

A feasibility study determining if mergers or consolidations will improve
the efficiency of fire and EMS services in Sandoval County

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Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, and writings of another.

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Abstract

Sandoval County Fire Department (SCFD) has felt the effects of call volumes increasing, population's aging, and budgetary challenges resulting in leadership working to find ways to do more with less. Sandoval County, New Mexico sits between Bernalillo County and Santa Fe County and is a mix of suburban, rural and tribal environments. Emergency services are provided by municipal, tribal, and county organizations located throughout the county. Over the years, efforts to improve services have occurred through partnerships involving mutual aid, automatic aid, and contractual agreements. The problem is that the SCFD and other close neighboring agencies have not evaluated the potential feasibility of mergers or consolidations, and the associated operational, logistical, and financial implications, to improve efficiency. The purpose of this applied research project is to explore options to increase operational and logistical efficiency throughout the county while ensuring financial responsibility. A literature review, stakeholder interviews, and a descriptive research method was utilized to answer the following: (a) How would organizational mergers affect the efficiency of operations throughout Sandoval County? (b) What would be the logistical and financial implications of an organizational merger? (c) How would a merger affect the different organizational cultures and personnel attitudes? (d) What other options exist to improve efficiency for the people served? The research revealed that mergers or consolidations are feasible; however, a number of matters must first be addressed. It was recommended that agencies first establish relationships that improve emergency mitigation activities immediately such as crew sharing, standardizing policies and procedures, and closest unit protocols. Implementing these recommendations can set the groundwork for leadership to evaluate the joint organizational cultures and budgetary considerations of the partnerships, while further evaluating merger options for the future.

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Introduction

Sandoval County, New Mexico is located in the middle of the state between Bernalillo County and Santa Fe County and is home to nearly 140,000 residents and growing. According to CensusViewer (2012), the population of Sandoval County grew 45% between 2000 and 2010. With convenient access to major highways and major cities such as Albuquerque and Santa Fe and their associated amenities, the southern portion of Sandoval County is a popular destination for families pursuing suburban life. Sandoval County is also home to several national and forest service landmarks making it a popular spot for weekend and holiday recreational activities. Sandoval County covers over 3,700 square miles and is the fourth largest populated county in the state of New Mexico (United States Census Bureau, 2015).

SCFD is a combination fire department consisting of 30 full-time staff, including administrative staff, and nearly 200 volunteers. The full-time firefighters, six per day, are stationed in the southern portion of the county, serving the highest populated areas. The department provides automatic aid for the town of Bernalillo Fire Department (BFD) and is also the EMS transport agency for Bernalillo through a contractual agreement. BFD staffs four firefighters daily in two fire stations and first responds to all emergencies within their city limits. Additionally, SCFD partners with Santa Ana Pueblo through an intergovernmental agreement to provide fire and EMS services to tribal members and the commercial businesses within their tribal boundaries.

Neighboring to Bernalillo and Santa Ana Pueblo in the southern part of the county is the county's most populated city, Rio Rancho. Rio Rancho has a population of over 90,000 people and staffs their own municipal fire department with nearly 100 full-time members. The county contracts with the city of Rio Rancho to provide services to a pocket of residents to the west of

their city limits that otherwise would require the county to travel past city fire stations to respond. The city of Rio Rancho will provide mutual aid assistance to the rest of the county as requested.

Throughout the rest of the county, which includes another eight tribal nations, the volunteer staff responds to extinguish fires and first respond to EMS calls. Sandoval County contracts with other municipal and tribal organizations throughout the county to provide aid and EMS transports. The career firefighters of the SCFD will respond county wide as needed to fires, rescue calls and backup to other EMS agencies. There is one supervisor on duty per day to serve the county and is based with the career staff in the southern area. This model ensures rapid responses to the most populous areas of the jurisdiction but can extend response times to other more remote areas of the county. With the increase in population and the proximity to recreational activities, call volume throughout the county has increased over the years. EMS calls and specialty rescue type calls dominate the increased workload for firefighters.

The county's volunteer ranks, similar to the rest of the United States, are struggling. The existing cadre of volunteers is aging, and the physical demands of firefighting can be challenging for them. SCFD receives fewer volunteer applications each year and the majority of new volunteers do not stay for various reasons. The younger generation commonly joins only long enough to gain the education and experience needed to pursue full-time employment in other agencies.

Additional struggles amongst partnering and regional agencies are prevalent, including but not limited to: limited available personnel, paramedics retiring faster than they are being educated, and budgets being scrutinized more so than ever. The taxpayers are demanding accountability for the actions of the government and expect the public agencies to be as

financially responsible as possible, reducing waste and duplication. With these commonly themed issues in the area, the problem is that the SCFD and other close neighboring agencies have not evaluated the potential feasibility of mergers or consolidations, and the associated operational, logistical, and financial implications, to improve overall efficiency.

Mergers and consolidations are not foreign to emergency services. Throughout history, emergency services have evaluated ways to improve their performance. Options have included joining fire with EMS, joining fire with law enforcement, and encompassing all specialties into one department of public safety. Each has their advantages and disadvantages when it comes to improving efficiency. The purpose of this applied research project is to explore options to increase operational and logistical efficiency throughout the county while being financially responsible. To evaluate this project's problem, the descriptive research method was used to answer the following research questions: (a) How would organizational mergers affect the efficiency of operations throughout Sandoval County? (b) What would be the logistical and financial implications of an organizational merger? (c) How would a merger affect the different organizational cultures and personnel attitudes? (d) What other options exist to improve efficiency for the people served?

Interviews were conducted with established interview questions that focus on how, logistically and financially, a merger would be considered and, if there are other options to improve efficiency. Interviews conducted with department leadership were the targeted focus with the option to, if indicated, interview municipal or county administration personnel as well. A literature review of how other public safety and private entity mergers have affected their operations was also conducted.

Background and Significance

Agencies across the nation are struggling to continue to provide emergency services while also growing their organizations to meet the changing needs of their communities. Innovative new ideas are thrusting organizations into adapting to an unfamiliar environment. In addition, the volatility of fires is prompting departments to work towards increasing staffing levels to meet the National Fire Protection Association (NFPA) standards to improve firefighter safety. Calls for service for EMS, specialty rescue situations and hazardous materials are also increasing. Data collected from the NFPA (2017) shows that there has been an increase in hazardous materials calls of 38%, an increase in other hazardous conditions responses by 18%, and an EMS call volume increase of 75% between the year 2000 and 2015. These numbers closely mirror the increases noted within Sandoval County. With the Rio Grande River, in addition to the Sandia and Jemez Mountains, the recreational opportunities in Sandoval County are plentiful. However, these outdoor endeavors pursued by local citizens and visitors alike, result in an increased call volume for emergency services due to motorized vehicle crashes, lost or injured hikers, and waterway emergencies.

Now, more than ever, fire departments must collaborate to solve the common issues they all face. Sandoval County is no different, especially in the southernmost part of the county. The city of Rio Rancho, the town of Bernalillo, and the unincorporated areas of Placitas and Algodones along with the Pueblo of Santa Ana are the major pockets of the population within the southern portion of Sandoval County. Based on U.S. Census data, the populations of those respected areas equals nearly 112,000 of the almost 140,000 residents within the county (United States Census Bureau, 2015). In addition, using information obtained from City-Data (2017), the total land area of those communities is just over 150 square miles, which is only 4% of the total land mass of the county, but houses 80% of the population.

A particular area of interest for this applied research paper (ARP) is the US Highway 550 and NM Highway 528 intersection. This intersection alone has three different jurisdictional boundaries depending on what corner of the intersection the incident is occurring. Within five miles of this intersection, there are six staffed fire stations between three agencies. Three of the six stations, two with BFD and one with SCFD, are staffed with a minimal staff of only two firefighters and separated only by a few miles. Two of those six stations belong to the city of Rio Rancho, yet their closest duty officer is nearly 10 miles away from the area which is a fifteen-minute drive. However, the county has a duty officer less than a mile away. Depending on where the emergency is within this region, one side of the street could be the city of Rio Rancho which requires a response from several miles away; however, the other side of the street is Bernalillo with a station less than one road mile away.

To add to the challenges within this area, the city of Rio Rancho and Bernalillo are both expanding in their commercial and residential footprint. In addition, the Pueblo of Santa Ana is also increasing their commercial tenants in the region. The Pueblo has several new construction projects currently in the works including a nine-story hotel. With these significant changes, the call volume in the area is rising, and the challenges to provide services are increasing.

Each of these three agencies is working with their respected elected officials to grow their departments to meet the increased needs. However, the budgets are not expanding at the same pace as the projects being undertaken. Further, with these new demands, each agency is working towards editing their services to adapt to the changing expectations of the community. Rio Rancho is working with insurance companies to pursue community medicine, a program that the county is very interested in pursuing themselves. SCFD has reorganized their command structure in recent years by eliminating command-level officers to increase operational personnel.

Bernalillo has successfully pursued federal grant opportunities to add staffing to their department to improve emergency services. These efforts were individually pursued and not collaborated upon between the closely neighboring agencies.

With these adaptations, the agencies have individually enhanced their services, yet the region still possesses service gaps. For example, Rio Rancho has a dedicated four-man fire prevention bureau whereas Bernalillo and Sandoval County have one person each that conducts prevention activities as needed but have several other daily duties. Another example is training delinquencies. Rio Rancho and SCFD have dedicated training positions to improve these identified gaps. However, Bernalillo's training officer is a line officer with the primary responsibility of emergency response. Vehicle maintenance is a constant battle for agencies. Rio Rancho has aging apparatus that is causing increased cost allocations requiring leadership to find solutions to decrease cost by decreasing usage.

A number of duplications have also been noted amongst the agencies. For example, Rio Rancho's training division is working to increase their training levels and utilize technology through Target Solutions to facilitate Insurance Service Organization (ISO) requirements; SCFD's training division is doing the same project using the same technology. All agencies currently establish and conduct their own new hire academy which can result in overtime pay for new hire training that instead, could be shared amongst the agencies. Operationally, there are three ladder trucks between three agencies within four square miles of each other. These few duplicated examples, if measured by taxpayers, could be viewed as wasteful and not acceptable.

Should the departments in this area begin to consider mergers or consolidations, it could improve operational effectiveness, increase crew member safety, decrease response times, and reduce repetitive spending. Additionally, mergers and consolidations can help facilitate new

programs for the region that individually may not be feasible by the separate departments.

Working towards this objective aligns with the second goal of the U.S Fire Administration (2014) which is to “improve fire and emergency services’ ability to identify, prevent, mitigate and respond to local community hazards. In addition, the U.S. Fire Administration’s (2014) third goal of promoting “a culture of health, wellness and behavior that enhances emergency responder safety and survival,” is also addressed with a collaborative partnership.

One item for leadership to consider before entering into discussions of mergers or consolidations is the different cultures the agencies have and how they might integrate with each other. Each agency is proud of their organizations and the accomplishments they have made since their inception. With each agency, a unique culture is created throughout their ranks that is then disseminated and instilled in their personnel. As perceptions are learned and realized, the culture learns, adapts, and changes.

The problem addressed in this applied research project directly aligns with several content areas of the National Fire Academy’s Executive Development (R0123) course. To implement, discuss and evaluate change of this magnitude, it will require Change Management which, according to Unit 5, is the process of analyzing, planning, implementing and evaluating change models. Unit 6 of the course, Change and Creativity, educates the Executive Fire Officer on the five stages of innovation and creativity. These stages include recognition of the problem, gathering information, incubation, insight, and evaluation or implementation. Unit 7 discusses Organizational Culture and Change which is addressed heavily in this research paper, especially related to which factors contribute to the organizational cultures, where they stem from, and how leaders in organizations can work with them. Finally, the Ethics and Change content in Unit 10 discusses being an ethical leader and the advantages it can offer to the people within and the

community it services through improved morale and efficiency as well as being more economical (US Department of Homeland Security - FEMA, 2016).

Literature Review

To effectively analyze the potential for improved fire and EMS services in Sandoval County, a comprehensive literature review was completed to evaluate further and explore the research questions identified. Literature referencing mergers and consolidations along with the associated topics such as finances, logistics, and personnel matters was reviewed. Scholarly articles, business journals, industry magazines, internet resources, industry examples, and collegiate textbooks were vital sources of information that contributed to this research paper.

There is no shortage of examples of mergers, consolidations, or acquisitions in today's economy. In 2017, more than 50,000 mergers and acquisitions (M&As) were announced worldwide (Gomes-Casseres, 2017). This number clearly shows that while new organizations are constantly being formed, other organizations are continually looking for partnerships to enhance their businesses and their mission. Merger examples just within the last year include notable companies such as the Amazon and Whole Foods, Disney and Fox Entertainment, AT&T and DirecTV, CVS and Aetna, numerous hospital mergers, and more (Gomes-Casseres, 2017).

Organizations merge for a number of reasons, but there are many common themes documented. "The most basic reason for undertaking a merger is to help transform a company's business operations by incorporating new products, services, or talent" (Manea, Ali, 2017). In the private sector, market share can be a common reason for mergers in which companies see a profit from an increase in their portfolio. Other reasons include an increase in their customer base, gaining access to new clients or markets, improve capitals structure, reducing debt, and accessing new ideas or technology (Manea, Ali, 2017).

“If there is one constant in public organizations today, it is change” (Denhardt, Denhardt, Aristigueta, 2016). Businesses of the 21st century and their leaders have to be creative to ensure they continue to fulfill the mission of their organization. “Managers increasingly are finding it necessary to make more fundamental and dramatic changes in their organizations” to continue their presence in the world economy (Denhardt et al., 2016). Mergers, acquisitions, and consolidations are one of those dramatic changes.

Leadership within hospitals are pursuing these changes and are merging more so than ever. “For healthcare to flourish in today’s environment – and well into the 21st century – the type of efficiencies that mergers create are often the only means to obtain meaningful cost and quality benefits” (American Hospital Association, n.d.). The American Hospital Association (n.d.) released a paper detailing results established from research conducted of hospital mergers showing efficiencies in cost savings, innovation, and quality improvement. The newly merged hospitals found purchasing on an economy of scale reduced capital costs as much as \$5.8 million in expenses alone. Additionally, standardizing protocols and upgrading facilities enriched quality improvement programs while also allowing the scope of services to be expanded in all hospitals. Finally, the paper suggested that revenues can be increased due to various reasons, which can be the underlying motivation for the merger (American Hospital Association, n.d.).

The impact of today’s economy places “constant pressure on public institutions to do more with less” (Denhardt et al., 2016). Budgets are continually scrutinized and government customers, the taxpayers, expect the public sector to be as financially responsible as possible. Agencies considering improving their funding through tax increases are encountering increasing levels of difficulty “because of resistance to this route” (PricewaterhouseCoopers, 2007). The

combination of these factors requires agencies to be more creative in funding and operational effectiveness while continuing to be financially responsible with the money there is.

Taxpayers today look for value and respect when evaluating their tax dollar usage. “Citizens are becoming more vocal with respect to what they expect from public organizations, especially with respect to the quality of service they receive” (Denhardt et al., 2016). To better comply, countries around the globe are establishing key metrics to evaluate their performance for public service needs. Two metrics are established; the first is the quality of service that evaluates the “accessibility for all and satisfactory customer experience and outcomes,” and the second is the cost of service which evaluates the “value for money” being expended (PricewaterhouseCoopers, 2007). The customers served by public agencies expect their elected leaders to value these metrics and apply them to the methods used to expend public monies. Citizens “are not prepared to accept that public sector organizations are incapable of improving their own service delivery. They also expect a positive customer experience and better returns on the taxes they pay” (PricewaterhouseCoopers, 2007).

When organizations combine resources, it enables “public sector organizations to focus hard-pressed resources squarely on their main objectives – providing high quality and value-for-money services” (PricewaterhouseCoopers, 2007). An additional consideration, if agencies are to consolidate or merge, is that the potential cost savings could “then be returned to the public by improving service” (Weiss, 1998).

McGrath and McGrath with McGrath Consulting Group, Inc. (2017), state that cost savings due to future cost avoidance are another common reason for fire department mergers in addition to “improved personnel safety at the emergency scene.” The authors discuss the joining of resources and personnel that each department is currently struggling with and bringing them

together to be more efficient and safe. “If we take the best of two organizations and combine them, we should, and most often do, get a better outcome” (McGrath, McGrath, 2017). An example of future cost avoidance, the authors state, is instead of multiple communities trying to find monies for an aerial device and having more than is truly needed, the agencies could share the cost and use the apparatus throughout the region (McGrath, McGrath, 2017).

Fire departments that are considering a merger or consolidation must first understand how the finances will be affected by the overall process. “Many times, smaller organizations seek to merge with larger organizations to save money, but that is not the reality” (Murphy, 2014). Instead of looking at the merger or consolidation as cost savings up front, leaders and politicians should be educated to see the benefits of future cost savings to the communities. John Murphy (2014) explains, “You can reduce your overhead, merge certain administrative and operational functions, relocate stations, or build only fire stations needed in the response area; you can purchase fewer apparatus and actually hire more firefighters.”

When a department decides to pursue the feasibility of a merger, regardless of their reasons, a number of considerations should first be discussed. “In order for efficiencies to occur, the “system” must be actively and very well managed” (Hardy, 2012). Leadership will need to understand that finances will no doubt be questioned when the elected officials and their constituents are presented with this option. Fire department leadership should first conduct a cost-benefit analysis commonly used by government agencies to “plan programs, allocate resources, evaluate outcomes, and assess the efficiency of organization processes” (Denhardt et al., 2016). Once information is collected, leadership can then have an organized case to present their findings on the feasibility of the topic.

Staffing is a well-known concern in the fire service. Career firefighters are retiring, and the number of volunteers is decreasing. Among the volunteers that do exist, their average age is increasing while millennials are not interested in filling the gap. The National Volunteer Fire Council (NVFC) released a fact sheet in 2017 showing today's volunteer data information and comparing it to the 1980's. A number of reasons are cited as to why the fire service is seeing a decrease in volunteer firefighters; many are attributed to increased time demands, training requirements and call volume increases (NVFC, 2017). The National Fire Protection Association (NFPA), reported similar data in 2013; plus information on volunteer firefighter ages and injuries sustained (Appendix B). The NFPA also reported data in 2016 that "the number of volunteer firefighters per 1,000 people has been decreasing since 1986" (Favignano, 1016). The demands of the fire service have expanded significantly over the years to include emergency medical and technical rescue responses which are further adding to the volunteer training responsibilities causing additional difficulties with juggling their personal life, family, job, and being a volunteer (NVFC, 2017).

Public service agencies feel the personnel shortage affects and know it is only a matter of time before disaster strikes. Agencies are attempting to get the message out to their customers that, unless addressed, they may not have the abilities to mitigate large-scale emergencies that, though rare, are devastating. Standalone EMS agencies have stated,

"Depleted volunteer numbers and lack of adequate career staffing levels have impacted our ability to provide high-quality care. The current staffing shortages in EMS have taxed our response system, increased response times and left patients without adequate levels of care. We will continue heading down this path until everyone is made aware of the problem and measures are taken to stave off impending disaster" (Peluse, 2015).

Another factor to consider when reviewing information on the reasons behind mergers and consolidations is the need to bridge the gap created by the rate of senior management retirement. As pension arrangements change ever more often, large groups of firefighters historically react by moving into retirement. This tends to create leadership challenges for fire departments as younger generations may not possess the necessary amount of training or education to promote to these new vacancies (Metcalf, 2017). In fact, “experienced leaders of the baby boomer generation continue to retire at a pace of 10,000 per day. This means we need to build the knowledge, experience and wisdom necessary for subsequent generations of the workforce to successfully run their organizations” (Metcalf, 2017).

Fire departments pursuing mergers and consolidations will prioritize all these issues when evaluating the feasibility of the merger or consolidation effort. “By consolidating and simplifying repetitive processes, organizations can help to ensure that services can be delivered as efficiently as possible (Denhardt et al., 2016). Adhering to these efficiencies ensures the public being served is receiving the best value for their money. Leadership is tasked with being responsible and accountable to the citizens they serve (Denhardt et al., 2016). With these challenges that are known and addressed herein, leadership can address them through collaborative working efforts. Opportunities to work together can be viewed as a positive, sustainable solution to providing the best care to the community in the most economical way (Aguilar, 2017).

Examples of fire department mergers exist in numerous departments throughout the United States. South Metro Fire Rescue Authority (SMFRA) in Colorado recently announced a forthcoming merger with two other agencies in the Denver metro area. Fire Chief Bob Baker with SMFRA stated that in order to be effective, the merger had to “improve service to our

citizens, improve safety for our personnel, be the most cost-effective model, and be sustainable into the foreseeable future” (Gilbert, 2017).

In addition to providing financial stability and addressing personnel issues, mergers and consolidations can improve services to previously underserved areas within a particular geographical area. Patrick Hardy (2012), states that if a merger is managed well, the newly consolidated agency can provide new and expanded services to areas not previously served. Leadership should identify this advantage and prioritize it to ensure it is properly addressed and communicated to elected officials and the public. Though some citizens may see a significant increase in the level of services provided, existing customers may not see an improvement in their area for some time as the leadership works to ensure the new organization is equally covered with similar resources and personnel (Hardy, 2012). If addressed correctly, however, the new organization can see long-term benefits both to its internal and external customers. “Efficiencies are found in leaner and less top-heavy leadership, consolidation of stations, increased purchasing power, a larger revenue source, and the ability to successfully pass bonds and levies.” (Murphy, 2014).

In New Mexico, some examples of mergers do exist. In 2005, Sandoval County Fire Department was formed from consolidating nine volunteer fire departments within the county into one (James Maxon, personal communication, November 20, 2017). The merger also assumed control of Bernalillo Emergency Medical Services and EMS was rebranded Sandoval County Fire Department. Personnel were transitioned into the new department forming the first employees of Sandoval County Fire Department (Belknap, 2005).

In 2009, the Village of Los Ranchos de Albuquerque, a small municipality surrounded by Albuquerque, contracted with the Bernalillo County Fire Department to provide services to their

community. The merger reportedly would save Los Ranchos de Albuquerque \$400,000 annually (Rayburn, 2009). Additionally, the merger benefited the community from having the “backing of a larger department,” and, the firefighters would benefit from “being part of a bigger force” that would provide more career advancement opportunities and training (Rayburn, 2009). In San Juan County, an administrative merger was facilitated due to a lack of personnel and potential budget constraints (Berntsen, 2016). The author states that though the merger did not affect operations, it allowed leadership to survive both the current and forecasted concerns financially (Berntsen, 2016).

Fire departments can consider a number of options when pursuing a merger or consolidation. McGrath and McGrath (2017) list a number of types of consolidations that can be reviewed and considered. These five types include:

- Administrative – the departments remain legally separate but consolidate administrative and/or staff functions such as a singular Fire Chief
- Functional – departments remain legally separate but perform special functions as if a single consolidated department such as apparatus maintenance or training facilities
- Operational – departments remain legally separate but join together both administrative and operational functions, delivering services as if they were one with boundaries becoming invisible
- Full – two departments legally become a single legal agency with taxing authority and boundaries becoming invisible
- Merge – one department absorbs the other, resulting in a single entity

New Mexico law permits these forms of consolidations with the exception of full. Through legally binding contractual agreements, agencies in New Mexico can merge. However, there is

no provision in state law that allows a standalone governmental fire protection district with their own taxing authority. Currently, New Mexico Statutes Chapter 73 – Special Districts, permits the creation of special tax districts for irrigation, transportation, conservancy, sanitation, water, etc. However, there is no language referring to public safety (2016 New Mexico Statutes: Chapter 73 – Special Districts, 2016).

Literature reviewed suggested that fire departments begin small and pursue one of the reduced types of consolidations such as administrative or functional before pursuing a full merger.

“Many departments may start with a functional consolidation of operations or leadership to see if there are immediate advantages (much like going on a date), with the real possibility that you may terminate the arrangement or find success and an increase in operational efficiencies. Many of these functional consolidations lead to full consolidations when all of the bugs are ironed out” (Murphy, 2014).

Organizations that pursue mergers do encounter a number of conflicts that must be further researched and discussed. Cultural concerns are a leading concern for organizations when considering a merger. Every agency has developed their own culture over time. The culture has been developed from a number of factors derived from the people that work within. “Every company or governmental agency will have a unique approach to its job. There will be written policies and regulations to mediate the daily workload, and there will also be an unwritten code of conduct. These elements combine to form the organizational culture or milieu of the agency” (Weiss, 1998).

“People are your most important resource,” which means that it is essential for leadership to accept everyone involved as equal with equal opportunity to contribute to the new

organization (Murphy, 2014). This is why existing organizational cultures, as well as preparing for the new organizational culture, is so important to consider and research. Certain traditions, logos, patches, and organizational identities, though maybe eventually changed, should not be lost in the transition (Murphy, 2014).

Cultural challenges can be derived from both internal and external customers and advocates. However, one of the biggest concerns for leadership to prepare for is the cultural challenges likely encountered between employees. “The single most important factor for post-merger success and long-term sustainability is the involvement and integration of employees from the start to create a common new identity around a shared vision” (Hill, Weiner, 2008).

Michelle Riklan (2016) states that team building events are essential to integrate the new culture. The author continues to say that though these activities might require significant time from already busy schedules, neglecting teambuilding activities before, during and after a merger may eventually cost the organization more in terms of employee morale and functionality than if it were done in the first place (Riklan, 2016). “The most important thing of all is cultural integration, without addressing the cultural issues first, it’s challenging to implement any strategy” (Riklan, 2016).

Consolidations work, can save money, improve services, improve the safety of personnel and citizens, and are increasing in both the fire service and government services (McGrath, McGrath, 2017). This literature review shows how both private, and public sector agencies use mergers and consolidations to improve their efficiencies and operations and, if managed appropriately, account for their most important resource, their people and the cultures attached.

The most influential part of this review was no doubt the findings on how cultural impacts can affect the process. Firefighters are the most important resource fire departments have.

However, the influence they can have in pursuing projects such as this was not fully realized at the time of inception of this project. The information obtained helped ensure that cultural considerations were heavily emphasized and considered throughout the remainder of this project. Each interview spent an extended amount of time on cultural impacts of the different agencies.

Procedures

In order to answer the research questions identified in this ARP, descriptive research was utilized to conduct personal interviews, scholarly literature reviews and articles relevant to the topic of organizational mergers and consolidations. To determine if mergers or consolidations are feasible in Sandoval County, the following questions were proposed: (a) How would organizational mergers affect the efficiency of operations throughout Sandoval County? (b) What would be the logistical and financial implications of an organizational merger? (c) How would a merger affect the different organizational cultures and personnel attitudes? (d) What other options exist to improve efficiency for the people served?

To ensure the accuracy of answering the questions, various stakeholders of the agencies involved had to be interviewed to gain their perspectives. In order to ensure the same discussion points were used for each interviewee, a questionnaire was developed (Appendix A) that allowed the interviews to effectively flow more so as a conversation than a formal interview. The concept of the questionnaire was to draft questions in order to spark conversations with the stakeholders that would get the topics and questions of this APR on the table and thoroughly evaluated. It was also understood that with each stakeholder, the conversations and discussion points would no doubt be viewed and interpreted in different ways allowing the interview to focus on the advantages and disadvantages that the stakeholder may have. If unique ideas were to

come up in the various interviews, the questionnaire allowed for the author to return to previous interviewees and further discuss the unique idea if desired.

The research questions, established secondary to the development of the problem and purpose statements, were designed to allow the author to explore the various topics relevant to the feasibility of a merger. These research questions drove the creation of the interview questions used with the identified stakeholders.

Research question one was developed to ensure the most important task of any fire department's mission, mitigating emergencies, was addressed. This research question, how would organizational mergers affect the efficiency of operations throughout Sandoval County, was addressed by three of the interview questions. The interviewee was given background information on the current nationwide increase of consolidations and mergers along with examples in New Mexico that were relevant. The interviewee was then asked to elaborate on ideas to improve operational effectiveness in their jurisdiction and the county as a whole and what the advantages and disadvantages were. The interviewee then was asked to elaborate on current gaps within their agency and to consider how those gaps might be addressed by collaboration with partner agencies in the region. Then the interviewee was asked if a merger or consolidation was feasible in Sandoval County and how operations might be affected.

Research question two addressed the financial and logistical implications of a merger. In order to effectively evaluate the feasibility of a merger or consolidation, financial and logistical considerations, including personnel, needed to be discussed. This topic was also addressed by the interview questions in which the interviewee was asked to elaborate on ideas of implications foreseen relevant to finances and logistics including personnel.

Research question number three, designed to address the cultural impacts associated with a merger or consolidation, was addressed specifically by posing an interview question that asked the interviewee about the cultures in their respected organizations and how a consolidation or merger might affect those established cultures and personalities.

Finally, research question four, designed to explore other possible options to improve services to the county in place of a merger or consolidation, was addressed by the final two talking points of the interview. One point specifically asked about the concept of the closest unit protocol and how that might affect operations. The other allowed the interviewee to give any other ideas, thoughts, or comments related to how operations can be improved within Sandoval County.

The author also had the option of which stakeholders to interview. It was determined that the most important stakeholders would be the fire chiefs of the agencies being addressed in this ARP. In addition, operational middle management representatives were selected for interview in each agency. An option to interview elected officials or senior management above the level of the fire chief of the various organizations was available to the author. After the initial interviews with the fire chiefs and middle management representatives however, it was determined that enough information had been collected not to pursue that option.

Each fire chief was first interviewed individually. This allowed for a one on one conversation with the top leadership of each organization without influence from other factors. Two deputy chiefs from Rio Rancho Fire Department (RRFD) were then interviewed jointly, allowing for discussions that were able to build upon comments from each other. Next, four separate interviews were conducted with operational middle management personnel of the respective agencies. Three of the four were conducted in a group setting, again allowing

comments from their peers to be expanded and elaborated upon. The interviewees consisted of: three captains and one battalion chief from RRFD; three lieutenants from BFD; and three lieutenants and one assistant chief from SCFD. A final interview was conducted with a retired fire chief who had firsthand experience in an organization that successfully completed a merger under his command.

The two deputy chiefs and selected middle management personnel were identified to be interviewed because of their connection with the area, their tenure in their respective organizations, and their familiarity with other processes already in place in Sandoval County. Also, each interviewee had expressed an interest in the topic during previous informal conversations before the initiation of this ARP. Each interviewee permitted their names, ranks, and any information provided to be used in this APR.

Fire Chief James Maxon with the Sandoval County Fire Department was interviewed on November 20th, 2017 at the Sandoval County Fire Department Administration building. The Fire Chief of Bernalillo Fire Department, Chief Michael Carroll was interviewed on December 14th, 2017 at the Bernalillo Fire Department Administration building. The next interviewee was Fire Chief Michael Meek with Rio Rancho Fire Department on December 20th, 2017 at Rio Rancho Fire Department Administration building. The two deputy chiefs for RRFD, Chief Paul Bearce, and Chief Richard Doty, were interviewed at Rio Rancho Fire Department's Fire Administration building on December 28th, 2017. Captain Jake Bailey, Captain Jonathan Bueschel, and Captain Jimmy Defillippo with RRFD were interviewed at a Starbucks in Rio Rancho, NM on January 10th, 2018. RRFD Battalion Chief Scott Kelley was interviewed the following day, January 11th, 2018, at a Starbucks in Rio Rancho, NM. Lieutenant Matthew Miller, Lieutenant Bryan Picchione, and Lieutenant Lawrence Gutierrez with BFD were interviewed on January 12, 2018,

at Bernalillo Fire Station #2. SCFD Lieutenant Chris Bagley, Lieutenant Sean Kissane, Lieutenant Kenny Snow, and Assistant Chief Carlos Chavez were interviewed at a Starbucks in Bernalillo, NM on January 12, 2018. The final interview was conducted on January 15th, 2018 at a Starbucks in Bernalillo, NM with retired Fire Chief Kevin Henson.

In addition to the interviews conducted, a comprehensive literature review was explored to evaluate the research questions of this ARP. The National Emergency Training Center library (<https://www.usfa.fema.gov/data/library/>) was first explored to search for fellow executive fire officer candidate's research on mergers and consolidations. Using Google (<https://www.google.com>), research articles in public and private industry related magazines relevant to the topic of this ARP were reviewed. Finally, using a complement of search engines such as Google Scholar (<https://scholar.google.com/>) and EBSCOhost (<https://search.ebscohost.com/>), peer-reviewed literature was studied relevant to mergers and consolidations within both the public and the private sector.

A small number of limitations were encountered and subsequently overcome. One of the two deputy chiefs with RRFD had a time conflict during the interview and had to leave due to a prior engagement, to remedy this, Chief Doty was contacted via email to inquire if additional time was needed. However, we were able to cover nearly all of the topics during the initial interview, so it was determined a second session was not required. A second limitation was during the group interviews as it proved difficult to find a convenient time to gather all requested participants together for a specified time period due to job related and personal obligations. The final limitation encountered was that certain information discovered in the literature review was very opinionated and not supported by data, such as in internet blogs. Though this information

can be powerful when interviewing stakeholders relevant to Sandoval County, personal beliefs and unsupported ideas from others were determined not to be useful for inclusion in this ARP.

Results

To effectively analyze the feasibility of mergers and consolidations in Sandoval County, descriptive research was used to elaborate on four research questions. The first research question, how would organizational mergers affect the efficiency of operations throughout Sandoval County, was addressed through interviews with stakeholders within the identified agencies. Fire Chief Michael Meek with the Rio Rancho Fire Department emphasized that not only could an organizational merger positively affect the overall operations in the county, but, the success of the joint organizational technical rescue team established between agencies is proof that departments can work together to improve services (personal communication, December 20, 2017).

Resource consolidation was discussed heavily in response to this question during the interviews as ways that mergers can improve operations. Chief James Maxon with Sandoval County Fire Department stated that mergers result in a huge advantage to the level of service fire departments provide to their customers, by ensuring the closest most appropriate resource is utilized regardless of boundary lines (personal communication, November 20, 2017).

Additionally, Battalion Chief Scott Kelley with Rio Rancho Fire Department stated that mergers could reduce response times (personal communication, January 11, 2018). Chief Kelley stated that currently, a mutual aid request requires authorization from operational leadership before units from partnering agencies respond. Merging and removing boundaries can eliminate that approval process allowing dispatch to react quicker to calls for service and prevent delays in response (personal communication, January 11, 2018). Resource consolidation can also help to

ensure that everyone supports one another equally in accomplishing the job and a merger can remove the mindset of one department taking advantage of the other, according to Assistant Chief Carlos Chavez with Sandoval County Fire Department (personal communication, January 12, 2018).

Lieutenant Bryan Picchione with Bernalillo Fire Department stated that resource consolidation secondary to a merger has the ability to improve the safety of firefighters by better allocating resources and personnel to emergency scenes (personal communication, January 12, 2018). In doing so, Lieutenant Picchione stated that “all agencies stand to improve their level of service by working towards meeting industry standards, thereby improving operational safety” (personal communication, January 12, 2018). These comments are validated by third-party professional fire department consultants reporting. “Insufficient staffing at an operational scene decreases the effectiveness of the response and increases the risk of injury to all individuals involved” (Emergency Services Consulting International [ESCI], 2016). Lieutenant Sean Kissane with Sandoval County Fire Department elaborated to include better resource utilization away from the emergency scene (personal communication, January 12, 2018). He stated that by re-positioning units strategically during large-scale emergencies ensures additional personnel and equipment are not only able to respond to the scene if needed but are available to cover additional calls for service in the area without delay (Sean Kissane, personal communication, January 12, 2018).

Improving the personnel staffing numbers was also discussed in the interviews as an operational advantage to a merger. Currently, all agencies involved in this research are understaffed. Fire department staff is defined as “the personnel available and assigned to mitigate an incident in a timely manner” (ESCI, 2016). Each agency struggles to maintain an acceptable

level of coverage while minimizing safety risks to personnel and citizens. Chief Meek reported daily struggles to meet minimum staffing requirements. He stated that adding additional career staff from partnering agencies through a merger could help fill daily voids encountered in all agencies by having more personnel to help cover overtime (personal communication, December 20, 2017). Chief Maxon reported that Sandoval County has always struggled with staffing shortages in the combination department. In 2014, Sandoval County was awarded a four-year federal grant that permitted the department to hire a full-time volunteer recruitment and retention officer. Chief Maxon stated that, though this position has helped significantly, daytime coverage throughout the county still suffers as volunteers are at work (personal communication, November 20, 2017).

Though volunteers are essential to the success of any combination department, with their variability of readiness and training levels, retired Chief Kevin Henson stated that “volunteers create an illusion of protection for the communities” and it takes just one bad fire for that illusion to be drastically realized. Working together, Chief Henson stated, can help prevent that disaster from ever occurring (personal communication, January 15, 2018)

In 2016, Sandoval County Fire Department contracted with a consulting company to conduct a department study. A major finding in the study was the shortage of personnel. The findings suggested that both the career and volunteer staffing levels were severely delinquent. The report commented on safety concerns related to low staffing levels stating, “staffing levels are severely low to safely support the capability to respond to one house fire” in Sandoval County (ESCI, 2016). Before the study was conducted, the southernmost district within Sandoval County was evaluated by ISO. The consultant analyzed the report and stated that the staffing component “received only 18.8% of the total possible credit it was eligible to receive for the

“company” staffing level, which is the number of personnel available on units to respond to the calls” (ESCI, 2016). The report recommended a number of recommendations to improve these statistics. Although some have been implemented, others continue to pose challenges, such as qualified volunteer recruitment.

Additional comments about improving staffing levels secondary to a merger reemphasized personnel safety. Lieutenant Snow with Sandoval County Fire Department emphasized the ability to actually be able to have a rapid intervention team on scene, not just the two in two out rule as is current practice (personal communication, January 12, 2018). Utilizing current staff to reduce repetition in certain areas could allow for the relocation of personnel to areas of the region currently underserved (Jake Bailey, personal communication, January 10, 2018). Captain Bailey stated that this option could improve operational capabilities for the communities leading to positive customer relations (personal communication, January 10, 2018). Chief Meek commented that currently, each agency works individually to improve their department without regard to the region as a whole. Merging would allow resources being more strategically placed based on risk and need throughout the area regardless of boundary lines (personal communication, December 20, 2017). In northern Rio Rancho, Bernalillo, and southern Sandoval County area, there are five staffed stations between three agencies within approximately five square miles (Appendix C). Three of the five stations are staffed with only two staff members. Lieutenant Matthew Miller with Bernalillo Fire Department, stated that merging could allow station crews to relocate to more strategically located stations to improve service delivery. This option, due to current station locations, would not negatively impact regional response times or ISO ratings for homeowners (personal communication, January 12, 2018).

Operationally, the city of Rio Rancho has one duty officer on per day stationed in the southern part of the city. Sandoval County also has one duty officer per day stationed near Bernalillo, which shares boundary lines with the northern part of Rio Rancho. Rio Rancho policy requires a duty officer response to a number of different emergencies according to Deputy Chief Paul Bearce with Rio Rancho Fire Department (personal communication, December 28, 2017). Chief Bearce stated that for the duty officer to get to the northern part of the city can be a significant time delay due to distance. If the organizations were to merge, the area could deploy two duty officers daily and break the region in half; the officers could back each other up which could not only improve personnel safety but operational effectiveness as well (personal communication, December 28, 2017).

All three agencies currently have a version of volunteers supporting their operations. Sandoval County and Bernalillo have a variety of volunteers, some of which fight fires, others who are strictly support or EMS. Rio Rancho has a certified emergency response team (CERT) that is volunteer-based and is used to respond to high acuity calls to provide firefighter rehabilitation. Chief Bearce stated that volunteers would still be needed to support operations in the event of a merger (personal communication, December 28, 2017). Chief Bearce stated that expanding the volunteers in Sandoval County and Bernalillo to be able to perform CERT functions not only helps all agencies on the fire ground but improves their capabilities in disaster responses as well. Additionally, training the current CERT volunteers to learn support tasks on the fire ground can improve operations by assisting with activities such as replenishing breathing air bottles or water shuttle operations (Paul Bearce, personal communication, December 28, 2017). This option, Chief Bearce stated, allows interior firefighters to be allocated to the fire

instead of having to remove them to perform these support functions, thereby improving operational effectiveness and personnel safety (personal communication, December 28, 2017).

Improving operational communications was discussed as Captain Jimmy Defillippo with Rio Rancho Fire Department stated, “Currently, the numerous agencies do not communicate effectively enough to be as efficient as possible” and a merger could help alleviate those issues and improve operations (personal communication, January 10, 2018). Captain Defillippo stated, for example, though the dispatch center is already the same, operational crews frequently have to go through dispatchers to talk to each other due to radio programming issues. Merging would improve not only the operational component by putting everyone on the same frequency, but other communication advantages at the administrative level would also be prevalent (personal communication, January 10, 2018).

Though the interviews displayed an overall positive opinion on organization mergers, a number of concerns were also addressed. Chief Michael Carroll with BFD expressed concern that, with a merger, there could be a tendency to pull resources from current areas and reallocate them to other areas of the newly established department. If not managed well, this could result in reducing levels of protection in current areas to support other areas that are underserved (personal communication, December 14, 2017). Chief Carroll used the example of the current Sandoval County Regional Communications Center in that, though it is consolidated for the entire county, it is still managed by the Rio Rancho police chief which can give the perception that Rio Rancho is the priority for county communications (personal communication, December 14, 2017). Lieutenant Miller echoed those concerns stating that the chief of the new department may prioritize one area over the other and that, unless effectively managed, current customers could stand to lose coverage (personal communication, January 12, 2018). Supporting literature

confirms that this is a common concern, “under a consolidated government it is also possible that city residents may experience a reduction in service and/or a resulting increase in costs” (Hardy, 2012). The author continues to state that it can be common to move resources to ensure the new organization has the same fire rating throughout which, though improves operations in certain areas, can decrease it in others causing concern. Patrick Hardy (2012) states that the new organization must be effectively managed with appropriate oversight to prevent an operational decrease in service levels.

A number of items were addressed relevant to the second research question, what would be the logistical and financial implications of an organizational merger? One of the biggest implications would be the reduction in overhead costs which, in turn, has the ability to save the region money. Chief Maxon states that consolidating the administrative and support functions of the agencies ensures that each agency has equal access to those functions to facilitate effective operations (personal communication, November 20, 2017). Chief Carroll echoed the comment, stating that merging would allow his citizens and firefighter to have access to an established fire prevention and training bureau that he does not currently have the funding to implement (personal communication, December 14, 2018). Chief Kelley stated that merging could decrease duplication in specialty areas of the department such as emergency management (personal communication, January 11, 2018). Chief Henson elaborated to state that, for example, instead of each agency establishing or growing their own wildland teams, which end up competing for paid assignments, or peer fitness trainer programs, a merger can pull the resources together and improve those programs without a need for each agency to spend additional monies (personal communication, January 15, 2018).

For a merger to be effective, Chief Maxon emphasized the need to do a thorough review of how each agency is currently funded as there is a significant difference between county and municipal funding sources (personal communication, November 20, 2017). If a merger was to move forward, each government body would have to address how the new organization can be funded. Chief Meek stated there are a number of ways to fund the new organization that would have to be addressed well in advance (personal communication, December 20, 2017). Chief Meek stated options such as the governing bodies agreeing to pay the organization on a per call basis or, instead, establishing a set amount to be agreed upon annually would have to be frank conversations required by leadership (personal communication, December 20, 2017). Chief Chavez stated that, though one pot of money can help the region as a whole and its customers in providing a uniform service level, perhaps the fairest way is a public safety tax that all residents and visitors pay into to ensure fairness to all citizens (personal communication, January 12, 2018). A concern to this approach, however, is that there may be taxpayers in certain areas that receive less service. Even though everyone is paying the same amount, due to “call volume and incident severity potential,” certain locations may not warrant the same level of service (Michael Meek, personal communication, December 20, 2017). Chief Meek advised that to help ensure fairness, a risk analysis would need to be completed to consider station locations and staffing deployments (personal conversation, December 20, 2017).

An additional financial concern that was addressed was the current funding levels provided to agencies from state agencies. Each fire department receives fire funding based on their ISO ratings and EMS funding based on call volume and area served. Recently those funds have not been reliable, and there are mounting concerns that the funding may not continue into the future (Paul Bearce, personal communication, December 28, 2017). Chief Bearce elaborated to state

that in addition to the state funding levels, gross receipt taxes are constantly fluctuating making budget projections challenging and forcing agencies to be “smarter with their money,” and the only way to accomplish that is to work in unison (personal communication, December 28, 2017).

To help facilitate agencies being smarter with their money, Chief Maxon discussed that in a merger, the larger agency now has a better advantage of purchasing on an economy of scale (personal communication, November 20, 2017). Chief Maxon stated that capital purchases for departments, which are usually the most expensive, can be purchased in bulk secondary to a merger which can drive overall costs down thereby saving money (personal communication, November 20, 2017).

Though joint purchases can be advantageous, one concern addressed by Chief Henson was that, because a merger would likely be an intergovernmental agreement by the agencies, each government entity would likely contribute to those capital purchases. With each agency financially contributing, questions such as: whose agency does the asset get titled under, who depreciates the asset, whose insurance covers the asset, etc., all have to be addressed well in advance (personal communication, January 15, 2018).

Logistically, a merger is feasible and helps ensure that standards established by the agency are uniform. Deputy Chief Richard Doty with Rio Rancho Fire Department stated that though currently our agencies work well together, policies may be different, titles may not mirror each other in qualifications, and rules are interpreted differently (personal communication, December 28, 2017). However, Chief Doty emphasized that merging eliminates these differences and ensures expectations are well understood and communicated (personal communication, December 28, 2017).

Another logistical advantage to a merger comes secondary to the comments about relocating personnel to more strategical locations. In doing so, as Chief Carroll stated, this could free up room to establish a regional training facility to facilitate improved training thereby improving safety for all firefighters in the region (personal communication, December 14, 2017). Chief Carroll stated that a regional training facility would not only benefit fire department operations but could be used by other public safety agencies such as law enforcement too. Whether the various public service agencies train separate or together, this logistical advantage stands to improve operations and safety for all public safety servants and the citizens they serve (Michael Carroll, personal communication, December 14, 2017).

Apparatus concerns could be facilitated by a merger as well. Currently, Captain Bailey reported that Rio Rancho apparatus is falling apart and frequently out of service (personal communication, January 10, 2018). Utilizing vehicles between the various organizations and rotating them around to equalize mileages could reduce maintenance costs and extend the life of apparatus according to Chief Meek (personal communication, December 20, 2017). Chief Bearce elaborated and discussed how the merger could warrant a department mechanic specifically for fire and EMS apparatus reducing the cost currently incurred by contracting those services out (personal communication, December 28, 2017).

The interviews conducted expressed that overall, the logistical and financial impact of a merger can be adventitious for all the communities affected. It could save money, improve safety, and help facilitate better operations for all public safety agencies. But it would need to be fair which likely would require a much more thorough review of the financial impact than addressed in this ARP.

Question three of the research questions developed for this research project addressed agency cultures. The question, how would a merger affect the different organizational cultures and personnel attitudes, was heavily discussed in the interviews with both negative and positive considerations addressed. First, and arguably the most important, is the cultural impacts the merger may have on elected officials. Chief Maxon advised of the importance of keeping the elected officials informed and ensuring their concerns and priorities are addressed (personal communication, November 20, 2017). Elected officials may have a level of pride for their departments and the brand they have created that may impede merger discussions. Additionally, elected officials may be concerned with losing control of the services their community can provide if a merger is to occur (James Maxon, personal communication, November 20, 2017). Chief Maxon stated that continuous informational meetings with officials are imperative to keep any process moving forward and reduce concerns (personal communication, November 20, 2017).

Volunteer cultural impacts were discussed as well. Integrating a career organization with volunteers only in support functions, and two other agencies who are a career/volunteer combination would no doubt result in some cultural concerns. Chief Chavez stated first that, though the volunteers may be hesitant and be concerned with losing their responsibilities, establishing policies and procedures to define their expectations and roles, and training on them, will improve the hesitation (personal communication, January 12, 2018). Lieutenant Chris Bagley with Sandoval County Fire Department used the example of the consolidation of the volunteer districts within Sandoval County in 2005. Initially, the volunteers were resistant to the change, but over time, they saw the advantages and today, “those issues causing the resistance

have been addressed, and that culture no longer exists” (Christopher Bagley, personal communication, January 12, 2018).

One major culture topic was the reactions and perceptions of paid personnel. As Chief Maxon stated, “change is hard if the member perceives he or she will lose something in the transition” (personal communication, November 20, 2017). Lieutenant Kissane echoed those comments by stating that, “to get the buy-in of the crews, no one can be demoted, and each person must maintain their rank or advance to a new rank” (personal communication, January 12, 2018). This can be challenging at the chief officer level because, as Chief Meek stated, there can only be one chief (personal communication, December 20, 2017). Chief Carroll suggested that an outside chief is hired to lead the new agency and the existing chiefs become district chiefs of their individual areas reporting to the newly hired chief (personal communication, December 14, 2017). This way, though the title of fire chief may be converted, there should be no loss in salary and, the existing fire chief will still have ownership of their respected areas.

Negative concerns about cultural impacts were well discussed too. Crews can be concerned about losing their autonomy which can decrease moral according to Chief Chavez (personal communication, January 12, 2018). Certain members may not be interested in learning a new organization or the possibility of moving stations as they have become accustomed to their daily requirements and responsibilities as Lieutenant Lawrence Gutierrez with Bernalillo Fire Department stated (personal communication, January 12, 2018). There is also the concern that, according to Chief Meek, a merger can result in having the mentality of “one organization is better than the other” because personalities may view themselves as superior, especially in public safety organizations (personal communication, December 20, 2017). Pride can play into this cultural concern as historical issues that have been addressed by one organization may change or

be negatively impacted by a merger. For example, Captain Jonny Bueschel stated that Rio Rancho has worked diligently over the years to improve staffing levels and operating procedures; and that if organizations merge and those efforts were reduced in any way, especially with the concerns of volunteer integration, leadership would receive little buy-in and morale would be decreased (personal communication, January 10, 2018). Additionally, Captain Bueschel stated that RRFD has worked hard to ensure structure amongst the ranks and that they are currently more structured than the SCFD or BFD. Unless that is addressed ahead of time, that cultural difference will cause significant personality conflicts that would impact not only on-scene operations but morale and organizational culture too (personal communication, January 10, 2018).

Accountability is another cultural challenge the organization could face in the event of a merger. Currently, if the identified agencies are operating together, each agency is individually responsible for holding their members accountable for the situations encountered; and if issues arise, they must be dealt with by involving chief level officers of each department. Lieutenant Snow stated that an organizational merger would permit crews to hold each other accountable, which could not only improve operations but eventually improve the level of professionalism throughout the region for all departments and the customers (personal communication, January 12, 2018). Accountability, as Lieutenant Snow stated, is directly related to organizational culture and morale. Crews that are held accountable hold each other accountable, and improve the level of services provided which results in positive outcomes thereby improving the organizational culture (Kenny Snow, personal communication, January 12, 2018).

The union has the power to influence organizational mergers and the resulting culture too. As Chief Maxon stated, the union has first to see the benefits for their member's wellbeing and

safety for them to support a merger (personal communication, November 20, 2017). Chief Maxon stated that, though a bigger union can result in additional abilities for the union secondary to the merger, which might influence their support, the union will have a number of concerns that must be addressed to ensure the culture of the new organization begins and remains positive (personal communication, November 20, 2017).

In summarizing question three relevant to the cultural component of a merger, the results were mixed in their reviews. There were some advantages that were foreseen with a merger in relation to organizational cultures. However, there were a far larger number of concerns about cultural integration that have the potential to affect the feasibility of an organizational merger.

Research question four, what other options exist to improve efficiency for the people served, was developed in anticipation that mergers may take time or be determined not to be feasible. Numerous ideas were discussed that not only would immediately improve the service level to the organizations involved but could serve as an evaluation to further determine the feasibility of future merger options. A number of these ideas were previously discussed in the preceding three research questions only, in those questions, the results were relevant to solely a merger. The ideas expressed relevant to research question four, though similar, emphasized that agencies are remaining separate yet still collaborating to improve emergency services.

Crew sharing options were discussed in which each agency continues to employ their own personnel, but the staff is shared in various ways amongst the agencies to facilitate improved operational and support functions. Chief Bearce stated that the agencies could take the lessons learned from the joint technical rescue team, in which crews from various agencies come together to respond to technical rescue missions, and expand those learnings to other operational tasks (personal communication, December 28, 2017).

One major advantage to crew sharing, similar to a discussed advantage of a merger is, as Chief Carroll discussed, the option to re-locate SCFD and BFD personnel into more strategically located facilities to improve crew safety and operational tactics (personal interview, December 14, 2017). This crew share plan also permits the idea of a fire station that has the capabilities to become a regional training facility, as suggested in an earlier research question, to become a reality. Chief Carroll stated all agencies could utilize the station and create training programs that each agency could benefit from in addition to making the facility available for live, on-duty training (personal communication, December 14, 2017). Current training staff for each agency could have office space in the facility further advancing training by allowing the training staff to work together to enhance the training programs. Each agency would benefit from having an established training facility and by receiving uniform classes and drills. Additionally, crews for the different agencies could be brought in together and train together which could improve mutual aid operations and lead to identifying operational gaps that can then be addressed (Michael Carroll, personal communication, December 14, 2017).

Training together was addressed by a number of the interviewees in addition to the creation of a regional training facility. Captain Defillippo stated that agencies could start working together now to improve the training conducted for their staff (personal communication, January 10, 2018). For example, Captain Defillippo stated that, instead of each agency creating a year of continuing education courses for fire or EMS, each agency could develop an agreed upon established percentage of that course that could then be compiled into one (personal communication, January 10, 2018). This option stands to reduce training costs as each agency contributes to one program instead of what the current practice is, three programs. Captain Bueschel emphasized the need for agencies to train together and include the volunteers to

improve current operations (personal communication, January 10, 2018). Captain Bueschel stated that Rio Rancho personnel rarely interact with the volunteers and that, through training together may be a new challenge, it is essential for the success of future operations and potential merger considerations (personal communication, January 10, 2018).

Chief Doty suggested that the agencies in the area begin working together on formulating a singular, shared, annual training academy that each agency can put new hires through (personal communication, December 28, 2017). With each agency hiring personnel, the organization incurs a significant amount of money to train them (Richard Doty, personal communication, December 28, 2017). With the size of the agencies, the number of new hires sometimes does not justify a full academy style arrangement. Instead, joining the training forces would allow each agency to contribute to the new hire academy, and instead of running three academies between the agencies with one to four hires each, one academy could be conducted for numerous new hires; and instructors could be shared, thereby saving money (Richard Doty, personal communication, December 28, 2017).

Crew sharing and joint training can improve working relationships which can positively affect morale and organizational culture, according to Chief Carroll, who has personally seen the positive effects in San Juan County, NM (personal communication, December 14, 2017). If crew sharing is feasible, Lieutenant Snow pointed out that a number of legal considerations may need to be addressed such as allowing crew members to operate each other's facilities, apparatus, and equipment (personal communication, January 12, 2018). If those legal issues can be easily facilitated, the number of available resources to operational personnel will increase which will directly improve area operations (Kenneth Snow, personal communication, January 12, 2018).

Chief Meek discussed an option to improve operations related to crew sharing in which, secondary to unifying standard operating procedures and EMS protocols, the agencies work together to establish a program that in the event no members of the primary organization pick up an overtime shift, members of the surrounding agencies can then be offered the shift (personal communication, December 20, 2017). Captain Defillippo agreed with the idea; however, to save money, Captain Defillippo suggested the organizations hire crew members from other agencies as part-time and use them to fill those unfilled shifts (personal communication, January 10, 2018). This prevents organizations paying overtime and reduces some of the liabilities that might occur (Jimmy Defillippo, personal communication, January 10, 2018).

However, there are were concerns discussed too. Captain Defillippo stated that, though crews will be working side by side to improve operations and safety, eventually crew members will begin to question their pay as they are all doing the same job (personal communication, January 10, 2018). If pay is not addressed, what will happen is that as unions negotiate for better pay, crew members will “jump ship” continually going wherever the highest pay is; which is an issue that the Phoenix metro area encountered before they all standardized their pay rates (Jonathan Bueschel, personal communication, January 10, 2018).

Other options discussed that could be pursued to improve the current level of operations within the region include:

- Unifying standard operating procedures and EMS protocols, and developing agreed-upon rank structures and rank requirements (Jake Bailey, personal communication, January 10, 2018);

- Making the new Rio Rancho paramedic supervisor and their advanced diagnostic equipment available to Bernalillo and Sandoval personnel (Paul Bearce, personal communication, December 28, 2017);
- The option of joining forces to determine the feasibility of a joint mobile integrated health program for the entire county (Michael Meek, personal communication, December 20, 2017)
- Considering cost and crew sharing programs to expand the fire prevention divisions in the area (Michael Carroll, personal communication, December 14, 2017);
- Consider working with each other's public works divisions to improve maintenance capabilities (Matthew Miller, personal communication, January 12, 2018);
- Regionalize stock items that can be accessed by any agency reducing traveling distances currently required to restock apparatus (Jimmy Defillippo personal communication, January 10, 2018)

Discussion

The purpose of this applied research project was to determine if it was feasible for fire departments in Sandoval County to merge. To evaluate this topic, research was coupled with interviews by agency stakeholders to develop a consensus of action that will have a direct correlation with future organizational implications. This paper also was developed as a way to, if a merger was not feasible, identify other areas within the region in which operational effectiveness can be improved upon.

The research analyzed and data collected from interviews determined that fire department mergers in Sandoval County are feasible and that significant improvements in the efficiency of operations can be accomplished. As Lieutenant Bagley pointed out, agencies have already

collaborated to create an operational merger in which rescue technicians from various agencies have joined to create a regional rescue team that is well trained and highly productive (personal communication, January 12, 2018). Additional interviews confirmed that not only is this team efficient and successful, but it has set the groundwork for additional collaborative efforts.

The technical rescue team is a form of a merger called a functional merger in which, “departments remain legally separate but perform special functions as if a single consolidated department were established” (McGrath, McGrath, 2017). This is just one of several options departments have when considering merger or consolidation efforts. McGrath and McGrath (2017) list additional options such as operational mergers, administrative mergers, or a full joining of all aspects of the agencies. Regardless of what the reason may be, agencies are pursuing mergers at increasing frequencies, and it is working (McGrath, McGrath, 2017).

There is no shortage of examples of fire department merges in the United States. A simple google search on fire department mergers shows departments joining forces is not only currently commonplace, but has been occurring for decades. South Metro Fire Rescue Authority in Colorado recently announced a merger with Littleton and Cunningham fire departments, expanding their coverage area and abilities citing “an average response time improvement of one to two minutes” in the jurisdictions being consolidated into South Metro (Aguilar, 2017). Elsewhere, fire departments in Oregon have been working on mergers and consolidations since the 1960’s when several municipal departments and fire districts in Multnomah County, Oregon merged to reduce the duplication (Snook, Johnson, 1997). These examples mirror ideas that interviewees had on potential mergers and their effects in Sandoval County. As Chief Kelley stated, a merger can improve resource utilization resulting in improved response times while decreasing duplication (personal communication, January 11, 2018).

Operational safety was discussed amongst the interviewees which is a high priority for firefighters as fires dynamics are changing, resulting in prioritizing fire ground safety more so than ever before. To facilitate firefighter safety, a substantial amount of personnel are needed to be effective. According to NFPA, 14 firefighters should be on scene within 8 minutes of a single-family dwelling, and 42 firefighters to a high rise fire, defined as a building greater than 75 feet high, to conduct safe and efficient operations (NFPA, 2016). Sandoval County and Bernalillo do not even come close to those staffing levels. In fact, dispatching all career personnel results in only 11 firefighters. For Rio Rancho, this response requirement results in responding with two to three of their six staffed stations. In the event of a high rise fire, the entire on-duty career staff of SCFD, BFD, and RRFD is 41, one short of NFPA recommendations. Those statistics are for first alarm fires and leave little to no protection to the rest of the region. Currently, throughout Sandoval County, all agencies struggle to gather enough people on the scene of a fire quickly enough to be effective and safe. Instead, operations are required to, and rightfully so, focus on safety and, until enough personnel arrive on scene, operational effectiveness is reduced. As Lieutenant Picchione stated, consolidating resources, regardless of the way it is accomplished, can improve the number of firefighters responding on an initial alarm thereby improving personnel and citizen safety (personal communication, January 12, 2018). McGrath and McGrath (2017) also reference this advantage to organizational mergers stating that mergers “improve personnel safety at the emergency scene” and that training together before the emergency can also help create a safer working environment for firefighters.

Not all operational mergers offer success. As Chief Carroll stated, if there is a potential that the governing body loses the ability to oversee the service level to their constituents, problems can occur leading to potential negative operational encounters and a decrease in public

perception (personal communication, December 14, 2017). This can be considered a “loss in sense of community” in which residents and their elected officials grow concerned about losing their authority to influence the public service response model within their community (Hardy, 2012). However, if managed correctly, the reality is that consolidations can instead “introduce a greater degree of service provisions to a larger area” (Hardy, 2012). Instead of decreasing service levels, the new organization stands to better those service levels to the entire region. As Captain Bailey suggested, “a merger can allow for more staff to be more strategically positioned based on regional populations regardless of boundary lines,” which could take a two-man station and potentially make it a four-man station (personal communication, January 10, 2018). This improves firefighter safety while also improving the level of service to the community as a whole.

Funding is an increasingly difficult and fluid concern in the New Mexico fire service. Many agencies are funded through gross receipt taxes which have seen significant shortcomings over the years. Additionally, reducing fire funding provided to all fire departments in the state has been identified in the state legislature as a possible solution to filling the state budget deficit which concerns each and every department in New Mexico (Paul Bearce, personal communication, December 28, 2017). Also, increased financial allocations towards member’s pensions, education, and health benefits are also challenging budgets in fire departments throughout the country (PricewaterhouseCoopers, 2007). Merging organizations work to use resources various departments have and, instead of working to grow them each individually, the region can grow in unison in the emergency services provided without drastically affecting costs. Taking the money allocated to emergency services in the region and using that money to benefit

the people within as a whole, regardless of boundary lines, may allow the jurisdiction “to accomplish together what it could not do individually” (Hardy, 2012).

Cultural impacts have the ability to make or break mergers and consolidations. Leaders should never underestimate the power of the personnel and their organizational culture and morale. Chief Henson stated that, though his merger was successful, several years after he retired the merger was dissolved primarily because morale decreased because of pay concerns brought out by the union (personal communication, January 15, 2018).

With each merger or consolidation analyzed, financial and logistical implications are improved in addition to the operational service advancement. Though organizations report challenges along the way, if the leadership can forecast these challenges and work on the front end to address them, they stand to have the abilities to work through them and, understanding that not all challenges will be evident, the merger or consolidation can be feasible (Kevin Henson, personal communication, January 15, 2018).

Current political cultural impacts in the departments identified in this research project do not currently support the option of full merger (Michael Carroll, personal communication, December 14, 2017). However, Chief Carroll stated that operational mergers and crew sharing options were very feasible and should be explored more along with closest unit protocols (personal communication, December 14, 2017).

Departments do not have to merge to be successful. Some agencies collaborate operationally, administratively, or functionally to improve the service level to their customers. An example of an effective operational and collaborative effort is closest unit protocols. Closest unit protocols are used widely in the fire service as neighboring agencies all frequently face

similar challenges of personnel shortages and adequate funding. The Phoenix metro area has been using closest unit protocols for several years,

“The Automatic Aid System is a consortium of governments (Cities, Towns, and Fire Districts) joined by an inter-governmental agreement (IGA) whereupon the participants agree to operationally act as one entity for the purpose of improved fire/rescue/emergency medical services. The Automatic Aid System used in the Valley is a time-tested deployment system that provides the closest most appropriate fire service resource regardless of jurisdictional boundaries (azfirechiefs.org, 2018).

However, in order for this to be effective, agencies must define resources and personnel identities to be uniform. Rank structure and unit identification requires leadership to collaborate and agree upon the realistic terms that can be accepted.

New Mexico fire department funding sources come mainly from taxes. Gross receipt taxes and property taxes are the main sources of revenue that counties and municipalities collect to be distributed to public safety. A majority of these funds directly account for departments payroll budgets. Operational budgets in many departments, including Sandoval County, come from state fire funds. State fire funds are collected through a tax on homeowners and vehicle insurance throughout the state that goes into an account that is then, based on a number of factors, distributed to fire departments in the state. The fund does not fluctuate much, and the amount of money has remained fairly consistent over the years. The allocation of funds is calculated by factors such as the number of main and substations departments have, their ISO rating, and if they have an administrative building separated from a fire station. These factors, for example, force departments to each establish standalone administration buildings, or build main fire stations when only a substation is needed in efforts to increase the amount of money they

receive. In fact, according to the regulations, closing stations secondary to a merge to place personnel in a more strategic location could hurt the operational funds received by an organization.

“Public agencies and their managers are, first and foremost, accountable to the public” (Denhardt et al., 2016). Accountability and fiscal responsibility go hand in hand with public agencies. Managers and the elected officials they serve should be concerned with ensuring the tax dollars being spent are spent wisely. Currently, because of New Mexico funding regulations to fire departments discussed herein, agencies pursue improving their own agencies ahead of collaborating with neighbors. However, this can be overcome; operational budgets may actually improve even if, for example, a fire station is repurposed, because the new organization will increase their staffing levels, improve training, and potentially improve their community outreach which all leads to additional points in ISO thereby reducing their ISO rating.

Even if agencies decide not to pursue mergers or consolidations, managers can still decide to pursue ways to be accountable and responsible for the citizens they serve. For example, Chief Maxon states the closest unit protocol “needs to happen” because it is what is best for the public to ensure citizens in need get the quickest, most appropriate resources (personal communication, November 20, 2017). This one adjustment to the current practice of emergency services in Sandoval County helps ensure that managers are accountable to the taxpayers. It also correlates to a positive public perception by showing citizens that they are putting the needs of the community as a whole first. The organizational implications of these actions stand to improve professionalism, improve emergency responses, and enhance the service level offered to citizens and visitors of all Sandoval County. Further, if these actions are implemented correctly, a new organizational culture will be formed that will positively impact employee morale.

Recommendations

The recommendations discussed in this ARP represent the findings collected within this project and incorporate the consensus of the various opinions derived from the interviewees with consideration from the literature review. Though it is clear that mergers or consolidations within the county, especially within the southernmost part, are feasible, it was determined that a number of items must first be addressed by leadership. Additionally, the current political environment would not support this as a number of other issues are more pressing than a fire department merger. To allow time to work out the items identified in this ARP, and continue to evaluate merger feasibility, it is recommended that the organizations consider operational, administrative, and functional mergers in specific areas first. This will allow leadership to gather information on the effectiveness of the various agencies working together, their culture impacts, the financial components, and the logistical considerations and better determine if future collaborative efforts are needed.

Before any actions are taken, leadership should first consult with their elected officials to ensure the organizations have their support in pursuing these lower level merger options. Once support is obtained, leadership should then concurrently discuss the matters with their legal councils within their organizations and the staff in their department. Legal issues such as apparatus and equipment sharing in addition to sharing stations will need to be evaluated by the organizational attorneys to ensure the organizations are not incurring any additional liabilities. Further, crews will need time to discuss the options with leadership, ask questions, provide input, and better understand the objectives being pursued including what impacts these options will have on them and the organizational culture.

In discussions with the various stakeholders, crew sharing and a regional training facility were the most actively discussed. These two options offer the most significant impact on positive change that could affect the feasibility of future operations and potential mergers. An agreement should first be facilitated in which SCFD and BFD firefighters join personnel from various stations to a more strategically located station in the region. Leadership will need to address apparatus placement to ensure effective operations along with policies on crew interactions needing to be developed.

Though the newly vacated west side fire station could then be repurposed to a regional training facility, it should not occur immediately. Instead, as Lieutenant Picchione stated, allow the newly joined crews, that now are working under the same roof, time to work through any issues that might arise (personal communication, January 12, 2018). Allowing three to six months for the crews to work together, establish working relationships, merge cultures, and evaluate the new operational effectiveness is essential in determining the long-term feasibility of the new partnership.

During this trial period, a number of other items can be addressed by leadership. Conversations amongst the crews must be constant and well communicated throughout the agencies. Elected officials shall also be kept informed of the how the new operations are working and what additional considerations are being addressed. Should elected officials be interested in participating in these discussions, Chief Henson advised encouraging elected officials from the various agencies to create a committee between themselves to work directly with fire department leadership. This committee can then have an influence on work being done while also providing oversight based on their identified best practices (personal communication, January 15, 2018).

Additionally, standard operating procedures and EMS guidelines should be reviewed, and working groups should be established. Working groups should be tasked with working through variations noted in policies proceeding to an end goal of uniformity that can be mirrored by each agency. Working groups will also help address cultural concerns that may exist amongst the agencies as each agency can positively contribute to the future operations of the region and it can allow crews to have the opportunity to learn from each other.

Additionally during this time, the closest unit protocol should be researched further to determine feasibility. With a new computer automated dispatch system being installed later in 2018, the options to pursue the closest unit will be more feasible (James Maxon, personal communication, November 20, 2017). If determined to be feasible and functional, the agencies should begin working on identifying and defining resources and personnel requirements for scene responses. Department boundaries should be removed and station boundaries, regardless of jurisdiction, should be drafted.

Before a closest unit protocol is enacted, crews have to train together, and dispatch needs to be included. The training staff of the various organizations should begin meeting to work on joint training that can facilitate crew integrations, equipment familiarization, and resource expectations. Logistical considerations such as how training is conducted, who leads the training, how the training is recorded, along with the financial impacts of the training should be addressed and relayed to senior leadership in the organizations. Not only should senior leadership be kept informed of the progress but, Lieutenant Snow suggested that a member of senior leadership from one of the organizations be involved in the process to at least ensure consistency and provide oversight for the training staff (personal communication, January 12, 2018). Training

staff should also work closely with senior leadership and dispatch to develop dispatch guidelines that will ensure proper and rapid dispatching of units without administrative delays.

Chief Henson advised one of the best trainings conducted during his firsthand experience with a department merger in Oregon was how crews handled constructive confrontation. Chief Henson stated that when you begin to merge department cultures, inevitably personalities will clash and the best way for leadership to deal with those potential conflicts is to try to prevent them in the first place (personal communication, January 15, 2018). Additionally, keeping union leadership from the different agencies informed and including them in the conversations will help leadership obtain buy-in from the union which can help facilitate a positive organizational culture moving in the new direction (Kevin Henson, personal communication, January 15, 2018).

As time permits during the crew sharing trial, additional items can be further evaluated. Merging the wildland teams within the agencies can be considered, agreements to permit the EMS supervisor from Rio Rancho and their advanced diagnostic equipment to respond throughout the region can be addressed, financial impacts of repurposing a fire station to a regional training facility can be quoted, and additional crew sharing opportunities such as hiring personnel from other agencies as part-time employees can be evaluated. Chief Henson advised that leadership should be kept abreast of funding opportunities that may help the region as a whole (personal communication, January 15, 2018). Funding opportunities supporting regional efforts have been discussed at the federal level that could lead to improved training facilities or capital purchases (Kevin Henson, personal communication, January 15, 2018).

Once the established crew sharing trial period has ended, leadership should convene to determine if the agreement should continue. If it is determined that the situation proved feasible, leadership should consider working towards repurposing a fire station to a joint training facility.

Each agency should first agree on parameters such as finances, expected levels of training to be provided, how training will be evaluated and recorded, safety components, etc. Once these factors and any other concerns are addressed, the agencies should consider entering into an intergovernmental agreement between the three agencies to define those expectations while also limiting any liabilities that an agency may encounter in the process.

These programs will no doubt be a several year undertaking as leadership should expect to spend a significant amount of time working through issues, addressing concerns, educating and informing the public and elected officials, and identifying additional gaps that require attention. Data collection will also be important to collect of both advantages and disadvantages encountered with the new operational procedures and training. Data will also drive cost considerations as it may take several years to ensure the financial impact is well established, fair, and efficient.

After the data collected is analyzed, if the crew sharing program, closest unit, and regional training facility prove to be a success, along with an existing positive organizational culture, leadership can then revisit the merger or consolidation discussions as desired. Finally, during this time, it may be adventitious for leadership to consider addressing the legislative gap discovered in this ARP. Leadership may see an advantage of creating fire districts with taxing authorities in not only Sandoval County, but throughout the state as well. If agreed upon, leadership may decide to pursue legislative changes to modify the law and begin creation of these well established and successful organizations prominent throughout the United States.

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Appendix A: Interview Questions

Re: Improving efficiency in Sandoval County Fire and EMS

Thank you, sir/ma'am, for taking the time today to meet with me. As part of my National Fire Academy Executive Fire Officer Program, I am conducting research to evaluate the feasibility of improving Fire and EMS services to Sandoval County. This interview will be used in my research and compared to other interviewees to evaluate ideas throughout the region for improving operations. Please feel free to be as open as possible with these questions. I do anticipate that these questions will lead to further discussion during our time today. I know you are incredibly busy and again, I do appreciate your time. If you have a scheduling conflict that approaches during our time, please let me know so we can ensure we finish the interview or reschedule.

1. Throughout the United States, more and more fire and emergency services are improving their partnerships to reduce costs while improving efficiency for the citizens serviced. These partnerships come in various forms such as closest unit protocols, mergers, consolidations, crew sharing, etc. Many states have created legislation that allows for the creation of standalone fire protection districts or authorities that are funded through their own tax base. The state of New Mexico does not allow for the creation of these tax-based fire protection districts but does allow contractual intragovernmental agreements as well as partnerships in the form of mutual aid and automatic aid. In New Mexico, some departments have collaborated to improve operational effectiveness. There are some contractual agreements to provide services and others that work together on closest unit guidelines. However, mergers and consolidations have rarely occurred. My research is

based on looking at options that might exist for fire and EMS agencies within Sandoval County to collaborate to improve operational effectiveness.

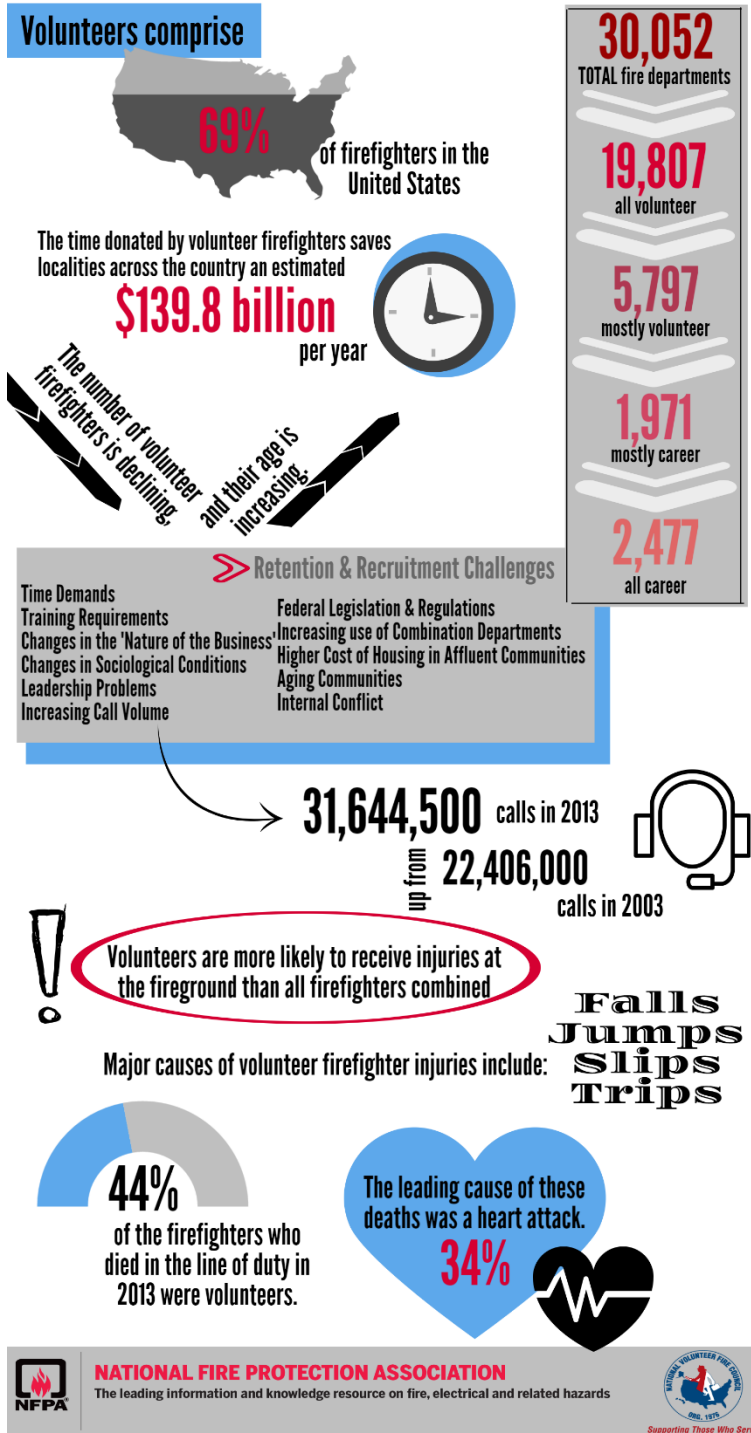
- a. In your position within your organization, have you considered options to improve effectiveness within your district or the county as a whole?
 - i. Why or why not?
 - b. What advantages or disadvantages would you anticipate with those ideas?
2. Are there areas within your origination that have been identified for needing improvement (for example, extended response time areas, lacking personnel, division support, etc.)?
 - a. If so, how could fire and EMS agencies throughout the county collaborate to help fill those gaps?
3. Merriam Webster defines a merger as two or more agencies coming together with one of the two agencies retaining their name as the new name of the new organization. A consolidation, however, is when two or more agencies come together, and the resulting organization is newly named and organized.
 - a. Do you foresee either of these as being options within Sandoval County?
 - i. Why or why not?
 - b. How might one of these options affect overall operations in your organization?
 - c. What financial considerations need to be addressed if one of these options were to be considered?
 - d. What personnel considerations need to be addressed?
 - e. What logistical considerations need to be addressed?

4. Do you think that the organizational cultures and personnel attitudes in the various agencies would support any of these ideas discussed thus far?
 - a. Why or why not?
5. Would closest unit protocols be effective in Sandoval County?
 - a. Why or why not?
6. Are there any other ideas that we have not discussed that could improve operational efficiency for the citizens and visitors to Sandoval County?

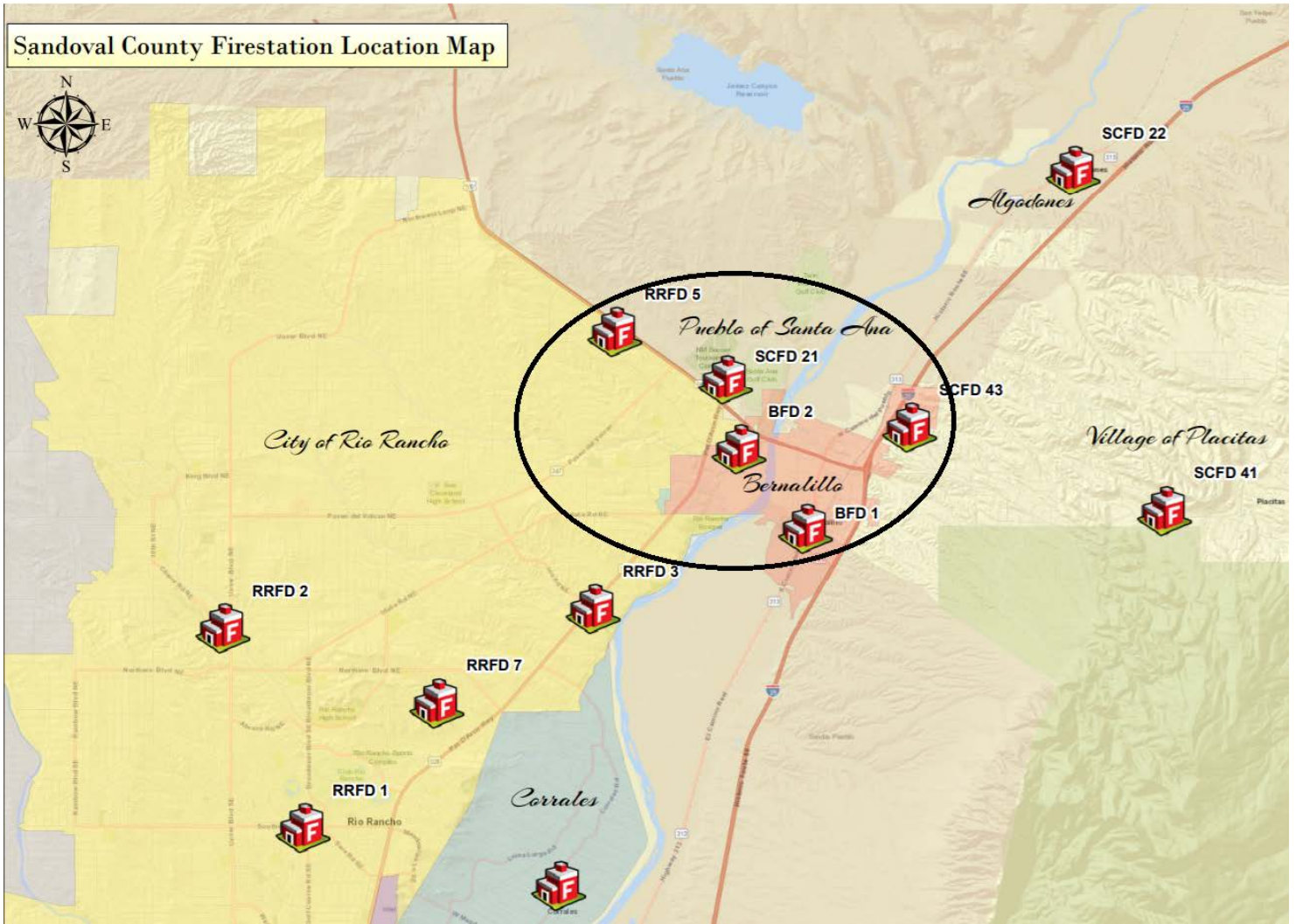
I would like to again thank you for your time today. I look forward to completing my interviews with other stakeholders throughout the county. Once the interviews are completed, I will analyze the data, and my research paper will discuss what, if any, options are available to improve fire and EMS efficiency and effectiveness. I will ensure you receive a copy of my final paper. If you have any additional thoughts, please do not hesitate to contact me! Thank you!

Appendix B: Volunteer Statistics

THE VOLUNTEER FIRE SERVICE IN THE UNITED STATES



Appendix C: Fire Station Map



Courtesy: Sandoval County GIS