CONNECTING FIREFIGHTERS TO PROFESSIONAL DEVELOPMENT OPPORTUNITIES

Research Presented in Partial Fulfillment

of the Requirements for the

Executive Fire Officer Program

by

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Abstract

This research paper investigates the barriers to professional development opportunities for rising leaders within the Anne Arundel County Fire Department. Despite efforts at the national level, such as the Fire and Emergency Services Higher Education Initiative (FESHE) and the National Professional Development Matrix (NPDM), engagement in higher education and professional development remains low among fire service members. Thus, this paper seeks to answer the following research questions:

1. In terms of professional development, what type of problem is the Anne Arundel County Fire Department currently experiencing: employee motivation, structural, or resource barriers?
2. Do fire departments that hire outside of their ranks see an increase in participation in professional development?
3. What are the commonly identified barriers to professional development nationally and how are other fire departments/agencies erasing them?

Through qualitative methods including surveys and interviews, the research aims to uncover the specific challenges faced by firefighters and compare them with those in other departments. The findings highlight the necessity for improved access, resources, and structured pathways to enhance professional development, ultimately fostering a more effective and prepared fire service workforce. Several recommendations are provided to eliminate these barriers. These include advertisement, distributing training leave equitably, restructuring preparatory processes for advancement, and creating a committee to adjudicate conference attendance. By fostering an atmosphere encouraging professional development, fire departments can support the continuous growth and advancement of their members.

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CHAPTER 1. INTRODUCTION

For decades, the relevance of higher education for fire service workers has been debated. Numerous times across the Wingspread Conferences, the Statements of Significance have referenced the lack of participation in continuing education and professional development within the ranks (Johnson et al, 2010). Especially at the administrative level, there is a gap between the opportunities that exist and the opportunities actually taken. Members of the fire service are still failing to engage in higher education, outside training programs, and national conferences. In order to understand why, this research will seek to establish what barriers exist to professional development opportunities for members of the fire service.

Background

The need for higher education has long been debated at the administrative level of the fire service. The Fire and Emergency Services Higher Education Initiative (FESHE) was established to standardize training and college programs geared toward the fire service. Work has been done at the national level to try and reach local departments; namely, pushing forth the National Professional Development Matrix (NPDM) to combine training, education, and certification pathways (Johnson et. al, 2010). Many firefighters (123,594) possess some college credits without the ability to combine them into a degree (DataUSA, 2021). Many firefighters possess numerous certificates that could translate into college level skills, with no clear idea of how to turn them into credit hours. The NPDM is intended to combat some of this "stovepiping." However, stovepiping is not the only obstacle to a productive, motivated force. Creating programs versus making them accessible is one roadblock. Motivating people to participate is another. Rewarding that participation is another. Transferring information from national conferences and higher education facilities is still another.

The fire service has a long history of attempting to educate its members through on-the-job training. While there are many skills that can be learned through this sort of mentorship, it comes up short when compared to the success of nearly all other professions (Johnson et. al, 2010). Most careers

focus on building skills and educating individuals prior to promoting them. Building out the pool to select highly qualified individuals from a trained population increases competition and motivates the candidates to better prepare themselves for promotion. Conversely, expecting the administration to offer training for an individual reduces the motivation to find or engage in training or other opportunities. By initiating and finding these career paths, candidates can distinguish themselves from the competition.

In other fields of emergency services, nursing and police departments have both been studied when it comes to professional development. Especially during the pandemic, nursing was highly monitored to ensure that burnout did not contribute to compassion fatigue or overall work alienation. One such study found that willingness to learn and readiness for professional development are both important measures in order to ensure a high standard of care amongst workers (Alfuqaha, O., 2022). Similarly, a study found that Swedish police relied heavily on several conditions in order to pursue functional professional development: "formal education arrangement, the facilitation of learning by managers, and scheduled time for workplace learning" (Kohlstrom, K., 2021, p. 339). Both studies support the premise that emergency workers need streamlined access to professional development opportunities in a capacity that reduces or alleviates burnout for workers. Emergency services workers often abandon higher education pathways due to lack of access and minimal incentive or reward for participation in those programs.

Significance of the Study

Despite education being a noted priority for the fire service, there is a lack of information available on education statistics within the fire service nationally. There is no baseline information on members' education levels. There are no data points to compare across departments or across regions. It is imperative to collect this information and present it to then analyze it for action.

Although there is significant literature about professional development for other careers, the limited discourse that exists on continuing education for the fire service focuses on the lack of it. There is a gap in the research on educational opportunities; mainly, why the connections between members and the

opportunities are not being utilized. Defining the missing link between the opportunities and personnel acting on them is the stated goal of this study. This paper will seek to define the lack of participation as a structural, motivation, or resource problem. By identifying potential barriers to professional development, fire departments can eliminate those barriers and ensure the successful connection of their members with advancement opportunities. This connection will yield a more effective administrative and operational pool (Hollar, et al, 2022).

In the *21st Century Fire and Emergency Services white paper* (2020) by the Center for Public Safety Excellence (CPSE) and the International City/County Management Association (ICMA), the International Association of Firefighters (IAFF) identifies one of their three most important changes to be implemented as "more professional development opportunities." Developing the potential within each employee is crucial to the future success of the fire service at large, as recognized by every leading organization involved. It is time to fill the gaps in the research in order to accomplish that goal.

Problem Statement

The problem is that rising leaders in the fire service are encountering barriers to professional development opportunities. As identified by both the International Association of Fire Chiefs (IAFC) and the Wingspread Conferences, professional development is still a gaping hole in the advancement of the fire service. Both Initiatives 2 and 3 in the 21st Century white paper call for professional development planning and continuous improvement (2020). Failing to evolve will produce stagnant leaders and little drive to move the organization forward. Conversely, an "[i]ncrease in knowledge, commitment to the organization's overall goals, and ability to embrace the vision and culture of the organization which will ultimately increase business development and individual development" (Hollar, et al, 2022, p. 12). In order to cultivate a productive workforce, fire departments nationwide need to remove the barriers to professional development and embrace a progressive, educated culture.

Purpose Statement

The purpose of this research is to determine existing barriers to professional development that exist for rising leaders within the Anne Arundel County Fire Department. The barriers that exist will generally be defined as structural barriers (how the Department promotes), motivation barriers (willingness to learn), and resource barriers (access to continuing education/professional development). In order to examine this problem on a manageable scale, this study will look at the Anne Arundel County Fire Department. Members' involvement of the Department will be compared against other similar size departments.

Research Questions

This study will seek to answer the following questions through qualitative methods. Surveys and interviews, in addition to scholarly articles, will be the primary sources for gathering information.

4. In terms of professional development, what type of problem is the Anne Arundel County Fire Department currently experiencing: employee motivation, structural, or resource barriers?
5. Do fire departments that hire outside of their ranks see an increase in participation in professional development?
6. What are the commonly identified barriers to professional development nationally and how are other fire departments/agencies erasing them?

Summary

The fire service has been tasked with the upward mobility and development of its members. In order to accomplish this task, access to professional development opportunities must be easily navigable. "The lack of relationship found between the availability of professional development opportunities and job satisfaction can be interpreted as either the organization's unwillingness to support professional development or the participant's unawareness of the opportunities that exist (Hollar, et al, 2022, p. 15) This paper will seek to categorize the problem. After categorization of the problem, this information can

be synthesized into streamlined career mapping. It is imperative for the future of the nation's fire service to continue to grow motivated and respected leaders.

Moving forward, Chapter 2 will offer an overview of the literature currently available on the education and certification level of firefighters around the nation. Chapter 3 will outline the methods to be used in conducting research on the accessibility of professional development opportunities. Chapter 4 will present the findings of the research and interviews. Chapter 5 will offer conclusions and recommendations.

CHAPTER 2: LITERATURE REVIEW

Introduction

As established in Chapter 1, professional development, in any capacity, has been highlighted as a goal for the fire service in multiple forums. To meet that goal, many institutions offer higher education programs geared toward the fire service. There are a multitude of training companies available for a fee. There are conferences, government-funded training organizations, and certification possibilities. The question that this research paper seeks to answer is why individuals in the fire service are still failing to engage in these resources. Is it a motivation problem, a structural problem, or a resource problem?

In order to better understand where firefighters are versus where the goal is, current levels of certification/education must be identified. Unfortunately, there is a gap in this research. The only data available for education levels of firefighters indicates that 123,594 firefighters nationwide have "some college" without having a degree to show for their efforts ("Education & Skills," n.d.). The general trends that have been identified in the development of firefighters center around on-the-job training, motivation, and increasing job satisfaction. Even in research dedicated to identifying themes in fire-related research, the closest subtopics found are "training" and "motivation" (Beauchamp, 2017, p. 50). Therefore, much more research is needed to identify exactly where fire service education or training levels are in comparison to where they could be.

This chapter seeks to identify trends and gaps in the research surrounding the education and certification levels of firefighters. It will discuss barriers to professional development that are identified throughout the research. It will synthesize the data into generalized themes present throughout the current research, and it will identify future research needs.

Existing Literature

There are several recurring themes in the literature regarding professional development and public service. First and foremost, recent literature identifies that in order to capture employees' motivation, organizations must make opportunities available for employees. It is commonly accepted that

a happy employee is a more productive and efficient employee (Tomita, M. et. al., 2022). In order to capture the productivity of employees, organizations need to shift their priorities and provide them with ample development opportunities. In fact, "nearly one-half of employees reported that professional development opportunities were very important to job satisfaction" (Hollar, et al, 2022, p. 10). One study found that in the uniformed services, 42% of the respondents were satisfied with the activity of their employers in professional development opportunities (Bsoul-Kopowska, M., 2023, p. 167). This data shows that for a portion of the uniformed population, professional development opportunities through employers were available. Still, the majority of the uniformed population is not satisfied with the opportunities available to them.

Resource Barriers

The first type of barrier that an employee might find against professional development is simply availability. Anecdotally, many firefighters deal with childcare constraints due to long working hours or early reporting times. There is no available literature on tuition reimbursement usage and firefighters. One study mentions that co-financing schemes, such as vouchers or grants, are not of importance because on-the-job training is more important than outside education and development: "[i]n almost all cases, the effects of education above the requirements is non-significant and/or extremely small" (Korpi, et al, 2021, p. 79). Studies proving the benefits of education and other training opportunities have, however, demonstrated both technical benefits and motivation/engagement benefits (Hollar, et al, 2022, p. 16, and Kohlstrom, K., 2022, p. 340). The National Fire Academy (NFA) pushed forth the FESHE conferences, which have produced the NPDM as a career map. The only other available "career mapping" found was from 2009. What other moves have organizations throughout the industry made in order to offer professional development opportunities to the members?

There are several research questions into promotional limitations according to gender or other diversity factors within public safety. In particular, one study examined the promotional rates of women police officers against men police officers. This study found that through assimilation, a person's characteristics are perceived differently by dominant members of the group, forcing "token members into

limited or sex appropriate roles in the workplace. The process produces role encapsulation, which can result in missed opportunities…" (Archbold, et al, 2010, p. 288). This assumption by dominant members pushes forth a trajectory onto minority members of the group, even if they are not applicable or relevant to the token member's skillset. Furthermore, women often still handle the majority of child-rearing and household tasks. These home commitments are another "barrier" to professional development, disproportionately leveraged against the female gender. However, as more households become dual income households and as men are more involved in domestic tasks, these barriers will affect everyone.

Structural Barriers

Structural barriers to professional development can be defined as certifications required to promote, rewards built-in for committee selection based on certain certifications, or agencies hiring externally versus internally for officer promotion. As mentioned previously, there are limited options for career mapping in the literature. There are no validated evaluation tools (Hadzihalilovic, et al, 2020, p. 301). Some research touches on learning pathways in police departments. "By categorizing individuals' learning activities based on five elements, individual learning pathways can be identified in an organizational context" (Kohlstrom, K., 2022, p. 343). This statement assumes there are pathways in place for police agencies. These same pathways in the fire service are not readily identified nor readily traveled. The only study found to address structural external motivation of employees mentions "extrinsic intent to learn" (i.e. for the reason of career facilitation), which still had a positive impact on performance. No matter the reason for the development, the effect of increased productivity and performance remained the same. The argument for promoting higher positions externally versus internally is barely glanced over. One study proffered that as the economy changes, it will be important to watch people with occupational affiliations as opposed to organizational affiliations (Bharatan, et al, 2022, p. 1110). Since the fire service traditionally hires for a career, organizations have not had to compete for the best candidate. In the future, with less people interested in obtaining fire service careers, perhaps candidates hired externally will become the norm. In this future, continuing education and professional development may suddenly become more competitive for fire officers looking for

advancement opportunities. Some studies have identified this as a future research need: "how police officers perceive this in-house arranged rotation and professional development during their long-term employment is lacking" (Kohlstrom, K., 2022, 340). This could potentially be a research question in the future as the fire service adapts to new recruitment and retention challenges.

Motivational Barriers

Motivation barriers are the most researched of the potential barriers to professional development. Many studies have tried to ascertain what increases motivation and employee morale. There is absolutely a positive correlation with professional development and motivation: "organization of training and development programs develops the knowledge and skills of employees, increases motivation, and offers the chance to make a personal contribution, being associated with positive outputs…" (Tomita, et al, 2022, p 47). However, even in the research, the perpetuation of on-the-job training as superior to outside training opportunities persists. On-the-job training for trade workers is identified as a more important type of training, while education above the requirement is non-significant (Korpi, et al, 2021, p. 78). Further, this same study acquiesces that "training tends to decline with seniority" (Korpi, et al, 2021, p. 75). Another study found that younger generations are more interested in professional development opportunities than the older generation (Hollar, et al, 2022, p. 15). Perhaps this might explain the lack of career mapping, literature available, and engagement in previous opportunities. As the motivation for such opportunities continues to rise with younger members climbing the ranks, perhaps these barriers will continue to be defeated.

Synthesis of the Existing Literature

The existing literature has merely started to scratch the surface of barriers in place against professional development opportunities. There are several studies on the benefits of on-the-job training, and mentoring programs (Tomita, et al, 2022, Decius, et al, 2019, Korpi, et al, 2021). However, there is not much information available on career development, specifically for the fire service situated within public safety. One study even argues against the value of higher education or outside learning

opportunities (Korpi, et al, 2021, p. 75) and that "there would in other words be no general complementarity between education and training, nor would the two typically be substitutes" (Korpi, et al, 2021, p. 79). This research seems to be an outlier, as the bulk of the studies found demonstrate a positive correlation between training and education and employee engagement and productivity. Further, it is a trend that is continuing to increase, with Hollar, et. al. reporting that "over recent years, the percentage of employees that consider these opportunities to be crucial to job satisfaction has increased by 20%" (2022, p. 11). Culturally, as productivity per hour increases, the impetus for training and education opportunities must rise to meet that demand. Furthermore, as the younger generation rises to supervisory positions, the demand for professional development opportunities should continue to increase, based upon the research found.

While there are numerous studies on the motivation of employees to engage in higher education, there are limited studies available on the resource or structural barriers to advancement within the workplace. One study suggests that "employee characteristics (such as credit constraints or lack of motivation) are of little importance" when attempting to address the training gap (Korpi, et al, 2021, p. 79) because the characteristics of the job largely dictate the employee's training. This statement seems to advocate for investigating the structural barriers in place. Placing emphasis on requiring certain achievements in order to promote would require employees to then take professional development. However, in another study, it is offered that:

> [P]olice officers in general police positions were largely left on their own to self-direct their learning toward supportive actions, subjects, and contexts by themselves. For police officers in specialist and leadership positions, their learning pathways were supported with formal education, together with formal work-place learning actions arranged by the managers. (Kohlstrom, K. 2022, p. 354)

This literature suggests that development opportunities are offered only for certain positions/trajectories within the ranks. This would align with the idea of career mapping, providing resources and information

to those that express interest in pursuing a certain trajectory. It builds out a way to achieve that goal. This does not capture the portion of the population that is happy to stay in the rank or position they are at, while staying current in their field and learning.

Public safety organizations have not traditionally had to compete for employees or had recruitment issues. As interest in public service careers wanes, how will organizations attract motivated members? The literature suggests professional development opportunities attract and retain a motivated, productive workforce. The literature also suggests that the motivation for such opportunities absolutely exists, in addition to on-the-job training.

Future research could center around retention rates and the availability of professional development opportunities. Future research could also focus on the resource limitations and structural barriers to professional development. The calls for this type of research are present throughout the limited source literature. For instance, "future research might examine how wider institutional structures, beyond specific organisations or work contexts, enable and constrain participation in learning trajectories" (Bharatan, I., 2022, p. 1110). Many researchers have wondered at the participation levels or motivational factors for career development, yet very little has come forward from these recommendations.

Summary

The literature suggests that there is a gap in research surrounding career trajectories of firefighters. More research is needed to identify structural and resource barriers, while motivation barriers is a commonly researched item. This literature review has highlighted the need for this research to focus on structural and research barriers within the community during the data gathering process. Therefore, this paper will seek to define these barriers through data collection and identify possible resolutions.

CHAPTER 3: METHODOLOGY

The following sections give an overview of the population, instruments, and procedure for data collection. In order to adequately address the research questions, recruitment emails were sent to multiple departments via professional organizations and affiliates seeking participants actively experiencing some sort of access issue to professional development. The survey was spread across multiple Departments for the purpose of comparison of respondents. Limiting participants to those who responded to the recruitment email was intended to allow for a response pool large enough to identify trends, but small enough to be able to achieve focus group goals (three per department) without achieving saturation early. The initial goal was to collect data to examine structural processes for each Department as well as involvement and barrier issues for each Department. Follow-up interviews in a group setting were thought to be conducted in order to gain a deeper understanding of the lived experiences of individuals.

Research Design

This study aimed to use a mixed methods approach in order to gather required information. The unique experiences and stories of access issues by individuals was the target information. Questionnaires were completed in the interviewees' natural setting. Importance was placed on understanding the participants' interpretation of events or experiences rather than imparting any researcher bias onto the answers received. Interestingly, the emergent nature of the design of this research has been evident from the start. Molding and adjusting the methodology revolved around sequential information gathered from participants. Importance will be placed on gathering the larger story of these unique experiences.

Phenomenological research surrounding the shared experience of interviewees is the aim of this study. This research will seek to understand the phenomenon of desiring to be involved in professional development opportunities, as the research suggests many current employees are. However, encountering obstacles to these opportunities will be the shared experience that will be explored deeper in this study. Access to professional development opportunities has a large impact on an employee's career. As mentioned in Firmin (2018), relatively little research has been conducted to explore the psychological or mental aspects of firefighting careers. Why firefighters feel that they are able to participate fully or are

hindered within their careers is a targeted research question that narrowly examines this phenomenon. Cresswell (2018) suggests that qualitative research is best suited for exploring behavioral patterns and trends within a culture, especially in a setting where the topic is new or the research has not been addressed before. Cultural trends have not been studied in the fire service extensively. Therefore, a qualitative method for phenomenological research is best suited for this study.

A similar study examining the motivation to enter the firefighting profession was conducted by Firmin et. al (2018). This research used a qualitative method for phenomenological research and found that semi-structured interviews worked best to gather information. Semi-structured interviews encourage conversation around specific prioritized issues, but for the conversation to move within those subjects as the interviewee speaks. This study hoped to follow the same structure and conduct follow-up interviews face-to-face to gather as much observational data as possible.

Questions were developed and sent to several members for field testing. From field testing the survey, any bias or leading questions were able to be edited for distribution to the target population. All participants interviewed have experienced the same phenomena: difficulty accessing professional development opportunities. Since all people experience the world differently, phenomenology seeks to identify these experiences and describe them. In some similar studies (Lei et al., 2018), scales were offered to participants in a quantitative study. Similarly, in Korpi (2021), a quantitative method was used to gather data. However, multiple other studies were found which identified qualitative phenomenological research as the best method to understand cultural issues experienced by firefighters (Carrico, 2012; Firmin, et. al 2018).

Population and Sample Size

In order to develop the questionnaires, strong consideration was given to the research questions the study is intended to answer. The target population is career firefighters who work for Anne Arundel County and other large combination or career departments. The target population can identify what type of problem the Department is experiencing through their unique viewpoint. Other departments

contributed to the responses regarding barriers to professional development. Initially, the goal was to compare interview responses between departments. Finally, a quick survey of department heads was hoped to be obtained. This was to render a comparison between promotional practices and the survey responses. The information sought was whether departments promote internally or externally. By identifying these promotional practices, the data regarding structural barrier issues would have been categorized into "external promotional process" versus "internal promotional process." Unfortunately, some access issues were experienced when reaching out to outside organizations, and this information was unable to be obtained.

In order to capture a representative portion of these populations, recruitment emails were sent first. These emails solicited participants in a survey who currently are experiencing barriers to professional development. From this smaller group of participants, a handful was selected at random from each participating department. By randomizing this group, researcher bias would not influence who received additional time speaking in an interview. No additional demographic restraints were included; the target population is any career personnel, no matter age, gender, marital status, education level, rank, etc. All career personnel can provide insight on how professional development opportunities affect their career strategy. This study was aiming for a sample size of 200 survey responses and 25 interviews. Interviews were limited in number but the initial survey sample size was not capped. The survey received 203 willing participants and the interview process fell short with only 6 participants.

The initial solicitation of respondents across several departments reached a large audience. Interviews were conducted in a focus group setting, in a semi-structured fashion with several respondents from each department involved in order to get an accurate representation across jurisdictions. Phenomenological research typically reaches a saturation rate of 3-10 individual interviews (Cresswell 2018). This researcher sought to interview 3-5 people from each department in an attempt to identify specific (jurisdictional) cultural responses against larger (profession) cultural responses. The focus group setting allowed for multiple viewpoints to be expressed. Since responses did not aggregate per department as originally hoped, this led to only interviews from Anne Arundel County Fire Department

(AAFD) and one other outside department. Other responses spanned across a great many departments, and no grouping could occur. Therefore, the interviews were limited. These interviews were video recorded in order to compare notes on behavioral nuances and non-verbal responses in addition to verbal responses. Furthermore, this offered a transcript of each interview in order to conduct data audits. This researcher planned on using a qualitative software program to assist with data analysis. Unfortunately, software issues persisted and there is still no qualitative software program in use for this study. Rather, subjects were identified by word usage and compared through data analysis to identify trends in thought processes among participants.

Instrument

The questions included in the survey and the subject blocks associated with the semi-structured interviews are all linked back to the initial research questions posed. Outside agencies are included in order to answer questions regarding promotional process (structural) barriers. Answers were categorized from Anne Arundel County in order to capture what type of access issue was prevalent within the target audience. Finally, outside agency responses were also categorized by barrier type. Follow up interviews for all included "how this access has shaped and will continue to shape career paths," which covered a discussion of how other agencies are addressing barriers to professional development. Other focus group questions dove into the job satisfaction of participants, and whether the interviewee felt more motivated to engage at work or a secondary setting (volunteer house, second job, home commitments, etc.). These questions elicit the individual experiences of these career firefighters in their career mapping journey.

The survey included within this research utilized a questionnaire design. Participants were given a list of questions. The initial questions were all yes/no. Baseline questions included "Are you currently enrolled in any higher education classes (anything above high school)?" "Would you be more willing to pursue a degree if financial assistance were available?" and "Have you attended any seminars or hands-on-training outside of work in the past 12 months?"

The categorization question was phrased: "What barriers do you have to attending/completing professional development opportunities? Pick one option, the most applicable to your current situation. A: I do not have the desire to complete any further development B: I do not have the professional need to complete any further development C: I do not have the means (time, finances, childcare) to complete any further development or D: I do not have any barriers to accessing professional development opportunities currently." Consideration was given to allow respondents the opportunity to fully express themselves in the focus group setting. Therefore, most questions within the survey were limited to multiple choice answers in order to streamline data collection. Questions included, "Do you believe that your skill set and knowledge base are on par, higher than, or lower than your peers? and "If resources to lift those constraints were available to you, do you think you would engage in more opportunities?" This subset of questions, tailored to either a structural or resource barrier question, allowed further insight into the barriers faced by participants. Furthermore, the survey asked for feedback on how to expand access and any additional information. By allowing participants freedom in expressing their viewpoints, additional qualitative information could be gleaned that was not evident from the survey questions initially. Follow-up interviews will be conducted with a small sample (three-five) focus group from each Department in order to more fully understand the lived experience of each of these firefighters. Semi-structured interview questions fell into three categories: importance and value of professional development; accessibility of professional development opportunities; and how this access has shaped and will continue to shape career paths.

Research Process

A recruitment email was sent to the career firefighters of all ranks throughout the Anne Arundel County Fire Department. Separately, a recruitment email was sent to various other departments affiliated with the Metropolitan Fire Chiefs Association or regional departments locally. Requirements to participate were limited to being a career firefighter of any rank affiliated with a Department participating in the study. No limits are included on any other demographics in order to obtain a universal response

from career firefighters. However, there is a question asking for experience level to compare engagement according to seniority and rank. There is a question denoting whether the participant is a career or volunteer firefighter in order to shunt any inadvertent responses away that are not part of the target population.

For field testing, the questionnaire was distributed to five test participants initially. They were asked to complete the survey and consider how the questions may have affected their answer, if the wording was confusing, and if they wanted to offer any information when there was no space to do so. After adjustments were made to account for this feedback, the questionnaire was sent to the target department's head in addition to the Metropolitan Fire Chiefs Association for distribution. Additional contacts will be made with regional counterparts to get the questionnaire distributed to many departments. When sending out to these departments, the researcher planned to question administrators regarding promotional processes. Specifically, whether the processes hired externally or internally, and if externally, at what rank this practice started. This would allow grouping of responses to occur between departments that promote internally starting at the company officer level versus departments that promote externally at the company officer level. The outside agencies that were contacted were encouraged to distribute the survey amongst their department. Contact was made using an outside source, in an attempt to reach more people (more networked). Unfortunately, due to this process, it would appear that many Chiefs took the survey without sending it on to the rest of their department. Therefore, much of the data from outside agencies is from high ranking personnel and is scattered amongst departments rather than grouped together as agencies.

Data was hoped to be collected over an eight week period. Surveys were to be distributed and allowed two weeks for responses. One week should have then been utilized for collection of data, selection of interviewees, and scheduling of interviews. Five weeks should have been allowed to gather in-person interviews (as much as possible) to accommodate interviewees' schedules. If travel became a restraint, video calls were to be conducted in order to be able to gather non-verbal data and capture the interview in a video recording.

The research process was initially slated to last eight weeks. However, the schedule had to be compressed in order to abide by deadlines for the mediated course timeline. The initial recruitment emails were sent out June 4th to the target agency and June 6th to surrounding jurisdictions. Survey responses were turned off on June 25th, 2024. The survey remained open longer than two weeks due to limited outside agency responses, and additional recruitment emails were sent out June 16-20th in an effort to capture data for comparison. The survey received 203 responses and several focus group interviews were set, with dates of June 25th, 26th, and July 8th. Several people did not attend the interview sessions, and after cancellations and rescheduling, the process was moved forward in order to meet deadlines required by the course with limited interview participation. In total, six people were interviewed from the survey responses for this study.

Interviews took place on Google Meet and in the Anne Arundel County Training Academy office in order to allow participants to feel at ease in their natural environment. All participants consented to be recorded and all survey participants consented to inclusion of their responses within the study.

Data analysis was to be on-going through the data collection period, and would continue past that period for several weeks. Data was organized categorically, using a conceptual content analysis approach. Variables consist of the types of barriers encountered. Structural barriers involve any wording that mentions promotional process or career advancement. Resource barriers involve any wording associated with child care, time commitment, or financial restraints. Data was hoped to be analyzed using a software system, and multiple points of data were compared for individual responses (survey data, interview data, and observed behaviors). Unfortunately, due to technical limitations, the software has still not been utilized. The main consideration for this survey focuses on the findings associated with barrier types, and from these, data is gathered as far as the promotional processes associated with the department surveyed. Furthermore, the interviews will offer additional instances of key words (barriers) and the suggestions to overcome them. Since the interviews are limited in number, there are no plans currently in place to categorize the variables for the third research question of finding solutions. Rather, these findings are presented in narrative form.

Ethical Considerations

Many actions were taken to ensure the ethical integrity of the interview process. Any identifying information from respondents and their responses was taken out for inclusion in this research. Permission to conduct the interview was obtained as part of the initial recruitment process. All respondents understood their privacy rights and that their information will be kept confidential. An informed consent form will be given to and signed by each participant. A copy of this form is included as Appendix A.

Surveys were sent out via department heads in order to remove any affiliation of the researcher with the respondents. Questions were vetted against a pool in order to identify any leading questions or issues with bias. Since some of the interviews occur in the researcher's own department, strong consideration is given to concealing the identity of participants. The researcher's own role within the department may have affected how interviewees responded. For instance, many people did not show up to randomized scheduled interviews. This could be due to the researcher's role within the Department or administration. Participants were assured that all responses are confidential and that the researcher would not use any information gathered in any different contexts within the department. Furthermore, the researcher's own reflexivity will be considered and offered within the findings as a potential source of bias. Being a female officer within the target audience will shape how data is interpreted and presented. Further, this researcher holds a master's degree and is passionate about professional development in general. Creating pathways and career mapping and allowing people access to opportunities is something this researcher feels very strongly about. This researcher was diligent in assessing for such bias bleedover. However, if bleedover occurred within the interview setting, the participant was hopefully encouraged to talk more about this subject rather than less. Any additional information that can be gathered will allow a fuller picture to be interpreted from each individual experience.

Summary

In summary, much of the research that has been conducted has focused on motivational barriers to professional development using quantitative methods. This study, however, seeks to focus on qualitative research focused on structural and resource-based barriers. Similar studies researching motivational or psychological aspects of firefighting have also used a phenomenological qualitative approach. A series of questions was formulated and tested on a target audience selection. Answers were compared across departments to identify if structural promotional practices affected participant involvement. Answers were also compared across departments to identify how different departments fared in participation. Follow-up interviews in a focus group setting were conducted using a semi-structured approach in order to obtain a deeper understanding of the individual experiences across the board. All disclosures and confidentiality practices were given to participants, and all survey questions are included as appendices.

CHAPTER 4: STUDY RESULTS

The initial recruitment emails were sent out June 4th to the target agency and June 6th to surrounding jurisdictions. Survey responses were turned off on June 25th, 2024. The survey remained open longer than two weeks due to limited outside agency responses, and additional recruitment emails were sent out June 16th-20th in an effort to capture data for comparison. The survey received 203 responses and several focus group interviews were set, with dates of June 25th, 26th, and July 8th.

Introduction

For the survey, participants were limited to career firefighters. Any response received that did not meet this requirement was eliminated. 203 responses were collected from the initial survey. 142 of those were from Anne Arundel County Fire Department, and 61 were from a mix of outside agencies throughout the United States. The second largest group to participate came from New Orleans Fire Department, with 9 people participating in the survey. Naturally, there was a limited ability to compare responses from multiple people within the same outside jurisdiction. The respondents included 59 Chief Officers, 53 Company Officers, and 91 Firefighter/Paramedic/Drivers. 21 respondents had 0-5 years of experience in the fire service (not necessarily with the same agency). 23 had 6-10 years, 21 had 11-15, 49 had 16-20, and 89 respondents had 21 years or more of experience. Obviously, there was greater participation within the tenured members, and many of this group came from outside agencies. This demonstrates the problems associated with getting the survey out to outside agencies in the initial state of recruitment. Many of the respondents from outside agencies were networked through Chiefs. Over half of the 21+ year group of respondents came from outside agencies, which is a much different ratio than every other group of seniority.

The survey responses fell in line with the landscape of educational background in the fire service in America. 53 respondents have “some college” credits. The next highest category was 44 people with bachelor’s degrees, then 32 with master’s degrees or higher. The lowest categories showed that 16 people had a bachelor’s degree with some credits toward a master’s. Seventeen people did not take any college courses past a high school level. Nineteen people have an associate degree with some credits toward a

bachelor's degree. The majority of people (133 of 203) had some type of college degree. The most experienced members presented with the most education; 22 of 89 respondents had master's degrees or higher and 27 held bachelor degrees. In comparison, the most junior members (21 respondents) held 2 master's degrees or higher and 4 bachelor degrees.

As stated in the methodology section, no other demographic variables were collected. The research purposefully excluded other demographic areas in order to concentrate on the relationship between seniority, rank, education, and access to professional development opportunities.

Research Questions

In terms of professional development, what type of problem is the Anne Arundel County Fire Department currently experiencing: employee motivation, structural, or resource barriers?

The survey data indicates very clearly that most respondents experience barriers to professional development. Taking that one step further, most respondents clearly identified a resource barrier as the primary barrier to accessing professional development opportunities.

Within the least experienced group of respondents, 52% (11 of 21) indicated that they did not have the means to access professional development opportunities due to constraints on time, finances, or childcare. In other words, they are encountering a resource barrier to professional development opportunities. The 6-10-year experienced members showed 73.9% (17 of 23) fell in the same category, 15 of 21 (71.4%) in the 11-15 range, 31 of 49 (63.3%) of the 16-20 year, and 35 of 89 (34.8%) of the 21+ year group. The second most-encountered response across all groups was that they did not have any barriers to professional development opportunities, with some participants selecting multiple options. The survey data indicates that if an access issue exists, that it is predominantly experienced in the resource-barrier category. Motivational barriers were reported as almost non-existent, with only 9 respondents of the 203 indicating that they did not have the desire to complete any further development.

A host of qualitative answers to the survey questions confronted the issue of barriers to professional development opportunities. Several respondents discussed the need for advertisement: "Professional Development courses should be advertised better…" (Participant #124),"The county offers

classes but them being known about needs to be broadcasted…" (Participant #82). Some other themes included time constraints, financial constraints, and childcare restraints. Other responses blamed their Departments for a perceived lack of interest or support in professional development opportunities: "Education and career development are an afterthought in this department. There are too many barriers to list as this department does not value training or education in any way" (Participant #198). Other responses acknowledged the support of their Departments for development opportunities: "The city pays upfront for Associates Degrees (required to be a Captain) and reimburses up to $5000 a calendar year for 4-year (required to be a BC) or graduate-level college courses" (Respondent #174). These qualitative responses presented several themes: Leave or paid time off, deciding between where to spend time (family versus development), where to prioritize financial obligations (family versus development), lack of awareness/advertisement, tuition reimbursement, promotional incentives, and childcare.

When given the opportunity to expand on this topic within focus group interviews, many of the same themes persisted and were expanded upon by the group. For instance, several interviewees from Anne Arundel mentioned the inequity of training leave distribution amongst employees. The view that "special operations" members were the only ones given training leave was mentioned throughout the survey responses and again in the in-person interviews. This sentiment was referenced by six AAFD employees within the survey and one during the interview. Furthermore, all interviewees agreed that outside training opportunities were valuable in order to avoid circular information. While there is great benefit to on-the-job training, they all answered that in order to be a fully developed employee, both options should be exercised. There are inherent limitations to outside opportunities, which were discussed by all interviewees. These included time, family commitments, financial obligations, etc.

Do fire departments that hire outside of their ranks see an increase in participation in professional development?

Unfortunately, the survey did not yield groups of responses from individual organizations as originally hoped for. Without the volume of respondents from multiple jurisdictions (and instead, 53

other jurisdictions represented in 61 responses), an accurate assessment of jurisdictional processes is unable to be obtained within this survey.

At the very least, results can be assessed regarding the structural barriers that were acknowledged within the study. Fourteen respondents indicated that they did not have the professional need to complete any further development. Most of these came from the most experienced respondents, which aligns with results found in the literature review. The majority of respondents (195) indicated that their departments offered different career pathways, and 143 of those stated that they know which professional development opportunities to take in order to achieve their career goals. 23 respondents did not know which opportunities to take, and 37 people were not sure. This shows that 60 people (29.6%) are unaware or unsure of what opportunities to engage in in order to fulfill their career goals.

Qualitative responses collected by the survey indicate a variety of perceived solutions to the structural barriers of engaging in development opportunities. For instance, one person proposed staffing the Training Academy year-round: "[training] is too low on the long list of leadership's competing priorities, and also possibly too costly, for it to be centralized and taken on at any higher level" (Participant #47). Participant #98 proposes a schedule change for paramedic students. Several respondents focus on how leave is not given for development opportunities. Ostensibly, many participants believe that there is little recognition or reward for any time spent on professional development other than personal satisfaction.

Interviews yielded a lengthy discussion on the merits of the promotional process within Anne Arundel County when the sentiment was that practical skills were not prioritized or demonstrated. The group acquiesced that they did not know how to objectively build in or rank outside practical experiences into the structural processes of the Department. However, the discussion keyed in on the fact that structural barriers to development opportunities were a very tangible issue. Every employee from AAFD that was interviewed touched on the fact that the minimum standard for promotion within the county was too low and yielded sub-par officers.

Conversely, within the New Orleans Fire Department, the sentiment that education was prioritized was offered fourteen times by the interviewees. Anne Arundel interviewees only mentioned education three times. New Orleans participants offered that education was prioritized by their current administration, and was built into the structural processes required for advancement. They also acknowledged that the community college partnered with their organization to offer these courses, which eliminated many of the resource barriers associated with higher education (at the least, for the structural requirements of the Department).

What are the commonly identified barriers to professional development nationally and how are other fire departments/agencies erasing them?

As discussed previously, the majority of respondents (109 of 203) to this survey are currently encountering a resource barrier to professional development opportunities. Resource barriers were identified as time, finances, or childcare. The group that is encountering resource barriers spanned across seniority levels and ranks (21 Chiefs, 30 Officers, 58 firefighters/drivers/paramedics). 89 members (62.7%) from Anne Arundel County indicated that they were experiencing this barrier, while 20 (32.8%) members of other departments indicated the same. There is a notable difference in these ratios, which indicates that perhaps Anne Arundel County firefighters are more widely facing a resource barrier to professional development opportunities.

The following comparisons across departments are also suggestive of Anne Arundel County firefighters facing a resource disadvantage in comparison to the other departments polled. Of the 38 people who are currently enrolled in any higher education, 20 (32.8%) were from outside agencies. Only 18 respondents (12.7%) from Anne Arundel County are currently enrolled in higher education classes. When polled on conference attendance within the past 12 months, 50 people from outside agencies (82%) indicated that they had attended a conference. 59 people from Anne Arundel County Fire Department indicated the same (of 142, or 35.2%). Even when asked regarding certification level courses (which are available to AAFD members through Maryland Fire and Rescue Institute, free of charge), there is a

difference in participation between outside agencies and AAFD. Of the 126 people that attended a certification level class in the past year, 46 were from outside jurisdictions and 80 were from AAFD. That equates to 75.4% of respondents from outside agencies had attended a class in the past year, while 56.3% of respondents from AAFD had attended a class. The same trend continues with seminars and hands-on-training; 45 personnel from outside jurisdictions attended (of 61) and 85 (of 142) from AAFD. While this number is higher, AAFD is not at the level of other jurisdictions when it comes to participation in professional development opportunities.

In order to determine whether resource barriers play a role in this difference, it is crucial to examine the factors in play. For instance, paid leave or details to attend development opportunities is an example of eliminating a resource barrier. When asked if the agency provided paid leave, 81 people responded yes, 83 responded no, and 39 offered a qualified answer. Of outside agencies, 47 represented agencies (51 responses) indicated that their agency provided paid time off to attend development opportunities. Four people indicated that their agency did not. Only 30 people from Anne Arundel County Fire Department answered a simple "yes" to the question asking if their agency offered paid leave to attend training. There were many qualified answers here, with frequent responses indicating that training leave was reserved for Special Operations, case by case basis, dependent upon the course being offered, and that the training leave was only for certain people or certain occasions. Of the "No" answers for this question, only four belonged to people from outside agencies. Seventy nine people from AAFD (55.6% of AAFD respondents) indicated that their Department did not offer paid training leave without any other qualifier associated with their answer. When asked about using that type of leave, 39 people from AAFD indicated that they had in comparison with 50 outside jurisdictions. Only 11 (18%) people from outside agencies have not used training leave, compared with 103 from AAFD who have not (72.5%). In an effort to remove any skewed data presentation, a comparison was tendered across the Chief Officer rank. One Chief officer from AAFD (out of 9 Chief officer ranked responses) indicated that they have used training leave. Every other chief officer level response (41 out of 50 responses) was from an outside agency.

When asked if their agency has a tuition reimbursement program, the responses were split into yes, no, or unknown. Forty four people responded that they did not know if there was a reimbursement program available, with 43 of those respondents being from AAFD. Fourteen people from AAFD indicated that they have used a tuition reimbursement program offered through their current agency. Twenty nine people from outside agencies indicated the same. The survey found that 143 (100 from AAFD) people would be more willing to pursue a degree if financial assistance were available. With 44 people unaware of a tuition reimbursement program in AAFD and 46 responding that such a program did not exist, this indicates a communication or advertisement miss. A tuition reimbursement program is available in AAFD and many respondents are unaware of its existence, with 100 people stating that they would be more likely to pursue higher education if financial assistance was an option.

Overall, when asked if they believed professional development opportunities would increase job satisfaction, respondents indicated that they believed they would. One hundred nine of the 142 respondents from AAFD anticipated that they would experience increased job satisfaction with increased opportunities. One hundred nineteen people overall indicated that they were interested in finding out about resources available to them, with another 43 indicating they would "maybe" be interested. In qualitative survey responses, many people indicated that time was their biggest limiting factor, or choosing between time spent with their families versus time spent on development. The same was indicated with financial obligations. Many respondents viewed a commitment to development opportunities as money and time taken away from their families.

Summary

The study collected data that demonstrated the difference between the target audience and other career firefighters throughout the nation. The survey responses indicate that barriers to professional development opportunities are being experienced by many employees. Qualitative responses, both within interview environments and through lengthy responses, allowed for the full experience of respondents to be verbalized. Many of the respondents in Anne Arundel County Fire Department expressed frustration

with a perceived lack of endorsement or motivation for outside development opportunities. These results will be analyzed further to draw conclusions within Chapter 5.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

Summary of the Results

Several themes persisted throughout the qualitative responses and interviews. As mentioned in Chapter 4, many respondents discussed the accessibility of training leave in order to attend professional development opportunities. This theme was present throughout responses from Anne Arundel County employees, yet not an issue that was discussed at length or with emotion from outside agencies. The recurrent theme from AAFD members was that training leave was either not available, or that it was only for certain people or certain groups of people. With words used like "golden children" (Respondent #58), this topic certainly connotes some strong opinions. Interviewees suggested that a "general firefighter" doesn't really get any help when it pertains to training leave or classes to advance (Respondent #41). From a global perspective, the issue at hand stems from budgeted training allowances for Special Operations, Health & Safety, and the Training Divisions. However, the Operations Division is not generally seen as funding conferences or offering training leave. Conversely, in other agencies' responses, common themes were that the agency paid for training or encouraged professional development. Many responses included phrases such as "ample opportunity for self-improvement and advancement" (Respondent #194) or "Our organization encourages professional development" (Respondent #149). These phrases were never used by respondents from the Anne Arundel County Fire Department. Overall, the consensus from AAFD members was that professional development was not prioritized within the agency.

Another key theme that was referenced multiple times was how professional development was prioritized within a promotional process. Many people believed this was the key to encouraging professional development. By raising the minimum standard, people would be forced to meet the minimum standard in order to achieve goals. Much of the discussion during interviews revolved around how taking a promotional exam did not translate into the hands-on skills required for firefighting

(Respondents #83 and 86). The interviews from New Orleans yielded that the minimum requirements for promotion were offered through the local community college, and that the administration expected people to have prepared ahead of time for promotion (Respondent #185). Conversely, in Anne Arundel, interviewees offered that officers were being promoted and then being coached on how to do entry-level firefighting skills. Participants compared on-the-job training benefits against outside opportunities, and found that both were necessary. AAFD members revealed that a global approach to training people to become officers (through an officer development program), rather than having them solely participate in on-the-job training, was preferred (Respondent #13). Participants did not believe that education or "letters behind a name" make leaders (Respondent #167). Based on the interviews, many people are critical of the structural process of advancement, yet cannot offer an objective answer on how to assess task-level performance in a promotional testing setting (Respondent #86). Interestingly, the "professional need" category of barriers to accessing professional development opportunities was minimally selected by participants (14 of 203 participants). Most people identified that professional development opportunities were essential for their "professional needs," and did not consider this a restriction on continuing to access opportunities. So the overarching theme that persists regarding structural processes of professional development is that AAFD members desire more preparation and skill development ahead of promotion for entry level officers.

Finally, the quantitative data from the survey yielded a stark comparison of AAFD against other agencies. In every category of professional development surveyed, AAFD respondents were not as actively engaged as other agencies. Many people from AAFD are unaware of opportunities or programs to alleviate access issues. Again, this is much different than the respondents from outside agencies. Almost 3/4 of respondents from AAFD have not used training leave in comparison to 18% of respondents from outside agencies. 90 people from AAFD did not know about or were unsure if a tuition reimbursement program exists for the agency. A tuition reimbursement program does exist for AAFD members. This backs up the claims of lack of advertising of opportunities for AAFD members. Several

respondents noted that opportunities exist, but that they were unaware of details and therefore did not know how to access them (Respondents #82, 124). This, along with other resource-based constraints (time, money, childcare) was cited as the largest deterrent to development opportunities. Although many people offered that time and money were barriers, only one person suggested that childcare might be beneficial to members when accessing professional development opportunities (Respondent #34). From the responses, it can be concluded that time constraints, advertisement, and lack of access/awareness of training leave (or other benefits) are the biggest restrictive factors to accessibility faced by AAFD members currently.

Conclusions Based Upon Results

Not only did the research contribute to the base of findings regarding education throughout the fire service, it also closely examined accessibility issues to advancement for many professionals throughout one Department. The available literature on the current education and certification levels of firefighters is lacking, as cited in Chapter 2. There are currently multiple certification agencies throughout the nation, tracking different certifications, so a comparison across firefighters nationally is impossible. Further, the only education data available was through DataUSA, showing that most firefighters have attained some college credits without completing a degree (DataUSA, 2021). This research paper provided insight into the current education levels of firefighters within the target agency. Further than that, this research examined what issues firefighters are facing when accessing professional development opportunities, generally. These findings can absolutely shape the future of career trajectories within the Anne Arundel County Fire Department. By tendering a comparison across Departments nationwide, it became clear that there was a discrepancy between outside agencies and the target Department.

The research captured within this report identifies that almost all interviewees valued outside opportunities as much as on-the-job training. As identified in the *21st Century Fire and Emergency*

Services Whitepaper, a recognized initiative is to encourage personal growth through a comprehensive organizational professional development plan. This plan should include both training and education, and should be incorporated into the structural processes required for promotion (ICMA, 2020). Through this recognized initiative, the leaders of the fire service expect to see progressive growth nationally. In Chapter 2, the pros and cons of on-the-job training and outside development opportunities were discussed. On-the-job training was highly valued in trade industries (Korpi, et. al, 2021). As a testament to the continued evolution of the fire service, the administrative skills associated with promotion are evoking more respect for higher education within the field. However, as identified through both the literature review and individual participants, there exists a gap at the company officer level between administrative skills and operational skills. Outside training opportunities are a tool to address these stated deficiencies, in either area. Unfortunately, although all respondents valued outside training, many respondents (134 of 203) also experienced barriers to accessing these opportunities. By eliminating access issues (resource barriers) or restructuring advancement opportunities (structural barriers), many of these barriers may be eliminated. Finally, through a review of available literature and through this survey, it is widely accepted that most people experience increased job satisfaction as a result of engaging in professional development opportunities (Tomita, et. al, 2022). 150 people surveyed of the 203 believe that their job satisfaction would increase as a result of engaging in professional development opportunities. This research paper increased the field of knowledge available about access issues to professional development opportunities. By increasing this knowledge, access issues can be addressed and resolved, leading to a happier, more productive and customer-friendly workforce.

As cited in the literature review, previous research has investigated the motivation to access opportunities. Conversely, this research centered on whether members were experiencing resource barriers, and if offsetting these barriers would increase attendance to opportunities. Largely, this research has found that by offsetting resource barriers (offering training leave, increasing advertisement of opportunities, offering digital formats, educating members on available programs), many more people

state that they would access said opportunities. In fact, when asked if members would be more willing to pursue a degree if financial aid were available, 143 respondents said yes and 43 said maybe. 186 of 203 firefighters surveyed might be more apt to pursue a degree, which is significant considering that the majority of all firefighters have some college without a degree. 162 of the 203 would be interested in finding out about resources available to offset access issues to development opportunities. 174 stated that if those access issues were resolved, they would engage in more professional development opportunities. The research clearly demonstrates that motivation is not an issue with firefighters. Rather, they are encountering obstacles to opportunities that they are unable to currently navigate. Culturally, there are more demands on time and money for many people. By freeing up these resources, administrators can see increased engagement from the workforce.

By gathering the stated opinions and viewpoints of firefighters both in Anne Arundel County and throughout a myriad of other departments nationwide, conclusions can be drawn regarding the need for intervention in eliminating barriers for members. Survey respondents offered realistic, mostly low-cost recommendations for increasing access to opportunities. They demonstrated the effectiveness of advertising and showed how motivated they can be when given the opportunity. By eliminating resource barriers for members of the fire service, administrators nationwide can capitalize on a better-trained, more satisfied workforce.

Limitations

Naturally, there exist some limitations within this research project. While the project intended to compare organizations by gathering multiple viewpoints from several different organizations, that response grouping is not how the survey responses unfolded. Rather, the survey responses yielded answers from 51 different departments. Unfortunately, there was often only one respondent from each of those departments. It is unrealistic to expect to draw organizational conclusions from one person's

viewpoint; rather, the multiple perspectives were grouped together into an overarching “outside agencies” group instead of unique fire departments.

Furthermore, this project intended to gather qualitative data through focus group settings, broken down by department. Unfortunately, many people failed to attend requested interviews. Because of these no-shows, interview data was limited in quantity to only 6 respondents. Much of the qualitative data that was used in addition to these interviews had to come from long answer responses within the survey. For one scheduled interview, only one participant showed up, and so conversation had to be initiated between the researcher and the interviewee. This could have led to unintended bias by the researcher when trying to elicit developed responses from the participant.

Finally, it should be noted that the respondents themselves are not indicative of the entire population of the fire service. Participating in a survey or even further, an interview, calls upon more motivated and invested employees. Not every person within a fire department will feel called upon to participate, and so multiple viewpoints are not included at the outset. Furthermore, the respondents that participated from outside agencies, as noted in Chapter 4, largely had more experience and were more likely to hold the rank of Chief officer than the general population within the fire service. Therefore, the data gathered from outside agencies may not be indicative of their respective agencies. This leads to the conclusion that generalizing the answers of these outside respondents may not be possible.

Implications and Recommendations to the Field

Recommendation #1: Advertisement of Training Opportunities

As identified previously, many respondents within Anne Arundel County indicated that they are simply unaware of outside training opportunities. Furthermore, many survey respondents were not aware of resources that exist within the agency, such as the tuition reimbursement program. This would be a cost-effective recommendation to the County to capitalize on the existing motivation of personnel.

Simply tasking someone within the agency to pull together resources available and place an access point on the Fire Department portal would eliminate the access/advertisement issues that have been identified through this research. This access point can include information on higher education opportunities, emergency management opportunities, hands-on-training and conference information, etc. Should a conflict of interest be a concern, a statement from the legal department separating the County from any recommended groups could be added.

Recommendation #2: Training Leave

Many respondents within Anne Arundel County were not aware of the existence of training leave or had never used training leave in their careers. Obviously, the advertisement of training opportunities mentioned previously should include information regarding training leave. With this, the requests for training leave will probably increase. In order to prepare for that, training leave should have standardized parameters. This will alleviate the issue of requests being handled by one person using judgment regarding the institution. If the request meets the standardized requirements, the leave can be approved by any Battalion Chief. If it does not, then it can be denied. By standardizing this request and delegating it out, access can be granted for more people, while still abiding by the interests of the Administration.

Recommendation # 3: Increase Baseline Requirements for Company Officers

Interviewees expressed dissatisfaction with the perceived skill level of some rising company officers. They also could not point to an accurate, objective methodology of qualifying this skill level. However, multiple members of AAFD within the survey requested an officer development program in conjunction with the current OJT process. Renewing the roll-out of a professional development program specifically tailored for rising officers is sought after within the Department. Historically, AAFD started down the path of creating such a program in 2016 and members recall this push. This research project supports the renewal of that initiative. By setting higher structural standards, the push for continued

professional development is a requirement, not a request. It demonstrates the endorsement of professional development by the Administration and sets the bar higher for the cadre.

Recommendation #4: Committee on Selection of Personnel to Attend Outside Conferences

With the perception of favoritism pushing through the responses from members of the Anne Arundel County Fire Department, it is important to address these concerns. This researcher would recommend distributing conference attendance throughout the Divisions of the Department. Creating a committee to select attendees and tracking attendance would delegate this workload out and allow for involvement and buy-in from the membership. Further, selected conference attendees should bring back recommended training or information to the membership. This should be channeled through the same committee for vetting and distribution.

Recommendations for Future Research

During the process of gathering the data for this project, many subtopics arose. These could all evolve into future research projects to expand upon the body of research available on this topic. First and foremost, the education levels and training resumes could be compared across different demographics. Comparing whether access barriers exist disproportionately across demographics would also contribute to the body of understanding around meritocracy versus networking (“good ole boy” system).

Completing this research as originally intended, by comparing multiple responses from individual agencies, would demonstrate a more significant contrast against individual departments. A better understanding of the structural barriers would be able to be obtained by continuing down this research path. I would absolutely recommend future researchers to initiate contacts at multiple organizations to complete this endeavor.

Conclusion

In conclusion, this research has determined that the Anne Arundel County Fire Department members are accessing outside professional development opportunities at a rate lower than other jurisdictions. This is largely due to access issues experienced by members. Other departments nationwide have already removed some of these barriers, by providing leave, partnering with community colleges, and raising the minimum standard for advancement.

The qualitative research allowed respondents to elaborate on their beliefs regarding this subject, and revealed that many participants believe professional development is not supported by the administration. Many participants feel that skills are necessary to lead, and that educational courses do not satisfy this requirement. Many interviewees also expressed that on-the-job training and outside development are equally important to the overall development of personnel. On-the-job training is seen as a grassroots effort by individual company officers. Many participants want a cohesive push for both pathways from the administration.

This research has covered the gaps that exist regarding the involvement of firefighters in professional development. Firefighters desire more professional development opportunities, but that they are encountering obstacles getting to those goals. As the world demands more and more professionalism from its firefighters, it is imperative to make this advancement as accessible as possible for them.

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Appendix A

Interview Consent Form

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Jennifer Kraushaar 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 a survey and possible follow-up 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 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:

Jennifer Kraushaar	**Dr. Justin Heim**
Student	**Course Manager**
National Fire Academy	**Columbia Southern University**
FD001544@aacounty.org	**Justin.Heim@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 B

Survey Questions

Thank you for participating in this study. This research targets specific challenges firefighters encounter when accessing professional development opportunities. It aims to identify ways to increase accessibility for all ranks of firefighters to professional development opportunities.

Below, please fill out questions as accurately as possible. On write-in questions, please feel free to discuss at length.

For this study, "professional development opportunities" include: higher education (anything beyond high school), certificate-level courses, conferences, seminars, and Hands-on-Training (outside of work).

Any training done as part of a company-level drill is not applicable (i.e., you were mandated to participate in the training). This research is focused on training that is voluntary, not compelled.

Several responses will be picked at random for a follow-up interview, if you are interested/available.

1. Are you a career firefighter or a volunteer firefighter?
    a. Career
    b. Volunteer
2. Which Fire Department are you employed with?
3. How many years of experience do you have in the fire service? Include experience prior to your current agency (i.e. volunteer time prior to your current employer).
    a. 0-5 years
    b. 6-10 years
    c. 11-15 years
    d. 16-20 years
    e. 21 or more years
4. In the agency you are currently employed with, what is your rank?
    a. Firefighter/Paramedic/Driver
    b. Company Officer
    c. Chief Officer
5. What is your current education level?
    a. High School Diploma
    b. Some college credits
    c. Associate’s degree
    d. An associate’s degree with some credits toward a Bachelor’s

    e. Bachelor's Degree
    f. Bachelor's Degree with some credits toward a Master's
    g. Master's Degree or higher
6. Are you currently enrolled in any higher education (anything above high school) classes?
    a. Yes
    b. No
7. Have you attended any conferences within the past 12 months?
    a. Yes
    b. No
8. Have you completed any certification-level courses (collegiate or industry) within the past 12 months?
    a. Yes
    b. No
9. Have you attended any seminars or hands-on training outside of work within the past 12 months?
    a. Yes
    b. No
10. Does your agency/municipality offer paid leave or an option to attend training in place of working your regularly assigned position?
    a. Yes
    b. No
    c. Other (short answer)
11. Have you ever used that type of leave or program with your current agency?
    a. Yes
    b. No
12. Does your current agency/municipality offer any sort of tuition reimbursement program?
    a. Yes
    b. No
    c. Unknown
13. Have you ever used such a tuition reimbursement program (sponsored by your current agency)?
    a. Yes
    b. No
    c. Other (short answer)
14. While employed in the fire service, have you ever received any financial assistance for a collegiate-level course?
    a. Yes
    b. No

15. Would you be more willing to pursue a degree if financial assistance were available?
    a. Yes
    b. No
    c. Maybe
16. Do you believe that your skill set and knowledge base are on par/higher than/lower than your peers?
    a. On par with my peers
    b. Higher than my peers
    c. Lower than my peers
17. What barriers do you have to attending/completing professional development opportunities? Pick one option, the most applicable to your current situation. (Checkboxes)
    a. I do not have the desire to complete any further development
    b. I do not have the professional need to complete any further development
    c. I do not have the means (time, finances, childcare) to complete any further development
    d. I do not have any barriers to accessing professional development currently
18. If resources to lift those barriers were available to you, do you think you would engage in more opportunities?
    a. Yes
    b. No
19. Are you happy with your current role within the Department?
    a. Yes
    b. No
20. Do you believe additional training/qualifications/assignment change would increase your job satisfaction?
    a. Yes
    b. No
21. Does your organization offer different pathways within your career? (i.e. Driver, Paramedic, Fire Marshal, Public Information Officer, Dispatch etc.)
    a. Yes
    b. No
22. In order to achieve a career pathway goal, do you know which professional development opportunities to take?
    a. Yes
    b. No
    c. Maybe
23. Are you interested in finding out about resources available (i.e. tuition reimbursement, grants, scholarships, etc.)?

a. Yes
b. No
c. Maybe

24. May I interview you in a group setting with others from your Department? Interviews will be recorded and transcribed for data collection.
    a. Yes
    b. No
25. Is there anything you would like to add? (long answer)

Appendix C

Semi-Structured Interview Questions

1. Are you happy with your current rank/assignment/role - yes or no? Not necessarily promotional - other opportunities within your department

2. Do you feel more engaged in another setting - i.e. your volunteer house, a second job, home commitments? Can you elaborate?

3. How should the fire service expand access to professional development opportunities?

4. Do you feel that OJT or outside development opportunities are more valuable?