Cost Recovery for Non-EMS Incidents:

A *Burning* Need for the Albuquerque Fire Department

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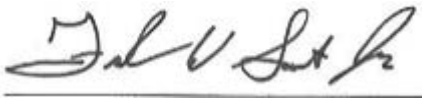
Certification Statement

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, or writings of another.

Signed: 

Date: September 11, 2016

Abstract

With conservative funding in the future, and an increase in fire department expenditures, the time is right to explore an alternative funding source in the City of Albuquerque. The problem was the City of Albuquerque had been experiencing a continuous incline in non-EMS emergency response incidents, negatively impacting the Albuquerque Fire Department's financial budget. The purpose of this applied research project was to determine the validity of a City of Albuquerque cost recovery ordinance for non-EMS emergency response incidents. The descriptive research method was used for this applied research project. The research questions were: a) What type and how many non-EMS emergency response incidents occur in the City of Albuquerque each year and what are their costs? b) What oversight and legal circumstances are involved with the implementation of a City of Albuquerque non-EMS emergency response incident cost recovery ordinance? c) What would be the projected revenue from a City of Albuquerque non-EMS incident response cost recovery ordinance? d) What area within the Albuquerque Fire Department would receive the most benefit from a City of Albuquerque non-EMS incident response cost recovery ordinance? Procedures used for this Applied Research Project paper included questionnaires, interviews, a national survey, written documents, figures, tables, and internet searches on cost recovery for non-EMS incidents. The results of this applied research project matched those found in the literature review material. Cost recovery for non-EMS incident responses is a viable recurring revenue stream. Recommendations included directions for the implementation of a non-EMS incident response cost recovery ordinance by the City of Albuquerque and the Albuquerque Fire Department.

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The City of Albuquerque (COA) is the largest populated city in New Mexico (NM) and 32nd largest in the US with 559,121 people (U. S. Census Bureau [American FactFinder], 2015, para. 1; U. S. Census Bureau, 2015, para. 1). Incorporated in 1891 and directly adjacent to the Sandia Mountains, the COA is over a mile high (5,312 ft. above sea level) and covers an area of 188 sq. miles ("Albuquerque," 2015). The COA is overseen by a mayoral-city council government and includes both metropolitan and agrarian communities.

The Albuquerque Fire Department (AFD) is the largest *all-hazard*; two-tiered, fire-based emergency medical service (EMS) organization in NM. The AFD is the authority having jurisdiction (AHJ) and the primary response agency for all emergency 911 (E911) calls in the COA. The AFD provides *mutual* and *automatic aid* to agencies within NM; and is currently staffed with 660 professional firefighters (681 including cadets in training)—469 are licensed as emergency medical technicians (EMT) basic/intermediate and 212 are licensed as paramedics.

The AFD responds to all E911 calls from 22 strategically located fire stations in the COA. These fire stations house: 22 fire engines, 20 rescues, seven ladders, six brush units, four battalion commander units, two hazardous materials squads, one heavy technical rescue squad, and one quality assurance EMS unit.

The mission of all Albuquerque Firefighters is to serve our community with all-hazards planning, prevention, and responses; promoting public safety and trust; and ensuring our own safety and wellbeing (Albuquerque Fire Department [Mission], 2014, p. 1).

Since 1986, COA population and size has grown significantly; and while growth is good, it also comes at a *price*. Paralleling the COA's growth, E911 calls have also dramatically increased—directly impacting AFD's personnel, response and financial budget. Although

there's a definitive need today for additional AFD funding—it's not coming. In fact, since the COA's recovery from the $66 million shortfall in fiscal year (FY) 2011, money is available (Berry, 2010, para. 4); however, the current FY 2017 budget is "grounded on the principal of fiscal integrity, prudence, balance, and built to conserve funds for the future" (Berry, 2016, p. 7).

Today, almost all new FY 2017 COA General Fund (GF) money, allocated for Public Safety ($8.831M), goes directly to the Albuquerque Police Department [APD] ($6.8M) (CAO FY/17, 2016, pp. 26, 133). The AFD did receive $2M; however, all of it was for salaries (CAO FY/17, 2016, pp. 26, 107). While on the subject of public safety money, the COA *Public Safety Quarter Cent Tax (PST)*, approved in 2003 and implemented in 2004, has been causing much debate over the years in regards to AFD's allocated (34%) amount (COA FY/11, 2010, p. 37; Public Safety Tax Ordinance, 2004). The purpose of the tax was to add new funding to the fire department (and three other public safety entities) for such things staffing, vehicles, and stations; however, the money did not supplement AFD's budget, instead, it supplanted it—*cent for cent*.

As the overall fire service mission has changed from firefighting to an all-hazards response agency, so too have opportunities to recover costs for emergency responses. While firefighters are there to respond to all emergencies—the response is not free. Simply put, firefighters don't mitigate emergencies—money does. With a conservative funding future in the COA and an increase in fire department expenditures, the time is right to explore an alternative funding source like cost recovery for non-EMS incident responses.

The problem is the City of Albuquerque has been experiencing a continuous incline in non-EMS emergency response incidents, negatively impacting the Albuquerque Fire Department's financial budget. The purpose of this applied research project is to determine the validity of a City of Albuquerque cost recovery ordinance for non-EMS emergency response

incidents. The descriptive research method was used for this applied research project (ARP). The research questions are: a) What type and how many non-EMS emergency response incidents occur in the City of Albuquerque each year and what are their costs? b) What oversight and legal circumstances are involved with the implementation of a City of Albuquerque non-EMS emergency response incident cost recovery ordinance? c) What would be the projected revenue from a City of Albuquerque non-EMS incident response cost recovery ordinance? d) What area within the Albuquerque Fire Department would receive the most benefit from a City of Albuquerque non-EMS incident response cost recovery ordinance?

Background and Significance

In 2010, AFD Engine Company 5 responded to 3,941 total calls (Albuquerque Fire Department [2010 Year End], 2012, p. 2). It was the first time an AFD unit surpassed the Commission on Fire Accreditation International's (CFAI) 110% *Threshold Value* (3,850 calls for a single unit)—indicating the immediate need for new resources for the impacted fire station, new resources to adjacent fire stations, and/or new fire stations within the affected area(s) (as cited in Matrix, 2012, p. 320). By the end of 2015, AFD had nine total units above the 110% threshold value, with Engine Company 5—the nation's 22nd busiest engine—leading the way with 5,100 total calls (Matthews & Roche, 2016; Albuquerque Fire Department [2015 Year End], 2016, p. 19). In addition to the nine units above the 110% threshold value, AFD has three additional units above the 100% threshold value (3,500 calls) and another three units within 100 calls of the 100% threshold value (2015 Year End, 2016, p. 19). That's 15 AFD units responding to 3,400+ calls each (54% of the total call volume) in 2015!

Total AFD E911 call responses for 2015 were 94,328 (2015 Year End, 2016, pp. 22-24). With E911 calls at an all-time high in 2015, and 2016's numbers on track to surpass those

numbers by over 13% (106,605 E911 estimated calls), concern is growing over financial budgetary needs. Specifically, the increase in E911 calls has caused a *domino effect*, impacting all AFD resources. More importantly, AFD spent nearly $7 million in overtime in 2015—a number that continues to grow each year (AFD Expense Analysis, 2016). Of note, AFD's 486 frontline (min. field staffing; 162 personnel per shift) firefighters responded to an average of 194 calls each in 2015 and are on pace (estimated) for a staggering *219 calls each in 2016*. The Aurora Fire Department (CO) had the busiest firefighters in the US, in 2014, with 203 calls per firefighter (Illescas, May 16, para. 3).

While AFD is trying to lower call volume, it too comes at a cost. Recently, there has been an AFD proposal to begin using *Fire Service Aids*. The plan is to send trained EMS responders (non-firefighters) to non-emergent E911 calls. The goal is to decrease call volume and costs, while increasing availability for true emergencies. Sounds great—except AFD has been directed to pay the entire $408,333 cost for the program (Albuquerque Fire Department [AFD fire service program], 2016). In fact, this is not the first time AFD has been tasked with trying to reduce call volume, and the cost of doing business, with their own budget. Currently, AFD pays for their Community EMS Program, the *Public Inebriate Intervention Program (PIIP)*, and their *Nurse Hot-Line Pilot Program*, both for non-emergent calls. Since 2013, AFD has spent more than $125,000 on the PIIP unit—all while saving local hospitals and ambulance providers over $6M in reduced patient care expenses (Soto [Public Inebriate Intervention Program], 2016). In 2016, AFD has spent $64,000 on the Nurse Hot-Line Pilot Program; a program that has talked to 46 non-emergent patients (June – September 1, 2016), missed 13 phone calls, and has a 54% (25 patients) return rate back to AFD's Alarm Room for an E911 response (Soto [Nurse's Hot-Line Pilot Program], 2016).

When developing a budget proposal, personnel salaries must be considered. Current FY 2017 firefighter salaries account for 93% of AFD's GF budget, up 9% from FY 2007 (City of Albuquerque [CAO FY/17], 2016, p. 107; AFD Expense Analysis, 2016; City of Albuquerque [CAO FY/07], 2006, p. 199-200). That's only $5.4 million (7% of $77M) of AFD's FY 2017 GF budget available for daily operations. In fact, since FY 2007, AFD's total budget has grown by 16% (GF grew by 15.6%), from $68 million to $79 million (FY 2017)—and personnel grew by 4%, from 653 to 681 (CAO FY/07, 2006, p. 199; CAO FY/17, 2016, pp. 107-108). Although AFD's total budget only accounts for 8.5% of the entire $924 million COA budget (CAO FY/17, 2016, p. 23), AFD is continually required to do *more with less* (CAO FY/17, 2016, p. 23). Of note, AFD receives full financial allocations for each newly hired firefighter; however, each new firefighter only receives 55% of their total allocated pay for the first 17 months of employment--when they come off probation and promote to *Firefighter 1st Class* (AFD Expense Analysis, 2016). During those 17 months, AFD uses the left-over new firefighter allocated pay (45%) for daily expenditures due to their limited budget.

In comparison to AFD, APD's budget accounts for 18.5% of the COA's total budget and has grown by 23% since FY 2007 ($139 million to $171 million)—all while officer numbers dropped by 16%, from 985 to 832 (CAO FY/07, 2006, pp. 234-235; CAO FY/17, 2016, pp. 134-135; NM Inspection of Public Records Act [IPRA APD], 2016). Current officer salaries make up 79% of APD's total GF budget, matching FY 2007, and leaving nearly $33 million available for daily operations (CAO FY/07, 2006, pp. 234, 236; COA FY/16, 2015, pp. 209-210).

While on the topic of available operational funding, the COA *Public Safety Quarter Cent Tax (PST)* has totaled $241.6M in revenues since January 2010; with one-twelfth ($18.6M) going to the COA *Operating Reserve* (NM Inspection of Public Record Act [IPRA PST], 2016).

Based on bond rating agency recommendations, the COA reserves one-twelfth of all tax revenues each year—$2.2M from PST revenues and a total operating reserve of $45.7M for FY 2017 (CAO FY/17, 2016, p. 28; IPRA PST, 2016). If only one-twelfth of the PST operational reserve is required each year, then where does the money go at the end of the fiscal year? Not public safety. In fact, 34% of $18.6M is $6.3M, the amount of PST revenues that should have gone back to AFD's budget since 2010 (COA FY/11, 2010, p. 37; IPRA PST, 2016).

In short, AFD's budget increases are not keeping *pace* with COA's growth. Of note, AFD does receive yearly non-GF money (between $1M to $3M a year) from state and federal grant funding sources; however, they fluctuate and are not guaranteed. Right now, the time is perfect to consider another revenue source to increase AFD's financial budget. A COA cost recovery for non-EMS incident response ordinance is a considerable revenue source that can improve AFD's budgetary outlook.

The Executive Leadership (EL) class, the fourth and final course in the Executive Fire Officer Program (EFOP), provided a connection between the course and this ARP. The individual executive leadership areas studied in class will directly influence this author's ability to move the Albuquerque Fire Department towards cost recovery for non-EMS incident responses; specifically, the application of diverse roles that one plays in personal and professional life will provide opportunities for change through effective and efficient leadership (U. S. Department of Homeland Security [DHS EL], 2015, p. 357).

This ARP's content correlates with two of the five U.S. Fire Administration (USFA) goals: *Goal 3: Enhance the Fire and Emergency Services' Capability for Response to and Recovery from All Hazards*; and *Goal 5: Establish and Sustain USFA as a Dynamic Organization* (U. S. Fire Administration [USFA Strategic Plan], 2014, p. 1). The application of

a COA cost recovery for non-EMS incident response ordinance will provide a sustainable future for AFD. A financially solvent fire department will enhance quality of life in Albuquerque by: Improving the fire and emergency services' capabilities; Improving the quality of service to the public; Maintaining a positive work environment; and Achieving organizational and individual excellence through the development of its firefighters—thus meeting Goals 3 and 5 of the USFA (USFA Strategic Plan, 2014, p. 9).

Literature Review

The fire department, as a whole, began with the *simple* mission of putting out fires. Through the ages, from Augustus Caesar to François du Mouriez to Ben Franklin to Napoleon Bonaparte to James Braidwood to present day, the simple mission of putting out fires has evolved tremendously. What was once just a routine response to fight fires now requires an all-hazard approach to every E911 response. Besides fire alarm and *working* fire responses, today's fire service agencies provide life-saving measures and mitigation responses to emergency medical services (EMS) scenes, motor vehicle crashes (MVC), hazardous material incidents (HM), heavy technical rescue incidents (HTR), wildland firefighting operations (WF), and fire prevention and investigative incidents (FMO). However, fire service calls come at a price, and with so many different types of responses, cost recovery must be considered.

While some cost recovery opportunities exist for E911 incident responses, not all costs can be recovered without prior authorization; and authorization, in general, has come to fruition through the use of fire ordinances (codes, standards, and regulations). The first fire ordinances began centuries ago:

> For centuries, governments have exercised the right to regulate how buildings are built for the sake of the public's protection. In the time of Julius Caesar, Roman laws

> regulated the height of buildings and the distances between them. During Queen Anne's reign, the English found it necessary to have a code to require non-combustible roofs. By the time America was settled, the legal concept of codes was well-established; in 1796, for example, the City of New Orleans, then a Spanish province, passed an ordinance against the use of wood roofs. (Neville, 1973, p. 79)

Though the first fire ordinances lacked actual cost recovery (for non-EMS incidents) initiatives, they did lead to its eventual establishment. From 1666 (England) to 1900 (US) *fire marks* were used by citizens for fire service responses ("Fire Service History," 2011, para. 15). The fire service responses began once the *insurance* was paid—the beginning of cost recovery—and the fire mark placed on the structure. A fire mark was a "round iron, copper or lead emblem usually placed, on the wall, near the front door of a structure. . . It was usually made of enough metal to be able to withstand a fire" ("Fire Service History," 2011, para. 14).

The origins of fire insurance can be traced back to the Great Fire of London in 1666; and in 1681, economist Nicholas Barbon and 11 associates established the first fire insurance company, *Insurance Office for House*, in order to insure brick and frame homes, at the back of the Royal Exchange ("Modern Insurance," n.d., para. 5).

In 1752, Ben Franklin founded the oldest and continuously active insurance company in the US for the purpose of covering fire loss, *The Philadelphia Contributorship for the Insurance of Houses from Loss by Fire*, now known as *The Philadelphia Contributionship* (Insurance Journal, 2011, para. 1). Today, property/homeowner insurance policies cover fire damages; however, one can legally own and live in a home without property/homeowner insurance.

As for vehicle insurance and its future impact on cost recovery for MVCs, "Gilbert J. Loomis holds the distinction of being the first person to buy an automotive liability insurance

policy in 1897; the policy, which was issued in Dayton, Ohio, protected Loomis if his car damaged property, injured or killed an individual" (Allstate, n.d., para. 5). Today, almost all US States—except Arizona, New Hampshire, and Virginia (all three require proof of financial responsibility)—require motor vehicle insurance; with each state insurance requirement based on its own minimum for the *Bodily Injury Limit* (per individual); *Bodily Injury Limit* (total); and *Property Damage Limit*. Of note, not all MVCs and fires are covered by one's vehicle insurance; coverage is dependent on the policy and fault.

While the insurance business began to grow, other forms of cost recovery, like government aid, began to emerge. From 1803 to 1950, the US Congress passed 128 separate laws addressing disaster relief; of which one stood out as possibly the first cost relief source for fire agencies (Federal Emergency Management Agency [FEMA], n.d., p. 3-2). The federal *Weeks Act of 1911* was signed into law by President William Howard Taft. The Weeks Act of 1911 permitted the federal government to purchase private land in order to protect the headwaters of rivers and watersheds in the eastern US; more importantly, it called for state grant funding and matching funds for the fire protection and planning of waterways in the agricultural setting (Forest History Society, n.d., para. 1; Maxwell, 1952, p. 1).

By 1950, Congress passed the *Federal Disaster Relief Act (P.L. 81-875)*, authorizing the President to provide supplementary federal assistance when a Governor requests help (FEMA, n.d., p. 3-2). The federal funding assistance can be used by each State's Governor for any major disaster relief (i.e. hurricane, tornado, storm, tidal wave, tsunami, earthquake, volcanic eruption, landslide, snowstorm, drought, fire, flood, or explosion) and public safety cost recovery. For example, on March 22, 2014, Washington Governor Jay Inslee declared a state of emergency in Snohomish County for a landslide four miles east of Oso, Washington that killed 44 people

(Crager, 2014, p. 29; Federal Emergency Management Agency [FEMA Oso], 2015, p. 5). On March 24, 2014, President Barack Obama initially declared an *Emergency Declaration (EM-3370)* for the entire area; and upgraded it to a *Disaster Declaration (4168-DR-WA)* on April 2, 2014 (FEMA Oso, 2015, p. 3). Since the declaration of an emergency for Snohomish County, the Federal Emergency Management Agency (FEMA) has provided over $26M for response and recovery efforts (FEMA Oso, 2015, p. 6; Haglund, 2015).

The first evidence of cost recovery for non-EMS incident fire responses by a US State was also found in the early 1950s. In 1951, the State of Michigan established the *Police and Fire Protection Ordinance (Public Act 33).* Public Act 33 provided the legal means of cost recovery to all Michigan fire departments for fire service responses, specifically:

> An Act to provide . . . fire protection for townships and for certain areas in townships, certain incorporated villages, and certain cities; to authorize contracting for fire . . . protection; to authorize the purchase of fire . . . equipment, and the maintenance and operation of the equipment; to provide for defraying the cost of the equipment; to authorize the creation of special assessment districts and the levying and collecting of special assessments; to authorize the issuance of special assessment bonds in anticipation of the collection of special assessments and the advancement of the amount necessary to pay such bonds, and to provide for reimbursement for such advances by reassessment if necessary; to authorize the collection of fees for certain emergency services in townships and other municipalities . . . . (Police and Fire Protection Act, 1951/2004)

Although cost recovery legislation, both federal and state, was in place by the 1950s, it took another 22 years for the US Government to begin identifying other areas for cost recovery. In 1973, US fire departments responded to over 565,000 *actual* motor vehicle fires, with an

additional 600,000+ responses to *possible* motor vehicle fires at a cost of almost $350 million—that's one-fifth of the 2.9 million fires (and just over 10% of all fire costs) in the US in 1973 (Insurance Institute for Highway Safety [Insurance Institute], 1974, p. 1). Also released in 1973, by the National Commission on Fire Prevention and Control, was the *America Burning* report; which stated that social changes affecting fire department funding needed to be immediately addressed. Specifically, the report stated:

> The increasing militancy of firefighters meets, head on, another important change: the increasing financial plight of local governments. Especially in the large cities, but not exclusively there, governments are facing static or declining tax revenues, increasing costs, and hence the need to question all city expenditures and to place greater emphasis on the efficient operation of municipal services. Local governments are demanding better long-range planning and better utilization of manpower and equipment. They are pressing fire departments to produce sophisticated cost-benefit justifications . . . . (Neville, 1973, p. 5)

In1974, the US amended the *Disaster Relief Act of 1966 (P.L. 89-769)* with the *Disaster Relief Act of 1974 (P.L. 93-288).* The *new* Disaster Relief Act defined the President's process for the declaration and financial assistance of a disaster for state and local governments. The Disaster Relief Act of 1974 was again amended in 1988 and renamed the *Robert T. Stafford Disaster Relief and Emergency Assistance Act.* The Stafford Act includes better *direction* of public safety cost recovery.

> The Stafford Act authorizes the delivery of federal technical, financial, logistical, and other assistance to states and localities during declared major disasters or emergencies. The Federal Emergency Management Agency (FEMA) coordinates administration of

> disaster relief resources and assistance to states. Federal assistance is provided under the Stafford Act if an event is beyond the combined response capabilities of state and local governments. . . . Three types of assistance are authorized by the Stafford Act. Assistance can take the form of direct federal aid in terms of services, grants, and technical support, or as reimbursement for services provided by or contracted for by affected states. (Association of State and Territorial Health Officials, 2013, para. 1, 8)

By 1992, nearly 41 years after Michigan implemented Public Act 33, one of the most definitive fire fee ordinances had been created and implemented. The Township of Elmwood (Leelanau County) Michigan adopted the *Fire Fee Ordinance of 1992* in order to provide financial assistance to the township. The ordinance covers a multitude of fires: grass, rubbish, automobile, residential, commercial, apartment, hotel/motel, aircraft, train, truck, forest, and industrial (Fire Fee Ordinance, 1992, pp. 1-2). Other fees include: extrications, HM calls, false fire alarms, and mutual aid. All ordinance cost recovery fees begin between $200 and $900; and have the ability to rise higher due to time on scene (Fire Fee Ordinance, 1992, pp. 1-2).

Local, state and federal governments were not the only bodies supporting cost recovery. In 1997, the International Association of Fire Fighters (IAFF) released the *Monograph 4: EMS Revenue Recovery* report. The report stated that fire departments were in need of more budgetary funding due to economic shortfalls—ironically, the largest shortfalls did not occur until 10 years later in 2007-2008. "Historically, fire departments . . . have been funded as part of the municipal budget. More recently, however, municipalities have faced budgeting shortfalls . . . [by] providing . . . health and safety related services [fire departments] can generate . . . opportunities for recovering costs" (International Association of Fire Fighters [Monograph 4],

1997, p. 6). Also in Monograph 4, IAFF General President Harold Schaitberger addressed the need for monetary growth due to the larger role and future of the fire service in North America:

> Today more than 80% of fire departments perform some level of emergency medical services (EMS), making professional fire fighters the largest group of providers of prehospital emergency care in North America. No other organization – public or private – is capable of providing prehospital emergency response as efficiently and effectively as fire departments. Fire department operations are geared to rapid response, whether it is for EMS or fire suppression. . . . Fire fighters are trained to aggressively attack their work whether it involves a fire, a rescue, or a medical emergency. . . . However, as we look into the future . . . we are called upon to evaluate our role and the possible need for change in the context of . . . [cost] recovery for the services fire fighters perform. . . . (Schaitberger, 1997)

Additional fire agency support for cost recovery came in 1997 from the USFA's National Fire Academy. In the Kent Koelz EFOP ARP, *Alternative Funding Sources*, Koelz created and distributed an 11 question survey study on alternative funding sources. The survey was sent to random fire departments across the US; however, only the first 100 responses were used for the survey. There were 22 funding categories in the survey and Koelz numbered the participating agencies in each category. Of the 22 categories, nine (in **bold** below) addressed non-EMS cost recovery for incident responses (numbers 2, 4, 6, 13, 15, 16, 18, 21, and 22).

Alternative Funding Sources Categories

1. 0 out of 100 – Wish List
2. **0 out of 100 – Fire protection fees or fire subscriptions**
3. 5 out of 100 – Facility rental, i.e., meeting or banquet rooms

4. **5 out of 100 – Fire suppression/rescue fees**
5. 10 out of 100 – Outdoor events, i.e., rummage sales, BBQ, etc.
6. **10 out of 100 – Special events**
7. 10 out of 100 – Standby medical
8. 10 out of 100 – New building inspection
9. 10 out of 100 – Existing building inspection
10. 10 out of 100 – Fines for code violation
11. 10 out of 100 – Hospital Transfers
12. 15 out of 100 – Flow Tests
13. **15 out of 100 – Contracting services to other communities, medical and fire**
14. 15 out of 100 – CPR or first aid classes
15. **15 out of 100 – User fees**
16. **20 out of 100 – Standby fire watch**
17. 30 out of 100 – E.M.S. transport
18. **30 out of 100 – False alarm fees**
19. 35 out of 100 – Plans review and permit fees for new construction
20. 35 out of 100 – Donations or solicitations
21. **45 out of 100 – Cost recovery for hazmat**
22. **60 out of 100 – Federal, State, or local grants** (Koelz, 1997, p. 23)

The Koelz Survey data indicated that 5% of surveyed fire departments received cost recovery for fire suppression and rescue activities, 0% received fire protection fees, 10% received special event funding (i.e. wildland, MVC, MV fires), 15% received contracted fire services, 15% received funding for user fees, 20% received standby fire watch fees, 30%

received false fire alarm fees, 45% received cost recovery for HM, and 60% received grants from local, state, or federal sources (Koelz, 1997, p. 23).

In 1999 the USFA and FEMA released their *Funding Alternatives for Fire and Emergency Services* report. The purpose of the report was to guide fire and EMS departments on traditional and nontraditional methods of cost recovery and funding by way of local, state, and federal government, the private sector, and miscellaneous areas (U.S. Fire Administration [USFA], 1999, pp. 1-2, 1-3, 1-4, 1-5). Of importance, government funding is not a *sure thing*, especially when there are nearly 30,000 fire departments vying for federal money (USFA [FD Census], 2016, para. 1):

> The entire pool of fire department applicants received about 13% of the funds they requested in FY2010. This compares to 16% in FY2009, 15% in FY2008, 16% in FY2007, 21% in FY2006, 22% in FY2005, 28% in FY2004, and 34% in FY2003. The downward trend reflects the fact that the number of applications and the amount of federal fund requests have trended upward over the years, while appropriations for the fire grant program have declined over the same period. (Kruger, 2016, p. 14)

The wide variety of funding practices in the 1999 *Funding Alternatives for Fire and Emergency Services* report can be grouped into several categories:

Federal and State Programs

1. Fire Insurance Surcharges
2. Vehicle-Related Fees
3. Special State Grant Programs
4. General State Revenues
5. State Provided Services
6. Federal Grant Programs

Local Government Funding Mechanisms

1. Taxes
2. Borrowing

3. Leasing
4. Benefit Assessment Charges
5. Fees, Strategic Alliances
6. Cost Sharing and Consolidation
7. Fines and Citations Sales
8. Subscriptions
9. Impact Development Fees

Private Sector Sources

1. Private Foundations
2. Corporate Donations
3. Public/Private Partnerships

Miscellaneous Fundraising Sources

1. Direct Solicitation
2. Fundraising Events or Drives
3. Sale of Products of Services

(USFA, 1999, pp. 1-2, 1-3, 1-4, 1-5)

By 2012, the USFA and FEMA updated the *Funding Alternatives for Fire and Emergency Services* report with the *Funding Alternatives for Emergency Medical and Fire Services* report. The new report expanded on cost recovery laws; specifically: local, state and federal governments may limit the extent to which fire departments can generate revenue from cost recovery funds (U.S. Fire Administration [USFA Funding], 2012, p. 2). Furthermore, depending on local, state and federal law, cost-recovery measures may need to be approved by legislative act (USFA Funding, 2012, p. 32).

> Cities have the authority to impose direct charges, or fees, on individual users of services. Use of these revenues is restricted to paying for the service for which the fees were collected. User fees are a fairly efficient way to distribute the costs of government services. Fire departments have assessed a number of user fees as a means of cost recovery for alternative funding. (USFA Funding, 2012, p. 27)

As the fire service entered the 2000s, cost recovery began to include almost every aspect of E911 calls—EMS and non-EMS; however, not all cities have chosen to participate. The Louisville Division of Fire (KY) and the Columbus Division of Fire (OH), the 30th and 15th largest US cities, respectively, are two such cities that do not recover costs for non-EMS incident responses ("Largest US cities," n.d., table 1). The Louisville Division of Fire responded to 31,836 total incidents in 2013; with 11,675 coded as non-EMS incidents—490 working structure fires; 221 fires in mobile properties; 4,280 false alarms; and 6,684 other non-EMS hazardous incidents (Louisville Division of Fire, 2014, p. 18). The Columbus Division of Fire responded to 155,568 total incidents in 2015; with 33,710 coded as non-EMS incidents; the top five included: 1. Fires 16,296; 2. Auto Accidents 7,615; 3. Fire Alarms (*B)* 4,768; 4. Fire Alarms 2,560; and 5. Freeway Incidents 2,471 (Columbus Division of Fire, 2016, p. 17).

As for participating cities in cost recovery, there are more than 50 cities in 26 US States already imposing MVC cost recovery fees; however, 10 US States—Alabama, Arkansas, Florida, Georgia, Indiana, Louisiana, Missouri, Oklahoma, Pennsylvania, and Tennessee—have passed legislation prohibiting accident response fees, and four other states have limited their use (Dubois, 2013, para. 4, 5). Of note, though Pennsylvania prohibits MVC cost recovery fees, Shawn Meder, president of *Pennsylvania Fire Recovery Services*, still raises about $2.5 million a year by billing insurance companies on behalf of 600 fire departments statewide for costs they incur fighting fires and helping out at MVC scenes (Lester, 2015, para. 4).

The City of Lompoc (CA) approved a cost recovery plan for *Fire Fees* in 2014. The cost recovery billing will aid the Lompoc Fire Department by providing such services as: plans checking, permits, MVCs, MV fires, HM incidents, bomb threats, pipeline ruptures, arson investigations and structure fires. The purpose for Lompoc fire fee cost recovery:

> The city [Lompoc] relies on a combination of general taxes, fees, and charges for services . . . to support its fire protection system, along with other governmental activities, the largest components of which are discretionary revenues from sales and property taxes. The city was hit especially hard in sales and property tax revenues following the 2008 real estate/financial market collapse. The loss of major retailers, car dealerships, supermarkets, and restaurants has reduced sales tax revenues by a cumulative $2,140,000 since 2007; a drop of 11% compared with flat sales tax revenues over the same period reduced the availability of revenue for fire department expenditures by 8.6% ($1,100,000) in FY 2009 – 2010. Cumulative lost revenue of $2,140,000 from 2007 to 2012 represents over 50% of the fire department's funding needs for FY 2013-14. The second major revenue source for the city, property tax revenues, dropped 12.5% from peak collections during FY 2007-08 to the projected FY 2013-14 collections. . . . In 2008, Local Measure T2008 Public Safety Act, a 0.25% General Sales Tax increase was presented to Lompoc voters in order to generate revenue to fund fire department staffing. It was not successful. . . . Since the passage of Props 13 and 98 and Education Revenue Augmentation Funds legislation, the City received as little as 14 cents on every dollar of taxes paid and no more than 18 cents . . . for their services. (Latipow, 2014, pp. 2-3)

The Lyndon Fire & Rescue (KY) Department has been participating in cost recovery since 2011 in order to generate additional operating funds. Labor costs (salaries, health care and pensions) make up 86% of the Lyndon's fire budget (Lyndon Fire Protection District, n.d., para. 2). The cost recovery fees are for those services not covered by the *Fire Protection Tax* and include: MVCs; large structure fires; HM incidents; false alarms; and special technical rescue (Lyndon Fire Protection District, n.d., para. 5).

In 2011, the City of San Diego began cost recovery efforts, *San Diego Municipal Code: Chapter 55, Article 5, Division 51 - False Fire Alarms Ordinance*, in order to offset their 6,281 yearly false fire alarm calls—costing $541,679 annually in fire department responses (San Diego City Council, 2011, p. 1). San Diego residents and businesses must now register (Permit) their fire alarm systems every 24 months for $118.25 and $191.25, respectively (San Diego City Council, 2011, p. 2). The false fire alarms will cost $110; $220; $440; and $2,200—per incident—based on the first, second, third, and fourth (or more) false fire alarms, respectively (San Diego City Council, 2011, p. 2).

In Cedar Park (TX) *Ordinance CO59-14-07-24-C1*: *Specialized Billing of the Fire Department and First Responder EMS* was passed in 2014. The Cedar Park ordinance is significant since it includes a new *twist* to cost recovery billing. Specifically, Cedar Park is billing for *both* the apparatus and response personnel:

> The owner or occupant of a structure, vehicle, or property to which the fire department provides fire suppression, EMS, vehicle extrication, HM mitigation, or other fire department services, or any person that causes the need for the fire department to respond and/or provide any emergency response service (the "responsible party") shall pay the cost of such service, which shall include both the base response fees and the cost recovery fees. Total costs for each response, both apparatus and response personnel are:
>
> ***Cedar Park – Article 15.000 – Specialized Billing: Fire Department & EMS***

Sec. 15.100 Fire Department List	
PERSONNEL	
FIRE FIGHTERS, PER HOUR	$35.00
HAZ-MAT TECHNICIAN	$40.00
HAZ-MAT OPERATIONS	$35.00
HAZ-MAT SPECIALIST	$65.00
FIRE INSPECTORS	$100.00
FIRE INVESTIGATORS	$125.00
PERSONNEL OVERTIME	$0.00
DIVE TEAM	$200.00
HAZ-MAT INCIDENT COMMAND	$75.00

Sec. 15.100 Fire Department List - cont'd.	
APPARATUS	
CLASS A PUMPER	$500.00
AERIAL APPARATUS	$650.00
TANKER APPARATUS	$400.00
BRUSH TRUCK	$300.00
HEAVY RESCUE TRUCK	$500.00
COMMAND UNIT	$250.00
EQUIPMENT TRUCK	$300.00
SQUAD TRUCK	$125.00

Sec. 15.200 Fire & rescue EMS List	
BLS/ALS/MICU	
RESCUE/EMS SERVICES FEE	$200.00
NO TRANSPORT/RESPONSE FEE	$150.00

(Cedar Park, 2014, pp. 3-4)

Cost recovery for non-EMS incidents occurs outside the US as well. In New Zealand, *Section 47-C-(4)* of the *Fire Service Act 1975* authorizes the New Zealand Fire Service to charge for false fire alarm responses. The current cost recovery charge for a false alarm response is $1,000 (plus the Goods and Services Tax [GST]) per incident (New Zealand Fire Service, n.d., para. 1). In London, England, under *Section 18C* of the *Fire and Rescue Services Act 2004 (amended by the Localism Act 2011),* the City is entitled to £326 [$434 US] (plus the Value Added Tax [VAT]) for attending persistent false alarm calls generated by automatic fire alarm systems and fire detection systems (London Fire Brigade, n.d., para. 1, 5). In Toronto, Canada, under the *False Alarm Bylaw – Municipal Code Chapters 433 & 442*, the Toronto Fire Service can charge $410 per hour/per vehicle dispatched for false fire alarms, MVCs and non-emergency elevator responses; the City of Toronto regularly sends out 10,000 false fire alarm invoices annually and generates $6.5 million in cost recovery revenue every year (Fight Your Ticket, 2010, para. 1-3). Of note, US fire departments responded to almost 2.5 million false fire alarms in 2014—nearly twice the total number of reported fires and five times the number of structure fires (Ahrens, 2016, p. 78).

Cost recovery for fire-based emergency response services is not just supported by the IAFF and the fire service world in general, it is also fully supported—and justified—by the International Association of Fire Chief's (IAFC):

> Cost recovery for fire-based emergency response services is becoming a more familiar concept for cities, counties and their fire departments. . . . Newer to the fire service is the concept of cost recovery for emergency response . . . . Cost recovery is a viable option as cities and counties experience a decrease in their tax bases. They need options to offset the costs of the demand for emergency responses by their fire departments.

> There continues to be a demand for timely and high-quality emergency responses even when budgets are shrinking. . . . Cost recovery is not double taxation . . . there is no out-of-pocket expense to taxpayers . . . it is comparable to a user fee. (International Association of Fire Chiefs [IAFC], n.d., para. 2-3, 9)

Today's local, state, and federal fire agencies have the lawful right to recover costs for incident responses; and in cases where there is no authoritative law allowing for cost recovery, individual municipalities have the right to create, pass or amend legislation in order to justifiably receive cost recovery funding.

Procedures

The information for this ARP was gathered from a mixture of sources; and was used to answer the research questions and develop recommendations. The data came from the internet, fire service journals, EMS journals, questionnaires, interviews, technical reports, and a national survey. The information provided a greater understanding of cost recovery for non-EMS incidents.

The procedures used for this ARP began at the Learning Resource Center (LRC) at the USFA National Emergency Training Center (NETC) in March of 2016. Additional data searches took place at the University of New Mexico's (UNM) Zimmerman Library, AFD Training Academy Library, and the internet. The literature review was used to gain as much information on cost recovery for non-EMS incidents as possible. New research came from questionnaires, interviews, written sources, AFD records, informational tables, a national survey, and internet searches on cost recovery for non-EMS incidents.

The questionnaires were used to gain specific answers to the research questions from leaders in their professional fields. Cost recovery for non-EMS incidents is something that AFD

has very limited knowledge on; therefore, additional data, insight, and opinions were needed to help answer the research questions. The questions were created and based on each respondent's professional field of work. A sample size of four respondents was chosen based on their direct knowledge of cost recovery and the fire service. Respondents were given two months to complete the questionnaire (April 13 – June 13, 2016).

The first responder was Town of Brookfield Fire Department Lieutenant Stephen Raclaw. The purpose of this questionnaire was to learn about the role of an active fire department in non-EMS incident cost recovery. The questions were sent via email and communications occurred between April 13 and April 24, 2016. See Appendix A for a list of all questions and answers.

The second responder was Albuquerque City Councilor Brad Winter. The purpose of this questionnaire was to learn about the implementation of a city ordinance and the city's role in cost recovery. The questions were sent via email and communications occurred between April 13 and May 5, 2016. See Appendix B for a list of all questions and answers.

The third responder was Fire Recovery USA Regional Account Manager Angela Graham. The purpose of this questionnaire was to learn about the role of an EMS and non-EMS incident biller. The questions were sent via email and communications occurred between April 13 and May 17, 2016. See Appendix C for a list of all questions and answers.

The fourth responder was Insurance Professional Steven Rea. The purpose of this questionnaire was to learn about the role of an insurance company in reference to non-EMS incident cost recovery. The questions were sent via email and several communications occurred between April 13 and June 13, 2016. The fourth responder, Steven Rea, respectfully declined participation due to a signed company confidentiality and nondisclosure statement. See Appendix D for a list of all questions.

The interviews were used for a specific research question on AFD. The question involved the future of AFD and cost recovery revenues for non-EMS incidents; therefore, only current AFD leadership was able to answer this question. A sample size of two respondents was chosen based on their direct knowledge of AFD issues, concerns, and needs.

The first interview was with Albuquerque Fire Department Local 244 Union General President Diego Arencón. The purpose of this interview was to learn about AFD issues, concerns, and needs from a Labor Management perspective. The interview took place on August 10, 2016, and the interviewee was allowed to elaborate as much as needed to answer the research question. See Appendix E for the question and answer.

The second interview was with Albuquerque Fire Department Fire Chief David Downey. The purpose of this interview was to learn about AFD issues, concerns, and needs from an Administrative Management perspective. The interview took place on August 11, 2016, and the interviewee was allowed to elaborate as much as needed to answer the research question. See Appendix F for the question and answer.

A nationwide survey, *Cost Recovery for Non-EMS Emergency Response Incidents (CR Survey)* was developed and distributed by this researcher using *Survey Monkey*.

The CR Survey Monkey was organized using the *Create Survey* option; allowing this researcher to fully customize the survey questions for the end user. The purpose of the survey was to determine each participating organization's cost recovery efforts for non-EMS incidents. The Sandia National Laboratories Paramedic staff reviewed the CR Survey for *Content validity* and *Alternate-Form reliability*. The CR Survey questions were found valid and reliable.

While a cost recovery for non-EMS emergency response incident survey was found during the literature review, the CR Survey was created for this ARP's needs. An exact sample

size for this ARP could not be recorded; several survey participants came from the International Association of Fire Chiefs (IAFC) and the International Association of EMS Chiefs (IAEMSC) email distribution system lists. The fire and EMS organizations that received the CR Survey included: small and large, paid, volunteer, and combination organizations. This researcher attempted to gain a large and diverse participation response in order to best answer the research questions. The survey was distributed by email via Survey Monkey on April 6, 2016 and remained open until midnight, June 6, 2016.

Survey samples came from three sources, including: *Stratified Sampling*, *Convenience Sampling*, and *Judgment Sampling*. The Stratified Samples came from the email addresses of former fire and EMS classmates. The Convenience Samples came from the IAFC and the IAEMSC email lists. The Judgment Samples came from fire and EMS organizational email address internet searches. Follow-up procedures for the CR Survey included two reminder Survey Monkey emails, one on May 6, 2016 and one on June 5, 2016, to those participants that had not answered the survey. Noted CR Survey limitations included: non-participation emails, blocked email addresses, non-random and anonymous participants, wrong email addresses, truthfulness, and question comprehension. In all, 183 fire and EMS organizations participated in the CR Survey. A copy of the CR Survey email, questions, and answers (including CR Tables), is located in Appendix G; a list of CR Survey participants is located in Appendix H.

Results

The results for the first research question, *What type and how many non-EMS emergency response incidents occur in the City of Albuquerque each year and what are their costs?*, came from a questionnaire, written sources, AFD Records, the CR Survey, and informational tables.

All emergency responses in the COA follow the Fire Priority Dispatch (FPDS) and Medical Priority Dispatch systems (MPDS); all E911 calls are coded as *Omega, Alpha, Bravo, Charlie, Delta,* or *Echo* responses. Per FPDS and MPDS coding, E911 code three (3) responses

FPDS MPDS

Figures L1 and L2. FPDS – Code Levels (National Academies of Emergency Dispatch [FPDS], 2015); MPDS – Code Levels (National Academies of Emergency Dispatch [MPDS], 2015)

(lights and sirens) are coded as *Bravo, Delta,* and/or *Echo* responses (see Figures L1 and L2); however, not all emergency E911 dispatches require an EMS component. In fact, each AHJ (fire and/or EMS agency) can follow the direct recommendations of FPDS and MPDS dispatch coding; or determine their own local level of response based on their system needs. To be clear, MPDS dispatches are for EMS incidents and FPDS dispatches are for non-EMS incidents.

Table M1

List of FPDS Non-EMS Protocol Codes

Protocol 50: Case Entry for Reported Building/Structure Fire	Protocol 64: Marine Fire
Protocol 51: Aircraft Emergency	Protocol 65: Mutual Aid/Assist Outside Agency
Protocol 52: Alarms	Protocol 66: Odor (Strange/Unknown)
Protocol 53: Citizen Assist/Service Call	Protocol 67: Outside Fire
Protocol 54: Confined Space/Structure Collapse	Protocol 68: Smoke Investigation (Outside)
Protocol 55: Electrical Hazard	Protocol 69: Structure Fire
Protocol 56: Elevator/Escalator Rescue	Protocol 70: Train and Rail Collision/Derailment
Protocol 57: Explosion	Protocol 71: Vehicle Fire
Protocol 58: Extrication/Entrapped (Machinery, Vehicle)	Protocol 72: Water Rescue
Protocol 59: Fuel Spill	Protocol 73: Watercraft in Distress
Protocol 60: Gas Leak/Gas Odor (Natural and LP Gases)	Protocol 74: Suspicious Package
Protocol 61: HAZMAT	Protocol 75: Train and Rail Fire
Protocol 62: High Angle Rescue	Protocol 76: Bomb Threat
Protocol 63: Lightning Strike (Investigation)	Protocol 77: Motor Vehicle Crash (no medical dispatch)

Note. (FPDS, 2015)

The FPDS provides protocol codes that define its interpretation of what are non-EMS E911 incident responses (see Table M1). Of relevance, there is a dispatch coding for *non-priority incidents*; however, this is not to be confused with a non-EMS incident. Non-priority EMS incidents are coded as *Alpha* or *Omega* MPDS responses (Clawson, Dernocoeur, & Rose, 2008, p. 6.24).

In a questionnaire completed by *Fire Recovery USA* Regional Account Manager Angela Graham, Manager Graham was asked what types of non-EMS incident E911 responses are available for cost recovery. Ms. Graham stated that there are 10 main types of non-EMS emergency response incidents, specific to fire departments, available for cost recovery billing. The 10 main types of non-EMS cost recovery incidents are: "1) Motor Vehicle Incidents; 2) Haz-Mats; 3) False Alarms; 4) Fire Investigations; 5) Fire Incidents; 6) Illegal Fires; 7) Water Incidents; 8) Special Rescues; 9) Chief Responses; and 10) Miscellaneous Incidents" (A. Graham, personal communication, May 17, 2016).

Table G2

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 5

5. How many Non-EMS emergency response incidents does your organization respond to each year? (i.e.: fires, fire alarms, MVCs [fluids and fires], Haz-Mats, Technical Rescues, Wild-land fires, etc.)		
Answer Options	**Response Percent**	**Response Count**
Less than 5,000	83.2%	152
5,001 – 10,000	9.8%	18
10,001 – 20,000	2.7%	5
20,001 – 30,000	1.6%	3
30,001 – 40,000	2.2%	4
40,001 – 50,000	0.0%	0
50,001 – 100,000	0.0%	0
More than 100,001	0.5%	1
answered question		**183**
skipped question		**0**

Note. (Survey Monkey, 2016)

According to the CR Survey, 152 (83.2%) of the participating organizations indicated that they responded to 5,000 or less non-EMS incidents per year involving: fires, fire alarms,

MVCs (fluids and fires), Haz-Mats, technical rescues, wild-land fires, and etc.; more importantly, all 183 participants responded to some type of non-EMS incident last year—with one agency responding to more than 100,000 (see Table G2). Of note, there are costs associated with non-EMS incident responses. Of the 183 participating CR Survey organizations, 170 (93%) documented yearly costs for non-EMS incident responses; with 114 (67.1%) spending $250,000 or less; and 30 (17.7%) spending $750,000 or more (see Table G3).

Table G3

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 6

6. What is the total associated cost to your organization for your Non-EMS emergency response incidents?		
Answer Options	**Response Percent**	**Response Count**
Less than $50,000	33.0%	56
$50,001 – $250,000	34.1%	58
$250,001 – $500,000	7.6%	13
$500,001 – $750,000	7.6%	13
$750,001 – $1,000,000	2.4%	4
More than $1,000,001	15.3%	26
answered question		**170**
skipped question		**13**

Note. (Survey Monkey, 2016)

In answering the first part of the research question: The types of non-EMS incidents that AFD responds to are broken down into four main categories (fire, HTR, HM, and other), with additional subcategories as well (see Table M4). In 2015, AFD responded to 11,595 (12% of total call volume) E911 non-EMS incident calls (see Table M5).

Table M4

Types of Non-EMS Incident Responses for AFD in 2015

Total AFD Non-EMS Calls - 2015	11,595						
Fire	**9,092**	**Heavy Technical Rescue**	**300**	**Hazardous Materials**	**1,272**	**Other**	**931**
False Fire Alarms	4,476	Confined Space Rescues	3	HazMats	534	Aircraft Emergencies	20
Outside Fires	1,418	Elevator Rescues	69	Fuel Spills	124	Citizen Assists	596
Smoke Outside	656	Extrications	14	Gas Leaks/Odors	489	Mutual Aid	315
Structure Fires	770	High Angle Rescues	3	Suspicious Packages	11		
Fireworks	1,420	Water Rescues	8	Odor Strange/Unkown	114		
Explosions	21	Electrical Hazards	203				
Vehicle Fires	331						

Note. (Soto [Table incident types], 2016; 2015 Year End, 2016, pp. 24-25)

In answering the second part of the research question: The yearly AFD non-EMS incident responses, over the last 12 years (2004-2015), have averaged more than 9,500 responses per year—with 2015's numbers at 11,595 and 2016's projected at over 12,600 (see Tables M4 and M5). Of note, MVC calls are currently dispatched as medical calls under MPDS codes within AFD and were not figured into the non-EMS incident totals.

Table M5

Yearly Call Volume for Non-EMS Incident Responses for AFD

Year	Population	I./D.	Sq. Miles	I./D.	Total FFs	I./D.	Min. Field FFs	I./D.	Total Calls	I./D.	Calls Per FF	I./D.	Non-EMS Calls	I./D.	MVC Calls	I./D.
2016	561,379	0.40%	188.1	0.00%	681	0.74%	486	0.00%	106,605	13.02%	219	12.89%	12,630	8.93%	8,000	8.24%
2015	559,121	0.67%	188.1	0.00%	676	1.20%	486	1.25%	94,328	11.19%	194	10.86%	11,595	12.78%	7,391	7.87%
2014	555,417	0.98%	188.1	0.00%	668	0.00%	480	0.00%	84,834	4.57%	175	4.79%	10,281	-2.17%	6,852	8.21%
2013	550,000	0.67%	188.1	0.00%	668	2.30%	480	0.00%	81,125	2.17%	167	2.45%	10,509	10.29%	6,332	9.00%
2012	546,360	0.09%	188.1	0.00%	653	-2.25%	480	0.00%	79,404	0.55%	163	0.62%	9,528	0.55%	5,809	9.50%
2011	545,852	0.00%	188.1	0.00%	668	-1.62%	480	0.00%	78,973	3.45%	162	1.89%	9,477	3.45%	5,305	-2.19%
2010	545,852	3.14%	188.1	0.00%	679	0.00%	480	0.00%	76,339	0.07%	159	0.00%	9,161	0.07%	5,424	-6.55%
2009	529,219	1.14%	188.1	0.00%	679	2.26%	480	0.00%	76,284	-5.95%	159	-5.92%	9,154	-5.95%	5,804	6.44%
2008	523,240	1.18%	188.1	0.00%	664	1.68%	480	0.00%	81,106	1.67%	169	1.81%	9,733	1.67%	5,453	7.58%
2007	517,162	1.71%	188.1	0.00%	653	1.24%	480	0.00%	79,776	6.57%	166	6.41%	9,573	6.57%	5,069	2.82%
2006	508,486	2.20%	188.1	0.00%	645	1.26%	480	0.00%	74,858	3.36%	156	3.31%	8,983	3.36%	4,930	-12.96%
2005	497,543	2.31%	188.1	0.00%	637	5.12%	480	0.00%	72,427	6.77%	151	7.09%	8,691	6.77%	5,664	-15.39%
2004	486,319	N/A	188.1	46.95%	606	21.20%	480	25.33%	67,837	168.06%	141	113.64%	8,140	68.61%	6,694	N/A
1986	351,000	N/A	128.0	N/A	500	N/A	383	N/A	25,307	N/A	66	N/A	4,828	N/A	N/A	N/A
	Neutral Growth															
	Negative Growth															
	Positive Growth															
	N/A = Not Available															
	I./D. = Increase/Decrease - Year to Year															
	Projected Number for 2016 Based on 8 Months of Data 1/1/16 - 8/31/16															
	MVC Calls are Dispatched under MPDS Codes and were not figured into the non-EMS Incident Totals; however, they can be in the future.															

Note. (Soto [Table volume], 2016; Albuquerque Fire Department [AFD], 1987, pp. 1-2; 2004 Year End, 2005, pp. 5-11; 2005 Year End, 2006, pp. 5-11; 2006 Year End, 2007, pp. 5-11; 2007 Year End, 2008, pp. 5-11; 2008 Year End, 2009, pp. 5-11; 2009 Year End, 2010, pp. 5-11; 2010 Year End, 2011, pp. 5-11; 2011 Year End, 2012, pp. 5-11; 2012 Year End, 2013, pp. 5-7; 2013 Year End, 2014, pp. 24-26; 2014 Year End, 2015, pp. 25-28; 2015 Year End, 2016, pp. 22-25; January – August 2016, 2016, pp. 14-16)

In answering the third and final part of the research question: The cost for yearly non-EMS incident responses for AFD, over the last 12 years (2004-2015), based on the combined average of totals for *Cost Per Call Total Budget* and *Special Events Billing* (see Appendix I), is $5.9 million—with 2015 and 2016 projected at $6.9 million and $7 million, respectively (see Table M6).

Table M6

Yearly Cost for Non-EMS Incident Responses for AFD

Year	Total Budget	Total Non-EMS Calls	Cost Per Call - Total Budget	Total Cost	Cost Per Call - Special Event	Total Cost	Average - Total Costs
2016	$78,861,000.00	12,630	$739.75	$9,343,042.50	$368.32	$4,651,881.60	$6,997,462.05
2015	$77,416,000.00	11,595	$820.71	$9,516,140.70	$368.32	$4,270,670.40	$6,893,405.55
2014	$74,943,000.00	10,281	$883.41	$9,082,313.49	$368.32	$3,786,697.92	$6,434,505.71
2013	$73,199,000.00	10,509	$902.30	$9,482,259.37	$368.32	$3,870,674.88	$6,676,467.12
2012	$73,163,000.00	9,528	$921.40	$8,779,560.00	$368.32	$3,509,529.75	$6,144,544.88
2011	$70,240,000.00	9,477	$889.42	$8,428,800.00	$368.32	$3,490,480.24	$5,959,640.12
2010	$69,760,000.00	9,161	$913.82	$8,371,200.00	$368.32	$3,374,061.66	$5,872,630.83
2009	$71,361,000.00	9,154	$935.46	$8,563,320.00	$368.32	$3,371,630.75	$5,967,475.37
2008	$71,703,000.00	9,733	$884.07	$8,604,360.00	$368.32	$3,584,755.43	$6,094,557.72
2007	$68,094,000.00	9,573	$853.56	$8,171,280.00	$368.32	$3,525,971.56	$5,848,625.78
2006	$66,669,000.00	8,983	$890.61	$8,000,280.00	$368.32	$3,308,603.83	$5,654,441.91
2005	$58,246,000.00	8,691	$804.20	$6,989,520.00	$368.32	$3,201,157.52	$5,095,338.76
2004	$51,000,000.00	8,140	$751.80	$6,120,000.00	$368.32	$2,998,286.86	$4,559,143.43
1986	$24,718,259.00	4,828	$976.74	$4,715,681.61	$368.32	$1,778,248.96	$3,246,965.28
	Cost Based on Total Budget Divided by Total # of E911 Calls						
	Cost Based on COA's - Fire Service Special Event Billing Statement - see Appendix J						
	Projected Number for 2016 - Based on 8 Months of Response Data 1/1/16 - 8/31/16						
*** Yearly Cost based on the combined averaged totals for *Cost Per Call - Total Budget* and *Cost Per Call - Special Events* (2004 - 2015) = **$5,933,398.10** ***							

Note. (Soto [Table costs], 2016; COA Budgets: FY/05, FY/07 – FY/17; AFD, 1987, p. B-12) City of Albuquerque [COA FY/05], 2004, pp. 20, 45; COA FY/07, 2006, pp. 179-181; COA FY/08, 2007, pp. 182-185; COA FY/09, 2008, pp. 179-181; COA FY/10, 2009, pp. 183-186; COA FY/11, 2010, pp. 180-182; COA FY/12, 2011, pp. 190-195; COA FY/13, 2012, pp. 181-186; COA FY/14, 2013, pp. 175-179; COA FY/15, 2014, pp. 173-177; COA FY/16, 2015, pp. 172-175; COA FY/17, 2016, pp. 101-104

The results for the second research question, *What oversight and legal circumstances are involved with the implementation of a City of Albuquerque non-EMS emergency response incident cost recovery ordinance, and are any ordinances in place?*, came from questionnaires, statutes, governing bodies, and the CR Survey.

In the State of NM, all municipal fire departments fall under the direction of the *State Fire Marshal*. The State Fire Marshal works under the direction of the *NM Public Regulation Commission (PRC)—Insurance Division* and certifies all new fire departments when the following requirements have been met:

1. The department shall have been on probation for a period of no less than one year.
2. The department shall have an alarm notification system in place.
3. As a minimum the following records shall be on file with the fire department:

   a. Response records
   b. Training records Minutes of department business meetings.
   c. Maintenance records of equipment and apparatus.
   d. Up-to-date roster of fire department members.

4. No later than thirty days prior to the end of the one-year probation period, the fire department provide the Fire Marshal with the following:
   a. A description of the alarm system.
   b. A complete itemized inventory of firefighting equipment and apparatus.
   c. A roster of firefighters names, addresses and telephone numbers.
   d. A written request for a certification inspection.
5. A fire department that fails to comply with any portion of the certification requirements shall remain on probation until such time that all requirements are met.
6. Upon review and approval of all requirements, departments shall be certified by written notice. (Public Safety and Law Enforcement, 1977/1997, 2000, 2013)

In addition, the State Fire Marshal regulates firefighting activities, prevention, and training; and more importantly, maintains in contact with municipal fire departments, making sure their ordinances, rules and/or regulations do not supersede state law. "The regulations pursuant to this article shall have uniform force and effect throughout the state and no municipality shall enact any ordinances, rules or regulations inconsistent with the statewide rules and regulations" (State Fire Marshal Act, 1984/1998, 2007).

Despite state laws throughout the US granting fire departments, and their jurisdictional governments as a whole, the authority to enact ordinances—most agencies have not implemented one on behalf of cost recovery for non-EMS incident responses. In fact, of the 183 CR Survey

Table G7

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 7

7. Does your organization have cost recovery in place for Non-EMS emergency response incidents?		
Answer Options	**Response Percent**	**Response Count**
Yes	35.0%	63
No	60.0%	110
Currently working on it	5.0%	9
answered question		**182**
skipped question		**1**

Note. (Survey Monkey, 2016)

participants, only 63 (34.6%) received any kind of cost recovery for non-EMS incidents (see Table G7); and only 51 (27.9%) of the 63 organizations have an actual ordinance, law, or administrative code in place for the cost recovery of non-EMS incidents (see Table G8).

Table G8

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 8

8. By what means does your organization receive Non-EMS emergency response incident cost recovery?		
Answer Options	**Response Percent**	**Response Count**
None (We do not receive cost recovery for Non-	60.0%	110
Ordinance/Law/Administrative Code	27.9%	51
MOU with Insurance Company(s)	1.1%	2
Contracted Agreement with Insurance Company(s)	2.2%	4
We receive cost recovery for Non-EMS Incidents	4.4%	8
Other (Federal, FMO, Taxes, please specify)	4.4%	8
answered question		**183**
skipped question		**0**

Note. (Survey Monkey, 2016)

Town of Brookfield Fire Department Lieutenant Stephen Raclaw stated that his town's ability to pass a non-EMS incident response cost recovery ordinance came by way of Wisconsin State Law, *Special Charges for Current Services § 66.0627* (S. Raclaw, personal communication, April 24, 2016). The law allows them to bill responsible parties for reasonable

and necessary expenses incurred in a fire response (S. Raclaw, personal communication, April 24, 2016). The *Wisconsin Fire Service Guidebook* states:

> In the absence of a municipal ordinance specifying otherwise, insurance companies are reluctant to compensate the local fire department or municipality for costs incurred beyond those associated with routine fire suppression. A resolution or ordinance directing that extra-ordinary costs be billed to the responsible party may protect the municipality from having to absorb the costs. . . . Charges for services must be supported by local ordinance or state code. (Wisconsin Department of Commerce, 2009, p. 34)

Lieutenant Raclaw also stated that the Town of Brookfield currently has a Fire Protection Ordinance in place that allows lawful cost recovery for all MVCs and Haz-Mat events:

> **Town of Brookfield (WI) Fire Protection Ordinance**
>
> **5.17 Recovery Costs**
>
> Any person or organization who violates the terms of this ordinance and, as a result, causes the dispatch and/or deployment of firefighting equipment or personnel to control or extinguish the fire or to protect life or property, in addition to other fines and forfeitures, may be required to pay all costs and expenses incurred by the Town as a result of the dispatch or deployment of firefighting equipment or personnel. Such costs and expenses shall be calculated by the Fire Chief and submitted to the Town Board for its review, consideration, and approval. Such costs shall be assessed against the property in accordance with the provisions of § 66.0627, Wis. Stats.
>
> **5.19 Fire Response**
>
> **(5)** ***Motor Vehicle Fire Calls on Highways or in Town*****.** The owner of any motor vehicle involved in a fire, spill or extrication to which the Fire Department

responds shall be charged $500 where the fire, spill, or extrication occurred on any public highway or street.

(6) ***Hazardous Material Incidents.*** Over and above any other fees, the spiller of any hazardous material shall be charged for services provided by the Fire Department. Such fee shall be based upon the Waukesha County Uniform Fee Structure for Fire Apparatus as adopted by the Waukesha County Association of Fire Chiefs.

Service Fees:

Engine Company with minimum staffing of 3 - $446/Hour

Ladder Company with minimum staffing of 3 - $592/Hour

Tanker with staffing of 1 - $294/Hour

Ambulance with minimum staffing of 2 EMT-Basics - $147/Hour

(Fire Protection Ordinance, 2001)

Though US States regulate their local fire departments, in general, clearly the AHJ has the right to implement and maintain their own ordinances, rules and/or regulations. In 1917, the City of Albuquerque *Charter* accepted the operational authority to create and implement its own regulations pursuant to State (NM) law (American Legal, n.d., para. 2). Since that time the City's Charter has been amended several times (July 22, 1919, October 7, 1919, February 15, 1966, and June 29, 1971) with the finalization of a *Mayor-Council* government in 1974 (American Legal, n.d., para. 2).

While the COA has the right to create and implement its own regulations, some specifics were needed to fully answer the research question. In order to gain a better perspective on COA

Ordinances, COA City Councilor Brad Winter was asked how one would introduce, pass, and implement an ordinance. Councilor Winter, a City Council member for 17 years, stated:

> Generally, they [ordinances] should be done in consultation with relevant/impacted city departments and with any interested community groups and stakeholders. Once [an ordinance is] formalized it can be presented to the City Council through the sponsorship of one or more Councilor. If so presented, it [ordinance] would go through public hearings at a Council Committee and before the full City Council. If a majority of the Council were to approve of the proposed [ordinance], it would be routed to the Mayor for a signature, non-signature or veto. If the Mayor takes any action other than veto, then it [ordinances] would be deposited with the city clerk, published, and take effect five days after publication. (B. Winter, personal communication, May 5, 2016)

Furthermore, in cases where the COA Mayor vetoes all or part of any ordinance passed by the City Council, the ordinance may still be approved by a passing two-thirds vote of the entire membership of the City Council at the next regularly scheduled meeting of the City Council (City of Albuquerque [Council Rules], 2016, p. 22).

Councilor Winter was also asked if the COA currently has any ordinances in place for non-EMS incident response cost recovery (not including the *Fire Code Ordinance O-12-23*—this is not a response ordinance). Councilor Winter stated that the only response ordinance in place is for false alarms, *Albuquerque Alarm System Ordinance O-02-35 (§ 9-3-1 – 16; § 9-3-99 ROA 1994)* (see Appendix J):

> Yes, as it relates to fire services the City does have an ordinance dealing with cost recovery for excessive false business or residential fire, smoke, carbon monoxide or heat alarm notifications. Alarm users are first required to maintain an annual permit for such

> alarms at a cost of $25 per year. See ROA 1994 § 9-3-5 [Appendix J]. Businesses who register more than three such false alarms in a permit year will be fined $300 per incident, residences $150. See ROA 1994 § 9-3-13 [Appendix J]. Per City ordinance, alarm permit holders are required to pay an annual permit fee. Additional fines may be assessed against the alarm user for failure to pay fees or false alarm fines. The ordinance also includes a potential criminal penalty. (B. Winter, personal communication, May 5, 2016; Albuquerque Alarm System Ordinance, 2003; 2007; 2010; 2011)

Therefore, in answering the first part of the research question: Each COA ordinance must be introduced and passed by the nine member City Council—twice (by two-thirds vote the second time) if the Mayor vetoes the ordinance the first go round. "The City Council is the legislative authority of the city. It has the power to adopt all ordinances, resolutions, or other legislation conducive to the welfare of the people of the City" (City of Albuquerque [City Council], n.d., para. 1).

In answering the second half of the research question: The COA only provides one non-EMS incident response cost recovery ordinance: *Albuquerque Alarm System Ordinance* § *9-3-1 – 16;* § *9-3-99 ROA 1994*; however, the COA does not currently fine residents or businesses for false fire alarm responses (COA FY/16, 2015, p. 235).

The results for the third research question, *What would be the projected revenue from a City of Albuquerque non-EMS incident response cost recovery ordinance?*, came from questionnaires, written sources, the CR Survey, and an informational table.

'Alexander Hamilton started the US Treasury with nothing, and that was the closest our country has ever been to being even – Will Rodgers' (as cited in Pantana, 2007, p. 192). In today's market, management is thrusting public service-delivery organizations into the private

marketplace, where they must function as business enterprises, due to rising expenses and call volumes, forcing fire and EMS organizations to do more with less (Osborne, 2007, p. 6; Fitch & Friese, 2016, p. 6). The involvement of the government sector in the business world—finding ways for government to make money to support its own daily operations—is called *Enterprising Government* (Rainey, 2009, p. 435).

Providing an enterprising government can occur four different ways (Profit Motive, Investments, Entrepreneurship, and Charging User Fees); however, the only one that can have an immediate impact on a city's need for fire service cost recovery is *Charging User Fees.* Charging user fees is an appropriate cost recovery method as long as the services provide a benefit to society as a whole, such as fire services (Osborne & Gaebler, 1992).

Table G9

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 9

9. Where does your organization receive their Non-EMS emergency response incident cost recovery funding from?		
Answer Options	**Response Percent**	**Response Count**
None (We do not receive cost recovery for Non-	60.0%	110
Insurance	23.0%	42
Private Pay	10.4%	19
Other (Federal, FMO, Taxes, please specify)	6.6%	12
answered question		**183**
skipped question		**0**

Note. (Survey Monkey, 2016)

According to the *International City/County Management Association (ICMA),* a successful financial local government must adopt policies and ordinances, with a wide-variety of revenue strategies, in order to fulfill its operational needs. The local adoption of *non-tax fees* (i.e. user, impact, special districts, ordinances, and etc.) has a much larger role on revenue collection than local taxes. For example, today's local governments are collecting more revenue from non-tax fees than taxes. In the US, between 1981 and 1996, due to the growth and

dependence of non-tax fees, non-tax fees increased by 173% while taxes alone increased by only 121% (Aronson & Schwartz, 2004, p. 315).

Table G10

Cost Recovery for Non-EMS Emergency Response Incident Survey – Question 10

10. How much yearly revenue does your organization generate from non-EMS incident response cost recovery?		
Answer Options	**Response Percent**	**Response Count**
$0	60.0%	110
Less than $50,000	31.3%	57
$50,001 – $250,000	6.6%	12
$250,001 – $500,000	0.5%	1
$500,001 – $750,000	0.0%	0
$750,001 – $1,000,000	0.5%	1
More than $1,000,001	1.1%	2
answered question		**183**
skipped question		**0**

Note. (Survey Monkey, 2016)

The CR Survey data revealed that 61 (33.4%) agencies received non-tax fee revenues from insurance and private pay resources; and another 12 (6.6%) agencies received revenues from other sources, such as: federal, FMO, taxes, and etc. (see Table G9). Of note, Regional Manager Angela Graham stated that her company, Fire Recovery USA, consistently receives over 51% in cost recovery fees from insurance and private pay resources (A. Graham, personal communication, May 17, 2016). Town of Brookfield Lieutenant Stephen Raclaw stated that billed insurance companies have always paid their bills; and that calls for service, on state roads, are always reimbursed by the State of Wisconsin (S. Raclaw, personal communication, April 24, 2016). In respect to yearly revenue, 69 (37.9%) of CR Survey participants received some amount of cost recovery funding at or below $250,000; and two (1.3%) received more than $1 million (see Table G10).

In order to gain more knowledge on cost recovery billing, Fire Recovery USA Regional Manager Angela Graham was asked to provide specific information on billing and cost recovery.

Table M11

Projected Revenue for COA from Non-EMS Incident Responses in 2015

AFD Non-EMS Incidents with an E911 Response	Incidents	Amount Billed (min.)	Percent Collected	Totals
MVC (with fluids on ground)	3,696	$550.00	90.00%	$1,829,520.00
MVC (no fluids on ground)	3,695	$550.00	30.00%	$609,675.00
Vehicle Fires	331	$605.00	20.00%	$40,051.00
False Alarms	4,476	$100.00	30.00%	$134,280.00
Fires	2,865	$1,200.00	60.00%	$2,062,800.00
Hazardous Materials	1,272	$700.00	60.00%	$534,240.00
Special Rescues	300	$400.00	60.00%	$72,000.00
Fireworks	1,420	$500.00	50.00%	$355,000.00
Other (Aircraft Emergencies, Citizen Assist, Mutual Aid)	931	$300.00	50.00%	$139,650.00
Fire Investigations	88	$1,100.00	50.00%	$48,400.00
Projected Yearly Revenue for COA based on 2015	**11,595**			**$3,338,021.00**
Can Potentially climb to these Totals	19,074			$5,825,616.00

	MPDS Medical Dispatches. Not in the $3.3M Projection because they were dispatched as medical calls.
	Not Dispatched as a First Responder, thus not included in the non-EMS Incident number. Can be billed in the future.
	Projected cost recovery for non-EMS incident responses for AFD [2015] - based on Fire Recovery USA Sample Ordinance.
	TOTAL of all non-EMS Incidents (incudes MVCs and Arson), regardless of first response or dispatch coding.

Note. (A. Graham, personal communication, May 17, 2016; Soto [Table revenue], 2016; 2015 Year End, 2016, pp. 24-25; Albuquerque Fire Department [Annual report], 2016, p.41)

Fire Recovery USA is a company that specializes in cost recovery for fire departments nationwide. Manager Graham stated:

> Fire Departments can bill non-EMS emergency incidents to Insurance Companies; however, the law for what can be billed is different for each State. Be sure to check the specific laws for your State. For motor vehicle related incidents department personnel must obtain insurance and driver information for each vehicle involved. Invoices are sent to the insurance companies and they work to determine which party is at fault. In many cases Fire Recovery USA has the ability to link with your records management system to import your NFIRS [National Fire Incident Reporting System] data into our systems for billing. Fire Recovery follows up on these invoices until they are paid or denied by the insurance companies. In some cases we then balance bill the responsible parties for what insurance did not pay. (A. Graham, personal communication, May 17, 2016)

Table M12

2015 Population Size and Rank - 50 Largest US Cities

2015 Population Size and Rank - 50 Largest US Cities						
No.	**Fire Department**	**Based on Pop. Size**	**Call Volume**	**Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
3	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
6	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
7	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
8	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
9	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
10	San Jose, CA	1,026,908	83,600	$179.0	816	32
11	Austin, TX	931,830	86,641	$171.9	1,129	43
12	El Paso, TX	873,513	78,686	$97.5	1,068	31
13	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
14	San Francisco, CA	849,774	135,062	$350.0	1,609	44
15	Columbus, OH	835,957	180,631	$230.2	1,571	34
16	Fort Worth, TX	812,238	103,482	$132.4	961	40
17	Charlotte, NC	800,000	110,400	$110.2	1,170	42
18	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
19	Detroit, MI	677,116	165,000	$107.0	1,000	26
20	Nashville, TN	658,602	102,368	$114.4	1,143	36
21	Washington, DC	650,000	197,092	$204.7	2,097	33
22	Denver, CO	649,495	107,076	$128.0	982	33
23	Memphis, TN	646,450	135,310	$172.9	1,784	56
24	Boston, MA	645,169	81,978	$204.6	1,623	33
25	Seattle, WA	634,535	94,346	$179.4	1,094	33
26	Las Vegas, NV	625,000	111,270	$120.0	700	20
27	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
28	Portland, OR	613,355	79,572	$111.4	720	28
29	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
30	Louisville, KY	600,000	35,099	$53.0	481	19
31	Milwaukee, WI	599,164	89,448	$102.9	893	32
32	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
33	Tucson, AZ	527,972	87,748	$92.7	753	23
34	Fresno, CA	520,159	42,416	$62.5	295	21
35	Omaha, NE	508,802	48,712	$97.1	632	24
36	Kansas City, MO	467,007	110,712	$151.0	1,274	32
37	Sacramento, CA	466,488	83,701	$103.7	595	24
38	Mesa, AZ	462,376	62,999	$69.0	548	20
39	Long Beach, CA	461,564	59,273	$104.5	630	17
40	Colorado Springs, CO	457,900	64,786	$61.6	476	21
41	Virginia Beach, VA	450,980	43,889	$49.1	499	20
42	Atlanta, GA	447,841	101,255	$105.7	1,133	34
43	Raleigh, NC	439,896	39,084	$55.5	609	29
44	Miami, FL	430,332	100,005	$109.5	793	11
45	Oakland, CA	419,267	62,729	$130.4	420	24
46	Minneapolis, MN	400,800	41,348	$61.4	421	19
47	Tulsa, OK	399,682	57,028	$71.1	695	26
48	Wichita, KS	382,368	54,129	$42.8	438	16
49	New Orleans, LA	378,715	37,640	$96.4	655	30
50	Arlington, TX	370,134	40,717	$46.6	463	17

Note. (Soto [Table population], 2016; Matthews & Roche [survey part 1], 2016; Matthews & Roche [survey part 2], 2016; Austin Fire Department, n.d.; Houston Fire Department, n.d.; Jacksonville Fire and Rescue Department, n.d.; San Jose Fire Department, n.d.; Oakland Fire Department, n.d.; Detroit Fire Department, n.d.)

Manager Graham also provided a sample ordinance (see Appendix K) with mitigation rates for each type of non-EMS incident response. Since there are continual increases in non-EMS incident responses, AFD's 2015 response numbers were entered into the sample ordinance in order to best answer the research question. The answer to the research question is as follows: The projected revenue from a COA non-EMS incident response cost recovery ordinance, based on AFD's 2015 non-EMS incident response numbers, is $3.33 million (see Table M11); with an opportunity in the future—by including all non-EMS incidents—to increase to $5.8 million (see Table M11).

The results for the fourth research question, *What area within the Albuquerque Fire Department would receive the most benefit from a City of Albuquerque non-EMS incident response cost recovery ordinance?*, came from interviews, written sources, and informational tables.

> Since 1986, the rates of career firefighters per 1,000 people protected, for mostly or all career fire departments, have remained in a range of 1.64 to 1.76 career field firefighters per 1,000 people protected. These results reflect average apparatus and station rates per 1,000 people by population protected reported to the NFPA [National Fire Protection Association]. They do not reflect recommended rates or some defined fire protection standard. (Haynes & Stein, 2016, p. 10)

In 1986, AFD field staffing was comprised of 383 firefighters; a ratio of 1.09 career field firefighters per 1,000 COA population (see Table M5); nationally the ratio was 1.73 field firefighters per 1,000 people in 1986 (AFD, 1987, pp. 1, 30; Haynes & Stein, 2016, p. 12). Twenty years later, in 2006, AFD field staffing to COA population was at a ratio of 0.74 firefighters per 1,000 people (see Table M5)—a 32% *decrease* in personnel-to-population

Table M13

2015 Total Fire Department Call Volume - 50 Largest US Cities

2015 Total Fire Department Call Volume - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Based on Call Volume**	**Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
4	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
5	Houston, TX	2,296,224	318,627	$506.7	3,810	91
6	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
7	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
8	Washington, DC	650,000	197,092	$204.7	2,097	33
9	Columbus, OH	835,957	180,631	$230.2	1,571	34
10	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
11	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
12	Detroit, MI	677,116	165,000	$107.0	1,000	26
13	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
14	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
15	Memphis, TN	646,450	135,310	$172.9	1,784	56
16	San Francisco, CA	849,774	135,062	$350.0	1,609	44
17	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
18	Las Vegas, NV	625,000	111,270	$120.0	700	20
19	Kansas City, MO	467,007	110,712	$151.0	1,274	32
20	Charlotte, NC	800,000	110,400	$110.2	1,170	42
21	Denver, CO	649,495	107,076	$128.0	982	33
22	Fort Worth, TX	812,238	103,482	$132.4	961	40
23	Nashville, TN	658,602	102,368	$114.4	1,143	36
24	Atlanta, GA	447,841	101,255	$105.7	1,133	34
25	Miami, FL	430,332	100,005	$109.5	793	11
26	Seattle, WA	634,535	94,346	$179.4	1,094	33
27	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
28	Milwaukee, WI	599,164	89,448	$102.9	893	32
29	Tucson, AZ	527,972	87,748	$92.7	753	23
30	Austin, TX	931,830	86,641	$171.9	1,129	43
31	Sacramento, CA	466,488	83,701	$103.7	595	24
32	San Jose, CA	1,026,908	83,600	$179.0	816	32
33	Boston, MA	645,169	81,978	$204.6	1,623	33
34	Portland, OR	613,355	79,572	$111.4	720	28
35	El Paso, TX	873,513	78,686	$97.5	1,068	31
36	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
37	Colorado Springs, CO	457,900	64,786	$61.6	476	21
38	Mesa, AZ	462,376	62,999	$69.0	548	20
39	Oakland, CA	419,267	62,729	$130.4	420	24
40	Long Beach, CA	461,564	59,273	$104.5	630	17
41	Tulsa, OK	399,682	57,028	$71.1	695	26
42	Wichita, KS	382,368	54,129	$42.8	438	16
43	Omaha, NE	508,802	48,712	$97.1	632	24
44	Virginia Beach, VA	450,980	43,889	$49.1	499	20
45	Fresno, CA	520,159	42,416	$62.5	295	21
46	Minneapolis, MN	400,800	41,348	$61.4	421	19
47	Arlington, TX	370,134	40,717	$46.6	463	17
48	Raleigh, NC	439,896	39,084	$55.5	609	29
49	New Orleans, LA	378,715	37,640	$96.4	655	30
50	Louisville, KY	600,000	35,099	$53.0	481	19
	The COA (AFD)					
	Cities SMALLER than the COA with MORE E911 Calls = 3					
	Cities LARGER than the COA with LESS E911 Calls = 8					

Note. (Soto [Table calls], 2016; Matthews & Roche [survey part 1], 2016; Matthews & Roche [survey part 2], 2016; Austin Fire Department, n.d.; Houston Fire Department, n.d.; Jacksonville Fire and Rescue Department, n.d.; San Jose Fire Department, n.d.; Oakland Fire Department, n.d.; Detroit Fire Department, n.d.)

resources (Emergency Services Consulting Inc., 2006, p. 59). Even with an increase of 103 field firefighters since 1986, AFD's current ratio 30 years later, in 2016, is 0.86 field firefighters per 1,000 people (see Table M5). In addition, the western region ratio and national ratio were 0.93 and 1.74 in 2006, respectively (Emergency Services Consulting Inc., 2006, p. 59; Haynes & Stein, 2016, p. 12); and in 2014 they were 0.89 and 1.67, respectively (Haynes & Stein, 2016, pp. 12, 20). Furthermore, the 2014 NFPA *US Fire Department Profile* report states that US cities with 500,000 to 999,999 people have low, median, and high population protection ratio rankings; specifically, these ratios for field firefighters per 1,000 population are ranked *low at 0.68*; *median at 1.19*; and *high at 2.26*—currently AFD falls into the low category with 0.86 field firefighters per 1,000 population (Haynes & Stein, 2016, p. 16).

In conjunction with the NFPA *US Fire Department Profile* report, the *2006 COA AFD Long Range Master Plan* stated that AFD had fewer emergency response field staff (0.74 firefighters per 1,000 people) in comparison to jurisdictions of similar size; and that an additional 140 field response personnel were needed to meet the western regional ratio of 0.93 firefighters per 1,000 people (Emergency Services Consulting Inc., 2006, p. 59). In addition to the necessary field staffing, the master plan stated that an additional 28 AFD positions were needed in support divisions (Emergency Services Consulting Inc., 2006, p. 221). The master plan also stated that AFD needed at least 220 firefighters per field shift (660 total for all three shifts); 11 new fire stations (Stations 26 and 27 coming by 2015 – 2016); 11 new engine units; four new aerial ladders; and 5 new rescue units—for anticipated population growth and E911 call volume increases—by 2026 (Emergency Services Consulting Inc., 2006, pp. 221, 225). The projected numbers for COA's population and E911 call numbers in the master plan were broken down by specific years: 2010, 2015, 2020, 2025, and 2030. Ironically, the first two projected years, 2010

Table M14

2015 Total Fire Department Uniformed Personnel - 50 Largest US Cities

2015 Total Fire Department Uniformed Personnel - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Budget in Millions**	**Based on Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Houston, TX	2,296,224	318,627	$506.7	3,810	91
4	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
5	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
6	Washington, DC	650,000	197,092	$204.7	2,097	33
7	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
8	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
9	Memphis, TN	646,450	135,310	$172.9	1,784	56
10	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
11	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
12	Boston, MA	645,169	81,978	$204.6	1,623	33
13	San Francisco, CA	849,774	135,062	$350.0	1,609	44
14	Columbus, OH	835,957	180,631	$230.2	1,571	34
15	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
16	Kansas City, MO	467,007	110,712	$151.0	1,274	32
17	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
18	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
19	Charlotte, NC	800,000	110,400	$110.2	1,170	42
20	Nashville, TN	658,602	102,368	$114.4	1,143	36
21	Atlanta, GA	447,841	101,255	$105.7	1,133	34
22	Austin, TX	931,830	86,641	$171.9	1,129	43
23	Seattle, WA	634,535	94,346	$179.4	1,094	33
24	El Paso, TX	873,513	78,686	$97.5	1,068	31
25	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
26	Detroit, MI	677,116	165,000	$107.0	1,000	26
27	Denver, CO	649,495	107,076	$128.0	982	33
28	Fort Worth, TX	812,238	103,482	$132.4	961	40
29	Milwaukee, WI	599,164	89,448	$102.9	893	32
30	San Jose, CA	1,026,908	83,600	$179.0	816	32
31	Miami, FL	430,332	100,005	$109.5	793	11
32	Tucson, AZ	527,972	87,748	$92.7	753	23
33	Portland, OR	613,355	79,572	$111.4	720	28
34	Las Vegas, NV	625,000	111,270	$120.0	700	20
35	Tulsa, OK	399,682	57,028	$71.1	695	26
36	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
37	New Orleans, LA	378,715	37,640	$96.4	655	30
38	Omaha, NE	508,802	48,712	$97.1	632	24
39	Long Beach, CA	461,564	59,273	$104.5	630	17
40	Raleigh, NC	439,896	39,084	$55.5	609	29
41	Sacramento, CA	466,488	83,701	$103.7	595	24
42	Mesa, AZ	462,376	62,999	$69.0	548	20
43	Virginia Beach, VA	450,980	43,889	$49.1	499	20
44	Louisville, KY	600,000	35,099	$53.0	481	19
45	Colorado Springs, CO	457,900	64,786	$61.6	476	21
46	Arlington, TX	370,134	40,717	$46.6	463	17
47	Wichita, KS	382,368	54,129	$42.8	438	16
48	Minneapolis, MN	400,800	41,348	$61.4	421	19
49	Oakland, CA	419,267	62,729	$130.4	420	24
50	Fresno, CA	520,159	42,416	$62.5	295	21
	The COA (AFD)					
	Cities SMALLER than the COA with MORE Uniformed Personnel = 5					
	Cities LARGER than the COA with LESS Uniformed Personnel = 1					

Note. (Soto [Table personnel], 2016; Matthews & Roche [survey part 1], 2016; Matthews & Roche [survey part 2], 2016; Austin Fire Department, n.d.; Houston Fire Department, n.d.; Jacksonville Fire and Rescue Department, n.d.; San Jose Fire Department, n.d.; Oakland Fire Department, n.d.; Detroit Fire Department, n.d.)

and 2015, for population and E911 call numbers (Projected 2010 – 73,794 calls; 503,900 pop.; Projected 2015 – 79,485 calls; 555,000 pop.) were both lower than anticipated (see Table M5) (Emergency Services Consulting Inc., 2006, pp. 176, 188). While increases in staffing will create additional costs, so too does increases in population and emergency responses—ultimately requiring a much larger operational budget for AFD's growth and responses (Emergency Services Consulting Inc., 2006, p. 221).

For the last 35 years *Firehouse Magazine* has been releasing National Run Survey reports (Matthews & Roche [survey part 1], 2016). The surveys share and compare ranked data on US and Canadian fire departments. The fire departments are ranked by staffing, response units, funding, pay, and call volume. In 2015, the COA was ranked as the 32nd largest city in the US (see Table M12); however, AFD's overall role in the survey rankings was much *larger*. In fact, out of the top 50 largest US cities, AFD was the 27th busiest fire department (see Table M13) with 94,328 E911 calls. More importantly, AFD performed their duties while responding with the 36th lowest ranking for uniformed personnel (see Table M14); the 39th lowest ranking in fire department engine companies, (22 covering 188 sq. miles; see Table M15); and most significantly, the 40th ranking in fire department financial budgeting (the top 35 had budgets over a $100 million; see Table M16).

Over the last eight years (2009 – 2016) AFD's total call volume and total EMS call volume have risen by 40% (see Table M5); with EMS calls accounting for 88% of all E911 responses, and ALS and BLS calls averaging 37% and 63%, respectively (see Table M5; Albuquerque Fire Department [AFD Records], 2016). The AFD ALS response times were eight minutes or less 91% of the time and BLS response times were 10 minutes or less 86% of the time (BLS response times were averaged from Alpha [eight minutes], Bravo [10 minutes], and Omega

Table M15

2015 Total Number of Fire Department Engines - 50 Largest US Cities

2015 Total Number of Fire Department Engines - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Budget in Millions**	**Firefighters**	**Based on Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
6	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
7	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
8	Memphis, TN	646,450	135,310	$172.9	1,784	56
9	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
10	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
11	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
12	San Francisco, CA	849,774	135,062	$350.0	1,609	44
13	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
14	Austin, TX	931,830	86,641	$171.9	1,129	43
15	Charlotte, NC	800,000	110,400	$110.2	1,170	42
16	Fort Worth, TX	812,238	103,482	$132.4	961	40
17	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
18	Nashville, TN	658,602	102,368	$114.4	1,143	36
19	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
20	Columbus, OH	835,957	180,631	$230.2	1,571	34
21	Atlanta, GA	447,841	101,255	$105.7	1,133	34
22	Washington, DC	650,000	197,092	$204.7	2,097	33
23	Denver, CO	649,495	107,076	$128.0	982	33
24	Seattle, WA	634,535	94,346	$179.4	1,094	33
25	Boston, MA	645,169	81,978	$204.6	1,623	33
26	Kansas City, MO	467,007	110,712	$151.0	1,274	32
27	Milwaukee, WI	599,164	89,448	$102.9	893	32
28	San Jose, CA	1,026,908	83,600	$179.0	816	32
29	El Paso, TX	873,513	78,686	$97.5	1,068	31
30	New Orleans, LA	378,715	37,640	$96.4	655	30
31	Raleigh, NC	439,896	39,084	$55.5	609	29
32	Portland, OR	613,355	79,572	$111.4	720	28
33	Detroit, MI	677,116	165,000	$107.0	1,000	26
34	Tulsa, OK	399,682	57,028	$71.1	695	26
35	Sacramento, CA	466,488	83,701	$103.7	595	24
36	Oakland, CA	419,267	62,729	$130.4	420	24
37	Omaha, NE	508,802	48,712	$97.1	632	24
38	Tucson, AZ	527,972	87,748	$92.7	753	23
39	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
40	Colorado Springs, CO	457,900	64,786	$61.6	476	21
41	Fresno, CA	520,159	42,416	$62.5	295	21
42	Las Vegas, NV	625,000	111,270	$120.0	700	20
43	Mesa, AZ	462,376	62,999	$69.0	548	20
44	Virginia Beach, VA	450,980	43,889	$49.1	499	20
45	Minneapolis, MN	400,800	41,348	$61.4	421	19
46	Louisville, KY	600,000	35,099	$53.0	481	19
47	Long Beach, CA	461,564	59,273	$104.5	630	17
48	Arlington, TX	370,134	40,717	$46.6	463	17
49	Wichita, KS	382,368	54,129	$42.8	438	16
50	Miami, FL	430,332	100,005	$109.5	793	11
	The COA (AFD)					
	Cities SMALLER than the COA with MORE Engines = 9					
	Cities LARGER than the COA with LESS Engines = 2					

Note. (Soto [Table engines], 2016; Matthews & Roche [survey part 1], 2016; Matthews & Roche [survey part 2], 2016; Austin Fire Department, n.d.; Houston Fire Department, n.d.; Jacksonville Fire and Rescue Department, n.d.; San Jose Fire Department, n.d.; Oakland Fire Department, n.d.; Detroit Fire Department, n.d.)

[12 minutes] responses) (AFD Records, 2016; National Fire Protection Association [NFPA], 2015, pp. 8-9). For clarification, the accepted response time for ALS and BLS calls in the COA is eight minutes or less and 10 minutes or less 90% of the time, respectively (AFD Policy, 2015, p. 2). Of note, NFPA 1710 (*Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*) recommended response times for ALS and BLS responses are eight minutes or less and four minutes or less 90% of the time, respectively (NFPA, 2015, pp. 8-9).

Current AFD IAFF Local 244 Union General President Diego Arencón was asked what AFD area would most benefit from a COA non-EMS incident response cost recovery ordinance. General President Arencón stated:

> Additional staffing is the most important issue and need within the Albuquerque Fire Department. The money from the ordinance would fix our staffing problems, if it's recurring. Our biggest concern is providing the best service delivery to our citizens; we can do this with more personnel in the field and in support. This will also allow us to conduct safer operations. We recently passed an AFD Minimum Staffing Ordinance that requires full staffing for our units at all times. Right now our engine companies are responding at times with atypical staffing [less than 4 firefighters per engine] because we do not have enough personnel to cover our current vacation, sick leave, comp-time-off, and work-off-site slots. We're also waiting for the staffing of new Rescue 4, already pre-approved by City Council a year ago; and we're desperately in need of at least 4 new engine companies. The current and growing call volume is destroying us; especially the BLS calls. And as I already stated, field staffing is not our only staffing need. We need additional personnel in support, like: FMO, RMS [Records Management Services],

Table M16

2015 Total Fire Department Budget - 50 Largest US Cities

2015 Total Fire Department Budget - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Based on Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
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3	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	San Francisco, CA	849,774	135,062	$350.0	1,609	44
6	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
7	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
8	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
9	Columbus, OH	835,957	180,631	$230.2	1,571	34
10	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
11	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
12	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
13	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
14	Washington, DC	650,000	197,092	$204.7	2,097	33
15	Boston, MA	645,169	81,978	$204.6	1,623	33
16	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
17	Seattle, WA	634,535	94,346	$179.4	1,094	33
18	San Jose, CA	1,026,908	83,600	$179.0	816	32
19	Memphis, TN	646,450	135,310	$172.9	1,784	56
20	Austin, TX	931,830	86,641	$171.9	1,129	43
21	Kansas City, MO	467,007	110,712	$151.0	1,274	32
22	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
23	Fort Worth, TX	812,238	103,482	$132.4	961	40
24	Oakland, CA	419,267	62,729	$130.4	420	24
25	Denver, CO	649,495	107,076	$128.0	982	33
26	Las Vegas, NV	625,000	111,270	$120.0	700	20
27	Nashville, TN	658,602	102,368	$114.4	1,143	36
28	Portland, OR	613,355	79,572	$111.4	720	28
29	Charlotte, NC	800,000	110,400	$110.2	1,170	42
30	Miami, FL	430,332	100,005	$109.5	793	11
31	Detroit, MI	677,116	165,000	$107.0	1,000	26
32	Atlanta, GA	447,841	101,255	$105.7	1,133	34
33	Long Beach, CA	461,564	59,273	$104.5	630	17
34	Sacramento, CA	466,488	83,701	$103.7	595	24
35	Milwaukee, WI	599,164	89,448	$102.9	893	32
36	El Paso, TX	873,513	78,686	$97.5	1,068	31
37	Omaha, NE	508,802	48,712	$97.1	632	24
38	New Orleans, LA	378,715	37,640	$96.4	655	30
39	Tucson, AZ	527,972	87,748	$92.7	753	23
40	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
41	Tulsa, OK	399,682	57,028	$71.1	695	26
42	Mesa, AZ	462,376	62,999	$69.0	548	20
43	Fresno, CA	520,159	42,416	$62.5	295	21
44	Colorado Springs, CO	457,900	64,786	$61.6	476	21
45	Minneapolis, MN	400,800	41,348	$61.4	421	19
46	Raleigh, NC	439,896	39,084	$55.5	609	29
47	Louisville, KY	600,000	35,099	$53.0	481	19
48	Virginia Beach, VA	450,980	43,889	$49.1	499	20
49	Arlington, TX	370,134	40,717	$46.6	463	17
50	Wichita, KS	382,368	54,129	$42.8	438	16
	The COA (AFD)					
	Cities SMALLER than the COA with a LARGER Budget = 9					
	Cities LARGER than the COA with a SMALLER Budget = 1					

Note. (Soto [Table budget], 2016; Matthews & Roche [survey part 1], 2016; Matthews & Roche [survey part 2], 2016; Austin Fire Department, n.d.; Houston Fire Department, n.d.; Jacksonville Fire and Rescue Department, n.d.; San Jose Fire Department, n.d.; Oakland Fire Department, n.d.; Detroit Fire Department, n.d.)

> Training, and our Alarm Room Dispatch Center [staffed by AFD uniformed personnel]. (D. Arencón, personal communication, August 10, 2016)

Current AFD Fire Chief David Downey was asked what AFD area would most benefit from a COA non-EMS incident response cost recovery ordinance. Chief Downey stated:

> The Operations Division requires revenue. Both apparatus and personnel are needed in the field and recurrent revenue can alleviate that problem. The increase in call volume has been substantial over the last few years and the need for additional response units and personnel is a must. Implementing more Community EMS Programs [like our Public Inebriate Intervention Program (PIIP)] and creating new Alternate Response units, like Fire Service Aids, to respond to non-emergency calls would help take the heavy call volume load of some of the units. We've added 7 field units over the past few years, due to the 20% increase in call volume; however, over the same time period it has not been enough to keep up with the call volume increases. Something has to give. We'll have to consider reducing services or increase staffing. Another consideration would be to invest the cost recovery revenue into more Rescue units [Ambulances] and personnel. Use those new units to generate a larger revenue stream. Besides field apparatus and personnel, we also need a new CAD [computer aided dispatch] system and additional personnel in our Alarm Room Dispatch Center; and more Inspectors in FMO. There are not enough dispatchers in our Alarm Room to keep up with the 911 calls coming in; nor are there enough FMO Inspectors to inspect every building in a timely manner in the City of Albuquerque. (D. Downey, personal communication, August 11, 2016)

Therefore, the answer to the research question is: AFD's staffing would benefit the most from revenue generated by a COA non-EMS incident response cost recovery ordinance.

Discussion

The purpose of this ARP was to determine the validity of a City of Albuquerque cost recovery ordinance for non-EMS emergency response incidents. The answers to the research questions, presented by new research and promoted by the literature review, must be considered and discussed further. Though other avenues of revenue can be considered, the results of this ARP reveal an immediate financial contribution for the AFD through the use of a non-EMS incident response cost recovery ordinance. The COA must consider the value that can be accomplished using the results of this ARP. The interpretation of the research is evident—the City of Albuquerque *can viably* create, pass and implement a Cost Recovery for Non-EMS Emergency Response Incident Ordinance for revenue.

The documentation produced by the first research question revealed that the COA has a specifically typed, large number of costly non-EMS incident responses each year. The types of non-EMS incidents that AFD responds to are broken down into four main categories (fire, HTR, HM, and other), with 21 categories in all (see Table M4). The non-EMS incidents are typed to FPDS call coding and can include up to 28 total categories (see Table M1), *Protocol 50 – Protocol 77* (FPDS, 2015).

The AFD category types parallel those provided in the literature review. For example, AFD's types included the same non-EMS incident types listed in the City of Cedar Park (TX) *Ordinance CO59-14-07-24-C1*: *Specialized Billing of the Fire Department and First Responder EMS* (Cedar Park, 2014, pp. 3-4); the Koelz EFOP ARP, *Alternative Funding Sources* (Koelz, 1997, p. 23); and the USFA/FEMA *Funding Alternatives for Fire and Emergency Services* report (USFA, 1999, pp. 1-2, 1-3, 1-4, 1-5).

The number of AFD non-EMS incident responses is large. With regard to whether AFD's amount of non-EMS incidents are truly large or not, the CR Survey revealed that only 13 participating agencies (out of 183) responded to more than 10,000 non-EMS incidents per year (the right-side of the *Bell Curve* if you will); indicating that AFD does, indeed, respond to a large amount of these call types (see Table G2; Survey Monkey, 2016). In 2015, AFD responded to 11,595 non-EMS incidents (12.3% of total call volume)—42% greater than 2004's non-EMS numbers (8,140) and 140% greater than 1986's non-EMS numbers (4,828) (2015 Year End, 2016, pp. 22-25; 2004 Year End, 2005, pp. 1-2; AFD, 1987, p. 11). The large amount of non-EMS incident responses by the AFD is comparable to the results found in the literature review.

The AFD serves the 32nd largest US city; in comparison, the City of Louisville (KY) is the 30th largest US city and the City of Columbus (OH) is ranked 15th. The City of Louisville is slightly larger than Albuquerque and has very comparable non-EMS incident response numbers; 11,675 (Louisville's 2013 non-EMS incidents responses) to 10,509 (AFD's 2013 non-EMS incident responses) (Louisville Division of Fire, 2014, p. 18; 2013 Year End, 2014, pp. 24-26). The City of Columbus is two-thirds (66%) larger than Albuquerque; however, their non-EMS incident response numbers are only one-third (33%) greater than Albuquerque's; 33,710 (Columbus' 2015 non-EMS incidents responses) to 11,595 (AFD's 2015 non-EMS incident responses) (Columbus Division of Fire, 2016, p. 17; 2015 Year End, 2016, pp. 22-25). Clearly, AFD's non-EMS incident responses are comparable to the fire department numbers in the literature review.

The cost for yearly non-EMS incident responses for AFD, over the last 12 years (2004-2015), based on the combined average of totals for *Cost Per Call Total Budget* and *Special Events Billing* (see Appendix I), is $5.9 million—with 2015 at $6.9 million (minimum) and

2016's projected at $7 million (minimum) (see Table M6). The costs incurred by AFD for non-EMS incident responses are also similar to those found in the literature review. For example, the City of Toronto's annual cost for false alarms, between 2009 and 2011, was more than $3.1 million per year (Fight Your Ticket, 2010, para. 24); and in the City of San Diego, yearly false fire alarm costs, between 2008 and 2010, averaged $541,679 annually (San Diego City Council, 2011, p. 1).

The evidence presented by the second research question concedes that the development and implementation of a COA ordinance involves direct oversight and legal authority from the COA City Council. The oversight and legal circumstances involved with the implementation of COA's ability to create and implement a non-EMS emergency response incident cost recovery ordinance is related to the information in the literature review. The creation and implementation of early government induced fire ordinances in Rome (Julius Caesar's reign), England (Queen Anne's reign), and the US (New Orleans 1796) have all helped in the future development of today's fire ordinances (Neville, 1973, p. 79).

The 1951 *Police and Fire Protection Ordinance (Public Act 33)* provided Michigan cities the authority to legally create and implement non-EMS incident cost recovery ordinance efforts for public fire department (and Police) responses (Police and Fire Protection Act, 1951/2004). Nationally, the FEMA and USFA 2012 report, *Finding Alternatives for Fire and Emergency Services*, has expanded and reinforced MI's *Public Act 33*; stating that cities have the authority to impose cost-recovery measures, on individual users, as long as they are approved by local, state and/or federal law (USFA Funding, 2012, pp. 27, 32). In NM, municipal fire departments fall under the direction of the State Fire Marshal and Public Regulation Commission (PRC). Both entities regulate firefighting activities, prevention, and training; more importantly, they make

sure each NM City understands that they have the authority to create their own fire ordinances—as long as they adhere to state law (Public Safety and Law Enforcement, 1977/1997, 2000, 2013; State Fire Marshal Act, 1984/1998, 2007; American Legal, n.d., para. 2).

While state laws throughout the US grant cities the authority to enact ordinances—some states (Alabama, Arkansas, Florida, Georgia, Indiana, Louisiana, Missouri, Oklahoma, Pennsylvania, and Tennessee) choose not to participate in cost recovery ordinances. In fact, most CR Survey participants (110 or 60%) have not implemented a non-EMS incident response cost recovery ordinance (Dubois, 2013, para. 5; Survey Monkey, 2016; see Table G8). However, the 73 (40%) CR Survey participants that currently receive cost recovery funding is an improvement over the 23 (23%) participants (based off the average of *Alternative Funding Sources* Categories – numbers 2, 4, 6, 13, 15, 16, 18, 21, and 22) in the Koelz Survey that received funding in 1997 (Koelz, 1997, p. 23; Survey Monkey, 2016; see Table G7).

Today, non-EMS incident cost recovery ordinances—created and implemented by cities—are found throughout the world and come in many forms. For example, more than 50 US cities in 26 states are already charging non-EMS incident response cost recovery fees (Dubois, 2013, para. 4). Internationally, the Cities of Toronto and London have also imposed non-EMS incident response cost recovery ordinances due to the impacts of increased call volume (London Fire Brigade, n.d., para. 1; Fight Your Ticket, 2010, para. 1). However, the increase in non-EMS incident response call volume is not the only E911 number continually growing. In fact, AFD's EMS response numbers (82,733) were 51% greater than 2004's EMS numbers (54,718), and an astounding 304% greater than 1986's EMS numbers (20,479) (2015 Year End, 2016, pp. 22-24; 2004 Year End, 2005, p. 4; AFD, 1987, p. 11). Simply put, increasing call volumes—both EMS and non-EMS—negatively impact responses, personnel, resources, and budgets.

Clearly, the COA's City Council has the same oversight and legal authority to implement a non-EMS incident response cost recovery ordinance like the Cities of San Diego and Cedar Park (TX), Township of Elmwood (MI), and the Town of Brookfield (San Diego City Council, 2011, p. 2; Cedar Park, 2014, pp. 3-4; Fire Fee Ordinance, 1992, pp. 1-2; Fire Protection Ordinance, 2001).

The information contributed by the third research question acknowledges that the COA can provide a significant revenue source from a non-EMS incident response cost recovery ordinance. Using AFD's 2015 non-EMS incident responses (11,595) as the basis for determining the projected yearly revenues from a COA non-EMS incident response cost recovery ordinance, in conjunction with the Fire Recovery USA sample ordinance, and the projected AFD yearly revenue is $3.33 million (see Table M11; A. Graham, personal communication, May 17, 2016; Soto [Table revenue], 2016). Of note, the future inclusion of all non-EMS incidents, regardless of response or dispatch coding (adding MVCs and Arson), can provide the COA with nearly $6 million in cost recovery revenues each year (see Table M11; A. Graham, personal communication, May 17, 2016; Soto [Table revenue], 2016; 2015 Year End, 2016, pp. 24-25; Annual report, 2016, p.41).

The projected cost recovery revenue, based on a COA non-EMS incident response ordinance, is similar to those in the literature review. The CR Survey data revealed that 73 (40%) of participating agencies received cost recovery for responses to non-EMS incidents; and 69 (37.9%) of those agencies received an amount at or below $250,000 (see Tables G9 and G10; Survey Monkey, 2016). The City of Toronto responded to almost 23,000 false fire alarm calls in 2007; since 2010 they have been billing, on average, 10,000 false fire alarms a year—generating a yearly $6.5 million in revenue (Fight Your Ticket, 2010, para. 3, 23). In the City of San Diego

the projected yearly cost recovery for false fire alarms, since the implementation of their ordinance, is $1.66 million (San Diego City Council, 2011, p. 33). Using AFD's 2015 false fire alarm responses only (4,476), multiplied by the $300 fine per false alarm call, and the COA could potentially recover as much as $1.3 million in false fire alarm revenues per year (see Table M4; 2015 Year End, 2016, p. 24; B. Winter, personal communication, May 5, 2016; Albuquerque Alarm System Ordinance, 2003; 2007; 2010; 2011).

The IAFC states that there is a need for cost recovery in order to "offset the costs of the demand for emergency response[s] by . . . fire departments. . . . There continues to be a demand for timely and high-quality emergency responses even when budgets are shrinking" (IAFC, n.d., para. 2-3, 9). Today, more than 26 US States have already imposed cost recovery fees, with four additional states participating on a limited basis (Dubois, 2013, para. 4, 5).

The data gathered by the fourth research question submits that AFD staffing needs would receive the most benefit from a COA non-EMS incident response cost recovery ordinance. The successful implementation of a recurring revenue generating ordinance can provide the COA the essential funding to directly address AFD's personnel staffing needs, while indirectly improving response times and the budgetary outlook.

The benefit(s) of a COA non-EMS incident response cost recovery ordinance is similar to those discovered in the literature review. Using the NFPA's *Population Protection Ratio* sizes clearly implies that AFD is just above the *low* rank for field firefighters per 1,000 people; and presently, AFD is halfway through its 20 year *Long Range Master Plan* with no relief in sight. Of the top 28 ranked busiest (call volume) US fire departments in 2015, AFD is the only fire department without a $100 million budget; in fact, half of the top 28 have budgets over $200 million (see M13). With a 13% increase in the E911 call volume in 2016, AFD will need to

consider a cost recovery ordinance in order to expand their staffing or find a way to reduce call volume responses.

> The Operations Division requires revenue. Both apparatus and personnel are needed in the field and recurrent revenue can alleviate that problem. The increase in call volume has been substantial over the last few years and the need for additional response units and personnel is a must. . . . We'll have to consider reducing services or increase staffing. (D. Downey, personal communication, August 11, 2016)

The City of Lompoc (CA) experienced an increase in E911 call volume, a decrease in city revenues, and low operating funding in the 2000s; their options: 1. Reduce fire department services; 2. Increase taxes; 3. Bill those individuals that use fire services; and/or 4. Bill insurance companies (Latipow, 2014, p. 4). The City of Lompoc relies on a combination of general taxes, fees, and charges for services; and with $2,140,000 in lost revenue, from 2007 to 2012, the city began FY 2013 with fire department funding in a 50% hole (Latipow, 2014, pp. 2, 4). The implementation of cost recovery allowed the Lompoc Fire Department to add needed staffing; which addressed their call volume concerns. For example, the new Lompoc Deputy Fire Marshal will take on responsibility for fire and life-safety risk management programs, fire code enforcement, fire safety education and fire investigations; additional new positions will provide the necessary flexibility the fire department requires for fires and other emergency responses (Latipow, 2014, p. 6). Paralleling the City of Lompoc, Chief Downey and General President Arencón both stated in their interviews that AFD was in need of personnel (and increased call volume concerns); and that new positions could be funded by a non-EMS incident response cost recovery ordinance (D. Arencón, personal communication, August10, 2016; D. Downey, personal communication, August 11, 2016).

If AFD cannot implement a cost recovery ordinance then it may have to consider joining forces with another agency—thus increasing personnel—to reduce budgetary costs and call volume responses. If AFD cannot join forces to *increase* their operational budget then another consideration is federal funding; such as the FEMA *Staffing for Adequate Fire and Emergency Response* (SAFER) Grant and the *Assistance to Firefighters Grant* (AFG).

According to the USFA, some local governments join together to share operating costs to help offset budget problems in both jurisdictions. It also provides benefits for both jurisdictional needs in the form of increased levels of service, equipment, and personnel (USFA Funding, 2012, p. 43). In North Charleston, SC, the fire department's EMS responses increased by more than 300% since 2004 and now make up more than two-thirds of total call volume (USFA Funding, 2012, p. 162). Personnel staffing and EMS training have become concerns and North Charleston is looking into other means of recurring operational funding (USFA Funding, 2012, p. 162). In the meantime, North Charleston was awarded an *Assistance to Firefighters Grant* (AFG) of $128,000 with a match of $32,000 from North Charleston to address their concerns; factors contributing to the significant increase in call volume included city growth, in size and population, and the large economic downturn in 2008 (USFA Funding, 2012, p. 162).

The Atlanta (Georgia) Fire Rescue Department was awarded a $9.8 million SAFER Grant in 2011 to fund 75 new firefighter positions (USFA Funding, 2012, p. 163). Unable to implement a cost recovery program, Atlanta Fire was able to use the grant to solve several staffing problems for the fire department; including the staffing of four firefighters on each engine company (USFA Funding, 2012, p. 163).

While federal funding is available, it is clear that a fire department can receive enough funding from an E911 incident response cost recovery ordinance for the staffing of personnel.

For example, the City of Cedar Park (TX), has implemented *Ordinance CO59-14-07-24-C1: Specialized Billing of the Fire Department and First Responder EMS*. Their ordinance allows the City of Cedar Park to recover costs from responses. The ordinance allows the Cedar Park Fire Department to recover recurring revenues for their personnel on E911 responses (in addition to the cost recovery for the unit's response)—allowing them to reinvest it towards departmental growth (Cedar Park, 2014, pp. 3-4).

Using cost recovery revenue to fund staffing positions within AFD is supported by the IAFC and is not *double-taxation*. The IAFC is in full support of *who* receives cost recovery and *why* they receive it; more importantly, they understand that call volume will only continue to increase, while budgets shrink, and that fire departments must meet the need:

> Cost recovery for fire-based emergency response services is becoming a more familiar concept for cities, counties and their fire departments. . . . They need options to offset the costs of the demand for emergency responses by their fire departments. There continues to be a demand for timely and high-quality emergency responses even when budgets are shrinking. . . . Cost recovery is not double taxation, as some opponents have claimed. . . . Cost recovery is not a tax; it is comparable to a user fee. . . . In fact, all costs recovered are a direct benefit to the taxpayer and the community served by the local fire department. (International Association of Fire Chiefs [IAFC], n.d., para. 2, 9)

Today, most insurance companies have policy's that pay for fire department responses. However, most fire departments do not recover these response costs; in fact, it is most likely due to one of two reasons: 1) fire departments are not aware of this revenue stream, or 2) they are not allowed to recover these costs due to elected officials' decisions. Of significance, insurance

policy holders pay for fire fees—monthly—so if the fire service is not recovering the costs of their responses, who is?

> [The fire service is] merely charging our response costs against [insurance] money earmarked for our responses. Because the insurance company has that fire fee in each policy, the fact that you have a fire in your home or business, we can fairly bill against it and it should not cause an increase in your premium. (Latipow, 2014, p. 5)

The analysis and implications, of these results, concludes that the City of Albuquerque and the Albuquerque Fire Department must develop and implement a *Non-EMS Incident Response Cost Recovery Ordinance*. With continual city growth and increasing call volume, the time is right to engage in legislation for a viable revenue generating ordinance. Most importantly, the implementation of this recurring revenue generating ordinance is that it is a *Neutral Issue*—the new revenue, increasing AFD's budget, will be used to pay for an increase in service; thus creating a *Net Effect* of zero ($0) dollars. The key outcome with this new revenue will be to *supplement* AFD's current financial budget—not *supplant* its existing funds.

Recommendations

The following recommendations are based on the information in this ARP; and uphold the mission of the Albuquerque Fire Department.

- Present this research paper to the COA Mayor, City Councilors, and Fire Chief.
- Direct the COA to study the overall financial impact of a Cost Recovery for Non-EMS Incident Response Ordinance in the City.
- Direct the COA to establish an Ad Hoc Committee to determine the effects of a Cost Recovery for Non-EMS Incident Response Ordinance on the COA's citizens.

- Direct the COA to further study the sustainability of current Albuquerque Fire Department responses to E911 call volumes.
- Direct the COA to investigate the use of Cost Recovery for Non-EMS Incident Response Ordinance revenues as a possible funding source for additional AFD staffing.
- Direct the COA to develop a Cost Recovery for Non-EMS Incident Response Ordinance.
- Direct the COA's Purchasing Division to develop a Request for Proposal (RFP) for a non-EMS cost recovery billing contractor.
- If a Cost Recovery for Non-EMS Incident Response Ordinance cannot be implemented then direct the COA to open up the City's EMS Ordinance and add cost recovery for non-EMS incident response language to that ordinance.

The implementation of these recommendations will provide the COA an opportunity to generate additional revenue for the AFD. A Cost Recovery for Non-EMS Incident Response Ordinance is a fiscally responsible and proven revenue source; and COA Officials must consider this viable revenue source. While this ARP may not be applicable to every organization in this country and abroad, the recommendations can still provide guidance to fire service professionals looking for potential revenues in Cost Recovery for Non-EMS Incident Responses.

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Appendix A

Questionnaire Questions for Town of Brookfield Fire Department Lieutenant Stephen J. Raclaw

April 24, 2016

1. What non-EMS emergency response incident(s) does your FD respond to (non-EMS emergency response incidents include: *motor vehicle crashes/wrecks; motor vehicle fires; motor vehicle extrications; hazardous materials incidents, fire alarm activations, fire investigations; illegal fires [fireworks, burning trash]; wild-land fires; structure fires [residential, commercial]; special incidents [water rescue, technical rescue, wilderness rescue, etc.*])?

   MVCs and Haz-Mats

2. How much revenue do you collect from your non-EMS emergency response incident(s)?

   The annual revenue budgeted is approximately $10,000. Actual revenue in 2015 was just over $15,000. I'd like to point out that this is down from five years ago. During that time, the state redeveloped the highway that accounted for many of our accidents. After the redevelopment, we noticed a reduction of 140 calls (all were MVA's). This also reduced our revenue from $45,000 to the present level. I am including this as a point that there is a fine line of revenue versus risk reduction. MVA's now are lower in frequency and speed which impacted revenue but created a safer community.

3. What town/city/village/state oversight and legal circumstances are involved with your FD's ability to collect revenue for the non-EMS emergency response incident(s)?

   I attached the Wi Fire Chief's Reference. On page 30 it states; "Reimbursement for Expenses of Hazardous Material Response Local governments have the authority to pass an ordinance allowing them to bill responsible parties for reasonable and necessary expenses incurred in the response to discharges of hazardous substances. (ss. 166.22, Wis. Stats.)"

   The Town of Brookfield Chapter 5 which covers the fire department operations states, "5.17 RECOVERY COSTS. Any person or organization who violates the terms of this ordinance and, as a result, causes the dispatch and/or deployment of firefighting equipment or personnel to control or extinguish the fire or to protect life or property, in addition to other fines and forfeitures, may be required to pay all costs and expenses incurred by the Town as a result of the dispatch or deployment of firefighting equipment or personnel. Such costs and expenses shall be calculated by the Fire Chief and submitted to the Town Board for its review, consideration, and approval. Such costs shall be assessed against the property in accordance with the provisions of § 66.0627, Wis. Stats. (Cr. 07/02/1996)/ I attached this document as well.

4. How did your FD justify the billing of non-EMS emergency response incident(s)?

   Since 2000, the state has steadily reduced the amount of shared revenue given back to municipalities. Municipalities in turn created "user fees" for services. It became more of a necessity for survival. To my knowledge, it has never been challenged. Insurance companies have always paid the fees and if not, calls for service on state roads are reimbursed by the state. If not able to be collected, "soft billing" is utilized and the cost is written off.

5. What customer service does your FD perform during their response to non-EMS emergency response incident(s)?

   I have not been on the line for over a year. But previously, we carried "After the Accident" forms (attached) that provided basic information of what to do such as contacting insurance companies and disposing of child seats. It also listed the contact information for the tow companies for follow up. Trash bags were also carried for personal belongings that people would want to grab from the vehicle before towing.

Appendix B

Questionnaire Questions for City of Albuquerque City Councilor Brad Winter

May 5, 2016

1. Does the City of Albuquerque participate in cost recovery for non-EMS emergency response incidents by way of a city Ordinance? (non-EMS emergency response incidents include: *motor vehicle crashes/wrecks; motor vehicle fires; motor vehicle extrications; hazardous materials incidents, fire alarm activations, fire investigations; illegal fires [fireworks, burning trash]; wild-land fires; structure fires [residential, commercial]; special incidents [water rescue, technical rescue, wilderness rescue, etc.*])

   Yes, as it relates to fire services the City does have an ordinances dealing with cost recovery for excessive false business or residential fire, smoke, carbon monoxide or heat alarm notifications. Alarm users are first required to maintain an annual permit for such alarms at a cost of $25 per year. *See* ROA 1994 § 9-3-5. Business who register more than three such false alarms in a permit year be fined $300 per incident, residences $150. *See* ROA 1994 § 9-3-13.

2. If the City of Albuquerque <u>does</u> participate in cost recovery for non-EMS emergency response incidents, then what oversight and legal circumstances (law/ordinance/administrative code/etc.) does the City have in order to continue receiving the cost recovery funding?

   Per City ordinance, alarm permit holders are required to pay an annual permit fee. Additional fines or penalties may be assessed against the alarm user for failure to pay fees or false alarm fines. The ordinance also includes a potential criminal penalty.

3. If the City of Albuquerque <u>does not</u> participate in cost recovery for non-EMS emergency response incidents by way of a city Ordinance, then <u>how does one introduce, pass, and implement</u> a *City of Albuquerque Ordinance for Cost Recovery for Non-EMS Emergency Response Incidents*?

   Additional cost recovery initiatives could be developed by any interested party. Generally, they should be done in consultation with relevant/impacted city departments and with any interested community groups and stakeholders. Once formalized it can be presented to the City Council through the sponsorship of one or more Councilor. If so presented, it would go through public hearings at a Council Committee and before the full City Council. If a majority of the Council were to approve of the proposed, it would be routed to the Mayor for a signature, non-signature or veto. If the Mayor takes any action other than veto, then it would be deposited with the city clerk, published, and take effect five days after publication.

Appendix C

Questionnaire Questions for Fire Recovery USA Regional Account Manager Angela Graham

May 17, 2016

1. Can a fire department directly or indirectly (through a billing company) bill non-EMS emergency incident responses to Insurance Companies? If so, how?

   Yes, Fire Departments can bill non-EMS emergency incidents to Insurance Companies; however the law for what can be billed is different for each state. Be sure to check the specific laws for your State. For motor vehicle related incidents department personnel must obtain insurance and driver information for each vehicle involved. Invoices are sent to the insurance companies and they work to determine which party is at fault. In many cases Fire Recovery USA has the ability to link with your records management system to import your NIFRS data into our systems for billing. Fire Recovery follows up on these invoices until they are paid or denied by the insurance companies. In some cases we then balance bill the responsible parties for what insurance did not pay.

2. What non-Emergency Medical Services (EMS) incidents can be billed? (non-EMS emergency response incidents include: *motor vehicle crashes/wrecks; motor vehicle fires; motor vehicle extrications; hazardous materials incidents, fire alarm activations, fire investigations; illegal fires; wild-land fires; structure fires; special incidents [water rescue, technical rescue, wilderness rescue, etc.*]) If so, please name them.

   1) MVCs; 2) Haz-Mat Incidents; 3) False Alarm Incidents; 4) Fire Investigation Incidents; 5) Fire Incidents; 6) Illegal Fire Incidents; 7) Water Incidents; 8) Special Rescue Incidents; 9) Chief Response Incidents; and 10) Miscellaneous Incidents.

3. Are there set mitigation rates by the Insurance Industry for the deployment of emergency and/or non-emergency services by the fire department for services provided on scenes? If so, what are the mitigation rates per incident, per hour?

   Yes Fire Recovery uses rates that have been deemed usual and customary in the industry. Some states set the rates departments must follow. Please see attached.

4. What is the US average payout percentages for each non-EMS incidents? For NM?

   Our average amount collected per paid invoice is approximately $660. We do not track separately by state.

5. How many fire departments, nationwide, participate in non-EMS cost recovery?

   We are not sure but would guess most have a fee schedule in place of some form for Alarms, Incidents, Inspections, etc.

Appendix D

Questionnaire Questions for Insurance Professional Steven Rea

Questions sent on April 13, 2016 with several phone calls, emails, and texts before a respectful declination (by phone) due to signed company confidentiality and nondisclosure agreements.

1. By law (if so, please name it), do individuals living on US soil require insurance? If so, what types of insurance must they have?

   No Response.

2. Does the Insurance Industry cover non-Emergency Medical Services (EMS) incidents? (non-EMS emergency response incidents include: *motor vehicle crashes/wrecks; motor vehicle fires; motor vehicle extrications; hazardous materials incidents, fire alarm activations, fire investigations; illegal fires [fireworks, burning trash]; wild-land fires; structure fires [residential, commercial]; special incidents [water rescue, technical rescue, wilderness rescue, etc.*]) If so, please name them.

   No Response.

3. Are there set mitigation rates by the Insurance Industry for the deployment of emergency and/or non-emergency services by the fire department for services provided on scenes? If so, what are the mitigation rates per incident, per hour?

   No Response.

4. Can a fire department directly or indirectly (through a billing company) bill non-EMS emergency incident responses to Insurance Companies? If so, how?

   No Response.

Appendix E

Personal Interview Question for AFD Local 244 Union General President Diego Arencón

August 10, 2016

What area within the Albuquerque Fire Department would receive the most benefit from a City of Albuquerque non-EMS incident response cost recovery ordinance?

Additional staffing is the most important issue and need within the Albuquerque Fire Department. The money from the ordinance would fix our staffing problems, if it's recurring. Our biggest concern is providing the best service delivery to our citizens; we can do this with more personnel in the field and in support. This will also allow us to conduct safer operations. We recently passed an AFD Minimum Staffing Ordinance that requires full staffing for our units at all times.

Right now our engine companies are responding at times with atypical staffing because we do not have enough personnel to cover our current vacation, sick leave, comp-time-off, and work-off-site slots. We're also waiting for the staffing of new Rescue 4, already pre-approved by City Council a year ago; and we're desperately in need of at least 4 new engine companies. The current and growing call volume is destroying us; especially the BLS calls. And as I already stated, field staffing is not our only staffing need. We need additional personnel in support, like: FMO, RMS, Training, and our Alarm Room Dispatch Center.

Appendix F

Personal Interview Question for AFD Fire Chief David Downey

August 11, 2016

What area within the Albuquerque Fire Department would receive the most benefit from a City of Albuquerque non-EMS incident response cost recovery ordinance?

The Operations Division requires the most revenue need. Both apparatus and personnel are needed in field. The increase in call volume has been substantial over the last few years and the need for additional response units and personnel is a must. Implementing more Community EMS Programs and creating new Alternate Response units, like Fire Service Aids, to respond to non-emergency calls would help take the heavy call volume load of some of the units. We've added 7 field units over the years, due to the 20% increase in call volume, over the same time period; however, it has not been enough to keep up with the call volume.

Another consideration would be to invest the cost recovery revenue into more Rescue units and personnel. Use those new units to generate a larger revenue stream. Besides field apparatus and personnel, we also need a new CAD system and additional personnel in our Alarm Room Dispatch Center; and more Inspectors in FMO. There are not enough dispatchers in our Alarm Room to keep up with the amount of 911 calls coming in; nor are there enough FMO Inspectors to inspect every building in a timely manner in the City of Albuquerque.

Appendix G

CR Survey Email, Questions, and Answers (Tables)

Albuquerque Fire Department
EMS Division

David Downey, Fire Chief

April 6, 2016

Dear Participant:

My name is Frank Soto Jr. and I am the Albuquerque Fire Department EMS Division Commander. I am currently writing my fourth-year Applied Research Project (ARP) as a student in the Executive Fire Officer Program at the National Fire Academy. I have selected your organization to participate in a survey: *Cost Recovery for Non-EMS Incidents (CR Survey)*.

If I have sent this survey to the wrong person within your city/village/town/county, then please forward it to the correct person.

Your reported data will be in my ARP, as well as your organization's name; however, no data linking them together will be revealed.

There are 10 check box style questions in this survey. I appreciate and thank you for taking a few minutes of your time to complete the following survey.

Your information will greatly assist me in this research project. All responses will need to be completed by June 6, 2016. Once again, thank you for your assistance!

Respectfully submitted,

Frank Soto Jr., **MPA, CFO, CEMSO, MIFireE, NRP**
Division Commander
Albuquerque Fire Department

Cost Recovery for Non-EMS Emergency Response Incident Survey (CR Survey)

1. What is the name of your organization?		
Answer Options	**Response Percent**	**Response Count**
Name	100.0%	180
answered question		**180**
skipped question		**3**

2. What type of organization do you work for?		
Answer Options	**Response Percent**	**Response Count**
Fire Based Organization (fire, fire/EMS, Career,	85.8%	157
EMS Based Organization (EMS Only, non-fire)	9.2%	17
Other (please specify)	5.0%	9
answered question		**183**
skipped question		**0**

3. What is the population size of your community?		
Answer Options	**Response Percent**	**Response Count**
Less than 50,000	53.6%	98
50,001 – 100,000	23.0%	42
100,001 – 200,000	8.7%	16
200,001 – 300,000	5.5%	10
300,001 – 400,000	1.6%	3
400,001 – 500,000	1.6%	3
More than 500,000	6.0%	11
answered question		**183**
skipped question		**0**

4. How many employees are in your organization?		
Answer Options	**Response Percent**	**Response Count**
Less than 50	39.0%	71
51 – 100	27.5%	50
101 – 250	20.9%	38
251 – 500	5.5%	10
501 – 1000	4.4%	8
More than 1,000	2.7%	5
answered question		**182**
skipped question		**1**

5. How many Non-EMS emergency response incidents does your organization respond to each year? (i.e.: fires, fire alarms, MVCs [fluids and fires], Haz-Mats, Technical Rescues, Wild-land fires, etc.)

Answer Options	Response Percent	Response Count
Less than 5,000	83.2%	152
5,001 – 10,000	9.8%	18
10,001 – 20,000	2.7%	5
20,001 – 30,000	1.6%	3
30,001 – 40,000	2.2%	4
40,001 – 50,000	0.0%	0
50,001 – 100,000	0.0%	0
More than 100,001	0.5%	1
answered question		**183**
skipped question		**0**

6. What is the total associated cost to your organization for your Non-EMS emergency response incidents?

Answer Options	Response Percent	Response Count
Less than $50,000	33.0%	56
$50,001 – $250,000	34.1%	58
$250,001 – $500,000	7.6%	13
$500,001 – $750,000	7.6%	13
$750,001 – $1,000,000	2.4%	4
More than $1,000,001	15.3%	26
answered question		**170**
skipped question		**13**

7. Does your organization have cost recovery in place for Non-EMS emergency response incidents?

Answer Options	Response Percent	Response Count
Yes	35.0%	63
No	60.0%	110
Currently working on it	5.0%	9
answered question		**182**
skipped question		**1**

8. By what means does your organization receive Non-EMS emergency response incident cost recovery?		
Answer Options	**Response Percent**	**Response Count**
None (We do not receive cost recovery for Non-	60.0%	110
Ordinance/Law/Administrative Code	27.9%	51
MOU with Insurance Company(s)	1.1%	2
Contracted Agreement with Insurance Company(s)	2.2%	4
We receive cost recovery for Non-EMS Incidents	4.4%	8
Other (Federal, FMO, Taxes, please specify)	4.4%	8
answered question		**183**
skipped question		**0**

9. Where does your organization receive their Non-EMS emergency response incident cost recovery funding from?		
Answer Options	**Response Percent**	**Response Count**
None (We do not receive cost recovery for Non-	60.0%	110
Insurance	23.0%	42
Private Pay	10.4%	19
Other (Federal, FMO, Taxes, please specify)	6.6%	12
answered question		**183**
skipped question		**0**

10. How much yearly revenue does your organization generate from non-EMS incident response cost recovery?		
Answer Options	**Response Percent**	**Response Count**
$0	60.0%	110
Less than $50,000	31.3%	57
$50,001 – $250,000	6.6%	12
$250,001 – $500,000	0.5%	1
$500,001 – $750,000	0.0%	0
$750,001 – $1,000,000	0.5%	1
More than $1,000,001	1.1%	2
answered question		**183**
skipped question		**0**

Appendix H

Participating Organizations in the CR Survey

Adams County Fire Protection District

Albany Int'l Airport Fire Dept.

Albuquerque Fire Department

Allegheny Hlth. Network-Canonsburg Amb.

Anchorage Fire Department

Andover Fire-Rescue

Antigo fire department

Aptos La/Selva Fire Prot. Dist.

Artesia Fire Department

Athens Fire Department

Austin Fire Department (MN)

Bayshore Fire Rescue

Bernalillo County Fire Department

Boston EMS

Brenham Fire Department

Brooklyn Center Fire

Buechel Fire Protection District

Burlington Fire Department

Burnsville Fire

CAL FIRE

Camano Island Fire & Rescue

Cardinal Joint Fire District

Carrboro Fire-Rescue

Catron County Amb. Service-Reserve EMS

Cedar Hill Fire Department

Cedar Park Fire Department

Charlton County Fire Rescue

Cheney Fire Department

Cibola County Emergency Services

Cibola County OEM

Clinton Township Fire Rescue EMS

Clovis Fire Department (CA)

Clovis Fire Department (NM)

Colorado City Fire Department

Columbia Fire Department

Columbus Ohio Division of Fire

Conroe Fire

Cornelius Fire

Corvallis Fire Department

CoxHealth EMS

Cranston Fire Department

Cy-Fair Volunteer Fire Department

Datil EMS

Davenport Fire Department

DeKalb Fire Department

Delta Township Fire Department

Des Moines Fire Department

DeSoto Fire Rescue

District 7 Fire Rescue

Douglas County Fire District #2

East Fork Fire District

East Pierce Fire and Rescue

Edmond Fire Dept.

Elgin Fire Department

Espanola EMS

Fairview FD

Farmington Fire Department (NM)

Federal Fire Department

Fort Lewis Mesa Fire

Fremont Fire Dept.

Gainesville Fire

Gallatin Fire Department

Glassy Mountain Fire Service Area

Gloucester County EMS

Goodyear EMS

Goodyear Fire Department

Grand Island Fire Department

Greeley Fire Dept.

Greensboro Fire Department

Greenwich FD

Hartsdale Fire District

Hastings fire and rescue

Heartland Fire & Rescue

Henrietta Fire District

Hiawatha Fire Department

Hidalgo County EMS

Hopewell Township Fire District

Huntington Fire Department, IN

Huntley Fire District

Indianola Fire Department

Irondequoit Ambulance

Irvington Fire

Ivins City Fire Dept.

Johns Creek Fire Department

La Clinica Del Pueblo EMS

Lane Fire Authority

Lantzville Fire Rescue

Larkspur Fire

Las Cruces Fire Department

Leon County EMS

Little Rock Fire Dept.

Logan Ambulance Service

Lone Jack Fire Protection District

Longview FD

Los Alamos FD

Manhattan Fire Protection District

MCLB Barstow Fire & Emergency Services

Merrimack NH Fire and Rescue

Metropolitan State University of Denver

Milwaukee Fire Department

Missoula Rural Fire District

Mobile Fire-Rescue Dept.

MONOC

Morristown-Hamblen EMS

Mukilteo Fire Department

Nashville Fire Department

Navajo Nation EMS

Nebraska Public Power District

New Braunfels Fire Department

North Las Vegas - Fire Department

North Richland Hills FD

North Tooele Fire District

Nucor - Vulcraft

Oakland Fire Department

Old Orchard Beach Fire Dept.

Palatine FD

Park Forest Fire Department

Pearland Fire Department

Pharr Fire Department

Pigeon Forge Fire Dept.

Pleasant Hill Fire Protection District

Pocatello Fire Department

Ponderosa Fire Dept.

Powhatan County Fire and Rescue

Questa Fire Department

Quilcene Fire Rescue

Rapid Valley FD

Richardson Fire Department

Richmond Fire & Emergency Services

Roanoke (TX) Fire Department

Rosebud Fire & Rescue

San Francisco Fire Department

San Marcos Fire Department

San Ramon Valley Fire

Sandia National laboratories

Sandusky Fire Department

Sandy Springs Fire Rescue

Santa Fe County Fire Dept.

Santa Fe Fire Department

Santee Fire Dept.

Sault Sainte Marie MI FD

Schofield Fire Department

Scott Township Fire Department

Shawnee FD

Shine Fire and EMS

Sierra Vista Hospital EMS

Skagafjordur Fire and EMS

Sni Valley Fire Protection District

South Elgin & Countryside Fire Prot. Dist.

South Placer Fire District

Springfield Fire Department

St. Tammany Parish Fire Prot. District #4

Sumter County Fire & EMS

Superior Ambulance Service

Taylor Fire Department

TBGCC First Responders

Texico Vol. Fire Dept.

The Woodlands Fire Department

Torrance County FD

Town of Brookfield FD

Town of Colonie EMS Department

Town of Menasha FD

Travis County ESD #1

Travis County ESD #2

Trotwood Fire/Rescue

University Fire Department (AK)

Vail Fire and Emergency Services

Visalia Fire Department

Webster Fire Department

Wellington Fire/EMS

Westbrook Fire & Rescue Department

Westerville Division of Fire

Westminster Fire Department

Whitefish Fire Department

Williston FD

Woodlawn Volunteer Fire Company

Worcester EMS

York Area United Fire and Rescue

York Department of Fire/Rescue Services

Yuma Fire Department

Appendix I

City of Albuquerque - Fire Service Special Event Billing Statement Form

City of Albuquerque - Fire Service Special Event Billing Statement

Fire Department
Headquarters/Administration
11500 Sunset Gardens SW
Albuquerque NM 87121
Phone: (505) 768-9300
Fax: (505) 768-9340

FIRE CHIEF
David Downey

Date of Service: **Event:**

Billing Company: **Event Location:**

Billing Address: **AFD Representative:** **AFD Rep. Signature:** _____

City: **Zip:** **AFD Rep. Phone #**

Description of Service:

The Fire Service was requested for the above Special Event, and agreed to by the Customer as follows:

DIVISION	STAFF QUANTITY*		TOTAL HOURS WORKED**		RATE OF PAY		TOTAL AMOUNT
SUPPRESSION	4	X	1	X	$61.75	=	$247.00
RESCUE	2	X	1	X	$60.66	=	$121.32
					TOTAL DUE:	=	$368.32

*** Suppression Minimum of 4 Firefighters; Rescue Minimum of 2 Paramedics**
**** Minimum of 1 hour per Event**

After Hours Inspection Disclaimer

A request and payment of fees for after hours inspection does not guarantee a passing inspection nor does it guarantee the issuance of either a certificate of occupancy or a temporary certificate of occupancy. Any violations will be noted on the inspection report and any subsequent re-inspections that may be necessary are not covered by this fee. Re-inspections are subject to availability as scheduling allows. Payment of said fee shall represent the minimum charge for this service on this date only. This fee must be paid prior to obtaining a copy of the final inspection report which can be transacted at Plans Checking, 600 Second Street NW, Albuquerque, New Mexico 87102 on the 8th floor. Customers utilizing this service are responsible for ensuring that all necessary parties are present to conduct said inspection i.e. sprinkler contractors, alarm contractors etc. Furthermore, customers using this service are reminded that they should be ready for a **final inspection**.

THE ABOVE CHARGES HAVE BEEN EXAMINED AND FOUND TO BE CORRECT: By signing below, you are accepting responsibility for payment. I have read and understand the after hours inspection disclaimer above (If applicable)

Billing Customer: Billing Customer Phone #:

Billing Customer's Signature: _____ Date: _____
(Please Print Clearly)

Make Checks payable to the City of Albuquerque Fire Department.
If you have any questions concerning this statement, you can contact the Fire Department Account's Receivable Division at 833-7300.

Appendix J

City of Albuquerque Alarm System Ordinance

Albuquerque Alarm System Ordinance

CITY of ALBUQUERQUE — FIFTEENTH COUNCIL

COUNCIL BILL NO. F/S O-02-35

SPONSORED BY: Sally Mayer

ORDINANCE

§ 9-3-1 – 16; § 9-3-99 ROA 1994

ENACTING THE ALBUQUERQUE ALARM SYSTEM ORDINANCE; REQUIRING PERMITTING, ESTABLISHING FEES, PROVIDING ENFORCEMENT PROCEDURES AND ESTABLISHING CRIMINAL PENALTIES.

BE IT ORDAINED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF ALBUQUERQUE:

Sections:

§ 9-3-1 FINDINGS.

The City Council finds and declares that:

(A) There is increasing use of private emergency alarm systems by citizens of this city;
(B) Over 95 percent of alarms generated by private alarm systems are listed as false alarms by responding authorities;
(C) The Albuquerque Police Department spends more than 50,000 hours annually, equivalent to 27 full-time sworn officers or about $3 million per year responding to false alarms;
(D) Police and Fire Department responses to false alarms provide an extra public safety service that benefits only those individuals who own alarm systems;
(E) Alarm users and the general public are harmed by excessive numbers of false alarms, because excessive false alarms divert Public Safety Officers from other potentially critical duties and constitute a nuisance that must be abated;
(F) Fees to reimburse the City for the costs of responding to excessive false alarms are justified because these false alarms divert limited public safety resources;
(G) The Fire Department recognizes the value of fire and medical alarms and will respond accordingly to investigate, suppress fire propagation, address life safety issues, and provide medical treatment to fulfill the needs of the public; however, these services are not used effectively when fire personnel must respond to locations with excessive numbers of false alarms;
(H) Businesses with excessive false fire alarms are subject to reinspection of their fire suppression, fire alarm system and facilities by the Fire Marshal's Office;
(I) Certain records are necessary to locate the persons in control of a property when the police have been notified by an alarm of an actual burglary or other emergency and need access to the property or when an audible alarm system is malfunctioning so as to cause a nuisance to the neighbors and other persons in the proximity of the alarm;
(J) Fees and fines may not be sufficient inducement for alarm system installation and repair businesses and alarm system monitoring businesses to comply with this Ordinance; therefore, alarm system installation and repair businesses and alarm system monitoring businesses that engage in a pattern of violations under this Ordinance should be subject to suspension and revocation of their alarm business permits. (Ord. 8-2003)

§ 9-3-2 SHORT TITLE.

This Ordinance shall be known as and may be cited as the *Albuquerque Alarm System Ordinance.* (Ord. 8-2003)

§ 9-3-3 PURPOSE.

(A) The purpose of this Ordinance is to establish criteria governing the installation, use and maintenance of alarm systems within the City of Albuquerque in order to reduce or eliminate the false alarms that consume public safety resources. Nothing in this Ordinance is intended to discourage proper use of alarm systems.
(B) This Ordinance governs systems that summon public safety agency response, requires permitting, establishes fees, provides for penalties for violations and establishes a system of administration. (Ord. 8-2003)

§ 9-3-4 DEFINITIONS.

For the purpose of this Ordinance, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ALARM BUSINESS PERMIT. An annual permit issued by the City of Albuquerque to each alarm system installation and repair business and each alarm system monitoring business.

ALARM SITE. A single fixed commercial or private premises or location served by an alarm system. Each tenancy, if served by a separate alarm system in a multi-tenant building or complex, shall be considered a separate alarm site.

ALARM SYSTEM. Any mechanical, electrical or electronic device designed to detect an unauthorized entry or emergency situation on real property which emits sound off the premises or transmits an electronic signal off the premises.

ALARM SYSTEM INSTALLATION AND REPAIR BUSINESS. Any individual, partnership, corporation, agent, or other entity engaged in leasing, maintaining, servicing, repairing, altering, replacing, installing or inspecting any alarm system, or in causing any alarm system to be leased, maintained, serviced, repaired, altered, replaced, or installed in any building, structure, or facility. The foregoing sentence includes, but is not limited to, any person or entity that derives any pecuniary benefit from any contract for the installation of any alarm system, including but not limited to any person or entity that sells a contract for the installation or monitoring of an alarm system.

ALARM SYSTEM MONITORING BUSINESS. Any person or entity that intercepts signals indicating the activation of an alarm system and relays this information to the Police or Fire Department.

ALARM USER. Any person, firm, partnership, corporation or other entity who uses or is in control of an alarm site. In the case of a rental property, the renter is considered the alarm user.

ALARM USER PERMIT. An annual permit issued by the City of Albuquerque authorizing the operation of an alarm system within the city.

AUTOMATIC VOICE DIALER. Any electrical, electronic, mechanical or other device capable of being programmed to send a prerecorded voice message, when activated, over a telephone line, radio or other communication system, to a law enforcement agency.

BACKGROUND INVESTIGATION. A reasonable investigation or inquiry into an individual's previous history, including but not limited to their criminal record and other information, that will at the minimum reveal whether the person conducting the investigation has made a reasonable assessment of the likelihood of danger to the alarm owner posed by the alarm system installation and repair business personnel.

BUSINESS PERMIT HOLDER. Any alarm system installation and repair business or alarm system monitoring business that has received an annual alarm business permit under this Ordinance.

CANCELLATION. The process by which an alarm system monitoring business verifies that a false dispatch has occurred and that there is not an existing situation at the alarm site requiring public safety response.

CONTACT PERSON. Person designated by the alarm user who has the ability and the authority to allow access to the alarm site and the alarm system.

DURESS/HOLD-UP ALARM. An alarm system designed to be activated by a person to indicate an immediate life-threatening situation is present.

FALSE ALARM. The activation of any alarm system resulting in notification of the Police or Fire Department, for which the responding Public Safety Officer finds no evidence of criminal activity, fire, smoke, carbon monoxide, heat or other threat of emergency of the kind for which the alarm system was designed to give notice.

FALSE ALARM REDUCTION UNIT. Organizational entity within the City of Albuquerque established for purposes of implementation and enforcement of the Albuquerque Alarm System Ordinance.

HEARING OFFICER. The City Hearing Officer, as defined by the Independent Office of Hearings Ordinance (§§ 2-7-8-1 et seq. ROA 1994).

INTRUSION/BURGLAR ALARM. An alarm system designed to detect a breach of the exterior of or unauthorized movement in an alarm site.

MAYOR. The Mayor of the City of Albuquerque or his or her designated representative.

MONITORED ALARM SYSTEM. An alarm system that results in sending a signal to an alarm system monitoring business.

PERMIT HOLDER. Any alarm user who has received an annual alarm user permit under this Ordinance.

PLACE OF BUSINESS shall have the same meaning that term has under the Business Registration Ordinance.

PUBLIC SAFETY OFFICER. Sworn members of the Albuquerque Police Department or Albuquerque Fire Department.

VERIFY. An attempt by the alarm system monitoring business to contact the alarm site by telephone before requesting public safety dispatch, in order to avoid an unnecessary alarm dispatch. (Ord. 8-2003; Am. Ord. 31-2007)

§ 9-3-5 ALARM USER PERMIT; FEE; TRANSFERABILITY; FALSE STATEMENTS.

(A) No alarm user shall operate, or cause to be operated, an alarm system without a valid alarm user permit for the alarm site issued by the False Alarm Reduction Unit as required in § 9-3-1 et seq.

(B) Possession of an alarm user permit is not intended to, nor will it, create a contract, duty or obligation, either expressed or implied, of response by a Public Safety Officer. Any and all liability and consequential damage resulting from the failure to respond is hereby disclaimed and governmental immunity as provided by law is retained. Without limitation of the foregoing, by applying for an alarm user permit, the alarm user acknowledges that public safety response may be based on factors such as availability of public safety units, priority of calls, weather conditions, traffic conditions, emergency conditions or staffing levels.

(C) A fee of $25.00 shall be charged for the issuance and each annual renewal of each alarm user permit.

(1) No refund of a permit or permit renewal fee will be made.

(2) For private premises alarm sites, the Mayor shall waive the Alarm User Permit fee for low-income individuals and individuals 65 years of age and older. In making such determination, the Mayor shall require the low-income applicant to furnish appropriate documentation establishing eligibility for the waiver including: an EBT card issued by the State of New Mexico for Food Stamps, either the annual letter of statement of benefits or monthly benefit card for Supplemental Security Income, an EBT card issued by the State of New Mexico for the Temporary Assistance for Needy Families program, or a Medicaid health benefit

card. The aforementioned documentation shall be maintained on file by the False Alarm Reduction Unit. The Mayor shall require the applicant 65 years of age and over to furnish a driver's license or other appropriate documentation as proof of age.

(D) A permit cannot be transferred to another person or alarm site.

(E) A separate alarm user permit is required for each alarm site.

(F) The initial annual alarm user permit application form and permit fee must be submitted to the False Alarm Reduction Unit within sixty (60) days after installation of the alarm system. In lieu of a documented date of installation, the first recorded activation of the alarm system shall be considered the installation date. An alarm user who operates an alarm system without an alarm user permit shall be subject to the penalty provisions in § 9-3-99 of this Ordinance.

(G) Each alarm user permit application must include the following information:

(1) The name, address, home, work and cellular telephone numbers and e-mail address if available of the person in control of the alarm site.

(2) The street address of the alarm site.

(3) Classification of the alarm site as either residential or commercial.

(4) Classification of the alarm site as either owner-occupied or leased. If leased, identification of the owner of the alarm site including name, address and phone number. If the alarm site is an apartment, the application shall also include the name and telephone number of the apartment manager.

(5) Any business name used for the alarm site.

(6) The type of alarm system or systems and the purpose for which they are designed (i.e. intrusion, hold-up, fire, or any category identified by the False Alarm Reduction Unit).

(7) The names and telephone numbers of two contact persons who, if notified, at any time will come to the alarm site within 30 minutes after receiving a request from a member of the Police or Fire Department. These persons shall grant access to the alarm site and deactivate the alarm system if necessary.

(8) Name and alarm business permit number of the alarm system monitoring business, if applicable.

(9) For the initial application following installation of a new alarm system, name and alarm business permit number of the company that installed the alarm system, if not installed by the homeowner.

(H) Whenever any information on the alarm user permit application changes, the permit holder shall notify the False Alarm Reduction Unit within 30 days of such change.

(I) Any false statement of a material fact made by an applicant for the purpose of obtaining an alarm user permit or failure to provide required information shall be subject to the penalties in § 9-3-99.

(J) To the extent allowed by law, the False Alarm Reduction Unit shall treat all information on such application as proprietary and confidential information; provided, however, nothing in this Ordinance shall prohibit the use of such information for legitimate public safety purposes and for enforcement of this Ordinance.

(K) The False Alarm Reduction Unit shall assign an alarm permit for each alarm site in a federal, state, county, public school and other political subdivision facility for tracking purposes and to allow the City of Albuquerque to cooperate with these agencies to address any recurring false alarm problems. Neither permit fees, service fees nor fines shall be required of such agencies. (Ord. 8-2003; Am Ord. 29-2010)

§ 9-3-6 DUTIES OF ALARM USERS.

(A) An alarm user, whether at a business or residence, shall be responsible for:

(1) Complying with all permit and other requirements specified in other sections of the Albuquerque Alarm System Ordinance, as well as other applicable City Ordinances and state and federal laws;

(2) Instructing all persons who are authorized to place the device or system into operation in the appropriate method of operation, advising them of the provisions of this Ordinance, and emphasizing the importance of avoiding false alarms. The absence of instruction does not provide a defense to any person or entity;

(3) Maintaining the alarm site and the alarm system in a manner that will reasonably eliminate false alarms;

(4) Responding or causing a representative to respond within 30 minutes when requested by city officials to provide access to an alarm site where an alarm signal is being emitted, to deactivate a malfunctioning alarm system or to provide alternative security for the alarm site;

(5) Providing that no person shall manually activate an alarm for any reason other than the emergency that the alarm system is intended to report other than testing pursuant to § 9-3-12;

(6) Notifying the alarm system monitoring business prior to activation of an alarm for maintenance, test or instruction purposes;

(7) Adjusting the mechanism or causing the mechanism to be adjusted so that an intrusion alarm signal audible on the exterior of an alarm site will sound for no longer than fifteen minutes after being activated, but may be reactivated by a reset. Alarm systems installed prior to five days after the effective date of this Ordinance shall be exempt from this provision; and

(8) Paying all fees and fines under this Ordinance within 90 days of the date assessed.

(B) An alarm user shall not use an automatic voice dialer. (Ord. 8-2003)

§ 9-3-7 ALARM BUSINESS PERMIT; FEE; TRANSFERABILITY; FALSE STATEMENTS.

(A) Every alarm system installation and repair business and alarm system monitoring business must have an alarm business permit issued by the False Alarm Reduction Unit and comply with the business registration Ordinance. Every alarm system installation and repair business must have appropriate licensing from the State of New Mexico. No alarm system installation and repair business nor alarm system monitoring business shall install, repair, lease, or monitor an alarm system without a valid alarm business permit.

(B) Possession of an alarm business permit is not intended to, nor will it, create a contract, duty or obligation, either expressed or implied, of response by a Public Safety Officer to an alarm site for any reason. Any and all liability and consequential damage resulting from the failure to respond to a notification is hereby disclaimed and governmental immunity as provided by law is retained.

(C) A fee of $150.00 shall be charged for the issuance and each annual renewal of each alarm business permit. No refund of a permit or permit renewal fee will be made.

(D) An alarm business permit cannot be transferred.

(E) A separate alarm business permit is required for each alarm system installation and repair business and for each alarm system monitoring business.

(F) An alarm system installation and repair business or alarm system monitoring business that installs, repairs, leases or monitors an alarm system without a valid alarm business permit shall be subject to the regulations and penalty provisions of this Ordinance.

(G) When applying for an initial alarm business permit, an alarm system monitoring business at the minimum shall provide a list of the names, mailing addresses and phone numbers of alarm users and addresses of all of the alarm sites in Albuquerque monitored by that alarm system monitoring business.

(H) Whenever any information on the alarm business permit application changes, the permit holder shall notify the False Alarm Reduction Unit within 30 days of such change.

(I) Any false statement of a material fact made by an applicant for the purpose of obtaining an alarm business permit or failure to provide required information shall be subject to the penalties in § 9-3-99.

(J) To the extent allowed by law, the False Alarm Reduction Unit shall treat all information on the alarm business permit application, including but not limited to the lists of alarm users monitored by alarm system monitoring businesses, as proprietary and confidential trade secret information; provided, however, nothing in this Ordinance shall prohibit the use of such information for legitimate public safety purposes and for enforcement of this Ordinance.

(K) Alarm business permits shall be renewed only upon payment of all outstanding fees and fines assessed against the business permit holder under the Albuquerque Alarm System Ordinance. (Ord. 8-2003)

§ 9-3-8 DUTIES OF ALARM SYSTEM INSTALLATION AND REPAIR BUSINESSES.

(A) Alarm system installation and repair businesses shall comply with all City Ordinances and state and federal laws.

(B) Alarm system installation and repair businesses must deliver to the City a copy of all licenses required by the State of New Mexico. The False Alarm Reduction Unit will retain on file a copy of the required licenses.

(C) Alarm system installation and repair businesses that install alarm systems shall provide each alarm user with the False Alarm Reduction Unit information sheet when a new alarm system is installed, including the alarm business permit number and any other information required on the alarm user permit application.

(D) Each alarm system installation and repair business shall provide a monthly report to the False Alarm Reduction Unit by the twenty-fifth day of the month listing all new alarm systems installed the previous month. Each report shall include at the minimum the name, mailing address and phone number of the alarm user and the address of the alarm site. The False Alarm Reduction Unit shall treat all information in such monthly reports as proprietary and confidential trade secret information; provided, however, nothing in this Ordinance shall prohibit the use of such information for legitimate public safety purposes. A late fee of $10.00 per day for each monthly report that is overdue shall be assessed to any alarm system installation and repair business that fails to provide this report by this deadline.

(E) Whenever the owner or operator of the alarm system installation and repair business changes, the new owner or operator shall notify the False Alarm Reduction Unit of the new owner's or operator's name, address and telephone number. A fine of $300.00 shall be assessed to any alarm system installation and repair business that fails to comply with this requirement within 30 days of such change.

(F) An alarm system installation and repair business shall not install an alarm system with an automatic voice dialer.

(G) Alarm system installation and repair businesses shall keep a written record of the date of repair and a description of the specific repair which was performed on any alarm system when such repair was made. Such written records shall be maintained for at least 12 months and shall be made available in digital or printed format for inspection and duplication upon request by the Mayor at the office of the alarm system installation and repair business during regular business hours.

(H) If an alarm installation and repair business repairs an alarm system within 10 days after a false alarm, the alarm system installation and repair business may transmit the repair invoice or other written record of the repair to the False Alarm Reduction Unit, in which instance the False Alarm Reduction Unit shall delete the false alarm from the alarm user's record. There shall be no more than six repair deletions allowed per alarm user permit per year under this section.

(I) All alarm system installation and repair business personnel responding to alarms, repairing, or installing alarm systems shall wear a picture identification card issued by the alarm system installation and repair business on their outer garments, which identifies the individual and the alarm system installation and repair business. The foregoing sentence includes, but is not limited to, any person or entity that derives any pecuniary benefit from any contract for the installation of any alarm system, including but not limited to any person or entity that sells a contract for the installation or monitoring of an alarm system. This identification card shall be in a standard form approved by the False Alarm Reduction Unit. This identification card shall be issued by the alarm system installation and repair business after a background investigation has been conducted on that individual. No identification card shall be issued if the applicant has been convicted of a felony. In addition to other sanctions provided by this Ordinance, each alarm system installation and repair business shall pay a fine of $300.00 for each and every installation conducted in whole or in part by an employee who lacks the required background investigation or identification card. (Ord. 8-2003)

§ 9-3-9 DUTIES OF ALARM SYSTEM MONITORING BUSINESSES.

(A) Alarm system monitoring businesses shall comply with all City Ordinances and state and federal laws.

(B) All alarm system monitoring businesses shall keep a written record of the date and time each notification of the activation of an alarm system is received and the date, time and method by which the person in control of the property or his designated employee was notified. Such records shall be retained for at least 12 months and shall be provided in digital or printed format upon request by the Mayor.

(C) An alarm system monitoring business that reports an alarm to the Albuquerque Police or Fire Department without a valid alarm business permit shall be assessed a fine of $250.00 per occurrence by the False Alarm Reduction Unit.

(D) Alarm system monitoring businesses shall provide a monthly report to the False Alarm Reduction Unit by the twenty-fifth day of the month listing all new alarm systems, which the alarm system monitoring business contracted to monitor during the previous month. Each report shall include at the minimum the name, address and phone number of the alarm user and the address of the alarm site. The False Alarm Reduction Unit shall treat all information in such monthly reports as proprietary and confidential trade secret information; provided, however,

nothing in this Ordinance shall prohibit the use of such information for legitimate public safety purposes. A late fee of $10.00 per day for each monthly report that is overdue shall be assessed to any alarm system monitoring business that fails to provide this report by this deadline.

(E) Whenever the owner or operator of the alarm system monitoring business changes, the new owner or operator shall notify the False Alarm Reduction Unit of the name, address and phone number. A fine of $300.00 shall be assessed to any alarm system monitoring business that fails to comply with this requirement.

(F) An alarm system monitoring business shall:

(1) Attempt to verify every alarm signal, except a duress/holdup alarm or fire alarm, immediately before requesting a law enforcement response to an alarm system signal;

(2) Communicate cancellations of alarm dispatch requests to the Police or Fire Department immediately upon verification of a false alarm;

(3) Establish a procedure for accepting cancellation of alarms by alarm users;

(4) Communicate alarm dispatch requests to the Police or Fire Department;

(5) Communicate any available information (north, south, front, back, floor, zone, etc.) to help identify the location of the intrusion or other emergency;

(6) Provide the Police or Fire telephone operator with the alarm business permit number of the alarm system monitoring business when an alarm is reported;

(7) Communicate type of alarm activation (silent or audible, interior or perimeter); and

(8) Make every possible effort to contact the alarm user or his contact persons when an alarm dispatch request is made to facilitate access to the alarm site and/or deactivation of the alarm.

(G) A fine of $300.00 per incident shall be assessed to an alarm system monitoring business that fails to establish procedures for accepting cancellations from alarm users and for promptly conveying cancellation notification to the Albuquerque Police or Fire Department or for failure to perform any of the duties in this section. (Ord. 8-2003)

§ 9-3-10 DUTIES OF POLICE AND FIRE DEPARTMENTS.

The Albuquerque Police and Fire Departments shall respond to alarm notifications according to department protocol. (Ord. 8-2003)

§ 9-3-11 DUTIES OF FALSE ALARM REDUCTION UNIT.

(A) The False Alarm Reduction Unit shall:

(1) Be the primary agency responsible for implementation and enforcement of the Albuquerque Alarm System Ordinance;

(2) Develop such forms, notifications, and systems as are necessary to implement the Albuquerque Alarm System Ordinance;

(3) Send the initial billing for all permits and annual renewals of same, as well as False Alarm service fees and applicable fines.

(4) Send a notice of each false alarm to the address of the alarm site.

(5) Coordinate between the alarm system industry, Albuquerque Police Department and Albuquerque Fire Department to reduce the number of false alarms and improve responses to true emergencies;

(B) If there is reason to believe that an alarm system is not being used or maintained in a manner that ensures proper operation and suppresses false alarms, the Mayor may require a conference with an alarm user and the alarm system business responsible for the repair of the alarm system to review the circumstances of each false alarm.

(C) If the False Alarm Reduction Unit identifies an alarm system installation and repair business that is operating in Albuquerque without a license from the Construction Industries Division of the New Mexico Regulation and Licensing Department or without a valid Albuquerque business registration, the False Alarm Reduction Unit shall report that business to the authorized state or local enforcement authority. (Ord. 8-2003)

§ 9-3-12 NONEMERGENCY ACTIVATION.

No person shall intentionally activate an alarm system for any purpose other than an emergency or threat of emergency of the kind for which the alarm system was designed to give notice. Activation of an alarm system for maintenance, testing, and instruction purposes is exempted from this provision, provided that the alarm user notifies the alarm system monitoring business of the test immediately prior to testing. (Ord. 8-2003)

§ 9-3-13 EXCESSIVE FALSE ALARMS, SERVICE FEES.

(A) A permitted alarm user will not be assessed a service fee for the first three false alarm responses within a permit year, except as provided in subsection (E) of this section.

(B) An alarm user shall pay a service fee of $150.00 for each false intrusion/burglar alarm, duress/hold-up alarm, or manually activated emergency assistance alarm notification emitted from an alarm system that is in excess of three false alarms in a permit year; $300.00 for each false fire, smoke, carbon monoxide or heat alarm notification emitted from an alarm system in a business in excess of three false alarms within a permit year; and $150.00 for each false fire, smoke, carbon monoxide or heat alarm notification emitted from an alarm system in a residence in excess of three false alarms within a permit year.

(C) If multiple alarms are caused by a single technical malfunction in a single alarm system for a period up to 72 hours, the alarm user shall be assessed a service fee for no more than one false alarm per day (24-hour period) up to 72 hours. After 72 hours, the alarm user shall be assessed a service fee for each additional false alarm activation.

(D) For fire, smoke, carbon monoxide or heat false alarms in excess of two false alarms in a permit year, commercial Alarm Users shall be referred by the False Alarm Reduction Unit to the Albuquerque Fire Department Fire Marshal's Office for inspection pursuant to § 14-2-1 et seq., ROA 1994, Fire Code of the city, as amended.

(E) If cancellation from the alarm system monitoring business occurs prior to Public Safety Officers arriving at the alarm site, this is not a false alarm for the purpose of service fees and no service fees will be assessed; however, no cancellation shall be permitted for calls that are dispatched priority one.

(F) After ten false alarms in a permit year, because the alarm user has not taken the necessary steps to address the cause of the false alarms, the alarm user will be assessed a fine of $500.00 for each additional false alarm in excess of ten.

(G) The alarm user shall be given written notice of any fees and fines chargeable under this section. Such fees and fines shall be paid to the False Alarm Reduction Unit within 30 calendar

days of the date of the notice of fees and fines due, unless the alarm user requests a hearing pursuant to § 9-3-14, in which event the payment of the fees shall be suspended pending the decision of the Hearing Officer. (Ord. 8-2003)

§ 9-3-14 APPEALS, HEARINGS.

(A) Any person or entity that receives a notice of a false alarm or a notice of fees or fines due under this Ordinance may appeal by filing a notice of appeal with the False Alarm Reduction Unit supervisor. The notice of appeal must be received by the False Alarm Reduction Unit within 30 days from receipt of the notice by the person or entity or within 33 days of the date the notice was mailed by the False Alarm Reduction Unit, whichever comes first.

(B) If the False Alarm Reduction Unit supervisor denies the appeal, the False Alarm Reduction Unit supervisor shall send written notice of the denial and a statement of the right to appeal to a Hearing Officer.

(C) The decision of the False Alarm Reduction Unit supervisor may be appealed to an administrative Hearing Officer. A filing fee of $50.00 shall accompany the notice of appeal. The filing fee shall be refunded if the Hearing Officer finds in favor of the appellant. The failure of an appellant to appear at the appeal hearing shall extinguish the appeal. The Hearing Officer shall issue a written decision within 30 days of the hearing. (Ord. 8-2003)

§ 9-3-15 SUSPENSION AND REVOCATION OF ALARM BUSINESS PERMITS.

(A) Any alarm business permit holder may be subject to an enforcement action for suspension or revocation of an alarm business permit for the following violations:

(1) Failure to perform any duty including but not limited to failure to provide any list or other information required under this Ordinance for a period of 90 days from the due date.

(2) Failure to pay any fine or fee within 90 days from the due date.

(3) Submission of any intentionally fraudulent information under this Ordinance.

(4) Any pattern of noncompliance that indicates an inability, unwillingness, or bad faith refusal to perform the duties required under this Ordinance.

(B) If the False Alarm Reduction Unit supervisor determines that any alarm business permit holder has violated this section, the False Alarm Reduction Unit supervisor shall send a notice of intent to revoke the alarm business permit. After the alarm business permit holder receives the notice of intent to revoke the alarm business permit, the holder may admit fault and surrender the alarm business permit within 30 days or demand a hearing. The demand for hearing shall be in writing and mailed to the False Alarm Reduction Unit supervisor within 30 days of receipt of the notice of intent to revoke. A filing fee of $50.00 shall accompany the notice of demand for hearing. The filing fee shall be refunded if the Hearing Officer finds in favor of the appellant.

(C) Upon receipt of a notice of demand for hearing, the False Alarm Reduction Unit supervisor shall promptly schedule a hearing before an administrative Hearing Officer who shall hold a hearing within 60 days from the date of the receipt of the notice of demand.

(D) The Hearing Officer shall conduct a hearing and issue a written decision within 30 days of the date of the hearing. The Hearing Officer may:

(1) Suspend the alarm business permit for a reasonable period of time not less than 30 days nor more than 120 days,

(2) Permanently revoke the alarm business permit, or
(3) Find in favor of the alarm business permit holder. (Ord. 8-2003)

§ 9-3-16 REVENUES.

All permit fines and fees shall be deposited into the General Fund. (Ord. 8-2003; Am. Ord. 14-2011)

§ 9-3-99 PENALTY.

(A) Any person or entity charged with conducting any activity addressed by this Ordinance without a permit shall be guilty of a petty misdemeanor and shall be subject to the provisions set forth in § 1-1-99 ROA 1994. Each and every day such violation is committed shall constitute a separate offense.
(B) Nothing in this penalty section shall preclude the City from seeking any equitable relief including but not limited to an injunction. In the event any person or entity defaults on any obligation to pay a fee or fine under this Ordinance, the City may collect such unpaid amounts by any method provided by law including but not limited to attachment and foreclosure of a lien on the alarm site. (Ord. 8-2003)

Appendix K

Fire Recovery USA Sample Ordinance and Mitigation Rates (Exhibit A)

ORDINANCE NO: _____

AN ORDINANCE ESTABLISHING AND IMPLEMENTING A PROGRAM TO CHARGE MITIGATION RATES FOR THE DEPLOYMENT OF EMERGENCY AND NON-EMERGENCY SERVICES BY THE FIRE DEPARTMENT FOR SERVICES PROVIDED/RENDERED FOR THE CITY OF OR TOWN OF OR VILLAGE FD (NAME).

WHEREAS, the emergency and non-emergency services response activity to incidents continues to increase each year; Environmental Protection requirements involving equipment and training, and Homeland Security regulations involving equipment and training, creating additional demands on all operational aspects of the fire department services; and

WHEREAS, the fire department has investigated different methods to maintain a high level of quality of emergency and non-emergency service capability throughout times of constantly increasing service demands, where maintaining an effective response by the fire department decreases the costs of incidents to insurance carriers, businesses, and individuals through timely and effective management of emergency situations, saving lives and reducing property and environmental damage; and

WHEREAS, raising real property tax to meet the increase in service demands would not be fair when the responsible party(s) should be held accountable for their actions; and

WHEREAS, the City Council of the XXX desires to implement a fair and equitable procedure by which to collect said mitigation rates and shall establish a billing system in accordance with applicable laws, regulations and guidelines; Now, Therefore

BE IT ORDAINED BY THE CITY COUNCIL OF THE XXX:

SECTION 1: The XXX shall initiate mitigation rates for the delivery of emergency and non-emergency services by the fire department for personnel, supplies and equipment to the scene of emergency and non-emergency incidents as listed in “EXHIBIT A”. The mitigation rates shall be based on actual costs of the services and that which is usual, customary and reasonable (UCR) as shown in “EXHIBIT A”, which may include any services, personnel, supplies, and equipment and with baselines established by addendum to this document.

SECTION 2: A claim shall be filed to the responsible party(s) through their insurance carrier. In some circumstances, the responsible party(s) will be billed directly.

SECTION 3: The fire department’s City Council may make rules or regulations and from time to time may amend, revoke, or add rules and regulations, not consistent with this Section, as they may deem necessary or expedient in respect to billing for these mitigation rates or the collection thereof.

SECTION 4: It is found and determined that all formal actions of this City Council concerning and relating to the adoption of this Ordinance were adopted in open meetings of this City Council, and that all deliberations of this City Council and any of its committees that resulted in such formal actions were in accordance with all legal requirements, and the Codified Ordinances of the City Council.

SECTION 5: This Ordinance shall take effect thirty days (30) from the date of adoption as permitted by law.

SECTION 6: Mitigation rates will only apply to persons who are not residents of XXX. Residents within the XXX boundaries currently subsidize these emergency service costs through their property taxes. Responses involving intoxicated drivers, hazmat clean-up, intentional and negligent acts or any act that violates any ordinance, local, state or federal statute may be subject to all applicable rates regardless of residency. For purposes of this section a resident is defined as: (a) any person who maintains his or her full time residence within the XXX; or (b) is the majority owner of a business that operates from real property owned by the business located within the XXX. (For purposes of this section a business includes any joint stock company, corporation, association, joint venture, limited liability company, club or partnership).

Passed: _____ _____
Signature

Approved _____ _____
Signature

VOTE ON PASSAGE: ____ Yea ____ Nay ____ Abstain

Attest: _____
Clerk

I, _____ Secretary to the Council, do hereby certify that the

foregoing Ordinance No. _____ was duly published in the

_____, a newspaper of general circulation in the City or Town on the

____ day of _____, 2___; and I further certify the compliance with the Codified Ordinances

and the laws of the State of Name, pertaining to Public Meetings.

_____
Clerk

MITIGATION RATES – BASED ON PER HOUR – EXHIBIT A

The mitigation rates below are average "billing levels", typical for the incident responses listed, however, when a claim is submitted, it will be itemized - based on the actual services provided.

MOTOR VEHICLE INCIDENTS

Level 1 - $550.00
Provide hazardous materials assessment and scene stabilization. This will be the most common "billing level". This occurs almost every time the fire department responds to an accident/incident.

Level 2 - $550.00
Includes Level 1 services as well as clean up and material used (sorbents) for hazardous fluid clean up and disposal. We will bill at this level if the fire department has to clean up any gasoline or other automotive fluids that are spilled as a result of the accident/incident.

Level 3 – CAR FIRE - $605.00
Provide scene safety, fire suppression, breathing air, rescue tools, hand tools, hose, tip use, foam, structure protection, and clean up gasoline or other automotive fluids that are spilled as a result of the accident/incident.

Level 4 - $1,800.00
Includes Level 1 & 2 services as well as extrication (heavy rescue tools, ropes, airbags, cribbing etc.). We will bill at this level if the fire department has to free/remove anyone from the vehicle(s) using any equipment. We will not bill at this level if the patient is simply unconscious and fire department is able to open the door to access the patient. This level is to be billed only if equipment is deployed.

Level 5 - $2,200.00
Includes Levels 1, 2, & 4 services as well as Air Care (multi-engine company response, mutual aid, and helicopter). We will bill at this level any time a helicopter is utilized to transport the patient(s).

Level 6
Itemized Response: You have the option to bill each incident as an independent event with custom mitigation rates, for each incident using, itemized rates deemed usual, customary and reasonable (UCR). These incidents will be billed, itemized per apparatus, per personnel, plus products and equipment used.

ADDITIONAL TIME ON-SCENE
Engine billed at $400 per hour.
Truck billed at $500 per hour.
Miscellaneous equipment billed at $300.

HAZMAT

Level 1 - $700.00
Basic Response: Claim will include engine response, first responder assignment, perimeter establishment, evacuations, set-up and command.

Level 2 - $2,500.00
Intermediate Response: Claim will include engine response, first responder assignment, hazmat certified team and appropriate equipment, perimeter establishment, evacuations, set-up and command, Level A or B suit donning, breathing air and detection equipment. Set-up and removal of decon center.

Level 3 – $5,900.00
Advanced Response: Claim will include engine response, first responder assignment, hazmat certified team and appropriate equipment, perimeter establishment, evacuations, first responder set-up and command, Level A or B suit donning, breathing air and detection equipment and robot deployment. Set-up and removal of decon center, detection equipment, recovery and identification of material. Disposal and environment clean up. Includes above in addition to any disposal rates of material and contaminated equipment and material used at scene. Includes 3 hours of on scene time - **each additional hour @ $300.00 per HAZMAT team**.

ADDITIONAL TIME ON-SCENE (for all levels of service)
Engine billed at $400 per hour.
Truck billed at $500 per hour.
Miscellaneous equipment billed at $300

FALSE ALARM BILLING RATES

(a) The first false alarms within twelve (12) months in a calendar year is free of charge

(b) The second (2nd) false alarm in a twelve (12) month calendar year is billed at $100.00

(c) The third (3rd) false alarm in a twelve (12) month calendar year is billed at $200.00

(d) The fourth (4th) through sixth (6th) false alarms in a twelve month (12) calendar year are billed at $300.00 per event not exceed $500.00 per calendar day.

FIRE INVESTIGATION

Fire Investigation Team - $275.00 per hour (4 hour minimum). Includes:

- Scene Safety
- Investigation
- Source Identification
- K-9/Arson Dog Unit
- Identification Equipment

• Mobile Detection Unit
• Fire Report

The claim begins when the Fire Inv. responds to the incident (billed for logged time only).

FIRES

Assignment - $400.00 per hour, per engine / $500.00 per hour, per truck. **Includes:**

• Scene Safety
• Investigation
• Fire / Hazard Control

This will be the most common "billing level". This occurs almost every time the fire department responds to an incident.

OPTIONAL: A fire department has the option to bill each fire as an independent event with custom mitigation rates. Itemized, per person, at various pay levels and for itemized products use.

ILLEGAL FIRES

Assignment - $400.00 per hour, per engine / $500.00 per hour, per truck
When a fire is started by any person or persons that requires a fire department response during a time or season when fires are regulated or controlled by local or state rules, provisions or ordinances because of pollution or fire danger concerns, such person or persons will be liable for the fire department response at a cost not to exceed the actual expenses incurred by the fire department to respond and contain the fire. Similarly, if a fire is started where permits are required for such a fire and the permit was not obtained and the fire department is required to respond to contain the fire the responsible party(s) will be liable for the response at a cost not to exceed the actual expenses incurred by the fire department. The actual expenses will include direct labor, equipment costs and any other costs that can be reasonably allocated to the cost of the response.

WATER INCIDENTS

Level 1
Basic Response: Claim will include engine response, first responder assignment, perimeter establishment, evacuations, first responder set-up and command, scene safety and investigation (including possible patient contact, hazard control). This will be the most common "billing level". This occurs almost every time the fire department responds to a water incident.

Billed at $400 plus $50 per hour, per rescue person.

Level 2
Intermediate Response: Includes Level 1 services as well as clean up and material used (sorbents), minor hazardous clean up and disposal. We will bill at this level if the fire department has to clean up small amounts of gasoline or other fluids that are spilled as a result of the incident.

Billed at $800 plus $50 per hour, per rescue person.

Level 3
Advanced Response: Includes Level 1 and Level 2 services as well as D.A.R.T. activation, donning breathing apparatus and detection equipment. Set up and removal of decon center, detection equipment, recovery and identification of material. Disposal and environment clean up. Includes above in addition to any disposal rates of material and contaminated equipment and material used at scene.

Billed at $2,000 plus $50 per hour per rescue person, plus $100 per hour per HAZMAT team member.

Level 4
Itemized Response: You have the option to bill each incident as an independent event with custom mitigation rates for each incident using itemized rates deemed usual, customary and reasonable (UCR). These incidents will be billed, itemized, per trained rescue person, plus rescue products used.

SPECIAL RESCUE

Itemized Response: Each incident will be billed with custom mitigation rates deemed usual, customary and reasonable (UCR). These incidents will be billed, itemized per apparatus per hour, per trained rescue person per hour, plus rescue products used.

Minimum billed $400 for the first response vehicle plus $50 per rescue person. Additional rates of $400 per hour per response vehicle and $50 per hour per rescue person.

CHIEF RESPONSE

This includes the set-up of Command, and providing direction of the incident. This could include operations, safety, and administration of the incident.
Billed at $250 per hour.

MISCELLANEOUS / ADDITIONAL TIME ON-SCENE

Engine billed at $400 per hour.
Truck billed at $500 per hour.
Miscellaneous equipment billed at $300.

MITIGATION RATE NOTES

The mitigation rates above are average “billing levels”, and are typical for the incident responses listed, however, when a claim is submitted, it will be itemized and based on the actual services provided. These average mitigation rates were determined by itemizing costs for a typical run (from the time a fire apparatus leaves the station until it returns to the station) and are based on the actual costs, using amortized schedules for apparatus (including useful life, equipment, repairs, and maintenance) and labor rates (an average department’s “actual personnel expense” and not just a firefighter's basic wage). The actual personnel expense includes costs such as wages, retirement, benefits, workers comp, insurance, etc.

LATE FEES

If the invoice is not paid within 90 days, a Late Charge of 10% of the invoice, as well as 1.5% per month, as well as the actual cost of the collections, will be accessed to the responsible party(s).

Appendix L

Fire Priority Dispatch and Medical Priority Dispatch Figures

Figure L1:

The Fire Priority Dispatch System (FPDS) – Code Levels

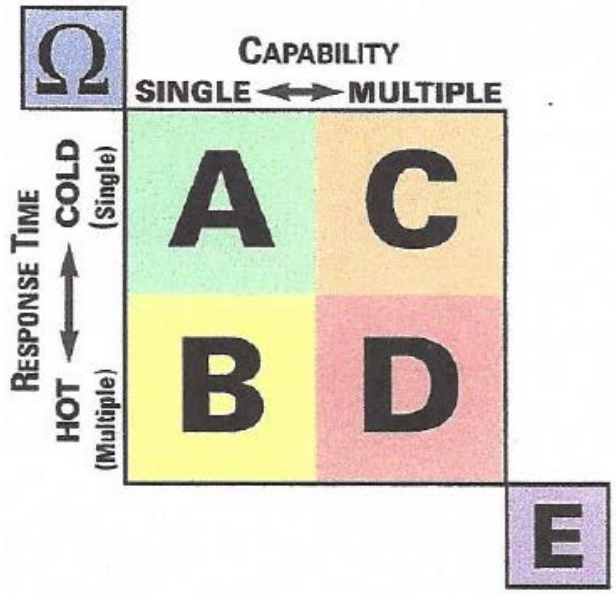
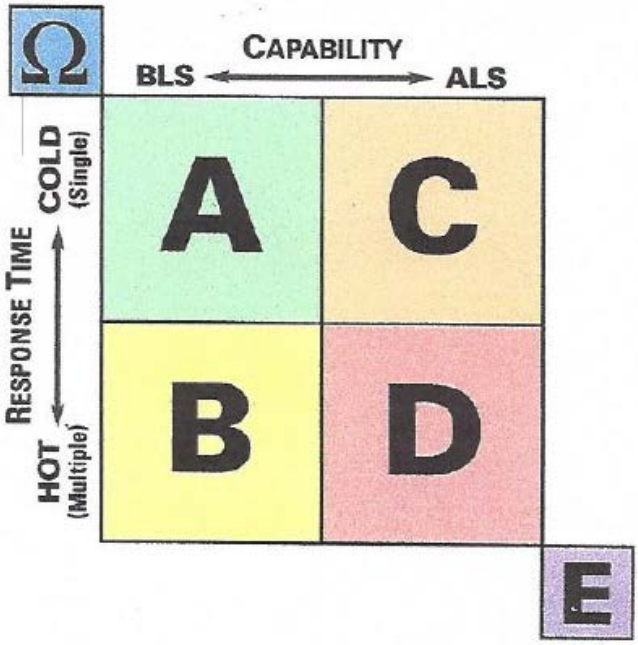


Figure L2:

The Medical Priority Dispatch System (MPDS) – Code Levels



Appendix M

Fire Priority Dispatch Coding and City of Albuquerque Fire Department Tables

Table M1

List of FPDS Non-EMS Protocol Codes

Protocol 50: Case Entry for Reported Building/Structure Fire	Protocol 64: Marine Fire
Protocol 51: Aircraft Emergency	Protocol 65: Mutual Aid/Assist Outside Agency
Protocol 52: Alarms	Protocol 66: Odor (Strange/Unknown)
Protocol 53: Citizen Assist/Service Call	Protocol 67: Outside Fire
Protocol 54: Confined Space/Structure Collapse	Protocol 68: Smoke Investigation (Outside)
Protocol 55: Electrical Hazard	Protocol 69: Structure Fire
Protocol 56: Elevator/Escalator Rescue	Protocol 70: Train and Rail Collision/Derailment
Protocol 57: Explosion	Protocol 71: Vehicle Fire
Protocol 58: Extrication/Entrapped (Machinery, Vehicle)	Protocol 72: Water Rescue
Protocol 59: Fuel Spill	Protocol 73: Watercraft in Distress
Protocol 60: Gas Leak/Gas Odor (Natural and LP Gases)	Protocol 74: Suspicious Package
Protocol 61: HAZMAT	Protocol 75: Train and Rail Fire
Protocol 62: High Angle Rescue	Protocol 76: Bomb Threat
Protocol 63: Lightning Strike (Investigation)	Protocol 77: Motor Vehicle Crash (no medical dispatch)

Table M4

Types of Non-EMS Incident Responses for AFD in 2015

Total AFD Non-EMS Calls - 2015	11,595
Fire	**9,092**
False Fire Alarms	4,476
Outside Fires	1,418
Smoke Outside	656
Structure Fires	770
Fireworks	1,420
Explosions	21
Vehicle Fires	331

Heavy Technical Rescue	**300**
Confined Space Rescues	3
Elevator Rescues	69
Extrications	14
High Angle Rescues	3
Water Rescues	8
Electrical Hazards	203

Hazardous Materials	**1,272**
HazMats	534
Fuel Spills	124
Gas Leaks/Odors	489
Suspicious Packages	11
Odor Strange/Unkown	114

Other	**931**
Aircraft Emergencies	20
Citizen Assists	596
Mutual Aid	315

Table M5

Yearly Call Volume for Non-EMS Incident Responses for AFD

Year	Population	I./D.	Sq. Miles	I./D.	Total FFs	I./D.	Min. Field FFs	I./D.	Total Calls	I./D.	Calls Per FF	I./D.	Non-EMS Calls	I./D.	MVC Calls	I./D.
2016	561,379	0.40%	188.1	0.00%	681	0.74%	486	0.00%	106,605	13.02%	219	12.89%	12,630	8.93%	8,000	8.24%
2015	559,121	0.67%	188.1	0.00%	676	1.20%	486	1.25%	94,328	11.19%	194	10.86%	11,595	12.78%	7,391	7.87%
2014	555,417	0.98%	188.1	0.00%	668	0.00%	480	0.00%	84,834	4.57%	175	4.79%	10,281	-2.17%	6,852	8.21%
2013	550,000	0.67%	188.1	0.00%	668	2.30%	480	0.00%	81,125	2.17%	167	2.45%	10,509	10.29%	6,332	9.00%
2012	546,360	0.09%	188.1	0.00%	653	-2.25%	480	0.00%	79,404	0.55%	163	0.62%	9,528	0.55%	5,809	9.50%
2011	545,852	0.00%	188.1	0.00%	668	-1.62%	480	0.00%	78,973	3.45%	162	1.89%	9,477	3.45%	5,305	-2.19%
2010	545,852	3.14%	188.1	0.00%	679	0.00%	480	0.00%	76,339	0.07%	159	0.00%	9,161	0.07%	5,424	-6.55%
2009	529,219	1.14%	188.1	0.00%	679	2.26%	480	0.00%	76,284	-5.95%	159	-5.92%	9,154	-5.95%	5,804	6.44%
2008	523,240	1.18%	188.1	0.00%	664	1.68%	480	0.00%	81,106	1.67%	169	1.81%	9,733	1.67%	5,453	7.58%
2007	517,162	1.71%	188.1	0.00%	653	1.24%	480	0.00%	79,776	6.57%	166	6.41%	9,573	6.57%	5,069	2.82%
2006	508,486	2.20%	188.1	0.00%	645	1.26%	480	0.00%	74,858	3.36%	156	3.31%	8,983	3.36%	4,930	-12.96%
2005	497,543	2.31%	188.1	0.00%	637	5.12%	480	0.00%	72,427	6.77%	151	7.09%	8,691	6.77%	5,664	-15.39%
2004	486,319	N/A	188.1	46.95%	606	21.20%	480	25.33%	67,837	168.06%	141	113.64%	8,140	68.61%	6,694	N/A
1986	351,000	N/A	128.0	N/A	500	N/A	383	N/A	25,307	N/A	66	N/A	4,828	N/A	N/A	N/A
	Neutral Growth															
	Negative Growth															
	Positive Growth															
	N/A = Not Available															
	I./D. = Increase/Decrease - Year to Year															
	Projected Number for 2016 Based on 8 Months of Data 1/1/16 - 8/31/16															
	MVC Calls are Dispatched under MPDS Codes and were not figured into the non-EMS Incident Totals; however, they can be in the future.															

Table M6

Yearly Cost for Non-EMS Incident Responses for AFD

Year	Total Budget	Total Non-EMS Calls	Cost Per Call - Total Budget	Total Cost	Cost Per Call - Special Event	Total Cost	Average - Total Costs
2016	$78,861,000.00	12,630	$739.75	$9,343,042.50	$368.32	$4,651,881.60	$6,997,462.05
2015	$77,416,000.00	11,595	$820.71	$9,516,140.70	$368.32	$4,270,670.40	$6,893,405.55
2014	$74,943,000.00	10,281	$883.41	$9,082,313.49	$368.32	$3,786,697.92	$6,434,505.71
2013	$73,199,000.00	10,509	$902.30	$9,482,259.37	$368.32	$3,870,674.88	$6,676,467.12
2012	$73,163,000.00	9,528	$921.40	$8,779,560.00	$368.32	$3,509,529.75	$6,144,544.88
2011	$70,240,000.00	9,477	$889.42	$8,428,800.00	$368.32	$3,490,480.24	$5,959,640.12
2010	$69,760,000.00	9,161	$913.82	$8,371,200.00	$368.32	$3,374,061.66	$5,872,630.83
2009	$71,361,000.00	9,154	$935.46	$8,563,320.00	$368.32	$3,371,630.75	$5,967,475.37
2008	$71,703,000.00	9,733	$884.07	$8,604,360.00	$368.32	$3,584,755.43	$6,094,557.72
2007	$68,094,000.00	9,573	$853.56	$8,171,280.00	$368.32	$3,525,971.56	$5,848,625.78
2006	$66,669,000.00	8,983	$890.61	$8,000,280.00	$368.32	$3,308,603.83	$5,654,441.91
2005	$58,246,000.00	8,691	$804.20	$6,989,520.00	$368.32	$3,201,157.52	$5,095,338.76
2004	$51,000,000.00	8,140	$751.80	$6,120,000.00	$368.32	$2,998,286.86	$4,559,143.43
1986	$24,718,259.00	4,828	$976.74	$4,715,681.61	$368.32	$1,778,248.96	$3,246,965.28
	Cost Based on Total Budget Divided by Total # of E911 Calls						
	Cost Based on COA's - Fire Service Special Event Billing Statement - see Appendix J						
	Projected Number for 2016 - Based on 8 Months of Response Data 1/1/16 - 8/31/16						
*** Yearly Cost based on the combined averaged totals for *Cost Per Call - Total Budget* and *Cost Per Call - Special Events* (2004 - 2015) = **$5,933,398.10** ***							

Table M11

Projected Revenue for COA from Non-EMS Incident Responses in 2015

AFD Non-EMS Incidents with an E911 Response	Incidents	Amount Billed (min.)	Percent Collected	Totals
MVC (with fluids on ground)	3,696	$550.00	90.00%	$1,829,520.00
MVC (no fluids on ground)	3,695	$550.00	30.00%	$609,675.00
Vehicle Fires	331	$605.00	20.00%	$40,051.00
False Alarms	4,476	$100.00	30.00%	$134,280.00
Fires	2,865	$1,200.00	60.00%	$2,062,800.00
Hazardous Materials	1,272	$700.00	60.00%	$534,240.00
Special Rescues	300	$400.00	60.00%	$72,000.00
Fireworks	1,420	$500.00	50.00%	$355,000.00
Other (Aircraft Emergencies, Citizen Assist, Mutual Aid)	931	$300.00	50.00%	$139,650.00
Fire Investigations	88	$1,100.00	50.00%	$48,400.00
Projected Yearly Revenue for COA based on 2015	**11,595**			**$3,338,021.00**
Can Potentially climb to these Totals	19,074			$5,825,616.00

	MPDS Medical Dispatches. Not in the $3.3M Projection because they were dispatched as medical calls.
	Not Dispatched as a First Responder, thus not included in the non-EMS Incident number. Can be billed in the future.
	Projected cost recovery for non-EMS incident responses for AFD [2015] - based on Fire Recovery USA Sample Ordinance.
	TOTAL of all non-EMS Incidents (incudes MVCs and Arson), regardless of first response or dispatch coding.

Table M12

2015 Population Size and Rank - 50 Largest US Cities

2015 Population Size and Rank - 50 Largest US Cities						
No.	**Fire Department**	**Based on Pop. Size**	**Call Volume**	**Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
3	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
6	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
7	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
8	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
9	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
10	San Jose, CA	1,026,908	83,600	$179.0	816	32
11	Austin, TX	931,830	86,641	$171.9	1,129	43
12	El Paso, TX	873,513	78,686	$97.5	1,068	31
13	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
14	San Francisco, CA	849,774	135,062	$350.0	1,609	44
15	Columbus, OH	835,957	180,631	$230.2	1,571	34
16	Fort Worth, TX	812,238	103,482	$132.4	961	40
17	Charlotte, NC	800,000	110,400	$110.2	1,170	42
18	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
19	Detroit, MI	677,116	165,000	$107.0	1,000	26
20	Nashville, TN	658,602	102,368	$114.4	1,143	36
21	Washington, DC	650,000	197,092	$204.7	2,097	33
22	Denver, CO	649,495	107,076	$128.0	982	33
23	Memphis, TN	646,450	135,310	$172.9	1,784	56
24	Boston, MA	645,169	81,978	$204.6	1,623	33
25	Seattle, WA	634,535	94,346	$179.4	1,094	33
26	Las Vegas, NV	625,000	111,270	$120.0	700	20
27	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
28	Portland, OR	613,355	79,572	$111.4	720	28
29	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
30	Louisville, KY	600,000	35,099	$53.0	481	19
31	Milwaukee, WI	599,164	89,448	$102.9	893	32
32	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
33	Tucson, AZ	527,972	87,748	$92.7	753	23
34	Fresno, CA	520,159	42,416	$62.5	295	21
35	Omaha, NE	508,802	48,712	$97.1	632	24
36	Kansas City, MO	467,007	110,712	$151.0	1,274	32
37	Sacramento, CA	466,488	83,701	$103.7	595	24
38	Mesa, AZ	462,376	62,999	$69.0	548	20
39	Long Beach, CA	461,564	59,273	$104.5	630	17
40	Colorado Springs, CO	457,900	64,786	$61.6	476	21
41	Virginia Beach, VA	450,980	43,889	$49.1	499	20
42	Atlanta, GA	447,841	101,255	$105.7	1,133	34
43	Raleigh, NC	439,896	39,084	$55.5	609	29
44	Miami, FL	430,332	100,005	$109.5	793	11
45	Oakland, CA	419,267	62,729	$130.4	420	24
46	Minneapolis, MN	400,800	41,348	$61.4	421	19
47	Tulsa, OK	399,682	57,028	$71.1	695	26
48	Wichita, KS	382,368	54,129	$42.8	438	16
49	New Orleans, LA	378,715	37,640	$96.4	655	30
50	Arlington, TX	370,134	40,717	$46.6	463	17

Table M13

2015 Total Fire Department Call Volume - 50 Largest US Cities

2015 Total Fire Department Call Volume - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Based on Call Volume**	**Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
4	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
5	Houston, TX	2,296,224	318,627	$506.7	3,810	91
6	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
7	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
8	Washington, DC	650,000	197,092	$204.7	2,097	33
9	Columbus, OH	835,957	180,631	$230.2	1,571	34
10	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
11	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
12	Detroit, MI	677,116	165,000	$107.0	1,000	26
13	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
14	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
15	Memphis, TN	646,450	135,310	$172.9	1,784	56
16	San Francisco, CA	849,774	135,062	$350.0	1,609	44
17	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
18	Las Vegas, NV	625,000	111,270	$120.0	700	20
19	Kansas City, MO	467,007	110,712	$151.0	1,274	32
20	Charlotte, NC	800,000	110,400	$110.2	1,170	42
21	Denver, CO	649,495	107,076	$128.0	982	33
22	Fort Worth, TX	812,238	103,482	$132.4	961	40
23	Nashville, TN	658,602	102,368	$114.4	1,143	36
24	Atlanta, GA	447,841	101,255	$105.7	1,133	34
25	Miami, FL	430,332	100,005	$109.5	793	11
26	Seattle, WA	634,535	94,346	$179.4	1,094	33
27	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
28	Milwaukee, WI	599,164	89,448	$102.9	893	32
29	Tucson, AZ	527,972	87,748	$92.7	753	23
30	Austin, TX	931,830	86,641	$171.9	1,129	43
31	Sacramento, CA	466,488	83,701	$103.7	595	24
32	San Jose, CA	1,026,908	83,600	$179.0	816	32
33	Boston, MA	645,169	81,978	$204.6	1,623	33
34	Portland, OR	613,355	79,572	$111.4	720	28
35	El Paso, TX	873,513	78,686	$97.5	1,068	31
36	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
37	Colorado Springs, CO	457,900	64,786	$61.6	476	21
38	Mesa, AZ	462,376	62,999	$69.0	548	20
39	Oakland, CA	419,267	62,729	$130.4	420	24
40	Long Beach, CA	461,564	59,273	$104.5	630	17
41	Tulsa, OK	399,682	57,028	$71.1	695	26
42	Wichita, KS	382,368	54,129	$42.8	438	16
43	Omaha, NE	508,802	48,712	$97.1	632	24
44	Virginia Beach, VA	450,980	43,889	$49.1	499	20
45	Fresno, CA	520,159	42,416	$62.5	295	21
46	Minneapolis, MN	400,800	41,348	$61.4	421	19
47	Arlington, TX	370,134	40,717	$46.6	463	17
48	Raleigh, NC	439,896	39,084	$55.5	609	29
49	New Orleans, LA	378,715	37,640	$96.4	655	30
50	Louisville, KY	600,000	35,099	$53.0	481	19
	The COA (AFD)					
	Cities SMALLER than the COA with MORE E911 Calls = 3					
	Cities LARGER than the COA with LESS E911 Calls = 8					

Table M14

2015 Total Fire Department Uniformed Personnel - 50 Largest US Cities

2015 Total Fire Department Uniformed Personnel - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Budget in Millions**	**Based on Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Houston, TX	2,296,224	318,627	$506.7	3,810	91
4	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
5	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
6	Washington, DC	650,000	197,092	$204.7	2,097	33
7	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
8	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
9	Memphis, TN	646,450	135,310	$172.9	1,784	56
10	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
11	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
12	Boston, MA	645,169	81,978	$204.6	1,623	33
13	San Francisco, CA	849,774	135,062	$350.0	1,609	44
14	Columbus, OH	835,957	180,631	$230.2	1,571	34
15	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
16	Kansas City, MO	467,007	110,712	$151.0	1,274	32
17	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
18	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
19	Charlotte, NC	800,000	110,400	$110.2	1,170	42
20	Nashville, TN	658,602	102,368	$114.4	1,143	36
21	Atlanta, GA	447,841	101,255	$105.7	1,133	34
22	Austin, TX	931,830	86,641	$171.9	1,129	43
23	Seattle, WA	634,535	94,346	$179.4	1,094	33
24	El Paso, TX	873,513	78,686	$97.5	1,068	31
25	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
26	Detroit, MI	677,116	165,000	$107.0	1,000	26
27	Denver, CO	649,495	107,076	$128.0	982	33
28	Fort Worth, TX	812,238	103,482	$132.4	961	40
29	Milwaukee, WI	599,164	89,448	$102.9	893	32
30	San Jose, CA	1,026,908	83,600	$179.0	816	32
31	Miami, FL	430,332	100,005	$109.5	793	11
32	Tucson, AZ	527,972	87,748	$92.7	753	23
33	Portland, OR	613,355	79,572	$111.4	720	28
34	Las Vegas, NV	625,000	111,270	$120.0	700	20
35	Tulsa, OK	399,682	57,028	$71.1	695	26
36	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
37	New Orleans, LA	378,715	37,640	$96.4	655	30
38	Omaha, NE	508,802	48,712	$97.1	632	24
39	Long Beach, CA	461,564	59,273	$104.5	630	17
40	Raleigh, NC	439,896	39,084	$55.5	609	29
41	Sacramento, CA	466,488	83,701	$103.7	595	24
42	Mesa, AZ	462,376	62,999	$69.0	548	20
43	Virginia Beach, VA	450,980	43,889	$49.1	499	20
44	Louisville, KY	600,000	35,099	$53.0	481	19
45	Colorado Springs, CO	457,900	64,786	$61.6	476	21
46	Arlington, TX	370,134	40,717	$46.6	463	17
47	Wichita, KS	382,368	54,129	$42.8	438	16
48	Minneapolis, MN	400,800	41,348	$61.4	421	19
49	Oakland, CA	419,267	62,729	$130.4	420	24
50	Fresno, CA	520,159	42,416	$62.5	295	21
	The COA (AFD)					
	Cities SMALLER than the COA with MORE Uniformed Personnel = 5					
	Cities LARGER than the COA with LESS Uniformed Personnel = 1					

Table M15

2015 Total Number of Fire Department Engines - 50 Largest US Cities

2015 Total Number of Fire Department Engines - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Budget in Millions**	**Firefighters**	**Based on Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
3	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
6	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
7	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
8	Memphis, TN	646,450	135,310	$172.9	1,784	56
9	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
10	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
11	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
12	San Francisco, CA	849,774	135,062	$350.0	1,609	44
13	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
14	Austin, TX	931,830	86,641	$171.9	1,129	43
15	Charlotte, NC	800,000	110,400	$110.2	1,170	42
16	Fort Worth, TX	812,238	103,482	$132.4	961	40
17	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
18	Nashville, TN	658,602	102,368	$114.4	1,143	36
19	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
20	Columbus, OH	835,957	180,631	$230.2	1,571	34
21	Atlanta, GA	447,841	101,255	$105.7	1,133	34
22	Washington, DC	650,000	197,092	$204.7	2,097	33
23	Denver, CO	649,495	107,076	$128.0	982	33
24	Seattle, WA	634,535	94,346	$179.4	1,094	33
25	Boston, MA	645,169	81,978	$204.6	1,623	33
26	Kansas City, MO	467,007	110,712	$151.0	1,274	32
27	Milwaukee, WI	599,164	89,448	$102.9	893	32
28	San Jose, CA	1,026,908	83,600	$179.0	816	32
29	El Paso, TX	873,513	78,686	$97.5	1,068	31
30	New Orleans, LA	378,715	37,640	$96.4	655	30
31	Raleigh, NC	439,896	39,084	$55.5	609	29
32	Portland, OR	613,355	79,572	$111.4	720	28
33	Detroit, MI	677,116	165,000	$107.0	1,000	26
34	Tulsa, OK	399,682	57,028	$71.1	695	26
35	Sacramento, CA	466,488	83,701	$103.7	595	24
36	Oakland, CA	419,267	62,729	$130.4	420	24
37	Omaha, NE	508,802	48,712	$97.1	632	24
38	Tucson, AZ	527,972	87,748	$92.7	753	23
39	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
40	Colorado Springs, CO	457,900	64,786	$61.6	476	21
41	Fresno, CA	520,159	42,416	$62.5	295	21
42	Las Vegas, NV	625,000	111,270	$120.0	700	20
43	Mesa, AZ	462,376	62,999	$69.0	548	20
44	Virginia Beach, VA	450,980	43,889	$49.1	499	20
45	Minneapolis, MN	400,800	41,348	$61.4	421	19
46	Louisville, KY	600,000	35,099	$53.0	481	19
47	Long Beach, CA	461,564	59,273	$104.5	630	17
48	Arlington, TX	370,134	40,717	$46.6	463	17
49	Wichita, KS	382,368	54,129	$42.8	438	16
50	Miami, FL	430,332	100,005	$109.5	793	11
	The COA (AFD)					
	Cities SMALLER than the COA with MORE Engines = 9					
	Cities LARGER than the COA with LESS Engines = 2					

Table M16

2015 Total Fire Department Budget - 50 Largest US Cities

2015 Total Fire Department Budget - 50 Largest US Cities						
No.	**Fire Department**	**Pop. Size**	**Call Volume**	**Based on Budget in Millions**	**Firefighters**	**Engines**
1	New York, NY	8,491,079	1,727,080	$1,993.5	16,182	205
2	Los Angeles (**City**), CA	3,884,000	454,416	$640.0	3,214	92
3	Chicago, IL	2,722,389	771,648	$550.0	5,141	97
4	Houston, TX	2,296,224	318,627	$506.7	3,810	91
5	San Francisco, CA	849,774	135,062	$350.0	1,609	44
6	Phoenix, AZ	1,445,000	198,362	$309.0	1,956	64
7	San Antonio, TX	1,407,147	174,892	$277.7	1,782	51
8	Baltimore (**City**), MD	622,000	175,531	$231.0	1,736	35
9	Columbus, OH	835,957	180,631	$230.2	1,571	34
10	Dallas, TX	1,257,000	283,807	$228.9	1,894	57
11	Philadelphia, PA	1,560,297	441,216	$224.3	2,594	56
12	San Diego, CA	1,300,000	148,712	$218.5	1,171	48
13	Jacksonville, FL	868,031	136,239	$210.0	1,200	53
14	Washington, DC	650,000	197,092	$204.7	2,097	33
15	Boston, MA	645,169	81,978	$204.6	1,623	33
16	Indianapolis, IN	765,000	124,927	$190.0	1,281	43
17	Seattle, WA	634,535	94,346	$179.4	1,094	33
18	San Jose, CA	1,026,908	83,600	$179.0	816	32
19	Memphis, TN	646,450	135,310	$172.9	1,784	56
20	Austin, TX	931,830	86,641	$171.9	1,129	43
21	Kansas City, MO	467,007	110,712	$151.0	1,274	32
22	Oklahoma City, OK	610,000	74,414	$141.5	1,008	37
23	Fort Worth, TX	812,238	103,482	$132.4	961	40
24	Oakland, CA	419,267	62,729	$130.4	420	24
25	Denver, CO	649,495	107,076	$128.0	982	33
26	Las Vegas, NV	625,000	111,270	$120.0	700	20
27	Nashville, TN	658,602	102,368	$114.4	1,143	36
28	Portland, OR	613,355	79,572	$111.4	720	28
29	Charlotte, NC	800,000	110,400	$110.2	1,170	42
30	Miami, FL	430,332	100,005	$109.5	793	11
31	Detroit, MI	677,116	165,000	$107.0	1,000	26
32	Atlanta, GA	447,841	101,255	$105.7	1,133	34
33	Long Beach, CA	461,564	59,273	$104.5	630	17
34	Sacramento, CA	466,488	83,701	$103.7	595	24
35	Milwaukee, WI	599,164	89,448	$102.9	893	32
36	El Paso, TX	873,513	78,686	$97.5	1,068	31
37	Omaha, NE	508,802	48,712	$97.1	632	24
38	New Orleans, LA	378,715	37,640	$96.4	655	30
39	Tucson, AZ	527,972	87,748	$92.7	753	23
40	**Albuquerque, NM**	**561,379**	**94,328**	**$77.3**	**676**	**22**
41	Tulsa, OK	399,682	57,028	$71.1	695	26
42	Mesa, AZ	462,376	62,999	$69.0	548	20
43	Fresno, CA	520,159	42,416	$62.5	295	21
44	Colorado Springs, CO	457,900	64,786	$61.6	476	21
45	Minneapolis, MN	400,800	41,348	$61.4	421	19
46	Raleigh, NC	439,896	39,084	$55.5	609	29
47	Louisville, KY	600,000	35,099	$53.0	481	19
48	Virginia Beach, VA	450,980	43,889	$49.1	499	20
49	Arlington, TX	370,134	40,717	$46.6	463	17
50	Wichita, KS	382,368	54,129	$42.8	438	16
	The COA (AFD)					
	Cities SMALLER than the COA with a LARGER Budget = 9					
	Cities LARGER than the COA with a SMALLER Budget = 1					