the numbers in fire service recruitment remained the same. The retention factor was low for females in the military, with male retention being much higher than female retention numbers (Borg, 2022). Departments intending to recruit women usually employ few women (Koeppel, 2022). The study went on to identify various phrases like “manpower” and “brotherhood” that tend to describe the fire service as a male-dominated organization (Koeppel, 2022). It was reported that family constraints make women more likely to separate from the military (Street, 2021). Overall, the family dynamic can be complicated when shift work is a necessity. The work-life balance of emergency service shift work was found to have impacted both women and men (Street, 2021).

Burnout and Retention

The Dallas Fort Worth (DFW) area is ranked as one of the fastest-growing metro areas in the United States. The populations in the counties of Tarrant, Dallas, Denton, and Collins are increasing, contributing to the need for more emergency responders. The suburbs surrounding DFW offer low housing costs and abundant job opportunities that were attractive to a diverse workforce (Clark, 2023). The population growth statistics include the increased need for

emergency services with less availability of applicants and the need to identify better strategies to recruit and retain employees while incentivizing the fire service.

Burnout has been a critical component of retention in the fire service and first responders in general. Over 5,000 EMS and firefighter personnel were surveyed in 2003. Only 10% of the individuals surveyed did not identify staffing shortages as an issue (Lexipol, 2023). Firefighter burnout was linked to high turnover rates and excessive sick leave, further contributing to staffing levels and excessive overtime. The effectiveness of organizations had been decreased, job satisfaction lowered, and an overall decreased organizational commitment negatively impacted organizations and contributed to firefighter burnout (Smith, 2017). Adequate resource availability was a crucial component of minimizing retention issues. The study by Smith (2017) included responses from 208 career firefighters. The sample size was large, but the study represented a small-time frame. A long-term study of burnout has yet to be conducted.

The Grapevine Fire Department annual wellness assessment includes a comprehensive questionnaire that gathers data on employee burnout. The assessment is conducted each year by Frontline Mobile Health. The survey data are reported to the administration to identify trends within the department that need improvement and provide an overall department wellness level. The participants completed the wellness survey in November of 2023. The data was made available to the fire administration in March of 2024. The data (see Appendix A) indicated that 24 of the 95 individuals in the Grapevine Fire Department had a moderate level of burnout.

Salary

Individuals in different generations interpret the impact of perceived job satisfaction differently. Understanding the extent to which monetary value motivates different generations is important. Generation Z motivators tend to be more wage-based, and organizations should

emphasize material rewards (Mahmoud et al., 2020). In prior generations, increased job satisfaction may have overcome lower salaries. This model may not apply to younger generations who are primarily financially motivated.

The Grapevine Fire Fighter Local 3113 conducted a salary parity survey in January 2024. The salary survey included the Grapevine Fire Department and the 18 fire departments surrounding the City of Grapevine. The survey included incentives for department specialty programs, salary ranges per rank, education pay, and the cost of each city's health care benefits. The data included (see Appendix B and Appendix C) the advertised salary ranges and the salary after the costs of health care benefits. The health care coverage premium for employees plus their families is indicated as E+F insurance (see Appendix B).

Synthesis of the Existing Literature

The available literature included studies in related to retention and recruitment across various disciplines. The United States Military had a better overall success rate in recruitment when compared to fire departments, especially among minorities and women. Military organizations struggled with retention and identified that keeping women enlisted needed improvement (Street, 2021). The number of women who vacated the armed forces was described as unacceptable by the United States Military (Street, 2021).

The data samples for the fire service specifically were vague and mostly comprised of White males. The studies helped identify strategies to recruit and retain White males, but little was known about increasing female recruitment numbers. The study identified a gap in how the fire service could recruit females to increase the growing need for emergency services (Street, 2021). Inclusiveness was critical in rebranding the fire service to accept women and minorities.

Although retention was a focus for the fire service and military, no single solution was identified to solve the present issues. Generationally, millennials were more apt to change jobs and required more attention than the generations that comprise most of the fire service. The motivating factors of generations differ and must be identified to match that of the workforce. There must be an understanding of motivating factors for all generations present in the workforce (Mahmoud et al., 2020). Millennials are more likely to job-hop during their careers than Generation X (Waikar et al., 2016). Recruitment and retention efforts may be more successful by educating the current generations on how the new generations will categorize job satisfaction and how to recruit them.

Summary

Many aspects of retention and recruitment existed to provide a solution for the fire service. There was a need to evaluate the generational needs of the millennials and Generation Z to identify how to recruit new firefighters. For many departments, members were reaching retirement age, and a different approach was needed to reach staffing levels in growing communities. The volume of emergency service calls increases as populations grow. Departments need to become more inclusive to females and change the culture of a male-dominated job stigma to meet staffing levels. The literature review identified that firefighting and emergency services needed to be advertised as equal opportunities for the entire population. Recruitment strategies should target portraying a more diverse workplace.

CHAPTER 3: METHODOLOGY

Introduction

This qualitative research study was focused on retention and recruitment issues in the Grapevine Fire Department. Research is needed to explore the issues in recruiting new employees and the retention factors of the current workforce. The appropriate methodology provided an understanding of the issues fire service employees face.

Research Design

The qualitative research design was the most appropriate method to gather data on the research topic. The qualitative design provides insider perspectives as opposed to the quantitative design, which focuses on numbers (Bazen et al., 2021). The generic qualitative inquiry method of qualitative research was selected to gather information for the research process.

Phenomenological research design was considered. The phenomenological research type utilizes the experiences of the study participants (Creswell & Creswell, 2018). The generic qualitative inquiry method was chosen to emphasize the focus on experiences and personal opinions that are unmeasurable as statistical data (Percy et al., 2015). The methodology selected focused on the actual individual thoughts rather than the psychological process that takes place with phenomenological research (Percy et al., 2015). The study participants described their opinions and experiences and provided the data for the research questions and methodology.

The study included interviews with individuals in two age groups of fire service employees. The generic qualitative inquiry was used to collect data from the participants by inquiring about their individual experiences on recruiting firefighters, retention of firefighters (to include incentives), and any generational dissimilarities related to recruitment and retention. The fire department members making recruitment and retention decisions may need updated

strategies for the age groups entering the fire service. Organizational benefits of this can include increased productivity, decreased moral issues, and better retention when understanding generational needs (Jahja et al., 2021). The members who are new to the fire service may provide information that can be used to attract and incentivize potential employees.

Population and Sample Size

The population for the study was operations personnel from the Grapevine Fire Department. The Grapevine Fire Department is comprised of 110 members. Ninety-nine of these employees are classified as operations personnel. The operations division has three Battalion Chiefs, 18 Captains, 18 Drivers/Engineers, and the remaining employees are Firefighters/Paramedics or Firefighters/Emergency Medical Technicians (EMT-Bs). The department required all Firefighter/EMT-Bs hired after 2004 to become Paramedic certified.

The population eligible for interview were fire service professionals between 19-26 years of age (Generation Z) and 43-58 years of age (Generation X). The qualitative study was focused on how the participants viewed current recruitment strategies. Firefighter recruits were abundant when Generation X entered the fire service, compared to the present time, where firefighter applicants are decreasing. The fire service is not attracting the number and quality of applicants it had previously and the characteristics of newer generations are not alignment with the fire service (Neal, 2017). The individuals recruited for participation in this study are Generation X, who, in most cases, had more tenure in the fire service and were more involved in recruitment, and Generation Z, who were actively being recruited into vacant emergency service positions. Participants were selected by age to explore any generation differences. Individuals should be purposefully selected in qualitative studies to assist better research goals (Creswell & Creswell, 2018). The inclusion criteria for the participants were that they were currently employed in a fire

department as a full-time employee in a paid department with certification requirements for employment and were in one of the two age categories. The rationale for excluding departments that did a general hire was to focus on smaller fire departments that struggled to staff their departments if all members had to obtain fire and EMS certifications after being hired. The larger fire departments can “general hire,” meaning they hire individuals without training, increasing their applicant pool. Larger departments also tend to have divisions devoted to recruitment.

Participants had to be in one of the two age groups identified. The exclusion criteria were active volunteer firefighter status or those with less than six months at their current department. The rank of Battalion Chief was excluded due to being direct subordinates of the researcher. Firefighters who fit into an age-specific category of 43-58 years old may be new employees with less than six months in their department. In this instance, the firefighter would fit the exclusion criteria and would not participate in the study. Individuals from volunteer fire departments were not interviewed. A career firefighter who was also a volunteer would be excluded from the study. Firefighters who were active volunteers were excluded from the study so that any bias from uncompensated time would not contribute to their responses. Career firefighters tend to feel satisfaction from compensation as their financial well-being relates to individual and family needs and may dilute the interpretation of burnout (Dias et al., 2022). The sample size suggested by qualitative research guidelines utilizing open-ended questions identified six to eight participants from each group (Creswell & Creswell, 2018). The initial sample size was estimated at 10 to 20 individuals in each age category or until data saturation occurred. According to research conducted by qualitative means, saturation is reached between nine and 17 interviews in most studies, and saturation was most defined as the point where relevant data no longer contributed to the study (Hennink & Kaiser, 2022). The sample size of 10

to 20 individuals in each data group covered the saturation norm for qualitative data and erred in doing more interviews than were needed. Twenty individuals were interviewed, 10 from each age group.

Instrument

The research study focused on retention and recruitment amongst generations in the fire service. The instrument used in this study was a qualitative interview guide comprised of semi-structured questions. Semi-structured questions are used to investigate real-world experiences and identify research data (Percy et al., 2015). The questions in the interview guide focused on identifying the experiences of more tenured fire service professionals and younger fire service employees. Opinions on external issues and experiences of the participants are defined as valued in generic qualitative data (Percy et al., 2015). The interview questions were developed to enable the collection of data and analysis to answer the research questions on recruiting and retaining firefighters. The semi-structured questions allowed for probing questions to clarify answers if the response was too vague or to confirm the participant's intended response.

Additionally, the interview guide was developed to allow participants to describe incentives and increased workplace satisfaction that could include attractive measures to keep fire service professionals in their current department. When content is focused on experiences and occurrences in people's lives, generic qualitative inquiry is an appropriate methodology (Percy et al., 2015). The interviews were directed at the personal experiences of individuals in specific age categories. The members of Generation X were given the same questions as Generation Z. The questions were intended to identify what recruitment strategies were utilized when the participants entered the fire service and any retention measures implemented to keep them in their current department. Questions then focused on what retention and recruitment

strategy changes were needed for the younger generation to include improving inclusion in the fire service culture.

The questions were field-tested on four individuals before starting interviews. All four of the individuals used for field testing had expertise in qualitative research and had terminal degrees. Field-testing is utilized to improve questions, instructions and evaluate consistency (Creswell & Creswell, 2018). Following the field-testing, revisions were made to the interview guide. The interview questions are mapped to the research questions (Appendix D). The interview questions developed were:

1. What factors contributed to your decision to join the fire service?
2. What factors contributed to your decision to join your current department?
3. How were you recruited to join your current department?
4. What has had an impact on your level of job satisfaction?
5. Besides salary, what factors would improve your job satisfaction?
6. What factors impact your decision to stay in your current department?
7. What would cause you to consider leaving your current department?
8. How do fire department staffing issues impact your job satisfaction and decision to stay at your current department?
9. What has your personal experience been in terms of potential burnout due to staffing vacancies in emergency service jobs?
10. How does excessive overtime because of staffing issues impact your job satisfaction?
11. What improvements could be made to decrease excessive overtime?
12. What improvements could be made to increase recruitment and retention?

13. How would a department shift to a general hire process impact you in terms of job satisfaction? [general hire means that all training (approximately two years in length) is provided by the fire department to include EMT-B, Structural firefighter, and Paramedic].
14. What improvements could be made to make the fire service more inclusive to attract women and minorities?
15. Is there anything I haven't asked you that you would like to add?

Research Process

Data were collected by interviewing fire service employees in paid career departments. The qualitative research method and generic qualitative inquiry were chosen because the data were based on the opinions and experiences of individuals in two specific generations in the fire service. Individual interviews were conducted at the department in a private setting.

To ensure reliability in qualitative research, it is important to provide documentation of the steps taken in the research process (Creswell & Creswell, 2018). Permission was obtained by emailing the Fire Chief with an explanation of the study (see Appendix G). The Fire Chief's contact information was obtained by searching the City of Grapevine website. After obtaining written permission to proceed, the Fire Chief provided a department-wide email list. The department members were emailed to explain the purpose of the research, the intended outcome, and the inclusion and exclusion criteria (see Appendix F). Department members who expressed an interest in participating in the study were then emailed the informed consent form to sign and return (see Appendix E).

A one-hour time block was scheduled for each interview. Interviews lasted between 26 and 54 minutes. Interviews were conducted using the Zoom platform. Zoom was utilized to

record all interviews to ensure complete capture of all participant responses. Participants were asked to be in a quiet location free from interruption where others would not hear their answers. The Zoom platform allowed the interview to be conducted with minimal interference by taking notes or hand-recording answers.

The interview began with an introduction, a review of the consent form including a reminder that participants could withdraw from the interview at any time, and choose not to answer any questions they preferred not to answer. The individual interview data would be reviewed to analyze the opinions of the more tenured department members versus the younger generation in accordance with qualitative data collection. The interviews were recorded and transcribed by utilizing the features of the Zoom platform. These transcripts were checked to ensure there were no mistakes made during transcription. This checking of transcripts is means of ensuring reliability in qualitative research (Creswell & Creswell, 2018). At the conclusion of the interviews, the transcribed information was analyzed by using thematic analysis according to Percy et al. (2015; see Appendix H). The steps of this analysis are:

1. The data were reviewed after each interview and important statements, or information will be highlighted.
2. The highlighted data will be examined for relevance to the interview questions.
3. All non-pertinent information will be moved to a different file.
4. Data sets will be named.
5. Collected data will be recorded in themes that arise.
6. Data from previous interviews will be compared.
7. The data will be sorted into themes with direct quotes from the interviews.
8. Patterns will be evaluated to identify constant themes.

9. Themes in data may change throughout the process.
10. After analysis, themes are arranged with supporting themes.
11. A detailed analysis was written for each emerging theme.
12. Patterns were described with quotes from the participant.
13. Data was combined in relation to the interview questions.

The use of the generic qualitative inquiry research design allowed for a focus on patterns in the participants' responses and compared them to the other identified groups in the study through thematic analysis. The thematic analysis was chosen for its flexibility in the qualitative analysis of semi-structured questions (Percy et al., 2015). The process of data analysis began after the first interview was completed. Part of the process was to identify relevant data and compare after each interview to begin clustering related data through the 13-step process outlined for thematic analysis (Percy et al., 2015). The individual transcripts were reviewed, and relevant information was categorized by data sets and mapped to the appropriate research question. In accordance with the requirements of the National Fire Academy, data will be retained for a period of four years from the completion of the study, and then destroyed.

Ethical Considerations

The interview questions were developed to limit bias in the study. The purpose of minimizing bias is to increase the accuracy of the research results (Johnson et al., 2020). The participants were given an interview consent form (Appendix E) explaining how their identities and responses would be kept confidential. All personal identifying information was kept confidential. All participants were assigned an alpha numeric identifier, and information on company and station assignments was excluded.

Undue influence and conflicts of interest are important topics to address when conducting research in an organization. The association of power could be a factor in the interpretation of influence, as it is assumed that individuals with titles in the organization hold a majority of power. The power balance is generally considered weighted on the researcher's side, but it is also accurate to say that the interviewee can choose what to reveal (Reid et al., 2018). Participants were reminded that their participation in the study was completely voluntary. Participants had the opportunity to skip questions they preferred not to answer during the interview, and they also had the option to end the interview at any time. The interview consent form was sent to all participants who replied to the email and were interested in participating in the interview. Participants were informed that the results of the study could be used to make improvements to the department.

Grapevine Fire Department operations personnel were interviewed. The rank structure in the GFD is Firefighter/Paramedic or Firefighter/EMT-B, Driver, Captain, Battalion Chief, Assistant Chief, and Fire Chief. Battalion Chiefs were excluded from recruitment for interviews. The potential for any perceived pressure on personnel to participate from their direct report supervisor was avoided by excluding them from the study. Voluntary participation was emphasized in the department-wide email for participation, the signed consent form, and verbal acknowledgment of voluntary participation before the interview started. Participants were informed that they could withdraw from the interview without penalty and were not obligated to participate. The participant interview recordings and transcripts were stored in an individual file that was password-protected to avoid any breach in the identification of information.

Summary

Generic qualitative inquiry was used to interview individuals in two generationally identified age-specific groups in the study. The participant groups were comprised of 10 individuals per age-specific group. The interview process was completed until the target number of ten individuals per age group, 20 total, was met. Zoom was used to conduct and record the interviews, and all recordings were transcribed to be analyzed after all qualitative data had been collected. Each participant was given an identifier to protect confidentiality. The collected data from the interviews was analyzed to identify themes and dissimilarities between the two interview categories. The data collected is presented in Chapter 4.

CHAPTER 4: STUDY RESULTS

Introduction – Demographics of the Participants

The study participants were current members of the Grapevine Fire Department. Members of the department from the Captain, Driver, and Firefighter ranks were included in the interviews. The individuals provided perspectives on retention challenges in the Grapevine Fire Department, meeting recruitment goals, improving employee satisfaction, and the impact staffing shortages have on an organization. Individuals aged 19-26 years are referred to as Group 1. Individuals aged 43-58 years are referred to as Group 2. Participants are listed as P1 thru P20.

Research Results

The analysis of the data collected from participant interviews revealed six themes between the two groups. The themes identified were consistent in Group 1 and Group 2. There were no significant dissimilarities between the two groups. The themes that emerged are listed below. The data themes are listed first in Table 4.1 and with the research questions with which they are associated.

Table 4.1

Themes from Research

Theme	Participant Response
Culture, people, camaraderie	20 discussed how their co-workers increased their job satisfaction (10 Group 1, 10 Group 2)
Friends or family	14 discussed friends or family as a factor in becoming a firefighter (6 Group 1, 8 Group 2)

Salary for retention and recruitment	14 responded that salary was a factor in retention and recruitment (8 Group 1, 6 Group 2)
Burnout	14 discussed factors of burnout
Excessive overtime	14 discussed increasing staffing as the best option to decrease overtime (7 Group 1, 7 Group 2)
Apparatus	7 discussed constant apparatus maintenance issues contributed to lower job satisfaction (3 Group 1, 4 Group 2)
Mandatory Overtime	9 mention forced overtime (6 Group 1, 3 Group 2)

RQ1: How Can the Fire Service Improve Employee Satisfaction and Retention?

Employees related job satisfaction to the people they work with and the department's culture. Seven participants discussed the status of the apparatus fleet as a negative impact due to constantly swapping fire apparatus and ambulances. Although comments were made by multiple participants about increased salaries, some indicated that they would stay in their current department as long as the current level of satisfaction was maintained. Consistently throughout the interviews, participants mentioned that increased salaries and a focus on maintaining a high level of job satisfaction by creating a positive culture were crucial components to the retention of current employees.

Theme 1: Culture, People, Camaraderie

Overwhelmingly, the participants described how their co-workers contributed to increased job satisfaction. All participants identified the positive culture, camaraderie with their co-workers, or commented about how people made the Grapevine Fire Department a good place to work. P6 expressed “for me it’s the people, and camaraderie, there’s a sense of brotherhood here.” P13 made a similar statement, “For me, it’s definitely the people, I like the people I work with, I like the culture here.” Another member (P18 said “For me it’s been the people. The people you are around that are supportive.” P14 said, “For me, I feel like this is a family.”

Theme 2: Apparatus Issues

Seven participants discussed how the state of the apparatus condition lowered their job satisfaction. Three individuals from Group 1 and four from Group 2 described that the Grapevine apparatus fleet negatively impacted their job satisfaction due to constant breakdowns and the amount of time they had to swap to a reserve vehicle. P1 said, “Our fleet is not doing the best, and that’s not going to be forever, but that is impacting us.” P6 stated “It’s painful when you have to swap several times a week because of the condition that our trucks are in.” P8 indicated, “We spend a lot of time, you know, changing apparatus and having issues with apparatus.” Group 2 participants also indicated that apparatus issues were having a negative impact on their job satisfaction. “I think for me, one of the things we could do is get better apparatus,” was stated by P19. Additional comments from this age group were, “We need better equipment; it seems like it’s always breaking down,” from P15’s interview and P16 stated, “It’s a beat down, you know, doing all the swaps, having to swap the medics and the fire trucks.”

RQ2: How Can Fire Department Leadership Meet Recruitment Goals?

One common theme was that individuals with family in the fire service were interested in becoming firefighters. A subcategory of this theme was that word of mouth contributed to

members coming to work for the Grapevine Fire Department. Multiple individuals explained that their friends had suggested they come to work for the department and described it as an excellent place to work. Participant comments indicated that comradery and culture of the department were factors in why they chose to stay in their current department and why they would suggest it to others. Increased salary was mentioned consistently and mirrored retention challenges. Salary was identified as an attractive incentive to individuals looking for fire department jobs. Most individuals interviewed said they were actively looking for firefighter jobs and were not recruited. Most explained that they saw job postings listed on the Commission on Fire Protection website.

Theme 3: Friends or Family

The participants described various factors that contributed to the participant joining the fire service. Many participants detailed that they had family members who were in the fire service or friends who were firefighters. P10 stated “I grew up in the fire service. My dad has been a firefighter for thirty years, it was an easy choice for me.” P9 responded, “My Dad was a firefighter; my Granddad was a firefighter.” Other participants described similar experiences with family members suggesting they consider the fire service. Friends were a factor in participants coming to work for the Grapevine Fire Department. Participants from Group 1 and Group 2 stated they had friends that spoke highly of the department and suggested they apply. P17 said, “I had several friends that worked here in Grapevine, and they said it was a great place to work.” P18 stated, “I knew someone that worked for the department. He mentioned that they were hiring, so I came and took the test.”

Theme 4: Salary for Retention and Recruitment

Fourteen of the participants indicated that an increase in salary was the best way to attract new employees and retain current employees. P4 said, “If we could increase our pay similar to departments around us, that would be good.” Another participant (P5) expressed “one thing that does seem to be a topic is money, money would help.” Similarly, P9 said “I do think as far as retention goes; the money is a big concern.” P10’s statement regarding leaving for another department was, “I know there’s jobs that pay \$30,000 more per year than we do.” P11 had a similar answer. “I really think for the younger folks coming in, it’s all about the dollar amount.” “As far as pay goes, we’re crawling behind a bit,” was described by P15. The members of Group 2 suggested that the draw for new employees is really about the salary departments can offer. P17 stated, “For generations now, it’s all about the money; everybody’s looking for more money.” P20 commented that in regard to retention of firefighters, “As far as keeping them here, I think money is the issue.”

RQ3: What Challenges Exist Regarding Employee Retention in the Fire Service?

The challenge most often identified during the interviews was salary disparity with other departments. Fourteen individuals stated that salary was the most significant factor in recruiting and retaining employees in a job market where most departments seek employees. Several participants stated that if members can increase their salary by a significant amount, it may impact their decision to apply for another department. Members not limited by age requirements have ample opportunities to get jobs in higher-paying departments.

Theme 5: Burnout

Fourteen participants indicated that burnout had not been a factor for them in the fire service. One participant (P 4) stated, “I don’t feel like we are busy enough to experience burnout in Grapevine.” P3 described, “there was a time that I got mandatory overtime four shifts in a

row. It was a mood killer at the time, but it comes and goes.” P14 stated, “So right now it’s not a big deal, but there was a time that we would mandatory seven people a shift.” The comment from P15 was “so, for us, when we don’t have enough staffing, you get beat up a little bit and kind of drives us crazy.” Another interviewee (P18) stated in regard to burnout that, “I know it can lead to burnout because if you’re working 72 hours straight it can be difficult.” P20 stated “It’s difficult when there’s not enough people and you’re constantly getting called in for mandatory overtime. It can definitely cause burnout.” Most of the participants displayed an understanding of mandatory overtime and described it as a short-term problem.

Theme 6: Excessive Overtime

The majority of Group 1 and Group 2 (12 participants) indicated that increasing the department’s staffing levels was the best way to decrease excessive overtime. Participants in both groups explained that mandatory overtime in excess was an issue, but most participants stated that voluntary overtime needed to exist in the department. P3 explained the best way to decrease excessive overtime is to, “increase staffing like we are doing now and hire more people than we need.” A similar statement by P5 was, “I think the easiest thing is overstaffing. If we have enough people, there’s not going to be a lot of overtime.” The theme of increased staffing continued across Group 2. One member (P15) said, “So, I think the easiest way is to increase staffing.” P17 stated, “Well, the easy answer is to increase staffing.” Overstaffing seemed to be a common thread in the interviews as 12 individuals mentioned overstaffing. P18 went into detail about what they thought would work to decrease overtime and maintain the current staffing levels set by the department. The participant explained, “I think it would be great if we had four-man engine, but I also think that it would be ok to ride down to three.”

RQ4: How do Staffing Shortages Impact Retention and Recruitment in the Fire Service?

Fourteen of the individuals from the study indicated that staffing shortages were not a constant issue and did not impact retention and recruitment. Most indicated that burnout was not present in their current fire department to long periods of time. It was stated several times that staffing levels that provided overtime opportunities were preferred. Mandatory overtime was categorized as unwanted, but during the individuals' career at Grapevine Fire Department, it was only seen in short time frames and leveled off to a preferred level.

Theme 7: Mandatory Overtime

The surveyed participants were given questions about the impact of short staffing. The participants mentioned in different verbiage that forced or mandatory overtime negatively impacted job satisfaction. P3 stated, "I don't want mandatory every two weeks; there has to be a balance." Another participant (P4) stated, "I like overtime, but I don't like being mandatoried [sic]." P5 explained, "I wouldn't wanna [sic] work overtime if it's not on my terms; I think that would be a negative." Additional comments were, "I like it when I want it, and I don't like it when I don't want it," from P6 and "I would like the opportunity to work overtime, but not too much," quoted from P7's interview. Group 2 also had opinions on the amount of overtime that was acceptable to them. P15 explained, "You get beat up a little bit and kind of drives everybody crazy." Participant #19 stated, "Overtime in moderation is good, but I think if it was for a long period of time that I would get burned out," and "so if you're constantly getting mandatory when you have plans, it's a big deal," P18 explained. P20 stated, "I can definitely see that excessive overtime would be an issue for me, I don't recover like I used to."

Summary

The participants interviewed were all members of the Grapevine Fire Department. They had experience in operations positions, providing emergency care and making emergency calls on fire apparatus and ambulances. The interviews provided members' perspectives from Generation X and Generation Z. The data collected from the two groups showed that there was no dissimilarity attributed to generation differences. The themes that emerged from the participants were identified and then utilized to answer the research questions.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

Summary of the Results

This study explored the recruitment and retention of firefighters. Participants from the Grapevine Fire Department were interviewed to gain perspective on what impacted their job satisfaction. The participants' perspectives were used to identify strategies to retain current employees and develop strategies to recruit new fire service employees. The study results suggest that job satisfaction impacts recruitment and retention. The participants described factors that contributed to their job satisfaction both positively and negatively.

The factor most commonly discussed by participants was that the salary increase offered at other departments was appealing to firefighters. At the time of the research project, several departments in the area surrounding Grapevine offered a higher salary than the Grapevine Fire Department. In addition to a higher top-out range, some departments provided lateral transfer pay and incentive pay for certain specialty programs. The Grapevine Fire Department did not provide incentive pay for specialty programs, which may deter applicants when comparing departments.

The study participants described similar experiences throughout the interviews. The responses provided by Generation X and Generation Z participants were similar. Six of the participants of the study from Generation X indicated that salary was an issue in the department. The participants from Generation X were restricted by age requirements for department transfer in most cases. These individuals were not likely to leave unless it was for a promotion in another department. The eight participants of Generation Z who indicated the availability of a substantial salary increase were of more concern in the retention aspect. These individuals were not limited by age requirements in other organizations and were more likely to leave for increased salary.

Seven themes surfaced during the interviews. The positive culture of the department was the most prevalent theme identified. Salary was important for both recruitment and retention to participants. The apparatus maintenance issues with the departments fleet negatively impacted employee job satisfaction. Participants identified forced overtime as a negative aspect of the fire service. Employees attributed family in the fire service and friends in the department as reasons they came to work for the Grapevine Fire Department.

Conclusions Based Upon the Results

The study findings indicated that participants' levels of job satisfaction contributed to their decision to stay with their current department. More specific information was necessary to define the major contributing factors that increased or decreased their level of satisfaction. Participants described the department's culture as a contributor to their job satisfaction. Job satisfaction should be considered crucial in fire service retention and recruitment.

A portion of the participants interviewed, especially Generation Z, indicated that they would consider leaving the department for a substantial increase in their salary. Participants indicated they should have taken benefits into account when considering other departments. Some individuals were based their decisions on the advertised salary range rather than the actual pay once health care benefits were calculated into the overall pay. It was concluded that the education of employees was lacking in regard to benefits.

Throughout the interviews, there was not an abundance of insightful data on the inclusion of women and minorities in the fire service. Some participants associated the inclusion of females as a decrease in the physical standards currently required for employment. There were several comments on advertising the current female and minorities in the department more effectively. Some participants indicated that if women wanted to be in the fire service they had

the same opportunities as men, they just needed to be able to meet the same standards. It was concluded that departments that are mostly White males will not be able to collect data within their organization to make changes in inclusiveness.

Limitations

There were several limitations in this study. Study participants were active members of the Grapevine Fire Department. Twenty members were interviewed individually, 10 from Group1 and 10 from Group2. The sample size was small and, as such, the results cannot be generalized to the larger population throughout the fire service. Another limitation is that the participants in the study were all male. The male participants lacked perspective on inclusion measures for the recruitment and retention of females into the fire service.

During the border crisis in Texas, the Grapevine Fire Department was involved in deployments to South Texas to provide fire protection for temporary holding facilities for immigrants. The department sent four individuals each 12-day deployment cycle for approximately one year. Due to unforeseen vacancies, the operations staffing level in Grapevine was low. It was common to force-hire or to mandatory four to seven individuals per shift. The perceived decrease in overall department morale attributed to forced overtime led to the administration's decision to stop the deployments. As a strategy to further decrease forced overtime the department hired nine Firefighter/EMT-Basic employees to reach the approved staffing level. These new employees were required to complete Paramedic school on their days off, meaning they were on shift, contributed to daily staffing minimums (26 per shift), and attended paramedic school on their off days. The department was overstaffed and dropped the availability of overtime opportunities. It was indicated during the interviews that some level of overtime was preferred, and no opportunities were available. The lack of overtime availability

may have contributed to participant bias regarding burnout and job satisfaction and skewed the data gathered from interviews. Determining what level of burnout participants from the Grapevine Fire Department had over their career is unresolved. Additional research is needed to determine burnout.

The department went from ample opportunities to work overtime to almost no opportunities. Some participants indicated that there should be opportunities for voluntary overtime but related forced overtime to decreased job satisfaction. In November 2023, 95 members were surveyed through the department's physical assessment provider, Frontline Mobile Health. Twenty-four members were identified as being in the moderate burnout category (see Appendix A). The data suggested a burnout level in November that may not have been present during the research project interviews in March. The participants may have expressed their opinions at the time they were interviewed, not considering burnout throughout their careers as the research intended during interviews. The recent situation of the work environment regarding a rapid decrease in overtime availability may have resulted in bias in the participant interview data. As such, this study was limited by recent changes in the department.

Implications and Recommendations to the Field

The analysis of the data collected from the participants indicated that although salary was a contributing factor to retention and recruitment, other areas could be improved in the Grapevine Fire Department. The department culture and personal relationships were viewed as positive organizational attributes. Factors that negatively impacted individuals were low salaries and the poor state of the apparatus fleet. Fourteen of the 20 participants indicated that increased salary was the best solution for recruitment and retention.

The Human Resources Department and Firefighters Association Local 3113 conducted salary surveys during the same time frame this study was occurring. It was identified by the Human Resources and Local 3113 survey results that the salary needed to be improved in certain ranks. The City of Grapevine city council aims to keep employees in the 50th percentile in the immediate area of Grapevine. Both surveys indicated that the salary amount was close to the suggestions set forth by the council. The conclusion of the IAFF local survey indicated that Grapevine was close to the 50th percentile by salary range alone. However, after the inclusion of benefits, the department was ranked fourth in take home salary in the firefighter rank (see Appendix B). The addition of health care benefits was not included in prior year's survey conducted by the Human Resources Department or Local 3113. The fire department leaders had routinely stated that the city provided an excellent benefits package but had yet to capitalize on actual take-home pay after insurance premiums. The department failed to advertise the actual take-home pay effectively and instead advertised the salary range, which could be deceiving for recruitment.

Fourteen participants in this study discussed increased salary for recruitment and retention, and some indicated that they could make a substantial salary increase at other departments. When the salary ranges were compared with healthcare incentives, the top out level for Grapevine Firefighters was within approximately \$4500.00 in take-home pay when compared to the highest-paid department of the cities surveyed. There was a substantially narrower salary range than some interview participants indicated. The salary amount before including health care benefits portrays a different picture (see Appendix C). Based on the participants' interview comments in this study, it is recommended that the department explore more effective ways to

advertise and include healthcare incentives to recruit new employees and retain current employees.

The Grapevine Fire Department was considering lateral transfers during the time the research was being conducted. Implementing lateral transfers would allow fire service employees to enter the department near the top of the salary range. Although lateral transfers would offer an incentive to join the Grapevine Fire Department, it would mean decreasing staffing of other departments as previous fire service experience was a requirement. Grapevine may get additional applicants and improve recruitment but would also negatively impact lower-paid departments in the area, compounding the local and nationwide fire service staffing problem. Hiring employees with experience implies recruiting experience out of other organizations. A general hiring of employees and recruitment of high school students from department-sponsored programs should be considered to increase staffing at the Grapevine Fire Department. This recommendation would benefit the Grapevine Fire Department and the fire service as a whole, without recruiting employees from surrounding departments that are mutual aid partners.

An additional incentive identified was to decrease the time it takes to get to the top of the salary range. The established salary step plan included eight yearly steps for the firefighter rank. Decreasing to fewer steps to the established salary range is recommended. There may be a monetary impact on the City of Grapevine. However, the money saved due to the cost of hiring and training new employees may make this recommendation more beneficial. It is recommended that departments identify historical data on the number of employees leaving for jobs at other departments and evaluate the cost impact of training new employees versus decreasing the time to top out pay. The impact to department operation from losing members with experience should also be included when considering decreasing the time to top out in salary range.

Recommendations for Future Research

The most salient theme identified was the people and culture of the department. A majority of the participants made statements about the people, culture, and family dynamic as contributors to job satisfaction and impacted their decision to stay at their current department. Further research is needed to explore what further contributes to fire service employee's overall job satisfaction to aid in retention and recruitment efforts. Effective strategies for promoting fire service benefits package should also be explored. In the case of the Grapevine Fire Department the salary, after considering the health care benefits, was very competitive for the North Texas area. Research into the advertised top-out salary versus take-home salary should be further investigated to determine which approach is better for organizations regarding retention and recruitment and should include an advertisement for recruitment strategies.

A theme emerged from the data concerning employee job satisfaction. Participants described the apparatus fleet issues with a decrease in their job satisfaction. Future research should include fire service job satisfaction's relation to station life quality. The Grapevine Fire Department has remodeled two fire stations and built two new fire stations in the last two years. These stations were designed with employee comfort in mind. These improvements may have contributed to higher job satisfaction in the Grapevine Fire Department, although more research is necessary to validate the impact living conditions have on employees in the fire service in general. Future research to investigate what impacts fire station living conditions and apparatus maintenance issues have on employee job satisfaction in emergency service is recommended.

Additional research may include a study on the cost of onboarding new employees. The onboarding cost versus the decrease in the number of steps in the salary plan should be explored in the fire service. Research for departments in the fire service should evaluate the number of

individuals eligible for retirement and the age at which employees are statistically retiring from the fire service. The number of employees departments normally lose annually to other organizations should also be incorporated. The research should include the additional cost of overtime to cover operational staffing while positions are vacant to the actual time new employees are placed into operations staffing positions.

Conclusion

The research was conducted to explore how the Grapevine Fire Department could address issues with retention and recruitment that may also apply to the fire service as a whole. It also explored the effects of excessive overtime due to the department's staffing shortages and the potential impact of making a general hire to increase the applicant pool. The research identified a strength of the Grapevine Fire Department as the high level of employee job satisfaction.

The research identified a weakness in the Grapevine Fire Department: the salary disparity. However, after investigating the actual salary amount after the insurance premium, the actual take-home of Grapevine firefighters was very close to the highest paid department in the area. The data suggested that employees need a better understanding of the benefits package, and the department should improve its education of employees. A decrease in steps in the current Grapevine pay plan may be a solution for retention and recruitment. The addition of incentive pay to match surrounding departments would also aid retention and recruitment efforts.

The research identified that a general hire was a reasonable measure that could be implemented to reach recruitment goals. This potential solution offers hope for the future of the Grapevine Fire Department. It could improve current employee job satisfaction by providing a level of available overtime while increasing the applicant pool without introducing lateral hires and compounding the nationwide staffing shortage in emergency services.

REFERENCES

- Badar, K., & Lasthuizen, K. (2023). Twenty years of research on millennials at work: A structural review using bibliometric and content analysis. *Sustainability*, 15(9), 7058.
<https://doi.org/10.3390/su15097058>
- Bazen, A., Barg, F. K., & Takeshita, J. (2021). Research techniques made simple: An introduction to qualitative research. *Journal of Investigative Dermatology*, 141(2), 241-247.e1.
<https://doi.org/10.1016/j.jid.2020.11.029>
- Borg, S. (2022). Meeting the U.S. Military's manpower challenges. *Parameters*, 52(3).
<https://doi.org/10.55540/0031-1723.3171>
- Byron, J. (2018). *Career Paramedic-Firefighter staffing problems: Is recruiting women part of the solution? - Homeland Security Affairs*. (2022, May 9). Homeland Security Affairs.
<https://www.hsaj.org/articles/14941>
- Center for Public Safety Excellence & International City/County Management Association. (2020). *21st century fire and emergency services*. [white paper].
<https://www.cpse.org/wp-content/uploads/2020/07/21st-Century-Fire-and-Emergency-Services-White-Paper-Final-07.15.20.pdf>
- Clark, C., (2023). Suburban boomtowns of North Texas. *Economic Development Journal*. Spring 2023, p18-26. <https://www.iedconline.org/pages/edj-spring-2023/>
- Creswell, J. W., & Creswell, D. J. (2018). *Research design: qualitative, quantitative, and mixed methods approaches*. (5th ed.). SAGE.
- Dias, P. C., Oliveira, Í. M., Rodrigues, A., & Peixoto, R. (2022b). Burnout: Personal and work factors in volunteer and career firefighters. *International Journal of Organizational Analysis* (2005. Online), 31(8), 17–34. <https://doi.org/10.1108/ijoa-05-2022-3278>

Fahy, R., Evarts, B., & Stein, G. P. (2020). U.S. Fire Department profile 2018. Quincy, MA, USA: National Fire Protection Association. <https://www.nfpa.org/education-and-research/research/nfpa-research/fire-statistical-reports/us-fire-department-profile>

Firmin, M. W., DeWitt, K., Ellis, H. G., Smith, L. A., & Tiffan, N. M. (n.d.-b). A qualitative study of the motivations and affiliation dynamics involved with a firefighting career. DigitalCommons@Cedarville.

https://digitalcommons.cedarville.edu/psychology_publications/213/

Gilbert, D. (2022, August 29). Seattle firefighter logged 130 hours of O.T. in a week as department faced ‘unprecedented staffing shortages.’ *The Seattle Times*.
<https://www.seattletimes.com/seattle-news/times-watchdog/behind-Seattle-fires-record-overtime-staffing-shortfalls-lead-to-extreme-hours/>

Greek, H. L. (2021 Case study on how leadership style influences retention decisions of millennial-aged firefighters in Central Florida - *ProQuest*. (n.d.).
<https://www.proquest.com/openview/25d93dfe480cb6385e2a23d0afaf204e/1?pq-origsite=gscholar&cbl=18750&diss=y>

Guptill, M., Reibling, E., Phan, T. H., Khoo, B., Lin, S., Donham, C., Wang, C., & Walters, E. L. (2023). Working in fours: Generational communication in the emergency department. *International Journal of Emergency Medicine*, 16(1). <https://doi.org/10.1186/s12245-023-00536-7>

Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine (1982)*, 292, 114523.
<https://doi.org/10.1016/j.socscimed.2021.114523>

- Jahja, A. S., Ramalu, S. S., & Razimi, M. S. A. (2021). Generic qualitative research in management studies. *JRAK (Jurnal Riset Akuntansi Dan Bisnis)*, 7(1), 1–13.
<https://doi.org/10.38204/jrak.v7i1.523>
- Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American journal of pharmaceutical education*, 84(1), 7120.
<https://doi.org/10.5688/ajpe7120>.
- Koeppel, M. D. H., Bucala, M., Kelley, H., Jitnarin, N., Poston, W. S. C., Haddock, C. K., & Jahnke, S. A. (2022). “They’re Just Never Told That They Can”: Recruitment and Retention of Women in the Fire Service. *International Fire Service Journal of Leadership & Management*, 16, 41–51.
- Lexipol (2023). Stressed and short-staffed challenges facing first responders and the impact on community safety <https://info.lexipol.com/stressed-and-short-staffed>
- Ludwig, G. (2022, February 4). Who will be left to respond? *FireRescue1*. <https://www.firerescue1.com/recruitment/articles/who-will-be-left-to-respond-I6J5X91BtGVYMVuw/>
- Mahmoud, A. B., Fuxman, L., Mohr, I., Reisel, W. D., & Grigoriou, N. (2020). “We aren’t your reincarnation!” workplace motivation across X, Y and Z Generations. *International Journal of Manpower*, 42(1), 193–209. <https://doi.org/10.1108/ijm-09-2019-0448>
- McMahon, C. J., & Bernard, C. J. (2019). Storm clouds on the horizon: Challenges and recommendations for military recruiting and retention. *Naval War College Review*, 72(3), 84–100.

- Neal, S. (2017). Millennials in the Fire Service: The effectiveness of fire service recruiting, testing and retention. *Homeland Security Affairs*. (2022, May 17). <https://www.hsaj.org/articles/>
- Percy, W. H., Kostere, K., & Kostere, S. (2015b). Generic qualitative research in psychology. *The Qualitative Report*. <https://doi.org/10.46743/2160-3715/2015.2097>
- Reid, A., Brown, J., Smith, J. M., Cope, A., & Jamieson, S. (2018). Ethical dilemmas and reflexivity in qualitative research. *Perspectives on Medical Education (Print)*, 7(2), 69–75. <https://doi.org/10.1007/s40037-018-0412-2>
- Rivard, M. K., Cash, R. E., Mercer, C. F., Chrzan, K., & Panchal, A. R. (2020). Demography of the National Emergency Medical Services Workforce: A description of those providing patient care in the prehospital setting. *Prehospital Emergency Care*, 25(2), 213–220. <https://doi.org/10.1080/10903127.2020.1737282>
- Smith, T. D., DeJoy, D. M., Dyal, M., & Huang, G. (2017). Impact of work pressure, work stress and work–family conflict on firefighter burnout. *Archives of Environmental & Occupational Health*, 74(4), 215–222. <https://doi.org/10.1080/19338244.2017.1395789>
- Stein, G. P. (2023). U.S. Fire Administrator’s Summit on Fire Prevention and Control Fire Service Recruitment and Retention Impact Areas. <https://www.usfa.fema.gov/downloads/pdf/summit/2023-factsheets/recruitment-and-retention.pdf>
- Street, T., Lewin, A., Woodall, K. A., Cruz-Cano, R., Thoma, M. E., & Stander, V. A. (2022). Gender differences in marital and military predictors of service member career satisfaction. *Family Relations*, 71(4), 1515–1537. <https://doi.org/10.1111/fare.12697>
- Taylor, M. K., Hernández, L. M., & Clinton-Sherrod, A. M. (2021). Toward a “dashboard”

indicator of retention in U.S. Navy personnel. *Military medicine*, 186(1-2), 119–126.

<https://doi.org/10.1093/milmed/usaa278>

U.S. Bureau of Labor Statistics (2023), Firefighters, *Occupational Outlook Handbook*

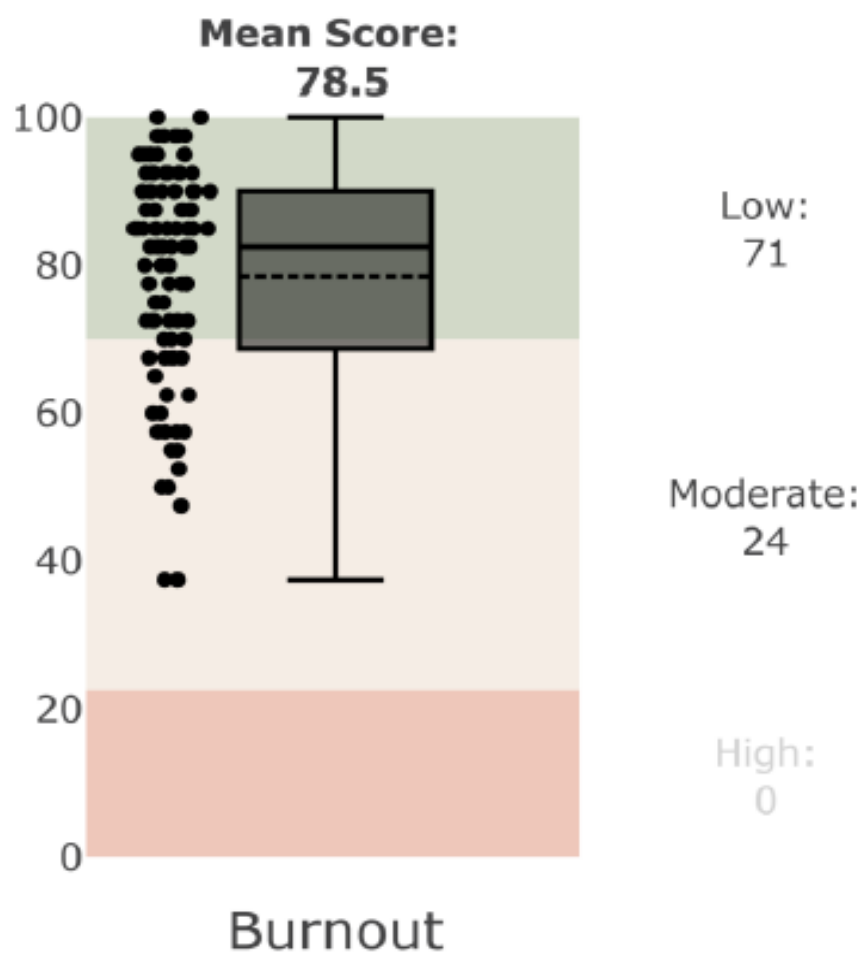
<https://www.bls.gov/ooh/protective-service/firefighters.htm>

U.S. Fire Administration (2023) U.S. Fire Administrator’s Summit on Fire Prevention and Control [https://www.usfa.fema.gov/about/usfa-events/2023-10-10-usfa-](https://www.usfa.fema.gov/about/usfa-events/2023-10-10-usfa-summit/recruitment-and-retention/)

[summit/recruitment-and-retention/](https://www.usfa.fema.gov/about/usfa-events/2023-10-10-usfa-summit/recruitment-and-retention/)

Waikar, A., Sweet, T., & Morgan, Y.-C. (2016). Millennials and job hopping: Myth or reality?

Implications for organizational management. *Leadership & Organizational Management Journal*, 2016(1), 90–100.

APPENDIX A: Frontline Mobile Health-Burnout

APPENDIX B: Take Home Salary

Firefighter Take Home (Maximum)

#	City	Salary	Social Security	Social Security \$	Retirement %	Retirement \$	E+F Insurance	Take Home (Pre-Tax)
1	Plano	\$101,643	0%	\$0	7%	\$7,115	\$6,696	\$87,832
2	Farmers Branch	\$94,973	0%	\$0	7%	\$6,648	\$4,200	\$84,125
3	Carrollton	\$96,027	0%	\$0	7%	\$6,722	\$5,400	\$83,905
4	Grapevine	\$91,809	0%	\$0	7%	\$6,427	\$1,956	\$83,426
5	Euless	\$94,977	0%	\$0	7%	\$6,648	\$7,092	\$81,237
6	Southlake	\$94,705	0%	\$0	7%	\$6,629	\$7,200	\$80,876
7	Irving	\$101,052	0%	\$0	13%	\$13,137	\$7,896	\$80,019
8	Lewisville	\$94,074	0%	\$0	7%	\$6,585	\$7,572	\$79,917
9	Flower Mound	\$93,346	6.2%	\$5,787	7%	\$6,534	\$2,400	\$78,624
10	Richardson	\$96,621	6.2%	\$5,991	7%	\$6,763	\$5,364	\$78,503
11	Denton	\$101,338	6.2%	\$6,283	12.6%	\$12,769	\$4,896	\$77,390
12	University Park	\$95,783	6.2%	\$5,939	7%	\$6,705	\$7,512	\$75,628
13	North Richland Hills	\$86,525	0%	\$0	7%	\$6,057	\$6,564	\$73,904
14	Bedford	\$84,466	0%	\$0	7%	\$5,913	\$5,400	\$73,153
15	Coppell	\$87,711	0%	\$0	7%	\$6,140	\$8,760	\$72,811
16	Fort Worth	\$91,447	0%	\$0	12.05%	\$11,019	\$8,676	\$71,752
17	Dallas	\$91,734	0%	\$0	13.5%	\$12,384	\$7,656	\$71,694
18	Keller	\$86,748	6.2%	\$5,378	7%	\$6,072	\$5,700	\$69,597
19	Colleyville	\$86,572	6.2%	\$5,367	7%	\$6,060	\$7,224	\$67,920

APPENDIX C: Salary Minimums

#	Firefighter Minimum	
1	Irving	\$83,136
2	Denton	\$80,916
3	Plano	\$80,862
4	University Park	\$78,806
5	Southlake	\$78,459
6	N.R.H.	\$78,428
7	Farmers Branch	\$78,117
8	Flower Mound	\$75,873
9	Richardson	\$75,659
10	Carrollton	\$75,000
11	Lewisville	\$74,460
12	Euless	\$73,802
13	Coppell	\$71,353
14	Grapevine	\$71,164
15	Dallas	\$70,314
16	Keller	\$68,403
17	Bedford	\$67,704
18	Colleyville	\$67,266
19	Fort Worth	\$65,784

APPENDIX D: RQ with Interview Questions

RQ1: What challenges exist regarding employee retention in the fire service?

The interview questions used to determine challenges with retention are:

1. What would cause you to consider leaving your current department?
2. How, if at all, does excessive overtime because of staffing issues impact your job satisfaction?
3. What, if any, improvements could be made to decrease excessive overtime?

RQ2: How can fire department leadership meet recruitment goals?

The interview questions utilized to gather information on recruitment goals are:

1. What, if any, improvements could be made to increase recruitment and retention?
2. What, if any, improvements could be made to make the fire service more inclusive to attract women and minorities?
3. What factors contributed to your decision to join your current department?
4. How were you recruited to join your current department?

RQ3: How can the fire service improve employee satisfaction and retention?

The interview questions utilized to gather information on recruitment goals are:

1. What has had an impact on your level of job satisfaction?
2. Besides salary, what factors would improve your job satisfaction?
3. What factors impact your decision to stay in your current department?
4. How were you recruited to join your current department?

RQ4: How does excessive overtime from staffing shortages impact retention and recruitment in the fire service?

1. How, if at all, do fire department staffing issues impact your job satisfaction and decision to stay at your current department?
2. What has your personal experience been in terms of potential burnout due to staffing vacancies in emergency service jobs?
3. How would a department shift to a general hire process impact you in terms of job satisfaction? [general hire means that all training (approximately two years in length) is provided by the fire department to include EMT-B, Structural firefighter, and Paramedic].

The interview concluded with a final generic question expressing anything that wasn't asked that the interviewee would like to add.

APPENDIX E: Interview Consent Form

Interview Consent Form

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Don Wesley Williams from the National Fire Academy (NFA) and Columbia Southern University. The purpose of this study is to develop a better understanding of a critical issue in the fire and emergency services. This study will contribute to the researcher's completion of their final project for the Executive Fire Officer program.

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all of your questions about the study have been answered to your satisfaction. The study consists of an interview that will be administered to individual participants. You will be asked to provide answers to a series of questions related to your experience within a particular community. **A video recording of the interview will be taken for transcription purposes. The video file will be deleted at the conclusion of the study and will not be shared with anyone other than the researcher.** You may turn off your camera if you do not wish to be filmed.

Time Required

Participation in this study will require approximately 60 minutes of your time.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with everyday life).

The NFA, Columbia Southern University, and its contractors take no responsibility for the actions or outcomes of the research study.

Benefits

There are no direct benefits to the participant; however, information from this study may benefit your, and other communities, in the future.

Incentives

There are no incentives (financial or otherwise) associated with participation in this study.

Confidentiality

The results of this research will be presented to NFA and Columbia Southern University program faculty and students. The results of this project will be coded in such a way that the respondent's identity will not be attached to the final form of this study. The researcher retains the right to use and publish non-identifiable data. While individual responses are confidential, aggregate data will be presented, representing averages or generalizations about the responses as a whole. All data will be stored in a secure location accessible only to the researcher. Upon completion of the study, all information that matches up individual respondents with their answers (including audio and/or video recordings) will be destroyed. Final aggregate results will be made available to participants upon request.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion, or you would like to receive a copy of the final aggregate results of this study, please contact:

Don Wesley Williams

Student

National Fire Academy

dwilliams@grapevinetexas.gov

Dr. Mary Lannon

Faculty Advisor

Columbia Southern University

Mary.Lannon@columbiasouthern.edu

Giving of Consent

I have read this consent form, and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have received satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18-years of age.

- ☐ I give consent to be filmed and audio recorded during my interview. _____ (interviewee initials)
- ☐ I give consent to be audio recorded during my interview. _____ (interviewee initials)

Interviewer Signature		Date:	
------------------------------	--	--------------	--

Interviewee Signature		Date:	
Interviewee Signature		Date:	

APPENDIX F: Participant Recruitment Letter

Grapevine Fire Department
1007 Ira E Woods

January 15, 2024

Re: Participation in research conducted at the Grapevine Fire Department

My name is Don Wesley Williams.

I am enrolled in the Executive Fire Officer Program at the National Fire Academy

I am conducting research on improving recruitment and retention of firefighters.

The research will entail collecting data from firefighters in paid departments between 19 to 26 years old and 43 to 58 years old that have been employed for a minimum of six months.

If you agree to participate you will be asked to take part in a recorded interview using Zoom. The interview will be from a qualitative interview guide using semi-structured questions. The interview is expected to last one hour or less. Participation is strictly voluntary.

Participants will be asked to give their written consent before being interviewed. Individuals' privacy will be maintained in all published and written data resulting from the study.

The summary results will be communicated to the Fire Chief and the participants of the study if requested when the study is completed.

If you are interested or have additional questions, please contact me.

Yours sincerely,

Wes Williams

Don Wesley Williams
682-701-3126
dwilliams@grapevinetexas.gov

APPENDIX G: Research Approval Letter

Fire Chief
Grapevine Fire Department
1007 Ira E Woods

January 15, 2024

Dear Chief,

Re: Research interviews conducted at the Grapevine Fire Department

My name is Don Wesley Williams.

I am enrolled in the Executive Fire Officer Program at the National Fire Academy. I am seeking permission to send an email to members of your organization and interview willing participants.

I am conducting research on recruitment and retention of firefighters by conducting interviews with operations personnel.

The research will entail interviewing firefighters in paid departments.

Participants will be asked to take part in a recorded interview using Zoom. The interview will be from a qualitative interview guide using semi-structured questions. The interview is expected to last one hour or less. Participation is voluntary.

Participants will be asked to give their written consent before the research begins. Individuals' privacy will be maintained in all published and written data resulting from the study.

The summary results will be communicated to the Fire Chief and the participants of the study if requested when the study is completed.

Yours sincerely,

Wes Williams

Don Wesley Williams
682-701-3126
dwilliams@grapevinetexas.gov

APPENDIX H: Data Analysis

1. The data will be reviewed after each interview and important statements, or information will be highlighted.
2. The highlighted data will be examined for relevance to the interview questions.
3. All non-pertinent information will be moved to a different file.
4. Data sets will be named.
5. Collected data will be recorded in themes that arise.
6. Data from previous interviews will be compared.
7. The data will be sorted into themes with direct quotes from the interviews.
8. Patterns will be evaluated to identify constant themes.
9. Themes in data may change throughout the process.
10. After analysis, themes are arranged with supporting themes.
11. A detailed analysis was written for each emerging theme.
12. Patterns were described with quotes from the participant.
13. Data was combined in relation to the interview questions.