Consolidation, Merger, or Shared Services? What Would Best Suit the City of Alhambra and Neighboring Communities?

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Appendices Not Included. Please visit the Learning Resource Center on the Web at http://www.lrc.dhs.gov/ to learn how to obtain this report in its entirety through Interlibrary Loan.

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Certification Statement

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Signed		
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Abstract

The Alhambra Fire Department and surrounding area departments have had discussions about mergers and consolidation since the early 1980's during different ebbs and flows of the economy and political situations. Partial consolidations/ shared services since the 1992 predecessor study of Dr. Hadsell have addressed some of the early issues and increased efficiencies through mutual aid, automatic aid, unified response, and common dispatching and communications. The problem is that five neighboring cities each have financial constraints causing reduced management staffing with the same legal, organizational, and operational concerns. There are minimal, if any, areas to cut remaining without affecting the suppression and prevention positions, additionally reducing service levels to the communities as individual cities. The reduction of staff positions has affected the ability to manage programs efficiently and effectively individually as agencies. The purpose of this study is to define the types of mergers and consolidation that exist within the fire service and to determine the feasibility of consolidating wholly or partially with neighboring agencies for the purpose of increased efficiency, staffing, and the alleviation of administrative and operational redundancies. Descriptive research methods were used to answer the following questions: (a) What types of mergers and consolidations exist for fire departments? (b) What are the benefits of a consolidated fire department to the citizens of each city? (c) What are the disadvantages of consolidation for the communities and citizens addressed in the study? (d) What shared services/partial consolidations would increase efficiencies, decrease duplication, and maintain costs? Procedures used in this study consisted of a comprehensive literature review, a questionnaire, and interviews with fire service leaders from the area to identify benefits, challenges, and opportunities, to consolidating services of local fire departments. The results demonstrated a duplication of

services, programs and responsibilities within all five cities examined. When compared to the similar sized Glendale (CA) Fire Department, the combined five cities are similar sized, higher budget, with a greater number of management, stations, and personnel. Recommendations include examining long-term revenue generating or expenditure reducing solutions to response and daily operations to increase efficiencies such as a shared EMS model, shared purchasing, shared management, future functional and operational consolidations and restructuring, to long-term area mergers.

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Consolidation, Merger, or Shared Services? What Would Best Suit the City of Alhambra and Neighboring Communities?

The "New Now" or "New Reality" is constantly touted throughout industry articles to describe the current paradigm local governments are facing. All levels of local government are being asked to do more with less due to the volatility of the economy. Property taxes and sales taxes have plummeted due in part by the mortgage meltdown and "Great Recession." With California Proposition 13, property tax revenue losses could take years to recuperate. The loss of redevelopment agencies further challenged the ability to revitalize communities to increase the sales tax base that help support governmental services. These revenue losses have challenged local government and forced the masses to incorporate a "do more with less" philosophy. Many will say this was a great necessity in a system of checks and balances to place more accountability on the public sector, forcing critical discussions on level of service, standards of cover, and community interaction on public sector expectations. Often these meetings lead to discussions regarding mergers, consolidations, and outsourcing of services.

Mergers, consolidations, and shared services discussions are not new to the area.

Previous studies suggesting mergers and consolidations for increased efficiencies and decreased costs have failed, been ignored, or morphed into outsourcing of individual services. Dr. Cliff Hadsell, retired Division Chief, San Marino Fire Department, conducted a study in 1992 as part of his master's thesis that magnified advantages and disadvantages of a Foothill Fire District that includedfive cities in Area C: Alhambra Fire Department, San Gabriel Fire Department, San Marino Fire Department, South Pasadena Fire Department, and Monterey Park Fire Department.

Monterey Park Fire Department, South Pasadena Fire Department, and Alhambra Fire Department have examined merging services with Los Angeles County and Los Angeles City

Fire Departments on multiple different occasions, and failed mostly due to loss of local control and long-term increased costs that surpassed expected future fire department costs(J. A. Ballard, personal communication, May 23, 2013). Recommendations by this author to form a Training Joint Powers Authority distributing training mandates, sharingtraining center costs, benefiting from revenue generation created at the training center, increasing efficiencies, and elimination of duplicated efforts has not come to full fruition to date (Cermak, 2009). Agreements to share training center costs have occurred between three of the four agencies studied in this applied research project. Additional progress will likely proceed as the relationships spawn and the process develops. A JPA for Disaster Management Area Coordination (DMAC) was formed in multiple areas throughout Los Angeles County including Area C. The Federal government required the JPA in order to apply and receive an emergency management preparedness grant for regional use (R. A. Mosack, personal communication, July 17, 2013).

All of the Area C agencies provide similar services at different sizes. Each has the same organizational needs that surround prevention, emergency medical services, community risk reduction, and fire suppression activities. Each have the same legal requirements to train their personnel meeting industry safety standards, public education and interventions address community risk reduction, fire prevention leadership supporting a robust community program to reduce suppression efforts in the long-term, logistical purchases to run and manage their infrastructure, OSHA safety requirements to maintain Injury Illness Prevention Programs, hazardous materials disclosure programs, and many more. Some have been addressed as a matter of necessity. An example is the outsourcing of dispatch services to the consolidated Verdugo Communications Center owned and operated by Glendale, Burbank, and Pasadena Fire Departments. All 11, Area C fire departments outsource dispatch services on a pay per call

format. Each receives a better product than offering it as a shared police dispatch program or as an independent fire dispatch program at close to the same cost as before changing to the outsourced service. The operational consolidation provided a higher level of service and accountability.

The regular and steady reduction of personnel and budgets have brought into question whether fire departments can continue to offer the same level of service while maintaining all of the programs and services, conforming to accepted standards identified by the local, county, state, and national organizations that guide the fire service. Battalion Chiefs regularly cover for each other amongst the five cities to allow for attendance to meetings and administrative assignments where both cannot be conducted simultaneously. The Alhambra Fire Department, San Gabriel Fire Department, San Marino Fire Department, South Pasadena Fire Department, and Monterey Park Fire Department are all questioning duplication of services, inefficiencies, and response models to address budgetary challenges. Each of the five cities assigns a battalion chief to training, EMS, disaster preparedness, safety, resource management, budget, and operations through dual assignment. In Alhambra, one battalion chief is responsible for grants, training, and resource management, another purchasing, maintenance, budget, records, and safety. The assistant chief is responsible as the Fire Marshal, operations, disaster preparedness, EMS, and professional standards. Each is also expected to respond, observe multi-company drills and visit stations on a regular basis. Most cities have lost their administrative chief officers to budgetary cuts causing the operational battalion chiefs to work in divisional assignments. Monrovia, San Gabriel, and San Marino have reclassified the positions as Division Chiefs. The five fire departments are geographically located within the south section of Region 1, Area C. A merger, shared services, or consolidation of services of some sort couldreduce

redundancies, enhance efficiencies, and increase services to the communities. The problem is that the Alhambra Fire Department and listed agencies all have immediate budgetary concerns that may be addressed by a merger, consolidation, or shared service to maintain local control, enhance efficiencies, limit duplication, increase services, and/or reduce costs. Continuing to ignore the need to address the issues will only jeopardize the safety of personnel and reduce the efficiency of each organization.

The purpose of this study is to define the types of mergers and consolidation that exist within the fire service and to determine the feasibility of consolidating wholly or partially with neighboring agencies for the purpose of increased efficiency, staffing, and the alleviation of administrative and operational redundancies. In the event the level of commitment a merger and consolidation do not appeal to the political groups, partial consolidations/shared services will be illustrated as an alternative measure. Descriptive research methods were used to answer the following questions: (a) What types of mergers and consolidations exist for fire departments? (b) What are the benefits of a consolidated fire department to the citizens of each city? (c) What are the disadvantages of consolidation for the communities and citizens addressed in the study? (d) What shared services would increase efficiencies, decrease duplication, and maintain costs?

Background & Significance

The City of Alhambra is a charter law city with a council/mayor form of government. The City of Alhambra is located in Los Angeles County, six miles from Los Angeles City Hall. The west border of Alhambra is adjacent to Los Angeles City, the east border is shared with the City of San Gabriel, the south border is shared with Monterey Park, and the north border is shared with South Pasadena and San Marino. The city was incorporated in 1903 and the fire department was formed in 1906. The city is 7.62 square miles with an estimated population of

85,804("Alh Profile," 2012, para. 1). The fire department is part of the Office of Emergency Services, Region 1; Area C. Area C is composed of 11 cities that include Alhambra, Arcadia, Burbank, Glendale, Monrovia, Monterey Park, Pasadena, San Gabriel, San Marino, Sierra Madre, and South Pasadena.

The Alhambra Fire Department has a long history of cuts to staffing in the fire department. In 1953, the Class 4 fire department staffed four engines, two rescue ambulances, and one truck with 58 suppression members, with nearly half the population (51,400) and fewer buildings ("Wiki, ALH," n.d., figure Historical). Today, the Alhambra Fire Department has 60 suppression personnel that staff four engines, one truck, two rescue ambulances, and one command vehicle. The fire chief, one fire prevention specialist, and four clerical assistants are the only administrative staff. The following positions have either been frozen, eliminated, or are currently vacant due to fiscal constraints: two Assistant Chiefs, one Training Chief, an EMS Captain, an Arson Captain, a Haz Mat/Prevention Captain, one Fire Mechanic, and a Fire Prevention Analyst. The department operates in a much more complex and robust environment than in 1953 when the department was staffed at similar levels. In 1955, a master mechanic was hired to address the fire apparatus fleet maintenance(AFD- History 2, n.d.). Currently, the fire mechanic has been eliminated with routine work being completed by city mechanics and specialty repairs outsourced to private industry. Report management and documentation is not handled efficiently as required by NFPA recommendations and department policy due to the cross-departmental service agreement and lack of direct control. None of the city mechanics maintain a fire apparatus certification causing many of the repairs to be outsourced or completed by uncertified technicians. In 1965, 95 members staffed four engines, two trucks, two rescue ambulances, managed by the fire chief, two assistant chiefs, one fire marshal, one training and

safety chief, and one alarms and communications chief (*AFD- History* 2, n.d.). With the lack of support personnel, administrative responsibilities shifted to suppression personnel, which resulted in a reduction in required organized training, inspections, and station and vehicle maintenance, and have created frustration amongst the workforce. The population has swelled from 51,400 in 1955 to over 85,000 in 2013. There is no additional land to build new occupancies with old buildings being replaced with newer, larger, and taller occupancies. The buildings are better protected by improved codes, however the population and number of emergency calls for service continue to increase. Couple this with people living longer, emergency medical service demands continue to impact response in a much more complex organization than 1955. A steady increase in call load correlates with the increased population. The fire prevention division suffers with only one person assigned. Even when two were assigned, all occupancy inspections were not completed as required, community risk reduction efforts could not be addressed, and only basic public education efforts were being conducted and pushed to the suppression fire companies.

Increasing efficiencies are tightening purse strings at all levels of government. California Proposition 13 was passed June 6, 1978("CA Prop 13," February 28, 2013, para. 1). This prompted what would be the first attempt at a merger in the Alhambra Fire Department. In the early 1980's, the City of Alhambra went out to bid for a merger with the Los Angeles County Fire Department. The citizens decided against the service contract that would have merged the Alhambra Fire Department with Los Angeles County Fire Department. In 1992, San Marino Firefighter/PM Hadsell completed a study on a merger of the five Area C Fire Departments that consisted of Alhambra, San Marino, South Pasadena, Monterey Park, and San Gabriel into a newly created Foothill Fire District. There were many compelling findings to substantiate the

merger of the five fire departments that never occurred. In 1996, the Alhambra Fire Department labor group solicited support from the community and placed an initiative on the ballot to receive a bid to merge services of the Alhambra Fire Department into the Los Angeles County Fire Department. Discussions about having Los Angeles City Fire Department and Rural Metro provide proposals as part of the process occurred as options(J. A. Ballard, personal communication, May 23, 2013). The voters defeated the ballot initiative to accept the request for service by a large margin with clear direction to maintain local control of fire and EMS services.

As communities continue to grow, revenues shrink, expenditures rise, and demand for specialized services increase; community leaders and politicians are forced to ask for alternatives to address service levels under economies of scale. The City of South Pasadena has requested proposals for operational consolidations and requested proposals for functional consolidations for management services from the City of Alhambra, Pasadena, County of Los Angeles, and City of Los Angeles. Political barriers between Alhambra, South Pasadena, and Pasadena fused to the extension of the 710 freeway are an example of roadblocks that can and do prevent sensible consolidations. Legal fees to battle the freeway extension are contributing to reductions in public safety service levels within each community. The City of Monterey Park submitted a referendum for the voters to approve a bid to merge fire services to the Los Angeles County Fire Department in July2013. It was again defeated by a significant margin, illustrating the direction of the community. Discussion prior to the referendum and in anticipation of its failure included both functional and operational consolidations and shared services with the surrounding agencies. The City of San Gabriel Fire Department has been asked to look at alternatives to reduce the fire department budget that include service cuts, partial consolidations/shared services, functional and operational consolidations, and mergers. The City of Alhambra has not requested proposals

for a merger since the labor groupcampaigned to force a merge with Los Angeles County Fire Department. In the past, the City of Alhambra leaders have always strived to maintain local control of the fire department as demonstrated by the voters in past referendums.

The City of Alhambra Fire Department has experienced multiple cuts to the support staff that challenge different elements of the operation of the department. The department is at 1955 staffing levels. Each of the local fire departments are tasked with the same support requirements in the administration of a full service fire department that include fire suppression, fire prevention, management of personnel and issues surrounding personnel, public education, community risk reduction, training, disaster preparedness, safety, emergency medical services, hazardous materials disclosure, and logistical support for maintenance, repair, and ongoing purchasing of uniforms, equipment, and supplies. The City of Alhambra has been under a constant state of redevelopment for the past 20 years. The city management has done an excellent job of revitalizing the city and bringing businesses that provide a strong tax base for a progressive community. The fire prevention section is smaller now than any time in the past, jeopardizing community services provided for businesses coming into the city. Because of consistent elimination of administrative staff, an administrative element is divided and assigned to each chief officer in the fire departments. Each fire department assigns similar administrative functions to the chief officers. One station, South Pasadena Fire Department has the same requirements and mandatesas four station, Alhambra Fire Department. They have the same venders and contacts as Alhambra Fire Department and require similar time commitments to research and order for five people as it does for twenty people. Training mandates are the same for each agency with two to five separate responsible parties handling the administrative aspect of scheduling, planning, and executing the same mandates. Often agencies train together to meet ISO requirements to enhance responses through mutual aid training. Jensen and Snook write, "Because of their limited resources, small organizations are having difficulty meeting state and federal mandates" (Jensen & Snook, 2000, para. 7). Technological solutions are helping to meet different aspects of program delivery and documentation that has helped to bridge some of this pressure. For instance, Target Solutions, an online training records and management system, has assisted in meeting training mandates that were either not completed in the past or had to be developed by each individual agency in duplication. Target Solutions has partnered with NFPA to develop and deliver certified training for fire and EMS meeting industry mandates. Tablet solutions are assisting with electronic reporting and technological advances that help reduce duplicitous inputting of data, increase collection of funds, and better data management to help risk reduction in the future.

Defined terminology, benefits, and concerns about mergers, consolidation, and partial consolidations/shared services will clearly delineate and explain options available to the five cities examined. Partial consolidations/shared services are also an option when mergers will not work or are used to build toward mergers and test the process. Many shared services already exist through Unified Response policies and mutual aid agreements as well as fee based agreements. Examples include shared resources for truck company service for the Cities of South Pasadena, San Gabriel, and San Marino at no cost, and fee based resources like Verdugo Communications for shared dispatch and the training center use agreements between Alhambra, San Marino, Monterey Park, and San Gabriel.

Different opportunities and challenges will continue to arise that may be answered by a merger, consolidation, or shared service. The United States Fire Administrator Kelvin Cochran shared one of the most pressing opportunities in the fire service:

Fire-based EMS is going to be a significant opportunity for us given the healthcare environment in which the country finds itself. In the future, fire-based EMS effectively will reduce the workload on hospitals and clinics, and that will strengthen the relationship between the fire service and a plethora of medical care institutions on the local level. It also will save the lives of many Americans.(Cochran, 2010, para. 17)

Three years ago, President Obama signed the Patient Protection and Affordability Care Act (PPACA) that has and will influence fire departments to change their deployment models to address the eminent changes to healthcare systems across the country (Clark, 2013). Glendale (CA) Fire Department has progressively addressed this opportunity by reorganizing their fire-based EMS more efficiently, reducing expenses, maintaining local control, and preparing for future revenues to be captured and maintained in the public sector (Belknap, 2011). Proactive actions to address efficiencies will curb the time necessary to move forward as PPACA gains traction. Community based paramedicine, fire department clinics, and healthcare aftercare will be more easily transitioned with the appropriate providers and resources in place.

Mergers, consolidations, and partial consolidations/shared service agreements will provide communities the opportunity to strengthen response, redistribute resources- both personnel and equipment, address more modern response models, eliminate redundant administrative functions, and increase efficiencies. Glendale (CA) Fire Department was able to reduce their expenditures, increase efficiencies, and prepare for future probabilities by reorganizing and establishing a different response model. The following tables illustrate and provide background and significance to the staffing of the five cities compared to Glendale (CA) Fire Department, a similar sized and populated city as the five combined cities:

Table 1 illustrates the five fire departments staffing levels. It should be noted that Glendale has an entire Environmental Protection section under the Fire Marshal, however they still have a much more prolific prevention and public education division to address community risk reduction than the five cities combined.

TABLE 1:	PERSONNEL									
CITY	FIRE CHIEF	40 HOUR CHIEFS	SHIFT BCS	CAPTAINS	ENGINEERS	FF-FF/PMS	TOTAL SHIFT PERSONNEL	FIRE PROTECTION SPECIALISTS	DEPUTY FIRE MARSHAL	
ALHAMBRA	1	0	3	15	15	27	60	1		1
MONTEREY PARK	1	0	3	12	12	24	51	3		0
SAN GABRIEL	1	0	3	6	6	12	27	0		1
SOUTH PASADENA	1PT	0	3	3	6	9	24	0	1PT	
SAN MARINO	1	2	0	3	3	9	15	0		0
TOTALS	5	2	12	39	42	81	177	4		3
GLENDALE	1	3	3	39	37	96	179	13		0

Table 2 illustrates the five fire departments and the number of incidents, size, and population (Verdugo Fire Communications [VFC 2011/2012], 2012, p. 3,9). Budget information for Alhambra ("ALH BUDGET," 2012, p. 9); Monterey Park ("MPK Budget," 2012, p. M1); San Gabriel ("SGB Budget," 2012, p. 107); South Pasadena ("SPS Budget," 2012, p. 119); San Marino ("SMS Budget," 2012, p. 42); Glendale ("GLN Budget," 2012, p. G4).

TABLE 2: INCIDENTS PER CITY/ POPULATION/FD BUDGET									
CITY	TOTAL CALLS	FIRES	EMS	SERVICE	AUTO/MUTUAL AID	SQUARE MILES	BUDGET	NOITAJUAOA	
ALHAMBRA	4849	515	3988	346	736	7.62	14,421,068	83,661	
MONTEREY PARK	3447	370	2899	178	606	7.7	11,076,679	61,153	
SAN GABRIEL	2153	286	1739	128	389	4.1	6,323,629	39,926	
SOUTH PASADENA	1659	275	1242	142	420	3.44	4,125,366	25,725	
SAN MARINO	825	206	532	87	594	3.75	4,533,437	13,195	
TOTALS	12933	1652	10400	881	2745	26.61	40,480,179	223,660	
GLENDALE	15789	1476	13610	703	802	30.59	37,756,102	192,654	

Table 3 catalogs the vehicles and number of fire stations serving the listed communities.

TABLE 3:	EQUIPMENT/STATIONS								
CITY	FIRE STATIONS	ENGINES	TRUCK	RESCUE AMBULANCES	STAFFED COMMAND VEHICLE	STAFFED AIR/LIGHT			
ALHAMBRA	4	4	1	2	1	0			
MONTEREY PARK	3	3	1	2	1	0			
SAN GABRIEL	2	2	0	1	1	0			
SOUTH PASADENA	1	1	0	1	1	1			
SAN MARINO	1	1	0	1	0	0			
TOTALS	11	11	2	7	4	1			
GLENDALE	9	9	3	6	1	0			

This research correlates to Goal 2- Improve local planning and preparedness, of the United States Fire Administration's (USFA) strategic initiatives by enhancing the fire and emergency services' performance in response to all hazards (Federal Emergency Management Agency [FEMA], 2010, p. 19). This research also applies to the National Fire Academy's Executive Fire Officer Executive Leadership course Unit 7: Politics and Public Policy, Enabling

Objective 1- Identify the relevance of factional interests to the formation of public policy and Objective 3- Evaluate the interests of different factions to determine their influence on achieving desired outcomes (Federal Emergency Management Agency [FEMA], 2010, p. SM 7-1). This Applied Research Project also applies to the United States Fire Administration Operational Objectives: #5. To respond appropriately in a timely manner to emerging issues (Federal Emergency Management Administration [FEMA], 2006, p. 3)Mergers, consolidation, and shared services can both enhance and detract from response capabilities. These decisions are extremely political, affect response and program performance efficiencies, and preparedness to all hazard emergencies with many factional interests involved in the public policy decisions necessary for mergers, consolidations, and shared services.

Literature Review

On a regular basis, Western Fire Chief's Association, California Daily Dispatch, highlightnewspaper articles on mergers and consolidation across the nation. In 1990, an estimated 20-30 consolidations occurred nationwide, with nearly 500 in the year 2000 (Jensen & Snook, 2000). In 1990, Chief Steve Merger wrote, "The combined effect of increasing requirements and decreasing resources is forcing fire service managers to do more for less" (Merger, 1990, p. 28-30). The budget and economy continue to challenge fire service leaders across the country. Jack Snook (2013), Fire Chief (ret.) and co-owner Emergency Services Consulting International, theorizes that the economy is improving, however the fire service will experience a new reality that will never return to what it used to be. Understanding and working within the "New Reality" requires a keen knowledge of expenditures and revenues, clear community expectations on the standard of cover, and plans that include options and details to address different challenges and opportunities. Mergers, consolidations, collaboration, and

shared services are here to stay and part of the "New Reality." Snook quotes Chief Coleman, California State Fire Marshal (ret.), in 2000, "There are approximately 950 fire departments in the State of California, and if the current rate of consolidations continues, by the year 2015 there could potentially be less than 250 fire departments" (Jensen & Snook, 2000, para. 5).

In order to dive deeper into the "New Reality" in doing more with less, key terminology should be defined to insure clear understanding of the study. What begins as collaboration and cooperation, often leads to more comprehensive consolidations and mergers. Johnson and Snook (1997) define three types of consolidation, partial, functional, and operational, and most complex as a merger. A partial consolidation or shared service is when a fire department remains legally separate, but a special group is formed to handle specific functions. A functional consolidation allows for independence, but one or more duties normally performed by each department are joined together and carried out as one organization under a more formal agreement. Joint Powers Authorities (JPA) can be an example of such functional or operational consolidations. Santa Fe Springs Fire Department and Downey Fire Department attempted and failed to combine all chief officers into a fire management team using a JPA in the late 1980's that would have reduced costs and redundancies (Campbell, 1994). Finally, an operational consolidation occurs when two or more departments join together operationally or administratively to form one organization, but remain legally separate (Snook & Johnson, 1997, p. 17). A merger occurs when two or more entities legally resolve to become one entirely new entity (Snook & Johnson, 1997, p. 19). The current referendum to the voters to merge Monterey Park Fire Department into Los Angeles County Fire Department would be an example of a merger.

Pioneering Central Arizona in 1993, Central Yavapai Fire District and Prescott Fire Department started with the most elementary, easily reversible, and safe process of sharing

services by utilizing a common fire training officer to coordinate and track training, regionalizing communications, joint fleet maintenance, and unified responses through automatic aid (Vasquez, 1998). Why Consolidate? Why Not? Campbell (1994) highlights the following areas as reasons communities benefit from consolidations, mergers, collaboration, or shared services:

- Increase service levels to citizens
- Improved use of resources
- Flexibility of staff
- Dollar savings
- Stronger internal programs
- Overcome political boundary issues ensuring closest unit responds quicker
- To reduce redundancies in apparatus, stations, personnel, and equipment
- Lower apparatus replacement costs
- Increase Insurance Services Office (ISO) ratings
- Can result in a new organization that places more resources on the fireground
- Combined, hiring, testing, and training of new and promoted employees

Advantages were not limited to the organization, but also extended to the personnel. In 1992, Dr. Cliff Hadsell completed the predecessor study titled, "An Analysis of the Feasibility of Consolidating Five San Gabriel Fire Departments: Alhambra, San Gabriel, San Marino, South Pasadena, and Monterey Park." In the 1992 study, the findings demonstrated the advantages to a consolidation of the five cities to be as follows (Hadsell, 1992):

- Increased fire protection
- Greater diversity in specialized program and equipment capabilities
- Increased long-term efficiencies

- A reduction in overall station coverage by two stations
- A common communication infrastructure
- Central purchasing
- Central maintenance and fleet management program

Several issues have been addressed since 1992 through outsourcing/quasi shared services and evolution. For instance, the transition of all 11 cities in Area C to Verdugo Communications as an outsourced/operational consolidation handling all operational control of dispatch of units has increased efficiencies, reduced redundancies, enhanced response times for larger fire force responses with seamless automatic aid, and common communications infrastructure. Grants have allowed for an expanded Urban Search and Rescue level of service, more prolific community based public safety with Citizen's Corps and CERT programs, better training for all governmental personnel that may be charged with mitigating a large calamity to a local disaster, tools and equipment to address terrorism, and technological advances to assist in incident management of large scale incidents.

In a personal interview with Dr. Hadsell, he listed some of the employee advantages that the affected personnel had experienced during his employment while Westminster Fire Department merged with the Orange County Fire Authority (C. Hadsell, personal communication, April 23, 2013):

- Greater opportunities for employees to promote
- More diversity in job assignments for employees
- Larger coverage area allowed personnel to live closer to work

Beyerstedt, Fire Chief, Gulfport, Mississippi, conducted questionnaires from fire service leaders that indicated that chief advantages included possible reduction of service duplications,

increased purchasing power, reduction in maintenance costs, reduced numbers of required reserve vehicles, and a reduction of administrative staff when merging three small departments into one larger department (Beyerstedt, n.d.).

Robert Rielage, in Collaboration or Consolidation?, highlights reasons why consolidations and mergers may not work or fail for communities and collaboration may work (Rielage, 2010):

- Politics
- Failure to navigate funding methods, service levels, response time expectations, and the determination of representation on the districts governing board
- Fear of the unknown
- Officers, firefighters and clerical staff may fear negative impact or loss of jobs
- Poor communications

Dr. Hadsell (1992) found disadvantages as follows (Hadsell, 1992):

- Local autonomy
- Local control
- Legal authority
- Integration of the Fire Chief

Hadsell (1992) found that the integration of a single fire chief was especially challenging since four other positions would be lost or demoted to lower positions, losing their kingdoms with possible pay reductions. Walker (2013) stated that the primary reason for haulted consolidation/merger conversations between Fountain Valley (CA) and Huntington Beach (CA) was the unwillingness of community leaders to relinquish any local control and the feeling of loss of local autonomy.

In a personal interview with Dr. Hadsell (2013), he listed some of the disadvantages that he had experienced during his employment while Westminster Fire Department merged with the Orange County Fire Authority (C. Hadsell, personal communication, April 23, 2013):

- Pay, rank, and benefit reductions
- Home rule- loss of control and local autonomy
- Higher than expected contract increases

A JPA between West Covina Fire Department and Covina Fire Department in 1986 to provide an expanded and more cost-effective fire protection failed after two years plagued by labor problems and a decrease in level of service to one of the two agencies (" W Covina," 1988).

The Great Recession has challenged the economy, placing emphasis on government services. Chief Ron Colemanshares, "If revenues are declining faster than expenditures are increasing, then you need to be looking at the economics of your community and not just what it is going to mean to you and your staff or your budget" (Coleman, 2012). This raises the issue of a standard of cover and community expectations. What risk does the community have and, what risk is the community willing to take? The fire service is just that, a service. What level of service does the community want from the fire department and, to a deeper dive, the city? Furthermore, does the community have the financial resources and what can they afford? Coleman recommends asking whether the entity can afford the services theyprovide(Coleman, 2012). Kelvin Cochran, U.S. Fire Administrator (ret.), explains:

Based on the economic drivers we are facing, the fire service at local levels will have to evaluate whether a community or fire department has the resources and capabilities to respond to such risks. If they do not, there are several strategies to remedy this, such as more formal automatic-aid or increased mutual-aid agreements, regional agreements

related to special operation services, and the consolidation of smaller departments into larger departments. (Cochran, 2010, para. 3)

The five cities examined within this research all are part of a Unified Response system in Area C. Automatic-aid and mutual-aid are practiced automatically through a seamless, combined dispatch. Johnson and Snook write that this type of agreement is often a precursor to a more permanent cooperative agreement (Snook & Johnson, 1997). It is crucial that viable and competent modern fire chiefs ask these critical questions and look for cost effective, fiscally responsible, solutions to address the service expectations of the community. Jensen and Snook advise, "In situations were local control remains a key objective, providers have identified specific areas where cooperation makes sense without sacrificing the ability to set service levels and conduct long-term planning" (Jensen & Snook, 2000, p. 2).

In reality, successful consolidations and collaborations have been cultivating for many years. Mutual-aid agreements were established to assist with leveraging resources as force multipliers on large incidents improving service coverage of multiple jurisdictions within a geographical area. Further, automatic-aid agreements, such as the "Unified Response" in Area C, have further ventured towards dropping jurisdictional boundaries to address closest availability for the best event outcome. A Joint Powers Authority (JPA) was formed between Seal Beach, Fountain Valley, Westminster, and Huntington Beach Fire Departments for a centralized communication center that led to a joint powers authority for training and one of the nation's first Computer Aided Dispatch Systems and automatic-aid programs ("HBFD," 2013).

The development of a large county fire department was often developed due to necessity to manage fire services in unincorporated areas of political entities. These often grew into large entities that provided contract options to incorporated areas for fire and EMS protection and

services. Alameda County Fire Department was formed initially by Castro Valley Fire Protection District, Eden Consolidated Fire Protection District, and the County Fire Patrol on July 1, 1993, as the Alameda County Fire Department, followed by City of San Leandro July 1, 1995, City of Dublin July 1, 1997, Lawrence Berkeley National Laboratory August 1, 2002, Lawrence Livermore National Laboratory October 1, 2007, the City of Newark May 1, 2010, and the City of Union City on July 1, 2010(http://www.co.alameda.ca.us/fire/). Alameda County Fire Chief Sheldon Gilbert recognized a reduction of redundant services, increased service delivery coordination, increased cooperation and service levels, and realization of economies of scale after the full merge of fire services (Gilbert, 2003, p. 9). Alameda County Fire Department markets regional fire service benefits on their webpage as(http://www.co.alameda.ca.us/fire/):

- Increased depth of services
- Decreased costs to the economies of scale
- Access to specialty services that jurisdictions cannot maintain on their own (Type 1 Heavy Rescue, Type 1 Hazardous Materials)
- Benefits of a regional provider with an identity and involvement of your local fire department

Los Angeles County Fire Department has a long history of merging with area independent cities contracting for fire and emergency medical services. In 1920, Los Angeles County Forestry Department was tasked with managing the Los Angeles County Fire Department. By 1925, 30 Fire Protection Districts were formed allowing small towns in unincorporated territory to pay for fire protection. By 1952,the department had expanded to 80 fire stations and over 1000 uniformed personnel (http://fire.lacounty.gov/history/History.asp). Today, the Los Angeles County Fire Department has expanded to over 3,000 uniformed

personnel. Fifty-seven cities contract for fire services with the County of Los Angeles Fire

Department as of 2004 ("LACoFD Pre Mgmt Plan," 2004). Often communities choose to

evaluate the option of contracting services as a cost savings measure to taxpayers. Recently, the

City of Monterey Park evaluated, presented the option to contract for services with the Los

Angeles County Fire Department, the community voted, and the referendum was dismissed by a

large margin. Per Monterey Park Municipal Code, a report from an independent auditor was

required to establish the study that recommended the transition to Los Angeles County Fire

Department. The ESCI study identified and recommended:

"The most compelling reason ESCI recommends transition to the LACFD system is financially based. The positive economic impact and potential cost savings to the City (over a five-year period) of \$10,158,461 to \$12,567,520 dollars, including required LACFD one-time conversion costs through 2017, will have a positive effect on the city Budget" (Emergency Services Consulting International [ESCI], 2012, p. 10).

The Monterey Park referendum was not accepted after the July 2, 2013 vote. Community leaders and voters are often concerned about loss of local control as it relates to the employees that are contracted through Los Angeles County Fire Department. In the City of Pomona, a LACoFD contract city, a new labor agreement increased the cost of services by 2% plus retirement and Worker's Compensation insurance to the City in the amount of \$635,700 during a difficult economic period for the city fiscal year 2013/2014(Rodriquez, 2013). The city leaders have minimal, if any, local control over the raises and periods in which raises are granted as a contract city, affecting other departments adversely at inopportune times.

Shared services or partial consolidations can often increase efficiencies, decrease duplication, and maintain costs through non-invasive sharing resources or consolidating programs. Emergency Medical Services (EMS) continues to emerge as a growing opportunity to

the fire service. The United States Fire Administration opines that EMS is a major role of the fire service, and is increasing in sophistication and scope (Federal Emergency Management Agency, n.d., p. 1.1). Snook and Jensen (2000) concluded that jurisdictional areas often dictate responses from fire departments, however ambulance service areas are not governed by the same boundaries and lend to better business agreements with HMOs and hospitals (Jensen & Snook, 2000). Fire service EMS innovations, like the programs Westminster, Huntington Beach, and Glendale (CA) Fire Departments practice, could be a combined shared service or JPA within an entire area, increasing efficiencies and service levels to citizens of communities while maintaining the revenue accrued through the process, maintaining local control, and revenues. This would maintain provisions granted through the California Health and Safety Code 1797.201 and 1797.224 while maintaining local control of EMS services. Through the Los Angeles County merger study for Monterey Park Fire Department, it was illustrated in a presentation to council and citizens that the EMS program is cost negative \$698,129 (City of Monterey Park Fire Department [MPKFD], 2013, p. 24). They operate fire department paramedic staffed transportation ambulances. Glendale (CA) Fire Department changed from the same model as Monterey Park Fire Department and all other Region 1 Area C cities to an EMT ambulance operator program. This program transitioned them from a \$2.5 million cost negative program modified to a \$23,157 revenue generating paramedic program (Belknap, 2011, p. 20). Table 2 illustrates that the five cities examined are similar sized when combined as the City of Glendale. Their populations are similar, calls for service are similar, and the demographics and personnel are similar. Tables 1 and 3 illustrate that the number of stations and equipment are similar to examine comparisons for shared services, mergers, and consolidation opportunities. Similar savings, with a JPA within the five cities, based on the information and correlation to Glendale

(CA) is ascertainable. The City of Westminster maintained control of their EMS transportation program by excluding it from the contract for services with Orange County Fire Authority to maintain the revenue generation for the city (C. Hadsell, personal communication, April 23, 2013). Jensen and Snook (2000) illustrated two departments, Marin County Fire Department, California and Kootenai County, Idaho, maintained a separate EMS delivery system that traveled the entire area governed by a Joint Powers Authority Agreement. EMS being 75-90% of fire service call volume, it is easy to correlate the message from the United States Fire Administration. Long Beach (CA) Fire Department recently changed to a "rapid medic deployment" model that places one paramedic in each responding unit, eliminating the current system of two paramedics on each ambulance with expected savings of \$1.8 million(Valenzuela, 2013). Clark (2013) shares the opportunities and threats presented by PPACA and the impacts and expectations of fire-based EMS to provide community based paramedicine, fire department clinics, healthcare aftercare, and transportation management are significant and should be at the forefront of the planning process. Chief Al Gillespie, IAFC President and North Las Vegas Fire Department, advocates:

"We must always search for ways to improve services through innovation, cost-sharing and consolidation of resources. But in order to be truly effective at this, we also need to improve how we keep the public informed regarding the return we provide on the funding they invest. If we truly open their eyes to how we use public monies, we may be able to get them to see the right principles as well" (Gillespie, 2012, p. 2).

PPACA will provide both threats and opportunities to fire-based EMS with the all-encompassing healthcare overhaul. This will provide a major opportunity for fire-based EMS providers if fire service leaders follow-up with a comprehensive overhaul maximizing the benefits of the

strengths and minimizing the negative impacts to the organization and the community (Clark, 2013). Assembly Bill 678 (Chapter 397, Statutes 0f 2011) and PPACA legislated, beginning fiscal year 2013-2014 and beyond, the federal government will cover 50% of the cost to local governmental only fire-based EMS agencies for providing paramedic services, ground emergency medical transport, and suppression costs associated with having paramedics aboard fire engines each time they are deployed without cap on the amount (League of California Cities, 2013, p. 1). Many fire departments are reorganizing early to prepare for the opportunities forward.

Merging management services with smaller agencies can combine duplicitous operations that each are required to perform and increase the efficiencies by those participating. El Cajon, La Mesa, and Lemon Grove entered into a joint exercise of powers agreement for management and delivery of fire protection and emergency medical services. All stakeholders worked together to reorganize how the three cities would operate under this shared management team known as "Heartland Fire & Rescue." The team includes one fire chief, three deputy chiefs, two division chiefs, five battalion chiefs, fire prevention resources, and eight support staff to save \$560,000 annually for the three cities ("Three City," n.d.). The population closely reflects the community of Glendale (CA) with a population of 183,000 and a call volume of 20,000 calls for service per year ("Three City," n.d.). The same type of merger was attempted but failed between Santa Fe Springs and Downey (CA), largely due to lack of stakeholder input and participation (Campbell, 1994). Merging management services can reduce redundancies and increase efficiencies within economies of scale if modeled correctly.

Procedures

This applied research project employed a descriptive research methodology to answer the questions by utilizing inductive logic to place the resulting data into a theoretical context. Historical research was conducted through literature review, a questionnaire to fire chiefs, city managers, council members, and mayors, individual historical recollections in utilizing personal interviews, and personal experience. As part of this applied research project, it also included review of fire service periodicals, historical fire department documents, and other published fire service documents relating to this subject matter to identify types of mergers, consolidations, and sharedservices between five fire departments that could increase efficiencies, decrease duplication, and maintain costs of providing top level services to all of the communities.

Industry experts were identified and interviewed based on past experiences with mergers, consolidations, accepted published research, and historical knowledge of the listed experiences. Dr. Cliff Hadsell was interviewed and selected due to his past history working with Westminster Fire Department during the merger with Orange County Fire Authority and his past research at California State University, Long Beach. Retired Fire Chief James A. Ballard was interviewed as the retired Fire Chief of the Alhambra Fire Department that presided during the second Los Angeles County Fire Department merger attempt and a Chief Officer during the first Los Angeles County Fire Department merger attempt. Fire Chief Bill Walker shared knowledge during discussions of the Brea/Fullerton consolidation and Fountain Valley/Huntington Beach discussions while Fire Chief for the Fountain Valley Fire Department. Assistant Chief Raymond A. Mosack was interviewed as the Past President of the Disaster Management Area Coordinator, assisting with the creation of the JPA for Disaster Management Coordination.

Assumptions

The procedures utilized to conduct the research, maintain several assumptions. It is assumed that the authors cited in the Literature Review used an accepted research methodology to gather and utilize the information in an unbiased manner. The second assumption is that those people answering the questionnaire are qualified to answer the question for their respective organizations. The final assumption is that the number of respondents provided for an adequate sampling for a qualitative analysis.

Literature Review

A comprehensive literature review was conducted. The review began in the National Fire Academy's, National Emergency Training Center, Learning Research Center, in Emmitsburg, Maryland from 2008, in the Executive Development course, with this author's training shared service applied research project until 2012. The objective of the literature review was to gather information contained in professional journals, previous fire service associate's Applied Research Projects, and professional manuals and articles. A literature review and a personal interview regarding the 1992 Master's Thesis, "An Analysis of the Feasibility of Consolidating Five San Gabriel Fire Departments: Alhambra, San Gabriel, San Marino, South Pasadena, and Monterey Park" with the predecessor author, Dr. Cliff Hadsell was conducted on April 23, 2013, to evaluate the findings of his research and progress since 1992.

Questionnaire

A questionnaire was utilized to query similar sized department and or related departments as to the ideas and political views on mergers, consolidations, and shared services. The same questionnaire sample was expanded to include fire chiefs in the United States that had experience with mergers, consolidations, and shared services. Appendix B contains the data results returned

from the questionnaire. The questionnaire was distributed through a commercial survey website via invitation on May 23, 2013, to selected local department fire chiefs, city managers, council members and mayors. It was expanded on June 24, 2013, to International Association of Fire Chief's, via email invitation on IAFC Knowledge Net.

Limitations

The questionnaire was originally limited to the local city managers, city councils/mayors, and fire chiefs as well as other regionally similar agencies that are having the same dilemmas, challenges, and opportunities. Two out of ten city managers, two out of fifty council members, six out of ten fire chiefs responded to the questionnaires sent out and left open for the 60 day period. Input from council members, city managers, and mayors was minimal and most likely associated with political ramifications or implications associated with the questionnaire. Due to the low response of local entities, the questionnaire was opened up to Chief Officers through the International Association Fire Chief's Knowledge Net where a total of 60 additional responses were gathered from fire chiefs across the nation that have experienced a merger, consolidation, or utilized some sort of shared service.

Results

1. What types of mergers and consolidations exist for fire departments?

In order to identify the types of mergers and consolidations that exist for fire departments, a clear definition had to be established. The literature review revealed several different variations of definitions for mergers and consolidations. Often, one author would call a consolidation a merger and interchange the terms. All were similar, however for the uniformity of this paper, Snook, J. W., & Johnson, J. D. (1997) definitions were utilized: Partial Consolidation/Shared service- when a fire department remains legally separate, but a special

group is formed to handle specific functions; Functional Consolidation- allows for independence, but one or more duties normally performed by each department are joined together and carried out as one organization; Operational Consolidation- occurs when two or more departments join together operationally or administratively to form one organization, but remain legally separate; Merger- occurs when two or more entities legally resolve to become one entirely new entity.

A common theme throughout the literature review and questionnaire was that partial consolidations and shared services were often a precursor to functional and operational consolidations and eventually mergers (Snook & Johnson, 1997). Examples of shared services/partial consolidations reviewed during the literature review include but are not limited to:

- Rescue ambulance transportation utilizing ambulance operator- maintained local control
 reorganizing with EMT transport and replacing more costly paramedics onto the fire
 apparatus. This process increased efficiencies, revenues, and services within economies
 of scale (C. Hadsell, personal communication, April 23, 2013).
 - Westminster Fire Department- maintained ambulance operator program after merging with Orange County Fire Authority(C. Hadsell, personal communication, April 23, 2013).
 - o Anaheim Fire Department- Care Ambulance contract (Belknap, 2011, p. 6).
 - O Huntington Beach Fire Department- maintains a city managed ambulance operator program (Belknap, 2011, p. 6).
 - Glendale (CA) Fire Department- maintains a city managed ambulance operator program (Belknap, 2011, p. 6).

- Santa Monica Fire Department- Gerber Ambulance contract (Belknap, 2011, p.6).
- O Phoenix Fire Department- maintains a city managed ambulance operator program (Belknap, 2011, p. 6).
- La Habra Fire Department- maintained ambulance operator program after merging with Los Angeles County Fire Department.
- Urban Search and Rescue teams for regional responses- grant funded
 - o San Gabriel Fire Department
 - o Monterey Park Fire Department
 - Alhambra Fire Department
 - Pasadena Fire Department
 - o Arcadia Fire Department
 - Monrovia Fire Department
 - o Glendale Fire Department
 - Santa Fe Springs Fire Department
 - Vernon Fire Department
 - o Downey Fire Department
 - Compton Fire Department
 - Long Beach Fire Department
- Truck company operations- Unified Response Agreement: no cost to listed agencies
 - o San Marino Fire Department
 - San Gabriel Fire Department
 - South Pasadena Fire Department

- Community Emergency Response Teams- organized through the Disaster Management
 JPA (grant funded)
 - o Region 1Disaster Management Areas within Los Angeles County
- Unified Response- agreement entered into when signing Verdugo Communicationsoperational consolidation- shared service for Pasadena, Glendale, and Burbank Fire Departments; contract service for nine other cities.
 - o Region 1 Area C cities

Examples of functional consolidations reviewed during the literature review include but are not limited to:

- Disaster Management JPA to address a regional grant and approach to disaster
 preparedness. Allowed for funds to hire a consultant to manage disaster services, attend
 meetings, represent the area, and disseminate information to subscribing agencies.
 - o Region 1 Area C cities
- Training center use agreements and JPAs
 - o Alhambra, San Marino, Monterey Park, and San Gabriel
 - o Huntington Beach, Seal Beach, Fountain Valley, Costa Mesa
 - o Fullerton, Anaheim, Brea, Garden Grove
- Fire Management Consortiums- Brea/Fullerton utilizes an operational consolidation to
 address fire management services under an agreement that has been successful to date
 both operationally and administratively (B. Walker, personal communication, May 17,
 2013). A similar such functional consolidation where battalion chiefs were combined to
 manage response to calls, but maintained administrative autonomy, was attempted and

failed due to labor issues surrounding the attempt between Santa Fe Springs and Downey Fire Department management groups(Campbell, 1994).

- Training Program Manager- unified area training
 - o Central Yavapai and Prescott
- Communications, Computer Aided Dispatch, and Training
- Examples of operational consolidations reviewed during the literature review include but are not limited to:

Seal Beach, Fountain Valley, Westminster, and Huntington Beach

- Verdugo Communications- Unified dispatch and reduced time in dispatch services for proper response resources. Manages response policies and resources to increase efficiency and service levels to the communities.
 - o Region 1 Area C cities and Montebello who is part of Area E
- Brea/Fullerton Management Consortium- combined services to administer all fire
 management functions, including response, reducing duplication of personnel and efforts
 while maintaining economies of scale(B. Walker, personal communication, May 17,
 2013).

Examples of mergers reviewed during the literature review include but are not limited to:

- Orange County Fire Authority and Westminster Fire Department merged although
 Westminster Fire Department maintained their local control of the profitable ambulance
 transportation service (C. Hadsell, personal communication, April 23, 2013).
- Los Angeles County Fire Department and La Habra Fire Department (in Orange County)
 merged although the City of La Habra maintained control of the ambulance services (C.
 Hadsell, personal communication, April 23, 2013).

- Alameda County Fire Department formed in 1993, by merging Castro Valley Fire Department, Eden Consolidated Fire District, and the County Fire Patrol. The following agencies followed suit in merging with Alameda County Fire Department. In 1995, San Leandro Fire Department merged; in 1997, Dublin Fire Department merged; In 2002, Lawrence Berkeley National Laboratory Fire Services merged; In 2007, Lawrence Livermore Laboratory Fire Services merged; in 2010, Newark Fire Department and Union City Fire Department merged.
 - 2. What are the benefits of a consolidated fire department to the citizens of each city?

The literature review and questionnaire comments illuminated glaring similarities in other studies and actual mergers and consolidations relating to the benefits of a merged/consolidated fire department. The benefits will eventually transcend to the citizen by either service or fiscal acuity and responsibility within an economy of scale. Different authors articulated the benefits using different verbiage, however common themes included increased service levels to the citizens, improved resource use/allocation, dollar savings through the reduction of redundancies and combined processes, staff flexibility, stronger internal programs, and more resources distributed equitably.

In Appendix B- City Manager/Council/Fire Chief Questionnaire, in question 8, 58 out of 68 respondents (85.3%) felt there was a clear benefit to a merger within the fire service. Only two respondents felt that there was no benefit to a merger, while eight respondents felt there was some benefit to a full merger. In question 9, relating to consolidations, 58/69 respondents opined there was a benefit to a partial consolidation, 56/68 believed there was a benefit to functional

consolidation, 57/68 felt that there was a benefit to operational consolidations. In question 10, 69 out of 70 respondents thought there was benefit to shared services.

Several comments from the questionnaire illuminated the benefit of a shared service to test the possibilities of a functional or an operational consolidation cultivating into a full merger while maintaining organizational identity. They felt that it was a great way to test the process, yet be able to collapse the relationship fairly easily without a huge commitment. Interestingly, another felt that this was a disadvantage since the entity didn't have to commit to the change.

Efficiencies and financial advantages were common themes upon respondents of the questionnaire. Cost was a major benefit, only second to the improvement of community services. Multiple people eluded to the fact that it was a stepping stone to a full merger. 85% of the respondents felt that a merger was beneficial; 85% of the respondents believed that partial, functional, and operational consolidations were beneficial; and 98% of the respondents opined that where the more formal and legal consolidations wouldn't work, a shared service would work.

3. What are the disadvantages of consolidation for the communities and citizens addressed in the study?

The literature review demonstrated similarities in other studies and actual mergers and consolidations relating to the disadvantages of a merged/consolidated fire department. Different authors articulated the disadvantages using different verbiage, however themes included fear of the unknown by both citizens and employees, politics, poor communications, loss of local autonomy, loss of local control, the integration of one fire chief, and changes/decreases in pay and benefits.

In Appendix B- City Manager/Council/Fire Chief Questionnaire, in question 8, two out of 68 respondents (2.9%) felt there was no benefit to a merger within the fire service. In question 9, relating to consolidations, 3/69 respondents opined there was no benefit to a partial consolidation, 2/68 believed there was no benefit to functional consolidation, 3/68 felt that there was no benefit to operational consolidations. In question 10, 1/70 respondents thought there was no benefit to shared services.

In Appendix B, questions 4,5,6, and 7, loss of local control is the topic of the questionnaire. In question 6, 53.5% believed that there would be a loss of local control of the budget, however steps could be taken to limit this aspect. The percentage was similar in question 7, when addressing consolidations. Questions 4 and 5 address loss of local control of the fire department itself. The respondents were split equally and very closely between mergers and consolidations. Common themes amongst respondents regarding consolidations were that there was less loss in consolidations as input was still directed largely by the governing agency, however a full merger was dependent upon the governance of the newly formed entity.

4. What shared services would increase efficiencies, decrease duplication, and maintain costs?

Shared services or partial consolidations can be as simple as providing truck companies to cities without such assets/resources, sharing a training center, or sharing the cost of a helicopter for brush fires and EMS evacuation or as complex as a more binding functional or operational consolidation to manage the fire departments of five cities. The literature review exhibited several examples of shared services where duplication is evident. Many agencies are combining CERT teams and are force multiplying their teams by combining them into a larger group, allowing for concentrations of like-trained personnel to converge on the greatest need,

utilizing personnel from areas where their may not be a need. Costly US & R and hazardous materials teams, with highly trained technical personnel, are combining using grant funds to form large regional task forces to be more effective. Finally, EMS is poised to present some of the greatest opportunities to the fire service with the legislation of PPACA. Groundbreaking revenue producing programs are being addressed by many fire departments that will address the expansion of paramedic services, ground emergency medical transportation, fire department clinics, and community-based paramedicine. A shared EMS division, cross-jurisdictional boundaries, presents solutions to budgetary issues as illustrated by Glendale (CA) Fire Department, Westminster Fire Department, Anaheim Fire Department, La Habra Fire Department, and Phoenix Fire Departments. Shared services led to cost effective model changes that will address future PPACA opportunities.

In Tables 1 and 3, duplications within the five cities studied are illustrated. Along with the duplications, several gaping holes are demonstrated. One of the significant issues that contributed to the need to conduct this applied research was the duplication of services and inability to maintain program efficiencies. The five cities and Glendale are similar in size, population, and calls. The largest duplicated area was for operational battalion chief coverage. Twelve battalion chiefs cover the same area as three battalion chiefs in Glendale, however each maintains a divisional assignment. South Pasadena Fire Department, with one fire station, has three battalion chiefs and no division/assistant/deputy chiefs, whereas San Marino Fire Department, with one fire station has two division chiefs on forty-hour schedules that respond during the week from 0700-1730 hours relieved by San Gabriel Fire Department who covers response at night and on weekends. Five fire chiefs cover the same area as one fire chief in Glendale. Only seven fire prevention officers cover the same area as 13 in Glendale, not

including a full environmental protection division addressing many more community risks. Table 2 illustrates that the five cities with 11 stations cover a smaller area than the Glendale (CA) Fire Department with a larger budget, and less responses. The Heartland Fire and Rescue addressed the same management redundancies by reorganizing and addressing the deficiencies.

Some of the glaring holes have been addressed utilizing mergers or consolidations in similar sized communities. Simple partial consolidations/shared services like sharing truck company, training centers, US & R teams, management groups, and EMS resources could increase efficiencies, decrease duplication, and maintain costs. More binding consolidations and full mergers can address and have been documented to follow most shared service agreements to meet long-term planning goals to increase service within economies of scale. Many attempts to merge or consolidate services have also failed. One commonality is that not one attempt has been made that is without some repercussions, roadblocks, and completely negative or positive.

Johnson and Snook (1997) identified that were the political nature will not allow for one type of alternative, another type may be better suited.

Discussion/Implications

The purpose of this study was to define the types of mergers and consolidation that exist within the fire service and to determine the feasibility of consolidating wholly or partially with neighboring agencies for the purpose of increased efficiency, staffing, and the alleviation of administrative and operational redundancies. Descriptive research methods were used to answer the following questions: (a) What types of mergers and consolidations exist for fire departments? (b) What are the benefits of a consolidated fire department to the citizens of each city? (c) What are the disadvantages of consolidation for the communities and citizens addressed in the study?

(d) What shared services/partial consolidations would increase efficiencies, decrease duplication, and maintain costs?

The qualitative analysis of this Applied Research Project gathered through the use of a questionnaire and the literature review indicate that the macro view of the fire service illustrates a trend towards fire service mergers and consolidations. The type of merger and/or consolidation is often dictated by the necessity of such steps, but most often begin as simple partial consolidations and end up in full-scale mergers (Snook & Johnson, 1997). A complete 11 city or five-city consolidation or merger would increase efficiencies, reduce expenditures, improve use of resources, provide greater flexibility to staff, enhance internal programs, reduce program, station, and personnel redundancies, and place more resources on the fireground. It will surely have some negative effects that are outweighed significantly by the positive attributes. An 11 city merger would likely force multiply the savings and service levels. The literature review illustrates successes from around the State of California and nation that have been successful. Chief Ron Coleman predicted this many years ago, and more and more departments are making change towards some sort of consolidation to address efficiencies and budgetary concerns (Coleman, 2012). At a local level, comparing the combined size of the five cities to Glendale (CA) Fire Department, which is similar sized, exemplifies potential savings and increased efficiencies.

Table 2 demonstrates a difference of \$2.75 million without changing anything and combining the five cities. Table 3 illustrates that the five cities have two additional stations, two additional engines, three additional battalion chief units, one additional air/light unit, and one less truck company. Reducing two stations and two engines would reduce expenditures by an estimated one million dollars per station, however the response capabilities and matrices would

most likely cause the need for relocation of other stations. With the aging infrastructures, changing fire service needs, and potential EMS solutions necessitated by the PPACA, most of the five cities should address station replacement and modernization. Long-term planning, utilizing available data analysis software, would project appropriate relocation of aged stations that not only would address the duplication of stations but forecasted needs for community paramedics, fire department clinics, and healthcare transportation partnerships (Clark, 2013).

As shown in Table 1, the five cities employ four and one half fire chiefs to serve the same size community as Glendale (CA) Fire Department, with one fire chief. Twelve battalion chiefs cover the same area as three Glendale (CA) battalion chiefs working out of span of control with twelve captains reporting to them on a daily basis. The five cities have two dedicated division chiefs whereas Glendale has a Deputy Chief, Training Chief, and a Fire Marshal. The five cities have the same number of captains as Glendale (CA), 42 engineers compared to 37 Glendale (CA), 81 firefighters and firefighter/paramedics compared to 96 Glendale (CA), four fire prevention personnel compared to 13 Glendale (CA), two deputy fire marshals compared to zero Glendale (CA). In the newly created Heartland Fire District, the team includes one fire chief, three deputy chiefs, two division chiefs, five battalion chiefs, fire prevention resources, and eight support staff for the three cities within a similar sized area as the five cities ("Three City," n.d.).

This author agrees with Dr. Hadsell and his Master's thesis, a total reorganization of the five cities into a combined Fire District consolidation would provide increased services to the citizens of each community if constructed so that divisions were adequately staffed, personnel were appropriately allocated, stations relocated, and systems were consolidated into a more efficient model for the long-term. Innovations in EMS since the predecessor research will further enhance efficiencies within economies of scale. Combined purchasing will facilitate enhanced

efficiencies in ordering, purchasing, warehousing, and cost savings. Where a full consolidation or merger into a separate fire district could not be made, shared services can continue to mold future opportunities and growth towards what seems to be the inevitable.

Clark, Snook, Johnson, Cochran, and the United States Fire Administration unanimously agree that EMS has the greatest potential impact to the fire service in the near future, therefore a great deal of opportunity for shared services, consolidations, and mergers poise the greatest chance of negative and positive impact dependent upon the outcome and direction fire service leaders take on the subject. There are many types of mergers and consolidations that exist for fire departments. The most timely, critical, and emerging issue is fire-based EMS and the affordable care act (Cochran, 2010). The literature review and documentation indicate that all five cities within this Applied Research Study maintain the same management and organizational necessities to manage a fire department with duplication of services and inefficiencies at the management level. The EMS models being explored and utilized by the Glendale, Huntington Beach, Westminster, La Habra, Santa Monica, Anaheim, and Phoenix are providing cost savings, increased efficiencies, and preparation for growth projected to occur due to the change in healthcare legislation. Monterey Park Fire Department operates a fire department advanced life support transportation and ambulance program to facilitate day-to-day operations. Through the Los Angeles County merger study for Monterey Park Fire Department, it was illustrated in a presentation to council and citizens that the EMS program is cost negative \$698,129 (City of Monterey Park Fire Department [MPKFD], 2013, p. 24). They operate fire department paramedic staffed transportation ambulances. Glendale (CA) Fire Department changed from the same model as Monterey Park Fire Department and all other Region 1 Area C cities to an EMT ambulance operator program. This program took them from a \$2.5 million loss to a \$23,157

revenue to manage the paramedic program (Belknap, 2011, p. 20). Without a full merger or operational consolidation, a partial or functional consolidation within EMS for the five cities could present opportunities to address inefficiencies, reduce expenditures, and prepare for the effects of HR 3590, Patient Protection and Affordable Care Act and HR 809, Field EMS Quality, Innovation, and Cost Effectiveness Improvements Act of 2013.

The reductions in management staff, to the fire service, inhibits the ability of fire service executives to adequately staff and prepare for opportunities and threats to the fire service. To manage change into a new EMS system, administrative staff is required to mitigate and facilitate the change. A management reorganization would facilitate a position in EMS that not one city currently staffs at administrative level. Policies and procedures must be modified and prepared prior to the effective change. Without personnel to administer the program, facilitate the new procedures, and train personnel to the new expectations, programs are likely to fail and/or increase liability to the community if change is made haphazardly.

The implications of the results of this Applied Research Project for the Alhambra Fire Department is the identification of need or opportunity to merge or consolidate, the use of different levels of mergers and consolidations for the betterment of the community, and the impact to the community should the change manifest. Neighboring agencies are seeking alternatives and solutions to budgetary impacts that are affecting their ability to address emergency response levels of service. The City of South Pasadena is seeking battalion chief coverage for response coverage by eliminating three positions. The City of Monterey Park sought a bid for service for a full merger of fire services into the Los Angeles County Fire Department. The City of San Gabriel is seeking solutions to a budget deficit that may include a change of service levels to the fire department. The City of Alhambra is working at reduced

administrative levels, stressing operational and management capabilities. The opportunity is right to conduct a cooperative merger or consolidation at some level or scope to increase efficiencies, decrease duplication, reduce expenditures, and increase service levels within an economy of scale. The challenge is the mitigation of the negative aspects of mergers and consolidation that can be addressed by building strong policy that prevent or reduce the loss of local autonomy and local control, good communications that foster breakdowns in relationships, inclusion of stakeholders to benefit all parties to the change, and a strong plan to facilitate the expected outcomes.

Recommendations

Based on the research results of this Applied Research Project, it is recommended that further, more detailed and comprehensive studies regarding mergers, consolidations, and shared services be identified and evaluated to increase the level of services provided to the customer within an economy of scale, while addressing inefficiencies in current operations within Region 1, Area C. Significant duplications, inefficiencies, service deviations, financial impacts and disadvantages, and opportunities were identified throughout this Applied Research Project within five of the 11 cities in Region 1, Area C. The communities and citizens can benefit from any or all of these solutions.

To minimize roadblocks, while anticipating and learning from the failures of those that have not succeeded previously, all stakeholders and potential partners should be identified and brought into the discussions regarding potential options for providing shared services as partial consolidations, functional consolidations, operational consolidations, and a full-scale merger at both the five city and 11 city potential mergers. An experienced third party, non-biased, entity like Citygate Associates or Emergency Services Consulting International, should be contracted

for services to mediate the process and illustrate solution outcomes to provide the level of service outcomes, cost analysis, service impacts, governance, and dynamics of the different options.

Quantitative analysis of the response areas should be evaluated using technical software to identify NFPA 1710 required efficiencies for fire force responses and EMS outcomes suggested by the American Heart Association and medical industry. Tiered levels of transaction should be identified and qualified, through quantitative outcomes and suggested steps for best possible transition, in a long-term plan. Optional immediate solutions should also be identified and implemented that can be transitioned into full-scale mergers as the planning and transitions occur. EMS being the most crucial opportunity and threat to the fire service, this author suggests an immediate solution to address efficiencies and opportunities provided in the EMS future.

It is suggested that once the direction is delineated and ratified through participating parties, JPA boards, consultants, and/or governing boards meet regularly to participate in strategy sessions to implement the different levels of transitions, develop foundational elements including the structure, pay, benefits, and vision of the new entity, an implementation timeline with trigger points for each implementation of the strategic plan, build core guidance policy, and goals and objectives to further advance the cause through a transparent transition between all stakeholders. Regular communications should be made to all stakeholder groups to mitigate rumors and minimize resistance to the change. Regular, consistent, and common reporting to leaders should be developed and transferred to governing bodies to insure a common message and outcome is being addressed.

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