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### Organization Development in the Fire Service: A Case Study of the Duluth Fire Department

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Organization Development in the Fire Service: A Case Study of the Duluth Fire  
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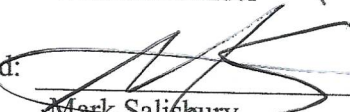
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Organization Development in the Fire Service: A Case Study of the Duluth Fire Department

Amy Johnson

University of St. Thomas

### **Abstract**

This research is a case study of the Duluth Fire Department and how they uniquely experience, perceive, and react to organization change. Written through the lens of an Organization Development practitioner for practitioners and change agents, this study also examines the implications for change work within these systems. The factors that affect change in High Reliability organizations, and the fire service specifically, are considered in this research along with the qualitative analysis of questionnaire responses directly from Duluth fire fighters. This research concludes that, to be most successful, Organization Development practitioners must be aware of, and adapt to, the unique factors and experience of the fire service when consulting on organization change.

### **Dedication**

This dissertation and research are dedicated to my parents, Jack and Kathleen Johnson. Because of their infinite love and support, this incredible journey is now part of my story. I am eternally grateful for both of them. My mother, passionate for education, instilled in me the love of learning. She has always been my greatest cheerleader encouraging me to keep going one step at a time. She has been a role model of perseverance. My father, strong and steady, always shows up for me. His guidance, reassurance, and humor have helped me navigate challenging situations with grace. He has shown me determination. They are an inspiration. They taught me to dream big. Through their own experiences, they have shown that with hard work and dedication reaching dreams is possible. I love you both. Thank you!

### **Acknowledgements**

Thank you to my aunt, Dr. Elizabeth Stauber-Johnson, for going first and being a role model to me. She provided support, encouragement, and inspiration through completing her own doctoral journey and sharing her experience.

Thank you to Dennis Edwards. His passion for Duluth Fire was contagious. He inspired curiosity and provided opportunities for me to learn about this admirable profession. His leadership led me to this research and for that I am so grateful.

Thank you to all the people in the Duluth Fire Department for their service and dedication to our community. I treasure the time I had in the department learning from the firefighters and seeing their incredible work first hand. Their work is admirable and they show compassion second to none. They delicately balance pain and humor in a way that honors the human experience and is truly heartwarming.

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### Organization Development in the Fire Service

There is a story passed down in the Duluth Fire Department about washing the wheels on the fire rigs. After each run, the firefighters would wash the wheels on the rigs. Finally, someone asked the question, “why are we doing this?” The response for years was quite possibly “because this is the way it has always been done.” But in this case, the firefighters traced the wheel washing back to the start to discover the wheels used to require washing after each run when the rigs were pulled by horses. The manure would need to be washed off the wheels to ensure that they would be quick for the next run. Needless to say, when this was discovered, the process of washing the wheels after each run subsided. This story illustrates the importance of tradition within the fire department. It also illuminates how change can be especially challenging for the fire service.

I was working on a project for the City of Duluth in Minnesota to help change the performance review process for the organization. The City of Duluth has many different types of services offered under the same organization. Due to the varied nature of work performed, the departments inside the City often times feel like separate entities. When creating a new performance review process, it was imperative that people kept in mind the various groups that would be using this process. The importance of this first came to light for me when someone said, “it might be different for the fire department”. My first thought as a practitioner, who was unfamiliar with the fire department, was “why would the fire department be so special that all the various departments would do fine with the new process, but it would not work for the fire fighters?” This was my first cue that there would be more to uncover in that comment. As my work continued with the City of Duluth, I worked on another project that landed differently for the fire department. As a practitioner, I found this particularly irritating. So I sarcastically asked



myself, “is it all people and then firefighters are separate?” I became curious and started to explore what was not known to me as a change practitioner. Through my experiences and time spent with the Duluth firefighters I found my answer. The answer is “yes”. Despite my own resistance to do things differently and hold different assumptions for this particular department, I discovered that to be a successful Organization Development (OD) practitioner with this group then I would have to change.

The Duluth Fire Department is a paid fire service with about 140 employees (DeWitt, Otis, & Sharma, 2017). They are separated into three shifts A, B, and C. A typical shift is 24 hours long. Three to five people are assigned to a fire engine and hold a specific position on that engine while out serving the community. But back at the station, all people on shift intermingle doing various activities including: eating, training, working out, and sleeping. One of my first realizations when spending time at the fire station was how dramatically different this work schedule was than any other group I had worked with. Not only was this group highly interdependent on calls, they also completed their activities outside of calls in a team fashion. These employees were not only expected to work together on calls and trainings, they ate meals together, slept in the same room, and maintained their station like a home. After completing a ride along with the fire department, someone said, “it was like going into their home.” And after I completed my own ride along, I concur. Even through observation of the firefighters working together, they seemed to interact more like family than colleagues. My interest in this group started to grow even more.

As an OD practitioner, I began asking a different question when reflecting on the fire organization. I started to wonder how collective change works in a family. Would I lead a family change initiative differently than a workplace change initiative? But even when I started to shift

my thinking, I was still missing crucial information. Another entire line of thought came when I attended my first fire training.

The fire union holds an annual training at Lake Superior College for invited community members to get a closer look at what firefighters do. This is an all-day training led by firefighters with different exercises that mock the real life challenges firefighters face. I was honored to be invited to this exciting day and I tried to learn as much as I could to understand how to work with this department. When I put on the fire gear breathing apparatus, I felt an overwhelming sense of claustrophobia. Clint, a Duluth Fire Assistant Chief who I had come to know through my ride along experiences, noticed my discomfort and helped me to calm down and use my apparatus. Later in the day, the firefighters started a controlled fire that simulated being inside a house fire. Clint knew I was experiencing a high level of discomfort trusting my apparatus in the smoke. He offered to stay with me inside the “house” and he would take me out if I felt unsafe at any time. As the smoke quickly drew thicker and I could no longer see, I started to feel panic and tapped Clint to bring me out. Though I was disappointed I did not finish the exercise, this experience proved to be my greatest experiential learning with the firefighters.

I learned a great deal that day at the training, but two important lessons emerged related to change work with the firefighters. The first lesson I learned was the deep amount of trust required to do this work. This is a different kind of trust than what someone might see in other work environments and even from family. This kind of trust is the kind of trust that is required in life and death situations. The trust that the other person will literally be able to give you air to breath in a crisis. Some of these men and women have actually saved each other from harm. And if they have not actually saved each other yet, they are put in situations consistently where that risk is a constant. So my earlier assumption that the fire department might be like other work

environments or that the fire department might be like a family was challenged by the realization that these people save each other and people in our community from harm consistently as crises emerge. This connection is unlike others I know.

The second important lesson I learned through the training related to change work is the risk level is starkly different than other change initiatives that I have helped carry out as a practitioner. Not all fire departmental change comes with high risk, but some does. And because some does, this cannot be merely overlooked by an OD practitioner. Change aversion, expected from humans in general, can easily be magnified in the fire department. If part of this work is the ability to save others from harm, changes in gear or protocol brings a level of uncertainty that does not exist in an office setting. The implications of failure for change inside the fire department can, in the worst cases, extend to a fatality.

### **Research Problem**

Unfortunately, what has worked for the fire department in the past is challenged by the changing needs of communities. The call volume continues to increase along with the demand on firefighters (WDIO, 2020). Therefore the question remains, how can OD practitioners be of greatest help to the fire service? What does effective change look like inside the Duluth Fire Department? How does the fire service uniquely experience change? Assessing the attitudes, values, and change readiness of individuals in the group will illuminate the way to lead this group through change. Currently, change is accepted reluctantly and slowly inside the fire service holding the department back from reaching its full potential to serve both the employees and community members at optimum performance.

**Importance of the Research (problem, purpose, significance)**

“The City of Duluth, Minnesota, measures about 6 miles wide by 26 miles long and wraps around the shores of Lake Superior. The unusual geography of the city requires a layout of 8 fire stations to protect the population of more than 86,000 people. Each station houses at least one company that is comprised of a piece of fire apparatus, a captain, a fire equipment operator, and one or two firefighters. Headquarters fire station consists of three fire companies, the fire chief, a deputy fire chief, administrative staff, and life safety office” (DeWitt, Otis, & Sharma, 2017, p.5).

In the world today, the Duluth Fire Department (DFD) is facing a higher call volume than in years past. There were 13,698 calls in 2019 showing roughly a 500 call increase from 2018 (WDIO, 2020). Conversely, the funding for emergency departments does not always allow the department to hire more individuals. In some cases, a threat is posed to lay-off employees in these fields due to budgetary restrictions and limited resources. In order for the DFD to continue to deliver the same level of service to more citizens with the same amount of staff, change is required.

Change inside the fire service has additional complexities one might not find in most organizations. When a change is carried out in the fire service, it has the potential to impact the life of the firefighter or a patient during an emergency. The firefighters need to be confident and comfortable with a change in order to carry it out effectively during an emergency situation. Not all changes will impact the line of duty, but the overall feeling toward change in the fire service could stem from the high impact change has on emergency situations.

In addition to the fire service, other high reliability organization (HRO) work teams are faced with similar challenges including life threatening circumstances, interdependency in crisis

situations, and high levels of trust required. “A high-reliability organization (HRO) is an organization that has succeeded in avoiding catastrophes despite a high level of risk and complexity” (Jacobson, 2019, p. 1). Some other examples of high reliability organizations include military, space, emergency healthcare, air traffic control, and nuclear operations. Five elements that HROs have in common include: process failures are addressed immediately and completely, complex problems get complex solutions, every voice matters, recovery is swift, and experts are trusted (Jacobson, 2019). “High reliability is an ongoing process or an organizational frame of mind, not a specific structure” (Patient Safety Network, 2019, p.1).

The additional complexities of HROs and the fire service impact organization change initiatives. OD practitioners cannot assume change will unfold in the same way as it does in other workplaces. Aspects that need to be considered when working with these systems include psychodynamic factors, such as coping with anxiety, during change initiatives that cause uncertainty in the organization (Lucas, 2005). Creating a space for psychological safety that includes open communication and learning between members of the organization provides support (Lucas, 2005). In addition, one must not lose sight of how the culture of these organizations further influences their response to change. The three components of culture include: artifacts, espoused values, and underlying assumptions (Schein, 2017). An analysis of these components could highlight how the culture influences the organization change initiatives for the fire department especially given the historical and traditional nature of the service.

It is not known how the DFD uniquely experiences change. It is not known why the fire service is reactive rather than proactive in terms of change. The purpose of this study is to identify how the DFD uniquely experiences change. Understanding how the DFD uniquely experiences, perceives, and reacts to change will help to illuminate effective implementation of

future change initiatives. What do OD practitioners need to know about change within the fire department to be helpful through the change? What makes the fire department different from other departments in the City when it comes to change initiatives?

### **Research Question**

When looking at the need for change in organizations and given the unique aspects of HROs and the fire service, OD practitioners are left to wonder about effective change strategies for these systems. A qualitative case study of the Duluth Fire Department gives an inside look at how this fire department views change. This information informs change agents on how to proceed when working with this group, other fire departments, and even other HROs. This research asks: 1) How does the DFD uniquely experience, perceive, and react to organization change? 2) What are the implications for change work in these types of systems?

## **Chapter Two: Literature Review**

OD practitioners benefit from understanding their clients in order to work with them through change. The unique aspects of the fire service are key data for the OD practitioner. In order to answer the research question regarding the unique change experience of the Duluth Fire Department and implications for change work, the literature review looks at relevant research that examines: 1) unique aspects of the fire service 2) unique aspects of HROs, the organization classification which includes the fire service, 3) what has been learned about change within these organizations that sets them apart from other organizations.

First, the literature reviews the unique aspects of the fire service in order to differentiate this group from other groups in terms of organization aspects that impact change initiatives. Second, examining High Reliability Organizations (HRO), the fire service organization classification, will give an understanding of what sets these type of organizations apart from other organizations and what considerations must be taken when working with HROs. Lastly, the literature available regarding organization development within these type of organizations can show what lessoned have already been learned.

### **Fire Service**

Different from other professions and organizations, firefighters have several factors that make this profession unique. These factors set the fire department apart from other organizations and work groups. To begin, an obvious factor to consider when looking at the unique aspects of the fire service is the environment firefighters work in is high in both stress and risk. In their day to day work, they have the potential to face the physical threat of personal injury or death, in addition to, the risk of psychological pain when witnessing, explaining, and reporting on deaths and property loss on the scenes (Landen & Wang, 2010). Where others are instructed to flee

from these various dangerous situations, firefighters are instructed and trained to mitigate an emergency scene whether it be a fire, accident, water rescue, medical emergency, or various other unexpected situations that inevitably arise. Much of the OD literature surrounding change in organizations does not specifically address organizations with members that have the possibility of physical and psychological harm at any time during their shift. Every change inside the organization might not impact life or death, but the members of the group operate around this real risk every time they come to work. This makes the fire service unique and must not be overlooked or taken lightly.

In addition to the immediate risk of danger to firefighters on emergency scenes, they also face long term dangers of the profession including increased risk of cancer. The chemicals or toxins released on scene can have a long term impact on the firefighters. “The culture of firefighters instills resilience in the face of danger, but the profession’s traditional cultural symbols and practices might make individual firefighters less resilient to unexpected risks” (Harrison et al., 2017, p. 1). In the fire service, cancer is the leading cause of death (Harrison et al., 2017). “While many in fire and rescue services are aware of these issues [meaning cancer], the culture and practice of firefighting creates barriers to risk reduction and change” (Harrison et al., 2017, p. 3). For example, having burnt turnout gear used to be considered a badge of honor and experience in the fire department, but years later it was discovered that the charred remnants left on turnout gear was harmful to the firefighter increasing their exposure to cancer causing agents. This traditional cultural symbol was harmful to the individuals due to the unexpected risk. Now the fire service is working to change this tradition and develop a new routine of washing the turnout gear after each fire. In the Duluth Fire Department, they are working to get



every firefighter an extra set of turnout gear so dirty or damaged gear can be washed or repaired immediately. This is vastly different from how it used to be.

Being highly organized is another trait in the fire service. This level of organization is successful and used to reduce risk, injuries, and death while fighting fires (Harrison et al., 2017). In the Duluth Fire Department, the high level of organization is easily observable. It starts at the station with even the small details like leaving the doors of the fire rig open and the placement of turnout gear to be able to leave the station in an exact amount of seconds to respond to an emergency. Each firefighter has an exact seat and role on the rig. On the scene of an emergency, the firefighters interact seamlessly with each other knowing their specific contribution and responsibilities to the scene. Where each emergency will have its own unique set of variables, the firefighters as a team are highly organized to continue to collaboratively work through unpredictable situations. Though this type of organization could be perceived as inflexible, it is imperative to safety. Therefore, not surprising to see change as a disruption.

All firefighters, even those with many years of service or experience, must be willing to follow the chain of command on scenes without questioning while also working closely and collaboratively with other firefighters (Landen & Wang, 2010). Unlike some other professions, firefighters often do not always have the luxury of time to collaboratively come up with solutions. This results in relying on the chain of command for orders to quickly address the emergent situation at hand. “Emergency situations are all unique, and the ability to both follow command and direction, as well as to adapt to a specific call is essential to the safety and effectiveness of fire and rescue operations” (Harrison et al., 2017, p. 3).

Outside of an emergency and in terms of change in the organization, it is more complex to implement than sending an order through the chain of command. For example, fire leadership

faces the challenge of balancing and considering various perspectives between new and old generations (Harrison, et al., 2017). “While firefighters see the new generation bringing change from below, they also see the importance of change being led from the top, both in terms of formal leadership and individual leadership from senior and respected firefighters” (Harrison, et al., 2017, p. 14). Different from other organizations, including those who have clearly defined leaders and followers, “fire services are also very localized with many on-the-ground daily processes implemented and led at the station level” (Harrison, et al., 2017, p. 15).

A profession in the fire service has additional demands and risks even when they are not on an emergency scene. Unlike many other professions, firefighters depend not only on their mental ability to process and navigate high risk situations, but they also must maintain a high level of physical strength and stamina in order to effectively work on scene to save lives and property (Landen & Wang, 2010). Wellness initiatives inside the DFD and the fire service in general are commonplace. In a Duluth fire station, it is not unusual to see some work out equipment or even a small gym where firefighters are able to maintain or improve their physical fitness. Being physically fit not only helps the individual, it also impacts the team and the community members they serve.

The culture inside the Duluth Fire Department is almost tangible. Though the DFD is not alone, the fire service is notorious for having a strong and prominent culture. Most notably, “firefighter culture has successfully instilled resilience in the face of immediate danger” (Harrison, et al., 2017, p. 21). This creates a truly heroic attribute in fire service and its members. The fire culture goes beyond resilience though to instill many other heroic values in the organization. “Some of the cultural strengths that define the fire service include: integrity, moral character, pride, strong work ethic, courage, loyalty, and respect” (Simmons, 2014, p. 26). These

values are not merely voiced or listed on the organization website. These values are lived and carried out consistently by firefighters each time they step into an emergent, unknown, and often times dangerous scene. In addition to deeply held values, the fire service has visual, structured, and formal traditions in their culture. “Like the military, the fire service has a command structure, ranks, uniforms, badges, and a strong emphasis on camaraderie” (Simmons, 2014, p. 26).

Further than the fire service culture that builds an expectation of certain human behaviors, the characteristics and tendencies of individuals drawn to this particular occupation must also be acknowledged. Where it may be difficult to decipher what has been taught and what comes natural to people that choose this career, certain human traits have been noticed to exist inside the fire service. For example, “firefighters are natural storytellers, and drawing on the assets of their organizational knowledge to create new meanings and rebuild culture will further strengthen resilience and add legitimacy to change attempts” (Harrison, et al., 2017, p. 24). Further, research from O’Neill and Rothbard (2017) suggests that “firefighters at 81% of the stations spontaneously mentioned traits synonymous with joviality as important characteristics for success in their work environment, suggesting a strongly prescriptive aspect of the emotional culture of joviality” (p. 81). Given the seriousness of the work performed by firefighters, the culture of joviality and that characteristic belonging to firefighters helps to lighten the mood and foster a manageable work environment. In the DFD, jokes and laughter between firefighters at the station is plentiful and easily observed as valuable. “Joviality was evident in the basic underlying assumptions guiding most workplace interactions. A basic assumption underlying joviality is that being able to have fun and take a joke makes you a good coworker” (O’Neill & Rothbard, 2017, p.81).

Another cultural aspect of the fire service and/or characteristic of firefighters is compassionate love meaning “showing compassion, affection, and caring in times of need was a deeply held assumption” (O’Neill & Rothbard, 2017, p.84). Unlike other organizations, members of the fire service not only work together, but they also live together during their long shifts. This includes participating in activities that most often people do with close friends and family members such as sleeping, cooking, eating, and working out. “Firefighters are afforded the unique opportunity to develop strong relational bonds with coworkers due to the fact that they stay with the same group of three to five members engaging in not only work related tasks but also everyday living activities” (Landen & Wang, 2010, p. 146). Furthermore, when they rely on and come through for each other in emergency situations, their relationships grow even deeper (Landen & Wang, 2010). “Life-threatening danger is regularly encountered by firefighters and their attachment systems will likely be activated at time of threat. It is reasonable to argue that firefighters’ wellbeing depends on their ability to use one another as resources to successfully deal with problems encountered” (Landen & Wang, 2010, p. 146). In the research by O’Neill and Rothbard (2017), “respondents in 44% of the stations used the metaphor of “family” to describe the close, deeply intertwined relationships they developed with one another on the job” (p.84). As a component of compassionate love in the fire service, having close relationships is valued (O’Neill & Rothbard, 2017).

Where maintaining close relationships between firefighters is valued, firefighters have a different expectation to emotionally separate from the people they serve. The ability to compartmentalize can contribute to effectiveness in the moment (Fraher, Branicki, & Grint, 2017). Later when debriefing a situation would be healthy for the firefighters, the culture of emotional suppression can make it so they do not emotionally deal with the trauma they

experienced. This can also have a great effect on how they are able to handle emotions in their personal life as well specifically in how they relate to their spouse and children in some circumstances (O'Neill & Rothbard, 2017).

Communication inside the fire service can be challenging. Different from many other organizations, a fire department will be split into multiple shifts in order to serve the community. The result of this makes it extremely difficult if not impossible to have an entire department meet at the same time or receive communication at the same time. Email is a common tool to communicate a message to the fire department because it allows the message to be sent electronically at the same time (Young, 2014). However, it does not always prove to be effective. "Communication is hindered due to the nature of the job, in that fire departments rely on email to communicate, when members are frequently away from computer access" (Young, 2014, p. 13). Communication, and the avenue with which to deliver a message to firefighters, adds an additional barrier when working to implement change within the department.

Due to these various unique factors, change may be exceptionally difficult in the fire service and viewed negatively by firefighters; however, firefighters excel at routine once a change is in practice (Harrison et al., 2017). Information exists to explain the unique aspects of the fire service as an organization, but information for OD practitioners to learn about the most effective way to work through change with this type of organization is sparse. The research in this paper uses the OD values and principles themselves to seek answers. By asking the firefighters on the front line about their experiences with change, I am gaining first hand, relevant information from the experts themselves.

### **High Reliability Organizations**

In addition to examining the characteristics that make the fire department unique, additional information for OD practitioners can be gleaned from looking at other organizations that have similar characteristics such as high risk of injury or death, heavy team reliance, and hierarchical. These type of organizations, including the fire service, fall into a classification called High Reliability Organizations. “High reliability is an ongoing process or an organizational frame of mind, not a specific structure” (Patient Safety Network, 2019, p.1). The term originally used by Karlene Roberts (1989). “She and her University of California, Berkeley colleagues noted how risky organizations sustained excellent performance over long periods despite the inherent danger of their work. Organizations were categorized as HROs based on how often they might have failed with catastrophic implications—and yet did not” (Fraher, Branicki, & Grint, 2017, p. 252). Other examples of HROs include: military, police, air traffic control, nuclear plants, emergency rooms, and more.

Mindfulness, attitudes toward failure, and resilience are unique aspects of HROs important to their success and operational ability. “The principles of high reliability go beyond standardization; high reliability is better described as a condition of persistent mindfulness within an organization. High reliability organizations cultivate resilience by relentlessly prioritizing safety over other performance pressures” (Patient Safety Network, 2019, p.1). HROs have success with five parts to their mindfulness mindset including: a) preoccupation with failure examining all failures regardless of the scope b) reluctance to simplify explanations, c) sensitivity to operations including small details, d) deference to frontline expertise and empowerment, e) commitment to resilience and the ability to recover (Patient Safety Network, 2019; Fraher, Branicki, & Grint, 2017). “The consistent performance of these HROs is grounded

less often in routines and structures and more often in processes related to organizational mindfulness—the human capacity to detect and correct errors and to adapt to unexpected events before small factors develop into catastrophic failures” (Fraher, Branicki, & Grint, 2017, p. 240).

The practice of mindfulness is crucial to the people working in HROs. They “use systems thinking to evaluate and design for safety, but they are keenly aware that safety is an emergent, rather than a static, property. New threats to safety continuously emerge, uncertainty is endemic, and no two accidents are exactly alike” (Patient Safety Network, 2019, p.1). In these ever evolving emergency situations, these service members need to be present with the situation and what they are dealing with in the moment. There is no time on scene to be analyzing past mistakes or in the future deliberating the “what if” scenarios that could occur. Rather, the most effective method of delivering help is concentration on the task at hand and completing that to the best of one’s ability.

Learning to navigate failure is an essential part of HRO operations and training for the people. For example, the Navy Seals comfort with failure is intentionally part of the training due to the lessons learned by failing in these intense situations. In order to build a positive perception of failure, the Seals training asks participants to go through various types of failure including physical, mental, and team failure (Fraher, Branicki, & Grint, 2017). An example of physical failure for Seals would be sleep deprivation, hypothermia, and races doing various physical activities. Mental failure would be the instructors challenging the Seals by asking them if they are worthy or true leaders or in the right program in order for them to confront their insecurities (Fraher, Branicki, & Grint, 2017). And lastly, a team failure example would be an underwater test where Seals would physically fail a test leading them to drown, but instead need to place their full and complete trust in their teammates to be rescued. They learn to trust each other

through individual failure. These demands are not only individually reflected on, but an emphasis is also placed on an individual's place on the team and the potential for team failure.

The focus is on intense learning that accompanies failure rather than the failure itself (Fraher, Branicki, & Grint, 2017). "Through repeated failures in a controlled setting, SEALs learned how to adapt to uncertain situations; moreover, our study of SEALs shows that impending failure triggers mindfulness processes" (Fraher, Branicki, & Grint, 2017, p. 255). The key is to have keen awareness of failure, but not be restrained by the potential effects of failure (Fraher, Branicki, & Grint, 2017). Further, successful HRO culture might "develop a positive orientation toward failure as an opportunity to identify a weakness, to learn, to grow stronger, and then to move on, which is the opposite of preoccupation" (Fraher, Branicki, & Grint, 2017, p. 256).

Another component to HROs and the training for individuals is the idea of resiliency. Where people may learn resilience through failure, HROs develop individuals through gaining "comfort with uncertainty and chaos" (Fraher, Branicki, & Grint, 2017, p. 256). Furthermore, when the people inside HROs develop resilience inside their organizations it contributes to resilience in the wider community (Harrison et al., 2017). "HROs are also unique in that they develop strong cultures that both positively and negatively influence these processes of adaptability and change that are so important to resilience" (Harrison et al., 2017, p. 4). On one side, the culture puts a focus on trust and reliability in life threatening and dangerous situations which leads to resilience. While on the other side, changes to keep the organization resilient in new circumstances becomes difficult (Harrison et al., 2017).

One factor that helps individuals contribute to high performance in high reliability organizations is prosocial motivation (Vogus, Rothman, Sutcliffe, & Weick, 2014). Rather than



being self-oriented, individuals with prosocial motivation are other-oriented which means they have awareness of others, commitment to helping others, and they put system needs ahead of self-interests (Vogus, et al., 2014). “When individuals’ self-orientation is not redirected toward others, it can lead to poor outcomes” (Vogus, et al., 2014, p.593). For example, instead of trying to show the worth or value of oneself, the HRO will benefit more from people working to protect each other especially in high risk situations. Prosocial motivations also promotes people to be more considerate of alternative perspectives and question their own assumptions (Vogus, et al., 2014).

Another individual factor that contributes to high performing HROs is emotional ambivalence and the ability to hold multiple, and even further, contradictory emotions at the same time (Vogus, et al., 2014). For example, eager and fearful. “Emotional ambivalence—the simultaneous experience of contradictory feelings—will be particularly beneficial to HROs in creating balance between confidence and caution” (Vogus, et al., 2014, p.593). These contradictory feelings lead a person to be more open to additional perspectives or alternative solutions resulting in greater flexibility (Vogus, et al., 2014). “It is the simultaneous experience of high levels of doubt and hope that sustains the questioning of existing understandings and provide the capacity for swiftly responding to the unexpected” (Vogus, et al., 2014, p.594).

The way HROs gain new knowledge and how they experience learning in their organizations must be considered. “The dynamism of the HRO context often generates unpredictable and non-routine problems where previous knowledge is insufficient and new knowledge must be created” (Milosevic, Bass, & Combs, 2018, p. 1175). People in HROs must rely on their knowledge and the strict ability to follow protocol when working through a situation, however, they must also balance flexibility and willingness to break the rules when

faced with an unprecedented challenge or problem with limited knowledge (Milosevic, Bass, & Combs, 2018). “Circumstances often arise in HROs where unknown problems necessitate the creation of new knowledge” (Milosevic, Bass, & Combs, 2018, p. 1178). Errors in other organizations may produce new knowledge, where errors in HROs can be catastrophic (Milosevic, Bass, & Combs, 2018). When it comes to HROs, new knowledge is gained from their ability to maintain reliability and perform in high pressure, unpredictable situations without errors (Milosevic, Bass, & Combs, 2018). Due to the collective interdependence in HROs, failure is prevented because people are able use a wide range of knowledge and best practices (Milosevic, Bass, & Combs, 2018). “The process of new knowledge creation not only allows individuals to neutralize potential failures before they occur but also permits the collective to build a repertoire of knowledgeable practices that allows them to notice and recognize potential cues to failure” (Milosevic, Bass, & Combs, 2018, p. 1196).

Communication in service organizations like HROs is challenging and critical to the performance of the organization (Young, 2014). Misinformation has the ability to cause serious repercussions (Young, 2014). “When change is occurring throughout such environments, correct, timely, and complete information dissemination becomes even more critical” (Young, 2014, p. 3). An emphasis on the communication plan especially through organization changes would be an important step for leaders and OD practitioners to develop.

HROs are often not understood well by outsiders due to their complex and technical systems; further, they can evoke public anxiety if their ability to perform their designated service to the public is interrupted (La Porte, 1996). Interestingly, the HROs that operate most efficiently tend to be recognized the least among the bodies that govern them resulting in a struggle to maintain adequate funds to help them continue to deliver the high level of reliability

expected of them (La Porte, 1996). The cost to maintain HROs at the level of service expected by the public, especially a high functioning HRO, is also often misunderstood (La Porte, 1996).

HROs are unique in their distinct emphasis on mindfulness, failure, resilience, individual factors, and how they learn. How these aspects connect to their culture and effectiveness are important elements to consider when implementing change inside HROs. OD practitioners and leaders alike must remain aware of how these deeply ingrained attributes of HROs are likely to impact the success of a new initiative or change.

### **Organization Development**

Given the variables discussed in this chapter including unique aspects of both HROs and, more specifically, the fire service, it is clear that these factors must be considered when planning and implementing organization change within these organizations. Little research has been written for OD practitioners outlining the outcomes of various OD interventions carried out with HROs. It could be that very few OD interventions (bottom up change) have taken place inside these type of organizations especially given the traditional top down chain of command commonly seen among these groups. It could also be that external OD practitioners have not commonly been included in change interventions with these groups. Whatever the reason for the lack of published work, OD practitioners have little to reference in terms of carrying out an intervention with these types of work groups. The research in this paper begins to outline for the OD practitioner what needs to be considered when working on change initiatives with the fire service, specifically.

One aspect of organization change to consider when working with the fire service is their employment by the City. Because they are a government entity, the budget for the fire department could be variable and is dependent on external approval. Regardless of the approved

budget for any given year, the fire service is asked to perform the same level of service to the community sometimes with less people to perform the tasks (Young, 2014). This can lead to significant change within a fire department and effects can be highly challenging (Young, 2014). “These budget cuts are far more complex than simply cutting the amount of funds to the organization. The trickle effect of a budget cut can be astronomical when referring to the change an organization must endure to combat such cuts” (Young, 2014, p. 2).

Anxiety, both individually and at the group level, within the organization is a factor when planning for change. Though the fire service is well trained to work through chaos and uncertainty at an emergency scene, the same may not apply for organization change that can provoke anxiety among employees. “Individuals and groups may cope with the anxiety by employing an active strategy such as constructive problem solving, or an avoidance strategy, such as denial of a problem” (Lucas, 2005, p.33). In either case, the OD practitioner benefits from understanding that the anxiety felt in the organization can be both cultural and a result of the various factors that make this group unique.

Risk reduction is important to build into a change intervention for firefighters. Organization culture and behavior tend to challenge proposed or required adaptive changes (Harrison et al., 2017). “Long-term risk reduction cannot come at the cost of short-term safety. This requires adaptability and rapid change in a variety of areas, including planning and preparation” (Harrison, et al., 2017, p. 24). In order to reduce the risk, firefighters benefit from having resources in place to help overcome obstacles that arise through the change (Harrison, et al., 2017). “When that change involves key cultural artifacts that have served important functions in judgments about trust and reliability in life threatening situations, and is inextricably bound to the nature of work that draws workers to such HROs, it can prove even more challenging”

(Harrison, et al., 2017, p. 21). Therefore, OD practitioners need to be aware of the meaning and underlying magnitude that can exist especially with cultural changes.

### **Summary**

This literature review highlighted the unique aspects of the fire service, HROs, and what is important to know about change within these groups. Given this information, OD practitioners can see that when working on change initiatives and interventions with the fire service, it is necessary to understand the unique challenges faced by this group. To be successful in working with leaders to implement a change, OD practitioners need to learn aspects of the fire service that are critical to their change process. Change within the fire service presents different challenges as a result of their unique organization. Bringing OD to the fire service and other HROs could be incredibly beneficial for these organizations, however, the OD practitioner facilitating the interventions must be made aware of how the fire service experiences change and why they experience change the way they do. This qualitative research goes to a fire department in Duluth, MN to find out how and why they experience change the way they do. The results of this study will help OD practitioners and change leaders understand what needs to be considered during organization change initiatives.

### **Chapter Three: Methodology**

Traditionally, the fire service is known for resistance to change. With an increased demand in services offered and calls from the public, the fire service is forced to change and adapt to the current environment. In order to more effectively roll out change within this work group, an examination of how change is experienced is a first step. This case study asks members of the Duluth, Minnesota fire department about their experience with change inside the department. In order to answer the questions this research asks, I will use qualitative research to learn: 1) How does the DFD uniquely experience, perceive, and react to organization change? 2) What are the implications for change work in these types of systems?

This chapter looks at the methodology used for this research by outlining the research paradigm, research design, participants, instruments, research procedures, and how the data will be analyzed.

#### **Research Paradigm**

The lens with which I view this research is an interpretive qualitative case study. This is interpretive research due to the subjective nature of the data and the possibility that multiple truths exist for this group. My axiological belief is that an important component to qualitative questioning of a fire department is building trust with the employees. The time I spent in the fire department and the way I handled information with this group in the past has allowed me to build relationships within the DFD and ultimately build the trust necessary to increase openness and honesty when exchanging information. The information gleaned from this research must be true and accurate from the firefighter's perspective to be helpful. The ontology of this research rests on the belief that multiple realities exist within the fire department. Experience, change agility, and role inside the department have the ability to impact the perception an individual has

around organization change initiatives. However, even though multiple realities may exist inside this group, the data can reveal patterns or truths that illuminate the implications for organization change. Overall, the epistemological approach as a researcher has been an observer in the past to build trust and understanding about the fire profession as a whole. The use of a questionnaire again leaves the researcher in a role of observing or collecting the data from an external perspective. Because I am not a firefighter and am only acutely aware of this role's magnitude, I consider myself an observer and data collector in this research.

### **Research Design**

This research is a qualitative case study of the Duluth Fire Department. The study was designed this way to explore the specific experience of this mid-sized paid fire service organization. A qualitative approach was selected to be able to better capture the essence of the participant's thoughts and feelings around change. Though the data is subjective in nature, the way change is perceived by employees during organization change initiatives is also subjective thus providing data that is useful to answer the research questions in this study. By taking a close look at the experience of this particular group, the data illuminates valuable information around change in their department. In addition, this research gives anecdotal conclusions about how other fire departments with similar size or operations experience change.

### **Participants**

The participants in this study are employees of the Duluth Fire Department. The questionnaire was sent to approximately 140 people including both leadership and front line employees. Since this research is asking about the experience and implications of change in the DFD, participants were asked about years of service. The years of service provide insights to the research whether longevity impacts the view of and overall attitude toward change inside this

organization. Since this is a case study about the DFD only, participants were only invited to participate in the research if they are current, active, DFD employees.

Obtaining a minimum of 30 responses to the questionnaire was a requirement to get the research to the point of saturation while having enough voices heard to draw patterns and include multiple perspectives. Support from the DFD leadership to complete the survey during work time helped to encourage participation from the maximum number of firefighters. Considering participation is voluntary, there was a risk for possible positive bias toward change. However, when administering other surveys or questionnaires in the workplace, I have noted that participants with a negative outlook are also inclined to share their perspective as a way to provide input to leadership. This questionnaire attracted volunteer participants from multiple perspectives.

### **Instrument**

This research was done by using an online questionnaire with open ended questions through Qualtrics. Due to the COVID-19 pandemic, in person individual interviews inside the fire department were exchanged for an online version that would fit the demands and flexibility that their work requires. A fillable online questionnaire was an alternative used to glean information without risk of spreading the virus. In addition, the online questionnaire allows for increased assurance of anonymous participation. Because the questions are in relationship to the participant's place of employment, anonymity could lead to increased honesty and disclosure in responses. Honest answers increase the validity of the research and the ability to discover a deeper reality in the DFD.

Detail is key in using this method to collect research. The beginning of the questionnaire included an introduction paragraph explaining the appreciation for great detail especially given



the one way exchange of this type of research instrument. When constructing the questions, I intentionally worded them to elicit as much response as possible while eliminating single word answers. Furthermore, the questions were carefully written to eliminate interpretation of either positive or negative associations for the participant. If a question was aimed at change challenges, it was separated from its counter question of change appreciation. This was intentional to ensure full answers are recorded for both standpoints to balance positive and negative aspects of change fairly.

The full list of questions given to participants are shown in Appendix A. These questions were intentionally composed to be open ended questions allowing participants to answer with their discretion. Each question on the questionnaire has been carefully constructed to achieve the most reliable answers that relate directly to the research question. Though anonymity is valued in this research, the beginning of the survey had questions about years of service and leadership role only to provide a way to filter the data if one of the two scenarios occurred: 1) the responses contrasted greatly when filtered by that criteria 2) the responses were overwhelming in number and needed to be pared down more specifically for the scope of this research paper.

The first question on the Qualtrics questionnaire was a consent form from the University of St. Thomas where participants were required to agree to the terms of the research in order to proceed with the rest of the questions. After the participant agreed to the consent, question two started the questions prepared by the researcher.

Question two: How many years have you served the Duluth Fire Department? This question had multiple choice answers in five year increments through twenty one years of service or greater. Five year increments were chosen because it was enough years for participants to feel as though they have privacy, but not too many years to effectively filter the data if necessary.

Multiple choice was selected over a fillable number of years to protect the participants from feeling identifiable. I was cognizant of this survey being distributed in the participant's place of employment and their comfort level with disclosure. The cost of knowing the exact years of service did not outweigh the reward of increased anonymity of five year grouping.

Question three: Have you served in a designated leadership role within the Duluth Fire Department? This is the only yes/no question in the study. The wording of this question is intentional to capture all participants who are currently serving in a leadership role or who may have been in a leadership role in the past. This could include an interim position, those that were demoted, or those that left the DFD and returned later to resume a front line position. It is possible the perspective of those that currently serve or have served in a leadership position or were responsible for leading firefighters through change will be similar to other leaders and/or different from those that have not held a leadership role.

Question four: How many change efforts have you been a part of with the DFD? This question seeks to develop a baseline of whether the participant has experienced organization change while being employed with the DFD.

Question five: As a fire service employee, what do you think of when you hear a change is coming? The intention of asking this question is to capture the feelings and initial reaction of the participants toward change. The question is intended to be more emotionally based, however, the wording asks for thoughts rather than feelings. By asking what the participants think, the responses might be longer by expanding to thoughts and are more inviting to those that hesitate to share their feelings.

Question six: What is your experience with change in the Duluth Fire Department? What has worked well? What did not work? Why? This question is intended to support the previous

question number five. This question moves deeper into not only the individual's initial reaction, but the impression of Duluth's way and how that is interpreted.

Question seven: How have changes been implemented in the DFD? This is a logistical question to learn more about the processes or events that may have occurred when administering past changes. This provides an insight to how the DFD handles change.

Question eight: What do you believe are the barriers to positive change in the DFD? This question aims to understand what the firefighters perceive as the greatest challenges to moving forward even when they see the change as having a positive outcome. Adding the word positive to the question rather than only inquiring about the barriers, was the differentiation between changes a participant might not agree with and the changes they would like to see established. The goal is to find the points of potential frustration for the participant.

Question nine: What helps change within the DFD? What existing, practices, protocols, and attitudes help to establish the change? This question seeks to know what the participant perceives as working well in terms of organization change. The information received under this inquiry might allude to what could be expanded on in the department. This question is in two parts. The first part is the primary inquisition and the second part serves to offer examples and expand thinking to create a more detailed response.

Question ten: Are there ways to make change in the Duluth Fire Department more efficient, effective, and/or gratifying? If so, please explain in detail how this can be achieved. This question aims to learn from the participants what opportunities might exist to improve. This is a direct question that touches on what participants perceive will work to implement change. This informs the second part of the research question regarding the implications for internal change in the DFD.

Question eleven: Do the changes within the DFD impact you on a personal level? Professional level? Please explain in detail how they do/do not. Here the participant is inquired to internally reflect on the organization change experience and determine whether the changes impact them on a deeper, more personal level. Regardless of their answer, the question allows more insight into the participant as a whole person rather than just a firefighter. How the person internalizes or detaches from changes in the workplace can illuminate how personal the change gets for each participant.

Question twelve: What is necessary for you to willingly accept change within the department? What do you need to be ready and open to change? This question follows up question eleven to find out what the participant needs from the department to adopt a positive outlook on change and be willing to go forward with ease. These responses show what needs or wants participants prioritize through change initiatives.

Question thirteen: If you could be an external consultant working with the DFD, please explain step by step with as much detail as possible how you would go about effectively administering the change. This question was written to have the participant be in the position of the change leader to find out logistically how they would handle the change. This will give insight to what the participants perceive as important steps in the process not only for oneself, but the group as a whole. This question asks to get as specific as possible to obtain a detailed description of their thoughts. It also gets the participants to critically think about change when the responsibility lands on them.

Question fourteen: If the researcher (Amy Johnson) has follow up or clarification questions regarding your responses, are you open to further discussion? If so, please leave your email address here. Thank you for your participation! The last question serves to offer the

researcher additional insight depending the level of detail offered in the questions. It also connects the researcher to the respondent in the case that the research would benefit from further discussion as related to responses. The participant held the decision whether to disclose their information or remain anonymous.

This fourteen question questionnaire gave the opportunity to learn how the DFD fire fighters understand and experience change within their department. The questions are thoughtfully and specifically written to obtain multiple perspectives from each participant and evoke critical thinking.

### **Research Procedures**

After the research proposal was approved by the dissertation committee, the St. Thomas Institutional Research Board (IRB) approved the study, and permission was given by the Chief of the DFD for the research to be conducted and administered in a timeframe that works for the department, the data collection began. The City of Duluth Human Resources Manager was also notified that a study would be taking place in the fire department and sent through the City of Duluth email system. An email was sent to the City of Duluth email addresses of all Duluth Fire Department employees. This email included the following components: a description of the researcher, reason for the research, gratitude for their participation on a voluntary basis, a note about ensured anonymity, a link to the Qualtrics questionnaire, and an approximate timeframe necessary to complete the study. The email was sent to all participants at the same time using their email group, however, because the DFD runs on three shifts they may have received the questionnaire link on separate days.

Since there are shared computers in the fire department, the questionnaire needed to be set with permissions to receive multiple responses from the same IP address. The questionnaire

had a deadline of two weeks after the initial email was sent. This allowed for each shift to have several days on shift to complete the survey at work. A reminder email was sent a few days prior to the deadline to ensure all participants who wanted to complete the questionnaire were able to do so. The email also included appreciation and thanks to participants. After the deadline and a minimum of 30 participants had completed the survey, it was closed for data analysis. Upon publish of this dissertation, a final copy will be provided to the DFD so they are able to review the analysis and discussion of their responses if they choose.

### **Data Analysis**

This research required an intracase analysis because it only captures data from participants that are active employees of the DFD, the scope of this one case study. When the deadline to complete the questionnaire was reached, the Qualtrics survey was closed. Before closing the questionnaire, it reached the point of saturation with 40 participants.

Abductive reasoning was used to analyze the qualitative questionnaire data. Rather than be met with a hypothesis, the reasoning for the firefighter's behavior was left open for them to explain their point of view to the researcher. The firefighter's interpretation of events was helpful for the researcher to make sense of their actions without a preconceived idea. Open coding was initially used to find patterns in the responses. Codes were not determined in advance, but rather allowed to emerge to ensure the data was not confined to any prior constraints. Since the information was on a questionnaire, the researcher did not need to quickly code in real time. This allowed for more flexibility and codes to emerge organically. The first round of coding was set to discover what is similar and what is different about the responses. This process of discovery helped to find out if all responses delivered the same message or if the participants were split on their response. First the data was coded to discover patterns in language, then it was coded to

find patterns in meaning. When the coding process no longer yielded new language or meaning for the researcher, the data reached the point of saturation. The data was placed into categories to convey as much of the firefighter's experience as possible.

Because this was an online questionnaire, the responses from participants were written therefore transcription was not necessary. First, each survey was read in full by the researcher to help learn and understand the individual experience and overall perspective of each participant. The researcher then coded each participant's responses to find common language followed by common meaning. If participants' responses and perspectives varied greatly, those differences were noted and common themes were derived from multiple sides. Then all responses from all participants were combined and organized per question. All responses to question one were analyzed together, then all the responses from question two, and so on. The researcher analyzed the data by coding to find common language then common meaning for each question. Once the coding of responses was completed, the data was placed in categories to help display and convey the message in a comprehensive way. In this part, the researcher saw what responses related specifically to the research question and how that information could be relayed. The data was grouped in a table to show themes and parallels between ideas for ease of reviewing and presentation.

### **Summary**

This interpretative qualitative case study of the DFD change experience and implications for change will help OD practitioners to gain a greater understanding of the fire service through change. By carrying out this research, valuable data emerged that will help change leaders work with the DFD and other similar organizations. The research is designed to be anonymous, detailed, and inclusive of all firefighters. The opportunity for multiple perspectives to be heard

through carefully constructed inquiries strengthens the relevance of this research. Careful research procedures and data analysis will build trust with the DFD to produce a rich collaboration of voices regarding department change.



## **Chapter Four: Results**

The purpose of this qualitative case study was to illuminate and better understand how the Duluth Fire Department experiences organization change. The results of this study will help the DFD and other similar fire departments when implementing future changes. Furthermore, this research offers change practitioners insights on how to aid this specialized high reliability organization through change. Specifically, the questions this research hopes to answer are: 1) How does the DFD uniquely experience, perceive, and react to organization change? 2) What are the implications for change work in these types of systems?

### **Results of Analysis**

Employees of the DFD were invited to participate in the case study by completing an online questionnaire with specifically constructed questions that would glean insight to their experience with organization change. Out of 140 people invited to participate, 40 responses were received. Two questions were included in the research to further understand the makeup of respondents. Of the 40 participants, 24 of them have served in a leadership role at the DFD and 16 have not. In addition, three participants had served for five years or less, nine participants had served six to 10 years, 10 participants served 11 to 15 years, 10 had served 16 to 20 years, and eight participants had served 21 or more years.

The responses were initially analyzed individually to get an overall feel for each participant's perspective toward change before the responses were analyzed collectively. Overall participants varied from cynical to positive in their responses to the questions about change. Most commonly, the attitude of participants toward change was apprehensive in nature.

Then the responses were combined and grouped by question. All the responses from question one were together, responses from question two were together, and so on. The analysis includes coding by words and meaning for each question.

The first fillable inquiry on the questionnaire was question four: How many change efforts have you been a part of with the DFD? The answers to this question varied in number, but many of the respondents could not put an exact or accurate number to this question. The question was not specific enough to decipher the scope of change and therefore was perceived as ambiguous to the participants. It did, however, get to the main point which was to discern whether the participant had experienced organization change during their time with the DFD. Two respondents put zero and all the other respondents put various amounts of change they had experienced ranging from “one” to “a lot” or “many” or “unknown”.

Question five: As a fire service employee, what do you think of when you hear a change is coming? Similar to the overall feel of the responses being apprehensive toward change in nature, this question shared this tone most prominently of all the questions. Responses ranged from skeptical to excited, but most responses were tentative with their enthusiasm. This is both a result of their past experience with organization change and individual change aversion.

Question six: What is your experience with change in the Duluth Fire Department? What has worked well? What did not work? Why? Two strong themes emerged in this question that carried through many of the responses. One theme important to the participants was understanding the reason behind the change. One might refer to this as “the why” behind the change. If the firefighters understood the reason for change and why it was important, they responded more favorably to the change.

Another theme that emerged was the importance of obtaining buy-in from firefighters of all levels in the organization. Buy-in, an organization change buzzword, is referring to the agreement, acceptance, and shared ownership of a change idea. For example, a change is proposed to the group as a suggestion for discussion and the process of asking questions, providing input, and social influence leads to “buy-in” or acceptance and ownership of the change resulting in greater success of change implementation. According to participants, when buy-in was part of the change process it worked better than when the change was administered top down.

Participants also spoke favorably of committees working on various innovative ideas or changes. Another term for this could be change coalitions. The committee members work together on the change so multiple people are involved and influence the outcome. Because a larger number of perspectives have given input on the change, it tends to be more widely accepted throughout the organization.

The perception exists among participants that change initiatives are going better now than in years past, however, participants still acknowledged change is slow and frustrating. When a clear understanding of the change, where it came from, and the impact to their daily work was known to participants at the beginning, they were more receptive to the idea.

Question seven: How have changes been implemented in the DFD? Participants explained a variety of ways changes are implemented in the DFD. What has traditionally been found in para-military organizations and still exists, are the roll out of some initiatives from the top down perhaps in the form of a memo that could include policy changes and often accompanied by training. The expectation is the various levels in the chain of command do their part to implement the change by example as well as hold the expectation for the people they lead.

The leaders in the chain of command may or may not agree with the change or the process, nonetheless they are still responsible for the implementation.

Another way change has been implemented in the DFD is through the union. The leaders of the union will propose a change with the support of some or many members. Lastly, change has also been implemented organically from the firefighters to the leaders. Whether the change was dictated or received input and was voted on, some reasons for change include an incident leading to a policy change or new field research brought forward and the desire to follow best industry practices. Whatever the instance or form the change took, participants used the term “slowly” multiple times in this response to describe the changes that have occurred.

One notable response to this question was the participant’s view that two types of change exist in the fire department: 1) tactical 2) operations/station life. The experience of this participant included the perception that tactical changes were more welcomed by the organization after an adjustment period. Station life changes were, on the contrary, met with more hesitation as “station life changes seem more personal and more intrusive”.

Question eight: What do you believe are the barriers to positive change in the DFD? Several common themes emerged from participants when responding to this question. One of the common themes included the age old saying heard in organizations around the world, “We have always done it this way.” Though this saying goes far beyond the bounds of the DFD and into organizations from all industries, what does it mean for these firefighters? Some participants attributed it to the fire service tradition and holding on to the past, while others thought natural human resistance to change created the barrier. Some of the resistance as seen by participants included: fear, lack of buy-in, failure to see the benefit, and feeling unheard.

Another barrier mentioned was the battle between individuals, the union, and the administration. Some participants felt a lack of trust and communication exists between these three components of the organization. Efforts from the union are seen as undermining a positive change. In the same, top down changes from command staff are met with reluctance. When these important structures in the organization have competing agendas, participants noted the barrier to change with the DFD.

Two respondents mentioned the size of the department as being a barrier. This mid-sized department is too big for business to fully be conducted around the coffee table, yet small enough to be familial in nature. Getting about 140 people to agree is challenging, but so is the chain of command when a friend is promoted to a leadership role. The mid-size of the organization brings challenges seen in both a small and large organizations.

Question nine: What helps change within the DFD? What existing, practices, protocols, and attitudes help to establish the change? The most prevalent answer among participants to this question was attitude. It was listed in different ways, however, some of the descriptions included: openness, positive, forward thinkers, progressive, and humor. These positive leaning attitudes helped to promote forward momentum for the DFD.

The familiar response of having buy-in and understanding the reason for change were also popular answers among respondents to this question. Decentralizing decision making and allowing work groups to form were related suggestions that fall under this idea of bottom up change and ownership from the maximum number of individuals.

Communication with the chief, ideally face to face, and feeling heard also topped the list. The desire for connection and communication was discussed even given the challenging reality of multiple separate physical locations of the stations.

Question 10: Are there ways to make change in the Duluth Fire Department more efficient, effective, and/or gratifying? If so, please explain in detail how this can be achieved.

The largest theme that emerged from responses to this question had to do with providing input and being heard. Their desire for empowerment and transparency through the change process was evident. When participants are asked to be part of the solutions at the DFD, their experiences and ideas are both shared and utilized. According to participants, a culture shift has been happening in recent years where new firefighters are now encouraged to contribute and speak their thoughts and ideas. Many participants noted that it has not always been that way in this department. The shift toward a more inclusive and welcoming environment for new and/or young firefighters has brought increased positivity and innovation to the department.

One participant shared a process to implement change. The steps include: 1) Presenting a topic, reason why change is needed, and desired outcome, 2) Everyone can both challenge the idea and provide feedback, 3) Proposed change is revised to reflect additional perspectives, 4) Voted on to move change forward. This collaborative approach would decentralize decision making, incorporate the shared learning of the members, and naturally create buy-in for the final solution.

Question 11: Do the changes within the DFD impact you on a personal level? Professional level? Please explain in detail how they do/do not. The overwhelming response was “yes” changes impact participants on a professional level and most often personal level too. Though some participants varied in their response whether it was personal. From a professional stance, change had an impact on morale, stress/anxiety, or even level of danger. From a personal standpoint, change at the DFD could affect overall health and wellness. The impact varied from positive to negative depending on the change.

Question 12: What is necessary for you to willingly accept change within the department? What do you need to be ready and open to change? The responses to this question also reveal the importance of knowing the “why” behind the change. Participants emphasized their openness to change increases when communication is clear and they understand the following: 1) Reasons for change, 2) Who it benefits, 3) How it benefits them and their work, 4) Research that supports the change, 5) Necessary resources will be available such as training or tools. Trust also played an important part for many participants. If they had trust that the change leaders understood their needs and what would benefit them, they were more open to change. In addition, proactive change was looked upon more favorably than reactive change.

Question 13: If you could be an external consultant working with the DFD, please explain step by step with as much detail as possible how you would go about effectively administering the change. The responses to this question were similar from participants. Synthesizing the response into steps revealed the following recommendation for OD practitioners:

- 1) Assess the organization change readiness. Ensuring the leadership is onboard, resources are available to carry out the change, and the organization is ready to take action and change.
- 2) Who are you? Trust was commonly reported as a necessary part of a successful consultation. The consultant needs to explain who they are and why they are qualified to be there. Consultants need to understand the firefighter audience. A general skepticism exists with a consultant that has not been a firefighter before. It is not advised to come in with a “know it all” attitude, but rather a more humble approach to build relationships and honor the experience in the room.

- 3) Explain “the why” of the change. A discussion about the benefits of the change and why it is needed to gain a greater understanding by all.
- 4) Get input on the proposed change from all levels of the organization. Account for additional perspectives and changes to the plan that arise during the discussions.
- 5) Revise the change implementation plan based on the input received.
- 6) Implement the change. Ensure training and resources are available as people work through the new process.
- 7) Be aware of the workload on others. Assessing the burden the change brings to the organization and who is primarily responsible for the workload is critical information that needs to be considered.
- 8) Once implementation has occurred, get feedback on the change. Learning the positive and negative outcomes of the change provide a path for improvement.
- 9) Revise the change process or plan as needed based on the experience and feedback of the people.
- 10) Give recognition where it is due and celebrate the success. Showing appreciation for the people and processes involved contributes to a positive outcome.

### **Summary**

In terms of change, the overall tone of the data was apprehensive in nature. Though participants varied from negative to positive perspectives in their responses, their overall experience, perception, and reaction to change has resulted in a cautious approach. Not unlike the emotional ambivalence seen so often in people of high reliability organizations, their responses to this questionnaire indicate ambivalence by holding both cynicism and hope, tradition and progress, pain and humor.



The reoccurring themes in this research and the strongest message received from participants in terms of change work, include “buy-in” and “the why”. Buy-in from employees of the DFD was a main contributor to positive outcomes of change initiatives. Rather than a top down approach, the participants highlighted over and over again the desire for participation, input, and inclusion in the change decisions and implementation. Forming change committees or holding meetings that allow for feedback from all levels in the DFD helps to honor the experience of the firefighters and allows them to be stakeholders in the change initiative. Given the unique circumstances of a fire department, technical or station changes affect their health and wellness potentially both on scene and back at the station. Since firefighters live at the stations and their work involves life risk, the changes feel more personal to this group than one might find in another work space. Therefore, being heard is crucial to these employees when it comes to change decisions and processes. Their desire to provide input invests them in the process and allows trust to build in the proposed change because multiple perspectives have been considered.

Developing a compelling reason for change is also of utmost importance to members of the DFD. Over and over participants highlighted the importance of understanding where the change is coming from and how it will benefit them. Furthermore, understanding how it will impact their work in terms of workload and safety. Research was repeatedly stated as being an important part of informing a change initiative as well. Participants wanted to know information derived from research such as: if it has been done before, how it worked, and who it helped. In an environment where culture is prevalent like the DFD, the pull of tradition is incredibly strong. The natural curiosity of the firefighters paired with satisfaction of the old way exemplifies the need for change leaders to be explicit and compelling to motivate change.

Concepts like buy-in and developing a compelling reason for change are not new to OD practitioners nor are those concepts specific to the fire service. Practitioners know these are basic components of the bottom up change process known as organization development. However, a primary theme directed specifically to OD practitioners, when working with the fire service or other high reliability organizations, is the importance of relationship building and the practitioner's keen use of self. As frankly stated by participants, without a relationship or a practitioner's sharp self-awareness coming into the situation, the job is over before it starts. The familial base of the organization can either be the key to success or the fastest way to get kicked out. Humility, respect, and trust are required of OD practitioners for successful work with the fire service.

## **Chapter Five: Discussion**

A saying was written in the responses several times that the DFD holds onto in the jovial spirit of their culture. It says “100 years of tradition unimpeded by change”. This made me smile as I read this typed by multiple participants in the questionnaire. It clearly illustrates the self-description firefighters place on their resistance with light hearted irony. Though this saying is more or less a joke, it also holds truth for this group. The culture is so powerful and strong, such a fantastic quality, and yet their strength in this way is also their weakness like so many polarities are for organizations and individuals alike.

The research asked: 1) How does the DFD uniquely experience, perceive, and react to organization change? 2) What are the implications for change work in these types of systems? The interpretation and findings section of this research seeks to make the connection between responses gathered from firefighters and the answers to these questions for OD practitioners as well as change leaders and employees of the Duluth Fire Department.

### **Interpretation of Findings**

The participants of this research were clear on their responses that buy-in was a critical part of successful change efforts. The DFD firefighters are not unique in their desire to be included in organization change. The origins of Organization Development date back to Kurt Lewin’s 1920’s - 1930’s research on the Harwood studies (Burke, 2014). Even in the early days of industrial America, employees responded favorably to giving input through changes (Burke, 2014). When Richard Beckhard and Douglas McGregor named Organization Development as a field in the 1950’s, it was simply defined as bottom up change (Weisbord, 2004). The research done by the early founders of OD, revealed early on that a key component to change work was the inclusion of employees in the change process.

High Reliability Organizations are “categorized as HROs based on how often they might have failed with catastrophic implications—and yet did not” (Fraher, Branicki, & Grint, 2017, p. 252). It is an “organizational frame of mind, not a specific structure” (Patient Safety Network, 2019, p.1). The DFD, being a High Reliability Organization, holds this mindset regarding their performance as a team and the community. Perhaps this can explain their intense desire for understanding the change as well as the importance of having a contribution to the change itself. If their success is in part defined by their relationship to failure or lack thereof, they may be more vigilant about carrying out a change than organizations that are not HROs; thus resulting in increased caution and deeper need for voicing their experience in terms of a proposed change. This could also be a product of the high stress and high risk type of work inherent to firefighters. Their work exposes them to physical and psychological harm. If the way they have done something in the past has allowed them to come away unharmed, it makes sense they are leery of changing.

The lack of OD research in the fire service and high reliability organizations in general could be contributed to the para-military organization structure where chain of command structure has been valued and necessary to success on emergency scenes. A shift from top down leadership to a more egalitarian approach, at least for internal operations, could be a change in and of itself for the DFD and other HROs. Though the DFD responses to this research were clear in their desire for an egalitarian approach to organization change, even that is a change for this para-military organization with a strong traditional culture. Perhaps a contributing factor to the adversity around organization change for the DFD firefighters is the current state of the organization itself. They are in the middle of a subtle yet large scale change moving from a historically top down chain of command organization to a more dynamic one. Could these

growing pains be the reason for the tension between leadership, union leadership, and the firefighters? Many responses in the research touched on this internal tension.

I keep coming back to the notable response to question seven regarding a participant's statement that two types of change exist for this organization: 1) tactical 2) operations/station life. When working on change initiatives with the DFD, it behooves a practitioner to analyze the change and determine whether it is technical or cultural in nature. The change could be both. Nonetheless, it is imperative for the practitioner to be aware of. According to the participant and in line with the literature, changes to the station life feel personal and are met with cultural resistance perhaps including but not limited to traditional aspects held closely by many. The tradition, culture, and fact that work life looks more like family to this group makes changes to station life feel more personal than what practitioners would find in other organizations or in existing Organization Development research.

Warner Burke (2014) discusses the organization change debate on what is easiest to change: values, attitudes, or behavior. He argues that behavior is indeed the easiest to change followed by attitudes and finally values (Burke, 2014). For the DFD, tactical changes are more behavioral in nature by changing a process, procedure, or equipment for example. The station life changes appear to be behavioral, but could easily cross into something highly valued by the group thus requiring an adjustment to values or attitudes further complicating the change. Furthermore, this makes a strong case for OD practitioners to be highly sensitive to the ways a change is impacting the DFD and other fire service departments. Conversely, when a practitioner is working on culture change, Burke (2014) suggests starting with behavioral change which over time leads to culture change. So whether a change practitioner is raising awareness of the additional impacts of behavioral change or working on cultural change first through behavioral

change, the practitioner must carefully consider what type of change the firefighters are experiencing.

Regardless of the type of change, either tactical or operational, a compelling reason for change was an important step for the firefighters. Whether it be the personality type of people in this line of work, human nature, or the sticky culture of the fire service, they want to understand the change and the reason for it. The famous “because I said so” line many of us heard from our mothers growing up, does not work well in the fire service. The traditional chain of command in the fire service may have also used those famous words more indirectly, but the message was still heard. People may still follow or carry out a change without a compelling reason from leadership in a chain of command organization, but it creates an unnecessary barrier to change. By addressing the cultural change resistance and appealing to the curious personality type of people in this profession, bringing a compelling reason for change and conversing about it together sets up the change for success in the beginning.

A huge factor for all OD practitioners to consider is the overall skepticism that firefighters might have to a non-firefighter as a change agent. Credibility from firefighters often times comes with understanding the challenges of the job not purely theoretically or hypothetically, but also with boots on the ground. Not unlike many clients that learn about the true meaning of OD work and process consultation during the contracting phase, the firefighters may also need that time with the practitioner to understand that the role of a process consultant is not the expertise in fire related knowledge, but rather the expertise in change processes. Therefore, an OD practitioner can still be successful working with the fire service without the technical fire knowledge that the firefighters already bring to the experience.

An OD practitioner's keen use of self is essential to working with the DFD, fire service, and HROs in general. These clients are highly skilled, conditioned for success in nearly impossible scenarios, and at risk physically and psychologically continuously. Perhaps they have earned the right to be skeptical of both change and outside consultants. To be a successful OD practitioner with this group is to build trust by mirroring the qualities they possess. Humility, compassion, curiosity, and joviality is a place for practitioners to start. Remain "of two minds" in an emotionally ambivalent place with this client by holding the space for caution, hope, curiosity, and skepticism during a facilitation. OD practitioners benefit from the self-awareness to understand these emotions within themselves and respect these emotions in the room with the client.

### **Limitations**

This study highlights the experience of one paid fire department in a mid-size city. The Duluth way, a term used by DFD employees, might not be the way of all departments this size. A replication of this study with another department of similar size would help to determine if the results were unique to the DFD or anecdotally applicable to other fire departments. It is possible that volunteer fire departments or significantly larger or smaller departments could have alternative perspectives on change that were not included in this study.

This study used an online questionnaire to obtain the data due to COVID-19. A limitation is the one way transfer of information to the researcher. A face to face meeting with each participant could have revealed additional information conversationally that a questionnaire is unable to do. Participants with short answers may have given additional information if they were not required to type their responses. In addition, some participants may have preferred a face to

face meeting to develop a relationship with the researcher prior to answering the questions in full.

### **Recommendations for Future Research**

Fundamental organization development practices highlighting organic bottom up change implementation with fire departments, para-military, and other high reliability organizations would be highly desired information for change practitioners and leaders alike. A lack of research and publications exist that show the effectiveness of organization development practices and interventions with these types of organizations. Furthermore, the use of dialogic OD intervention methods with these groups and the publication of results is desirable research. It is unknown how these democratic change processes work in highly structured hierarchical organizations that either completely or partially rely on the chain of command for current change strategy.

It would be interesting to know if the size of the department affects the outcome of the research. As one participant stated, the medium size of the DFD makes them small enough to be familial yet large enough where all business cannot be conducted at the coffee table. A smaller or larger department may have different challenges or perceptions toward change. An OD practitioner may need to tailor the approach based on the size of the fire department. The answer to this is unknown.

### **Conclusion**

Participants of the Duluth Fire Department answered the questions of this research in a way that allows greater understanding of the organization and even tendencies found in the fire service as a whole. Through this research, OD practitioners have gained insights to the importance of use of self and building trust through relationships. In addition, setting up



successful change with this group requires a compelling reason to change and the opportunity for input and buy-in especially when it comes to operational change.

One of my favorite parts of this research both during my time at the station and analyzing participant responses, is the culture of joviality and humor coming blatantly through. As shown in the literature review, a culture of joviality is a characteristic of the fire service and HROs. It is also part of the culture in the DFD. I laughed so often when doing this research. The responses were genuine and serious, but at times were written in a humorous way that revealed the truth of the human experience. Light hearted banter at the dinner table, left me walking away with a smile. They demonstrated this beautiful balance of pain and humor I find incredibly admirable. The seriousness of the work is not downplayed, but they still find a way to use humor to help each other out of the trenches. Feeling this balance in real time when immersed in their culture, proved to be a lesson far greater than the parameter of this research. It was a life lesson. Perhaps firefighters have discovered the delicate balance that occurs only when people are emotionally ambivalent. Their compassion shows when they hold pain and humor at the same time. In the complexity of the human experience, may we all seek to find this beautiful balance.

## Appendix A

### DFD Change Survey

- 1) Consent (Agree)
- 2) How many years have you served the Duluth Fire Department? (0-5; 6-10; 11-15; 16-20; 21 or more)
- 3) Have you served in a designated leadership role within the Duluth Fire Department?  
(yes/no)
- 4) How many change efforts have you been a part of with the DFD?
- 5) As a fire service employee, what do you think of when you hear a change is coming?
- 6) What is your experience with change in the Duluth Fire Department? What has worked well? What did not work? Why?
- 7) How have changes been implemented in the DFD?
- 8) What do you believe are the barriers to positive change in the DFD?
- 9) What helps change within the DFD? What existing, practices, protocols, and attitudes help to establish the change?
- 10) Are there ways to make change in the Duluth Fire Department more efficient, effective, and/or gratifying? If so, please explain in detail how this can be achieved.
- 11) Do the changes within the DFD impact you on a personal level? Professional level?  
Please explain in detail how they do/do not.
- 12) What is necessary for you to willingly accept change within the department? What do you need to be ready and open to change?

13) If you could be an external consultant working with the DFD, please explain step by step with as much detail as possible how you would go about effectively administering the change.

14) If the researcher (Amy Johnson) has follow up or clarification questions regarding your responses, are you open to further discussion? If so, please leave your email address here.

Thank you for your participation!

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