

GENDER DIVERSITY RECRUITMENT AND RETENTION

Gender Diversity Recruitment and Retention for the Scottsdale 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 indicate, and that appropriate credit is given where I have used language, ideas, expressions or writings of others.

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ABSTRACT

In less than 18 months, the City of Scottsdale established a new fire department and hired over 200 new employees, less than three percent of which are female. The problem addressed was the Scottsdale Fire Department's lack of gender diversity among its sworn firefighting ranks. The purpose of this descriptive research project was to develop recommendations for a recruitment and retention plan for suppression positions focusing on female candidates. For younger females, recruitment efforts should focus on awareness education and immersion programs. For more mature females entering the fire service from other career fields, recruitment efforts should utilize demographic data from the current female workforce. Retention efforts should harness creative solutions developed by incumbent females to mitigate retention-threatening circumstances.

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INTRODUCTION

Located on the western edge of Phoenix, Arizona, the City of Scottsdale is a vibrant community of 225,000 residents spread over 184 square miles. Founded on July 1, 2005, the Scottsdale Fire Department provides fire and emergency medical services to the businesses, residents, and visitors of Scottsdale. Ninety three percent of the Department's 196 sworn personnel who provide field-based emergency services were recruited and hired from a fixed, predominantly male candidate pool. The problem addressed in this research is the Scottsdale Fire Department's lack of gender diversity in its sworn firefighting ranks. The Scottsdale Fire Department has neither a recruitment nor retention plan. The purpose of this research is to develop recommendations for a recruitment and retention plan for future suppression positions focusing on female candidates.

Descriptive research is used to gather, process, and analyze data to enhance Scottsdale Fire Department's success in recruiting and retaining females to suppression positions.

The following questions will be addressed:

1. At what point do female firefighter-recruit candidates make the decision to pursue a career in the fire service?
2. What are the common experiences, education, and interests of females who successfully pursue a career in the fire service?
3. What are the characteristics of a career in the fire service that meet the needs and wants of female firefighters?
4. What are the characteristics of a career in the fire service that do not meet the needs and wants of female firefighters?

5. What recruitment strategies can the Scottsdale Fire Department implement to attract and retain females to a suppression career?

BACKGROUND AND SIGNIFICANCE

The City of Scottsdale is a unique community in the Phoenix Metropolitan region. In an effort to retain the Sonoran Desert atmosphere of the community, City leadership has, over the past several years, set aside 54 square miles as dedicated “desert preserve land.” The remaining 130 square miles is a mix of residential, commercial, and retail development. Pockets of light industrial complexes exist in the southern portion of the City and around the airport in the central portion of the City. Scottsdale’s Economic Vitality Department (2006), credits the City with just over 27,000 businesses employing 183,124 local employees. Residential occupancies range from 1,200 square foot ranch-style homes on 6,000 square foot parcels in the south section of the City to 20,000 square foot multi-million dollar custom homes on 5-plus acre parcels in the north sections of the City. Over the past five years, the average price of all homes in the City of Scottsdale has increased 217% from \$220,000 to \$479,000, and Scottsdale is *Money Magazine’s* seventh best place to live in 2006 (Money Magazine, 2006). Scottsdale leadership aggressively pursues developments that enhance the upscale resort image of the City while simultaneously discouraging developments that detract from this image. The City has a well-articulated business plan for land use and development.

With over \$2.1 billion dollars of private investments over the past two years, Scottsdale is the hub of major regional and national activity. Home to several major businesses, including Dial Corp., Scottsdale focuses on attracting corporate offices rather than manufacturing warehouses. A world-class research and development center is under construction in South Scottsdale. Partners for this major initiative include Arizona State University and several major

biomedical institutions. Scottsdale also plays host to major events such as the Professional Golfers' Association FBR Open and the Barrett-Jackson automobile auction. Finally, Scottsdale is home to several world-class, five-star resorts including the Four Seasons at Troon North, the Inn at Eagle Mountain, and the Camelback Inn. Scottsdale's business plan has been successful enough to result in property tax decreases due to double digit economic growth.

The Scottsdale Fire Department began providing fire, rescue, and emergency medical services in Scottsdale, Arizona on July 1, 2005. Prior to this date, these services were provided to the City of Scottsdale through a contract for services with the Rural Metro Corporation. Scottsdale is actually the birthplace of the Rural Metro Corporation. Rural Metro's founder, Lou Witzeman, was a Scottsdale resident who began his multimillion dollar international empire when, in the early 1950's, he began providing fire suppression services to his neighbors for a subscription fee in the. The need for suppression quickly grew, and Witzeman's service grew to fill this void. For over fifty years Rural Metro Corporation provided Scottsdale's fire suppression service. As emergency medical services developed in the 1970's, Rural Metro managed the inclusion of emergency medical services in the City's plan.

In November 2003 the Rural Metro Corporation made a business decision not to renew the contract for fire services in the City of Scottsdale beyond July 1, 2005. That decision transferred the responsibility for managing fire service to the City of Scottsdale with only 18 months to prepare. Fortunately, the City owned the capital assets of its Fire Department, including the fire stations and apparatus. All other equipment, tools, furnishings, and supplies belonged to the Rural Metro Corporation. Perhaps the most critical possession in Rural Metro's control was its workforce who provided fire and emergency medical services in Scottsdale. Due to the integration of fire and emergency medical services in the community, the City of

Scottsdale decided to keep those services combined even though Rural Metro sought a long term relationship that would allow the company to continue offering some emergency medical services after the fire contract expired. The City of Scottsdale positioned itself to assume the responsibility for fire and emergency medical services at the end of the fire contract term, July 1, 2005.

City Manager Jan Dolan hired then-Fremont California Fire Chief William McDonald to create the new municipal fire department. Dolan also organized a cross-departmental team of Scottsdale leaders and managers which became known as the Fire Transition Team. Chief McDonald took the helm in June 2004, just over 12 months prior to the transition in services. To round out his command staff, Chief McDonald extended job offers to three Rural Metro chief officers and filled the other five positions with non-Rural Metro chief officers. The final command staff included the Fire Chief, two Assistant Fire Chiefs, and six Deputy Fire Chiefs.

Partnering with Scottsdale Human Resources and fire departments from throughout the greater Phoenix region, Chief McDonald took a unique approach to filling the 211 field positions necessary for firefighter, fire captain, and battalion chief openings. The City employed a three-phased hiring process.

Phase One of the hiring process allowed all eligible Rural Metro employees working under the Scottsdale contract to apply for a lateral position with the new Scottsdale Fire Department. Since Rural Metro forecasted a surplus of Arizona-based firefighters when the contract with Scottsdale ended, the company supported the City's effort to place their employees in the new municipal department. Employees with two or more years of full-time service with Rural Metro under the Scottsdale contract in the preceding five years were eligible to participate in hiring interviews conducted by City Human Resources, various City department supervisors,

and fire service leaders from fire departments in the Phoenix region. Ninety-three percent of Scottsdale Fire Department's current sworn Field Operations workforce gained employment through Phase One hiring. Field Operations is the division of the Fire Department that includes all employees assigned to emergency response activities on a 24-hour shift basis. Of these 196 sworn positions, only four applicants, or 2.55%, were female. All were at the firefighter rank within Rural Metro. All four applicants were successful in Phase One testing, and three were offered firefighter positions in the new municipal fire department. One of these candidates was offered a promotion to engineer in the new municipal fire department.

Phase Two of the hiring process opened the applicant pool to all full-time firefighters, fire captains, and battalion chiefs throughout the nation. These limited opportunities existed since not all outgoing Rural Metro employees chose to participate in Phase One, were eligible for Phase One consideration, or were successful in Phase One. Phase Two hiring procedures resulted in filling 3 of 6 Field Operations battalion chief positions, 2 of 49 fire captain positions, none of the 57 engineer positions, and 9 of 84 firefighter positions. No female candidates applied for Phase Two hiring at any rank. There were no recruitment activities to coincide with Phase Two hiring other than information posted on the City's web site and classified ads in the local newspapers.

On July 1, 2005 at 12:00 a.m. the City of Scottsdale Fire Department took responsibility for fire and emergency medical services. At precisely that moment, there was a change in personnel deployment, dispatch protocols, supervision, uniforms, policies, procedures, and leadership. It was a momentous event, and the new leadership team is charged with developing its workforce and planning for the workforce needs of the future. At the time of this transition,

2.55% of the Fire Department's emergency response personnel were female. Appendix A captures the demographics of the Scottsdale Fire Department on July 1, 2005.

In September 2006, the Scottsdale Fire Department began Phase Three hiring to fill 18 vacant firefighter-recruit positions. Unlike Phases One and Two, Phase Three hiring did not facilitate lateral transfers from Rural Metro or other fire departments. There were 1,506 applicants. That equates to approximately 83 applicants for every one vacant position. While on the surface it doesn't seem the Fire Department suffers from insufficient marketing, the under representation of female candidates suggests otherwise. Only 5.6% of all applicants were female.

Fire Chief McDonald has clearly stated his strong desire to increase the diversity of the Scottsdale Fire Department as a means of providing better service to all members of the community. McDonald (personal communication, October 31, 2006) sums up the significance of female recruitment in the Scottsdale Fire Department:

A diverse workforce, aside from the visible benefits, assist us in recognizing what we don't know, what is and isn't acceptable based upon the group or the culture, that we find better and more effective ways to reach specific groups, that we have more success in communicating effectively and that our organization does a better job at providing the services desired by the residents and visitor really desire. The more diverse, the greater the opportunity and potential.

Scottsdale City Manager Jan Dolan is a strong proponent of workplace diversity. Dolan (personal communication, November 15, 2006) believes diversity elevates creativity and organizational intelligence. Without diversity, work environments begin to stagnate according to Dolan. While a significant business case can be made for increasing workforce diversity, Dolan's primary goal is to ensure the quality of candidates. Dolan acknowledges the lack of

diversity in the Scottsdale Fire Department and would like to see the Fire Department increase its diversity without sacrificing quality.

Recruitment and retention of qualified female applicants is significant to the author of this research study for several reasons. The Deputy Chief of the Training & Development Division is the Fire Department's liaison with City Human Resources for the Firefighter-Recruit hiring process, and therefore is charged with bringing to life the vision of the Fire Chief in accomplishing diversity goals. Efficient, effective recruiting is a major tool to accomplishing these goals. Enhancing the Scottsdale Fire Department's ability to retrain female firefighters decreases turnover, thus decreasing recruit academy size and expense. Turnover and academy size directly impact the budget, therefore retention of the existing workforce is vital to the financial stability of the Training & Development Division. As a former Fire Captain in an emergency response capacity, the author personally witnessed the advantages in having female emergency response personnel. Based on this experience, the inclusion of females in emergency response positions assists in creating a healthier fire station culture and a more dynamic set of skills to draw upon when assisting members of the public. Scottsdale Fire Chief William McDonald (2006) acknowledged this benefit in stating there are definitely situations when a female firefighter is the "preferred service provider" in the eyes of the customers. Finally, as a member of this Department with many of years remaining in this service, the author has a long term interest in helping the organization reach its greatest potential. Having witnessed the positive impact of females on organizational culture and performance, a strong business case can be made for increasing the level of female representation in the Scottsdale Fire Department.

The National Fire Academy course "Executive Development" presents topics and theories particularly poignant to this research. In the section on leadership, students are

introduced to the theory of transactional and transformational leadership (National Fire Academy, 1998). Consciously creating quality change processes, which may result in shifting the demographics of any organization, requires the close interaction between leaders and followers in which both parties grow. This behavior typifies transformation leadership. Whereas influencing demographics with transformational leadership addresses the need to bring the current workforce on the journey, transactional leadership may attain the same demographic goals but would most likely result in a split between leaders and followers. The long term success of the program may ultimately be jeopardized if transactional leadership behaviors are engaged for circumstances that require workforce growth.

In the change management portion of “Executive Leadership,” students explore the APIE Model. APIE stands for analysis, planning, implementation, and evaluation (1998). This body of research analyzes the current state and makes recommendations that form the foundation of the planning stage. Implementation of the recruitment and retention plan will come after this research. Finally, to ensure the new model meets defined objectives a continual process of data analysis will follow.

Also included in the section on change management is the Bridges model of successful change implementation. There are four basic elements to the Bridges model: people must know why change is occurring; they must have a clear, specific picture; they need to know how the plan will come about; and they need to know how they will fit in (1998). As this research and its recommendations begin to form a plan, the Bridges Model will aid Fire Administration in keeping the workforce informed and engaged in the planning and implementation phases of the APIE model.

Recruitment and retention of female firefighters is tied to the United States Fire Administration's Operational Objective of responding appropriately in a timely manner to emerging issues. Female representation in sworn firefighting positions has increased tremendously in the last three decades. With less than two years of operational service, the Scottsdale Fire Department is swift to respond to the lack of female representation among its firefighting ranks. The applied research paper results and recommendations will assist in developing an action plan that addresses this issue.

LITERATURE REVIEW

Over the last three decades fire departments and other employers have become increasingly aware of the positive results that stem from a diverse workforce. Dr. Carol D'Amico (2005), chancellor of Ivy Technical College in Indiana, warns of a shrinking employee pool for all employers. Dr. D'Amico predicts a shortage of 21 million employees in the United State labor force. The competitive nature of finding and keeping a high quality workforce will be ever increasing over the coming years. According to Workforce Arizona (2006), the population in the State of Arizona will increase by over 21% between 2006 and 2015. While this statistic indicates a larger local pool of firefighter-recruit candidates, it also indicates a growing need to expand the size of the current workforce. This means greater competition among employers for the same talent.

The literature review for this applied research project will bring forward recruitment and retention philosophies and practices from the national fire service and other industries.

Recruitment

For purposes of this applied research paper, the scope of the term recruitment will broaden as compared to the traditional action-orientated, candidate seeking scope of recruitment.

In this sense, recruitment encompasses supportive leadership and culture, a marketing plan to attract female candidates, candidate preparation, and valid testing processes.

Leadership and Organizational Culture

Fire Chief Robert Osby (1991) captures the importance of leadership support for diversity recruitment efforts. Osby states the role of the Fire Chief is more than just a supporter of diversity recruitment, rather the Fire Chief must be the advocate if these efforts are to produce successful programs and outcomes. In the 1993 *A Handbook on Women in Firefighting*, the United States Fire Administration built on Osby's words and further defined the role of the Fire Chief. According to the *Handbook*, executive management must "demonstrate leadership by representing the program positively to elected officials in order to obtain their support, and by making public statements, particularly in the media, in support of the recruitment effort and of hiring women and minorities" (p. 14).

In a 2002 article in *Fire Safety, Technology, and Management*, author Paul McGill of the New Zealand Fire Service expands on the importance of the leader's role in improving the recruitment and retention of female firefighters. McGill studied the differences between the programs and demographics of the New Zealand Fire Service and the Minneapolis Fire Department, the latter is known as a leader in female recruitment and retention. McGill states:

Leadership is the key factor in determining the success of equal employment opportunity programs. The Minneapolis Fire Chief has a strong commitment to the employment and integration of women firefighters which has a positive influence on all the other factors considered in the research to contribute to the successful employment of women. (p. 57)

McGill places accountability for workforce demographics at the doorstep of the fire chief. For organizations with insufficient diversity efforts and outcomes, the responsibility for those outcomes resides with the leadership.

McGill explores the impact of culture and acceptance on females entering the fire service. McGill acknowledges the existence of hostility toward women. To address this cultural contamination, McGill states, “While the fire service culture continues to be challenging for women, fire services should recruit women who have the personal attributes to survive and thrive in this situation” (p. 58).

In a 1995 survey conducted by the organization Women in the Fire Service, 511 female firefighters of varying rank shed light on the pervasiveness of the negative cultural climate for female firefighters. Eighty-eight percent of these women professionals experienced sexual harassment in the fire service. Seventy percent indicated the harassment was ongoing. In the 2005 *Fire Service Personnel Management* text Steven Edwards draws the connection between culture and recruitment. According to Edwards, the mere perception of a lack of diversity support on the part of an organization is sufficient to repel one-third of all female and minority job candidates (p. 34). Edwards further states that fire service leadership is responsible for establishing a recruitment strategy with clearly defined goals and milestones (p. 88).

In *Good to Great*, author Jim Collin (2001) analyzes the differences between successful organizations and a super-elite class of successful organizations able to sustain greatness over a prolonged period. Collins identifies six key strategic differences that catapult an organization from good to great. One of those key differences is what Collins refers to as the “First Who... Then What” theory (p. 41). According to this theory, who a leader selects to be on the organizational payroll is more important than what the organization subsequently defines as its

mission. Once the right people are on board, the direction and level of service can be developed to play to the strengths of the people in place. Collins theorized it is more important who is on your team than what your team ultimately sets as its main objectives. Recruiting high quality team members then becomes the most important aspect of building an organization.

A model for the development of a female firefighter recruitment strategy exists within the Black Employment Program Committee, a consortium under the National Institutes of Health and the Office of Equal Opportunity and Diversity Management. The goal of this committee is to “create an environment that is conducive to the recognition, development, promotion, understanding, and utilization of Black employees' abilities, skills, and knowledge in order to achieve maximum productivity” (2006). Under this goal, the Committee created a comprehensive action plan that includes research, communication, and revision of many factors that influence the recruitment and retention of black employees.

While McGill advocates selecting female firefighters who could take the pressure of an adverse culture, the Madison (WI) Fire Department took a different approach. Partnering with external female firefighters during the initial phases of female recruitment, the department provided sensitivity training to all department members. A multi-pronged effort was put forward using informal fire station visits, meetings with recruit firefighters, in-depth discussions with senior management, and broadcasted lessons on diversity (Durkin, 1981, p. 55).

Marketing

Chan Sewell (2006) of the *New York Times* chronicled a recent marketing change in the City of New York Fire Department (FDNY). FDNY is the nation's largest municipal firefighting organization, but with only 33 females out of 11,491 total personnel, less than three-tenths of one percent of FDNY's suppression force is female. With a budget of over one billion

dollars, the FDNY secured the services of a Manhattan-based marketing agency to rebrand itself as a diversity-friendly organization. FDNY's new recruitment campaign contains non-traditional images of firefighters of various races and both genders. Images include pictures of a female firefighter in civilian clothes playing with a young child, a female battalion chief in structural firefighting clothes, and young, ethnically diverse firefighter-recruits. Even the department's web page has a new feel. When opening the site, a video begins depicting the new image of FDNY with a voiceover soundtrack espousing the benefits of an FDNY career.

Twenty seven years ago, the Madison Fire Department leveraged the benefit of recruitment marketing under the direction its new Fire Chief, Edward Durkin. In 1979 recruiting female and minority firefighter candidates was unusual in that region of the country. Durkin leveraged the unique aspect of this effort as newsworthy. In doing so the Madison Fire Department used the media to deliver "the message to the qualified, nontraditional people [they] were looking for as firefighters" (1981, p. 52).

In a 1983 article in *Fire Chief Magazine*, Walter S. Booth, Ph. D., explored the different methods of recruiting new firefighters. Dr. Booth's research focused on females and minorities. He found media advertising to be the third most influential method of attracting a target candidate pool. Minority recruitment tasks forces and broad community-based activities were only marginally more effective according to Dr. Booth.

Durkins (1981) identified a commonality among the women the Madison Fire Department sought to recruit. Durkins acknowledges "many of our top prospects already had good jobs, and would not be reading the want ads" (p. 52). Eve Ritchie (2001) also drew a connection between target audience and culture in a *Fire Magazine* article urging the fire

departments of the United Kingdom to market their recruiting efforts to women with a background in military services (p. 10).

Preparing Candidates

Paul McGill (2002) identifies “pre-training for women candidates” (p. 59) as one of the critical factors in successfully employing female firefighters. A variety of programs for preparing female candidates exists in fire departments throughout the United States.

Fire Training Chief Owen Pletan describes the preparation efforts in the City of Seattle in his 1981 article in *Fire Command Magazine*. According to Pletan, in 1975, city administration directed the Seattle Fire Department to hire female firefighters. The city refused to authorize a firefighter-recruit academy if it did not include female recruits. The department first tried hiring females without changing its recruitment or testing procedures. Although over one hundred females applied, none passed the hiring process. The city forced the department to lower its hiring standard, and six females were subsequently hired in early 1976. All failed out of the recruit academy due to a lack of “physical strength, manipulative skills, and mechanical aptitude” (p. 35). Based on this experience and a continued requirement to hire female firefighters, the department developed training modules designed to address the critical failures of their former female firefighter-recruits. With the assistance of a physician, the department implemented physical strength and endurance programs for female candidates. The department hired female candidates as “pre-recruits” and paid them to participate in the program. The five month program addressed fitness, manipulative ability, fireground awareness, and emergency response skills. Approximately two years after the inception of this program, all participants passed the subsequent examination.

During the same time Seattle was experimenting with their pre-recruit program, the Madison Fire Department began developing its own candidate preparation program. Partnering with over a dozen diverse organizations, the department took a holistic approach to reviewing the hiring process. From the images of recruiting materials to familiarity with fire service operations to physical fitness, the Madison Fire Department retooled itself and began offering physical training and fire service awareness programs to females. At the end of the training program and a subsequent hiring examination period, six percent of Madison's eligible candidates were female. During the previous four years, no females successfully completed Madison's hiring process (p. 52-53).

In Ohio, a statewide effort began in 1998 to provide a one-day experience designed to attract women to a career in the fire service. The program is called "Can You Take the Heat?" and pairs a certified firefighter with a small group of potential candidates (Wyatt, 2000, p. 9). The entire day is spent performing hands-on exercises such as search and rescue drills, ladder stands, and vehicle extrication. At the conclusion, a group discussion centers on fire department culture, career opportunities, fire station facilities, and the impact a fire service career on family life.

Under the umbrella of the organization Women in the Fire Service, BLAZE is a week-long submersion program designed to attract and prepare young women to the fire service. BLAZE is an acronym for bravery, leadership, attitude, zenith, and empowerment. The target audience for BLAZE is females age 16-19. With course content similar to Ohio's program, BLAZE provides longer exposure to the fire service environment. Whereas Seattle's program focused on the needs of one community and Ohio's program focused on the needs of one state,

BLAZE's goal is to develop into a dynamic structure capable of working collaboratively with fire service organizations throughout the nation (Van Nort, 2001, p. 10).

Crediting the success of BLAZE, the Overland park (KS) Fire Department implemented Camp Inferno in 2005. Open to females age 15 to 19, Camp Inferno provides similar fire service immersion activities as BLAZE. Camp Inferno also includes exercises designed to develop the participants' leadership skills, teambuilding ability, fitness, and personal confidence (Harper, 2005, p. 55). One key benefit of Camp Inferno is the impact it has on the camp's cadre. Camp Inferno provides a unique leadership and program management opportunity to young female fire service professionals thus increasing their professional skill sets.

Camp Inferno, BLAZE, and "Can You Take the Heat?" provide a valuable insight for prospective candidates. These programs are both inspirational and educational and identify the characteristics of a career in the fire service. Participants can make informed decisions if the positive aspects of a fire service career outweigh the drawbacks.

Ensuring the Validity of Hiring Procedures

Pre-employment testing is a key process in the recruitment of female firefighters. A correct pre-employment test is one that reliably and fairly measures job-relevant characteristics to guide employers toward making appropriate employment decisions (HR Guide online, 1999).

In the United State Fire Administration's *Many Faces, One Purpose: A Manager's Handbook on Women in Firefighting* (1999), the issue of test validity is discussed. The firefighting profession is an arduous one. *Many Faces, One Purpose* advises organizations to validate fitness exams through an independent, third-party job analysis to ensure the exam is predicative of actual job performance. Also, the text points out that any pass/fail point in a fitness exam should be established by evaluating a random sample of incumbent firefighters.

Finally, since this tool is used for entry-level assessment, all skill-dependent items should be removed or minimized (p. 2).

A past practice in the Minneapolis Fire Department's hiring and training process appeared to use the arduous nature of the fire service as a means for maintaining an all-male workforce. Now a model of organizational diversity, the Minneapolis Fire Department overcame internal barriers to create a level, content-valid playing field. In the years preceding this change, physical training and evaluations were used to weed out women from the hiring process and the recruit academy (WFS, 2001, p. 13). Furthermore, the physical ability test was weighted awarding higher scores to faster candidates. When asked to provide the rationale for a weighted ability test, the tests developer changed the scoring from an individually weighted exam to a banded exam whereby candidates received points based on grouped scores. Once this change was enacted, twenty four women were hired from the subsequent list (p. 11).

A more subtle barrier for females in successfully completing physical ability tests can be found in the equipment provided to candidates. For organizations that require candidates to wear firefighting personal equipment, a sufficient range of sizes must be made available to accommodate all body frames (Booth, 1987, p. 50).

Title VII of the 1964 Civil Rights Act clearly prohibits employment discrimination based on race, color, religion, sex and national origin. This statute reaches down to the training level in the following passage:

It shall be an unlawful employment practice for any employer... controlling apprenticeship or other training or retraining, including on the job training programs to discriminate against any individual because of his race, color, religion, sex, or national

origin in admission to, or employment in, any program established to provide apprenticeship or other training.

Retention

Many fire departments have developed successful recruitment practices only to find they couldn't retain their new female employees. This was true for the Seattle Fire Department in its early days of organized female recruitment. In 1976, the department hired six females, none of whom lasted more than one year.

Linda Willing in a 1996 article "Why We Quit" recognizes this isn't just an issue of less tenured female firefighters leaving the service. Of the female firefighters leaving the fire service, Willing states:

Most of them have been promoted. On the surface, they are the picture of success. So when they leave, their departments are puzzled but maybe justify each departure as an isolated and individual decision, rather than seeing the pattern that emerges when one looks below the surface.

The literature review of retention will focus on four broad areas: benefits and work-life balance, physical facilities, career development, and organizational culture.

Benefits and Work-Life Balance

Susan Heathfield (2006) states the number one reason employees begin searching for a new job is to find better compensation and benefits. Heathfield surveyed human resource professionals and found the top three programs employers use to retain employees are tuition reimbursement, competitive vacation and holiday benefits, and competitive salaries.

A career in the fire service offers a unique set of challenges for organizations which seek to retain their employees. This isn't strictly a female or "mom" issue; however, due to some

traditional beliefs, females may experience increased pressure. A 2005 University of Oklahoma study, “Why Women Leave Information Technology,” found a six percent drop in the number of females in the Information Technology field. Family obligations were listed as primary causes of this dramatic shift.

Working 24-hour shifts, female firefighters may face an increased challenge when it comes to the impact of work life on family obligations. Alicia Mathis of the Los Angeles City Fire Department looks forward to a solution in her 2000 article “Taking Care of our Families.” At that time, the Los Angeles City Fire Department began working with the Los Angeles Unified School District to develop a child care center at the fire department’s training facility. The center would be large enough to accommodate 100 children from the fire department and the community. This on-site child care benefit is, according to Mathis, an important step in recruiting and retaining high-caliber employees. For Mathis, peace of mind will be found when she knows her children will be safe while she serves the community (p. 9).

McGill (2002) addresses the critical role of family-friendly policies in retaining female firefighters:

Family-friendly policies are very important to women firefighters and are likely to influence how long many remain in the fire service. Most important to women are maternity and paternity leave, flexibility with exchanging shifts, and leave to care for sick dependents. Same-sex relationships should be included in all family related policies and fire service support with childcare is an area that could be explored in the future (p. 58).

The United State Fire Administration’s *Many Faces, One Purpose: A Manager’s Handbook on Women in Firefighting* (1999) illustrates the importance of childcare for female firefighters. According to this study, 11% of female firefighters are or were at one point in their

careers single mothers (p. 75). This study also finds that 24-hour child care is “virtually non-existent” (p. 75).

Physical Facilities

It is illuminating that the number two question listed under Los Angeles City Fire Department’s Internet site is “What kind of living arrangements can I expect at a fire station?” (2006). With over 100 fire stations, the department was particularly challenged in meeting the privacy needs of all firefighters. Newer stations were designed to meet the needs of co-ed employees while older stations had to be retrofitted.

Madison Wisconsin Fire Chief Edward Durkin faced an immediate challenge in 1979 when he took over the department, established new objectives for hiring females, and evaluated his facilities. Durkin found none of the facilities met the needs of a co-ed workforce. Durkin immediately set to reconfigure his existing resources by partitioning the dorm and restroom-shower areas (1981).

While Durkin sought to provide separate facilities, the United State Fire Administration’s *Many Faces, One Purpose: A Manager’s Handbook on Women in Firefighting* provides other, less-costly options including restroom door placards for “men / women” or “occupied / unoccupied.” Also, the use of temporary room partitions may be used to afford increased privacy in dorm areas (p. 79). An action plan for more permanent accommodations should be developed as long-term, makeshift accommodations may result in blame being assigned to the female firefighter for disrupting the worksite (p. 80). A reasonable timeframe for this change is five to ten years (p. 81).

In a 2005 *Fire Chief Magazine* entitled “Challenges Net Changes,” Mary McGrath lists “privatized living quarters” (p. 45) as the first fire station design characteristic that must be

addressed. McGrath acknowledges this is an issue for female firefighters, but goes on to point out that it is larger than simply a gender issue. “Most fire chiefs believe that the private dorm rooms have actually helped solve some of the societal issue that occur in fire stations,” according to McGrath (p. 45).

Career Development

Susan Heathfield (2006) addresses the connection between retention and career development. Heathfield advocates the implementation of personal development goals as a key in retaining quality employees. Under Heathfield’s plan, the employee and supervisor meet weekly to discuss short term goal progress. On at least a quarterly basis, the supervisor and employee meet to discuss and revise the long term objectives and to update the plan.

Career development is explored in the *Many Faces, One Purpose: A Manager’s Handbook on Women in Firefighting*. Some of the challenges facing women as they develop their career plan are external perceptions. For example, some members of the public perceive firefighting as a man’s job and don’t hesitate to make insensitive comments to female firefighters about their perceived prowess. Other challenges come from internal sources such as stereotypes propagated by male coworkers (p. 87). According to *Many Faces, One Purpose:*

Training is critical in mitigating or preventing these types of problems. All officers should receive leadership development training and guidance in teambuilding with their crews. All department members will benefit from training in communications and issues of harassment. The woman officer also needs to know she has the genuine support of her supervisors if such problems come up (p.87).

Organizational Culture

Chief Durkin (1981) relayed an interesting observation regarding the interaction of his training cadre and the firefighter recruits in the pre-enlightened Madison Fire Department.

In the last recruit class, our staff related completely differently to the males than they did to the females in the class. During coffee breaks they exchanged dirty jokes with male recruits, called them by their first names, and engaged in social conversations. Such things as sports, hunting, and fishing were jointly discussed with male recruits. The women recruits were just not welcomed into these little male fraternities (p. 55).

Durkin addressed this cultural phenomenon by implementing multiphase sensitivity training. Susan Heathfield (2006) states an unwavering dedication to respecting all employees is a primary key to retention efforts. Paul McGill (2002) advocates “a zero tolerance culture” for behavior that creates a hostile or harassing work environment (p. 59).

McGill also proposes proactive measures designed to shed positive light on the talents and contributions of female firefighters. By publicizing the achievements of female firefighters, biased males are confronted with information that may challenge their negative stereotypes (p. 59).

Many Faces, One Purpose: A Manager's Handbook on Women in Firefighting captures the commitment and value of organizational culture. Establishing a healthy organization “is not a one-shot deal. It is an ongoing process of education and reinforcement a fire department undertakes to help the workforce be more effective, harmonious, and productive” (p. 96).

Summary

The literature review influenced several critical factors for this applied research. First, while many creative immersion programs exist for recruiting prospective candidates and providing

awareness education regarding the role of firefighters in the community and the fitness required to carry out that role, very little attention was paid to defining the target audience for these programs. Some of the programs concentrated on teenage females while other hiring practices acknowledged that their target candidate is most likely already in another profession. This lack of defining the commonality among females who successfully pursue a fire service career was a major driving force in the development of the nationwide survey of current female firefighters developed for this applied research project.

In reviewing retention factors, several common themes persisted. First, if a department's facilities are not designed with all employees' needs in mind, a negative message is sent. This influenced the decision to survey the facilities in the City of Scottsdale. Second, while the challenges of managing family and work commitments are well articulated, very few true solutions have been enacted. This resulted in engaging the creative thinking of Scottsdale Fire's female firefighters in developing a list of solutions and options. A survey tool was developed to initiate this process. Finally, in reviewing the programs developed primarily to facilitate females in the fire service, it was recognized that many of these programs are beneficial to all employees, not just female. This is particularly true as the traditional roles of mothers and fathers redefine themselves. This impacts the manner in which the recommendations of this research are marketed to the workforce.

PROCEDURES

The purpose of the applied research project is to develop recommendations for a recruitment and retention plan for suppression positions targeting female candidates. Since the Scottsdale Fire Department has so few female firefighters and further since the department hopes to draw potential candidates from throughout the nation, a national survey of current female

firefighters was developed to gather data specific to those factors influencing a woman's decision to pursue and maintain a fire service career. A literature review of existing data proved fruitless. While there is a tremendous amount of information available on recruitment programs, there is little information identifying common factors among females who were ultimately successful in pursuing this career. The published accounts regarding recruitment programs is helpful in developing recommendations; however, the focus of this research is on targeted recruitment based on common interests, background, and experience of women currently in the fire service. This regression analysis looks at existing female firefighters in light of their past commonalities. The chosen tool for this analysis is a convenience survey.

According to the organization Women in the Fire Service (2006), there are approximately 6,200 career female firefighters of varying rank. Due to this large sample size and the desire to have results reflect a national pool of prospective candidates, a web-based survey tool was developed using the Survey Monkey website. The main advantage of this tool is its portability: by forwarding the original email request, the survey tool could be forwarded beyond the original list of recipients. The web-based format of the survey and the characteristic ease of forwarding electronic communications were major factors in the size and scope of survey responses.

The original distribution list soliciting responses from current female firefighters was sent to several hundred career fire departments throughout the nation. A cover letter was addressed to all Training Chiefs with a hyperlink to the survey. This email was sent to all fire departments participating in the Training Resources and Data Exchange (TRADE) organization sponsored by the Federal Emergency Management Association (FEMA) and the National Fire Academy (NFA). The email was also sent to smaller fire departments which were not members of TRADE. A request for support was routed to the Women in the Fire Services organization, and

the survey link was sent out via their email distribution list. Finally, the request for female respondents was sent out in several “Command Post” electronic newsletters hosted by *Fire Chief Magazine*, and the survey information was posted on the *Fire Chief Magazine* website for several weeks.

A web-based convenience survey was published on September 3, 2006. For two months, female firefighters could access the survey and complete their individual results online. On November 4, 2006, the survey was deactivated, and all the data was downloaded. Given a population of 6,200 female firefighters in the United States, 210 responses were necessary to achieve statistical significance at 0.05 alpha (Bartlett, 2001, p. 48). After two months of soliciting feedback, 913 responses were gathered. Based on this response, 703 more survey results were collected than required to produce statistically valid results with 95% accuracy. This is sometimes referred to as an analysis with a 0.05 alpha. The survey results far exceeded the 0.05 alpha requirements thus increasing the statistical accuracy of the data.

Based on the nature of this convenience survey, several limitations exist. First, although the solicitation request and the introduction to the survey indicated the survey is for female fire service professionals only, a non-female and/or non-fire service professional could have accessed and completed the survey. Second, the survey was electronically sent to at least two agencies in every state and published on a major fire service organization web site. The electronic nature of this survey may have adversely impacted those fire departments and female firefighters without sufficient computer-based communication resources. Third, because this was a convenience survey, responses weren't truly random. It is possible that a certain population of female firefighters willfully disregarded the survey tool for various personal reasons. If commonality exists between these non-respondents, their data would not be gathered. It is also possible that a

certain population of female firefighters is willing to participate in online surveys. In this case, the demographics of these female firefighters would have a stronger impact on the survey results than exists within the total population of female firefighters.

The electronic survey tool is divided in three sections: general information, pre-hire information, and post-hire information. Eleven questions addressed general information for the respondents ranging from rank to family status. Eight of these questions were multiple-choice, single-response formatted. Two questions were multiple-choice, multiple-response formatted. Finally, one question was formatted as a text-based entry.

Thirteen questions addressed pre-hire information ranging from education at time of hire to family status at time of hire. Eight of these questions were multiple-choice, single-response formatted. Two questions were multiple-choice, multiple-response formatted. Finally, three questions were formatted as a text-based entry.

Eleven questions addressed current / post-hire information for the respondent ranging from fire station accommodations to advice for other females seeking a fire service career. Nine of these questions were multiple-choice, single-response formatted, and two questions were formatted as a text-based entry.

Several factors influenced the length of time the survey stayed open on the Internet. The survey needed to stay open long enough to gather a sufficient sample size to be statistically valid. Reaching the 210 survey responses necessary for 0.05-alpha results took less than two weeks. This overwhelming response was unanticipated. The survey also needed to stay open for long enough to allow other organizations, such as Women in the Fire Service and Fire Chief magazine, to distribute the survey request through their distribution lists and web sites. Given the population size of female firefighters and the rapid response from survey respondents,

someone seeking to replicate these results could decrease the length of survey to one month.

This assumes a similar attempt at national distribution is employed.

The described electronic survey provided valuable information for national recruitment and retention conclusions. Since the Scottsdale Fire Department seeks to develop a recruitment plan attractive to all potential female firefighters, this information provided sufficient information for the recruitment component of this research. However, to better appreciate the Scottsdale Fire Department's internal retention status, a more focused survey tool was implemented. A separate electronic survey tool was sent to the three female firefighters assigned to Field Operations and the one female firefighter assigned to Fire & Life Safety. The ranks of these fighters are one Engineer, two Firefighters, and one Deputy Fire Marshal (equivalent to a firefighter rank). All four female firefighters completed the survey. The low sample size significantly influences the validity of this data. The data may have also been influenced by the relative lack of anonymity in submission. Although the respondents couldn't be positively identified, a basic understanding of the individual's background and preferences would facilitate more than an educated guess at which responses are attributed to each respondent. If respondents sought to decrease the likelihood of identification, they may have left out meaningful substance in their responses thus further impacting the reliability of the data.

The survey evaluated four main factors: pay and work-life balance, physical facilities, career development, and organizational culture. Five questions addressed pay and work-life balance information. Three of these questions were multiple-choice, single-response formatted, and two questions were formatted as a text-based entry.

Four questions addressed Scottsdale Fire Department physical facilities. Three of these questions were multiple-choice, single-response formatted, and one question was formatted as a text-based entry.

Four questions addressed professional development in the Scottsdale Fire Department. All four questions were multiple-choice, single-response formatted.

Five questions addressed the culture within the Scottsdale Fire Department. All five questions were multiple-choice, single-response formatted.

A link to this survey tool was sent to the four female sworn members of the Scottsdale Fire Department along with a follow up email encouraging respondents to feel comfortable responding with unbridled candor and honesty.

Finally, personal communications were initiated with key City of Scottsdale staff: the City Manager and the Fire Chief. Interview questions were sent to each staff member prior to the interview to assist in their understanding of the scope of the interview and to allow time to consider their responses. The questions posed are:

1. What are your expectations of the Scottsdale Fire Department in reflecting the demographics of our region?
2. What benefits would you anticipate with increased workforce diversity in the City, or specifically in the Fire Department? If you've seen benefits of increased diversity in other workgroups or communities, could you describe those experiences?
3. Other than ensuring a level playing field that evaluates candidates based on job-specific criteria, what do you feel is the Scottsdale Fire Department's role in preparing candidates for employment?

The interview with the City Manager took place in her office on November 15, 2006. The Fire Chief answered the interview questions electronically. The purpose of these personal communications is to evaluate the perspective of key City staff with regard to the applied research project problem statement and purpose. The information from these communiqués helped to define the significance of the research problem statement. Expectations and parameters voiced by the City Manager and Fire Chief also aided in identifying recommendations for a recruitment and retention plan.

RESULTS

Recruitment

On online recruitment survey was completed by 913 career female firefighters throughout the nation. This represents 14.7% of all career female firefighters. While 913 respondents completed the survey, not all respondents answered every question. The results of this survey addressed the background of each respondent, the point of each respondent's life when she decided to pursue a career in the fire service, the common experience, education, and interests of each respondent, the extent to which the characteristics of a firefighting career meets the respondents' needs and wants, and recruitment strategies in the respondents' agencies or region. Appendix B captures the non-web formatted version of the interview questions in a more readable format for this research paper. Appendix C includes the non-text survey results. The text entries reflect comments made by survey respondents and constitute several hundred pages of text.

Background information

Eight survey questions establish the background for respondents. Question 1 of the survey asks: "What is your current rank?" Of the 877 responses to this question, the greatest

percent are currently at the rank of Firefighter. The other ranks represented are detailed in Table 1.

Table 1

Current rank of respondents		
	Number of responses	Percent of total responses
Firefighter-Recruit	15	1.7%
Firefighter / Firefighter Paramedic	480	54.7%
Engineer / Driver-Operator	89	10.1%
Lieutenant	64	7.3%
Captain	108	12.3%
Battalion Chief	37	4.2%
Deputy Chief	14	1.6%
Division Chief	9	1.0%
Assistant Chief	7	0.8%
Fire Chief	20	2.3%
Other (e.g.: Fire Marshal, Fire Inspector)	34	3.9%

In the unprocessed survey results, the rank assignment of 88 respondents who listed their current rank as “Other” was actually a variation on the “Firefighter” rank such as Senior Firefighter or Firefighter – Paramedic. Those 88 responses were recalculated into the “Firefighter” response option.

Question 3 asks: “Which of the following best describes your current work assignment?” Of the 869 responses to this question the overwhelming majority (83.9%) are currently assigned in an emergency response position while only 15% indicated an administrative assignment. Less

than one percent indicated a current administrative assignment with no previous emergency response assignment.

Question 4 addresses the size of the respondent's fire department. Over one-fourth of the 872 respondents indicated they work for a department with a uniformed workforce greater than 1,000 members. The distribution of responses is otherwise spread consistently throughout the other size categories as depicted in the Table 2.

Table 2

Fire Department Size	Number of responses	Percent of total responses
Less than 25	39	4.5%
25-50	86	9.9%
51-100	135	15.5%
101-250	142	16.3%
251-500	122	14.0%
501-1000	118	13.5%
Greater than 1000	230	26.4%

When filtering the information based on size of the fire department and current rank of each respondent, a greater number of supervisors were found in the larger fire departments. Two hundred and fifty five respondents hold the rank of Lieutenant or higher. The largest number of these supervisors was found in departments with a sworn workforce greater than 1,000 members as seen in Table 3.

Table 3

Size of Fire Department for supervising respondents		
	Number of respondents at the rank of Lieutenant or higher	Percent of total responses
Less than 25	16	6.3%
25-50	21	8.2%
51-100	39	15.3%
101-250	38	14.9%
251-500	35	13.7%
501-1000	50	19.6%
Greater than 1000	55	21.6%

Question 5 addresses the percent of sworn females in each respondent's fire department. Most fire departments employ females in less than three percent of all sworn positions. Less than two percent of respondents work for fire departments with great than one-fourth female staffing. A significant decrease in percent of females in sworn positions occurs in the jump between 10 and 11 percent as illustrated in Table 4.

Table 4

Percent of females in sworn positions		
	Number of responses	Percent of responses
Less than 3%	322	37.1%
3-5%	240	27.6%
6-10%	176	20.3%
11-15%	70	8.1%
16-25%	45	5.2%
Greater than 25%	16	1.8%

Question 6 asks how long each respondent has been in the fire service. The majority of respondents, 51.4%, are in the first ten years of their career. Less than 15% have greater than 20 years of fire service experience.

Question 7 inquires about the highest level of education for each respondent. Although the greatest number of respondents holds the rank of firefighter and the traditional entry-level education requirement is a high school diploma, the greatest number of respondents, 36.7%, has a four-year degree. Associates degrees are held by 28.8% of respondent, and high school diploma is the highest level of education for 26.2% of respondents. A graduate degree is held by 8.3% of respondents.

Question 11 identifies the State in which the respondents work. Perhaps because of the author's affiliation, the greatest number of respondents, 161, is from the State of Arizona. Other States rounding out the top five in terms of number of responses include California (88

responses), Maryland (81 responses), Florida (67 responses), and Texas (57 responses). Only seven states and the District of Columbia failed to be represented in the survey results.

Question 9 dealt with the respondents' current family / relationship status. The majority of respondents is currently married and has children. The fewest respondents are in a long term relationship other than marriage with children. Table 5 depicts the various relationship statuses of respondents.

Table 5

Current Relationship Status		
	Number of responses	Percent of responses
Single, no children	183	20.7%
Single with children	104	11.8%
In a long term relationship, no children	125	14.2%
In a long term relationship with children	59	6.7%
Married, no children	116	13.1%
Married with children	283	32.0%
Prefer not to answer question	13	1.5%

Fire Service Decision Point

Questions 12 and 13 establish the point in a female life when she decided to seriously pursue a career in the fire service. The first question asks: "At what stage in your life did you first seriously begin considering a career in the fire service?" An unexpected but relevant discovery is the fact that the overwhelming majority of female firefighters first decided to seriously pursue a career in the fire service while in or between other careers. The greatest percent of responses, 38.2%, decided to pursue a career in the fire service while in a previous

career. Slightly less than one-fourth of respondents made this decision in college, while approximately one-sixth of respondents decided while between careers. The least percent of respondents decided to pursue a career in the fire service as a youth: 14.8% during high school and 7.2% prior to high school.

The next question quantifies the age at which this decision was made. Not surprisingly given the majority of females choose a career in firefighting while in a different career, the majority of respondents were in their mid to late 20's. Table 6 captures the respondents by major age category.

Table 6

Age at which fire service career was seriously considered		
	Number of responses	Percent of responses
12 years or younger	31	3.8%
13-18 years of age	109	13.2%
18-22 years of age	208	25.2%
23-29 years of age	364	44.2%
30-40 years of age	104	12.6%
Greater than 40years of age	8	1.0%

Again, an unexpected but relevant discovery is the fact that the majority of females who pursue a career in the fire service make that career choice as adults.

Common Experiences, Education, and Interests

Because a primary focus of this survey centers on recruitment, thirteen questions are posed to establish commonality among females who pursue a career in the fire service. Question

14 asked: “What interested you most about a career in the Fire Service?” Of the 830 responses, the majority chose “the community service focus of this career.” One hundred eleven respondents indicated “other” aspects of the career. Table 7 breaks down the other responses by major category.

Table 7

Major fire service interest		
	Number of responses	Percent of responses
Pay / benefits package	63	7.6%
Shift schedule / work hours	81	9.8%
Medical services	104	12.5%
Fire suppression	80	9.6%
Community service focus	166	20.0%
Camaraderie of fire crews	50	6.0%
Physical aspect	153	18.4%
Culture of my department	21	2.5%
Work environment	7	0.9%
Television	1	0.1%
Variety, challenge, excitement of this career	27	3.3%
Job stability	5	0.6%
Was told / dared not to pursue	3	0.4%
Family history in fire service	8	1.0%

The next question identifies other career interests. The question asks: “If you didn’t enter the Fire Service, what career field would have been your alternate choice?” Seven hundred

sixty one respondents answered this question, and the overwhelming majority indicated a secondary preference for careers in the medical field. Other responses spanned a wide gamut and are captured in Table 8.

Table 8

Alternate career interest		
	Number of responses	Percent of responses
Service industry (restaurant, grooming)	6	0.8%
Police officer	65	8.9%
Medical (physician, nurse, hospital technician, etc.)	300	41.1%
Legal field (attorney, paralegal)	12	1.6%
Education / Teacher	76	10.4%
Forrest service	11	1.5%
Personal trainer / Coach	45	6.2%
Counseling / Social worker	34	4.7%
General office work (clerical or managerial)	12	1.6%
Military service	24	3.3%
General business	48	6.6%
Lifeguard	2	0.3%
Other, not listed above	95	13.0%

The second largest group, “Other,” includes a diverse list of occupations including stunt double, Broadway performer, astronaut, and stay-at-home mom.

The next question inquired about the individual with the strongest influence in encouraging the respondent to pursue a career in the fire service. Over a third of respondents

indicated that nobody played this role for them; rather they were self motivated. The second highest influence, 23.8%, came from male firefighters who encouraged the respondents to pursue a fire service career. The third most influential force at 11.9% of respondents came from parental influence. The fourth most influential force came from female firefighters at 8.9% of total respondents. It is unexpected and relevant that the number of females who pursued a career in the fire service were two and a half times more likely to be influenced by a male firefighter than a female firefighter. Also surprising was the complete lack of influence or inspiration on the part of guidance counselors and the insignificant representation by teachers and coaches. A total list of influencing forces is listed as Appendix D.

Question 18 explores the education and employment status of the respondents immediately prior to joining the fire service. Less than 8% of respondents were unemployed immediately prior to beginning their fire service career. Of the 92% of remaining respondents only slightly more (46.5%) were employed and attending school than those employed but not attending school (45.8%) This was an unexpected and significant finding.

Question 19 builds on the information in question 18 by inquiring the type of employment female firefighters engaged in immediately prior to joining the fire service. Most females (25.7%) were already in a medical field such as nursing, hospital technician, or non-fire department emergency medical services. The next major prior career field is general office worker including secretary, administrator, parts and supplies technician, and office manager. Twenty-two percent of female firefighters left these types of jobs for a career in the fire service. The third most popular prior career field, coming in at just under ten percent of total responses, is miscellaneous blue collar worker which includes delivery and construction fields. The other major job fields are listed as Appendix E.

Question 17 focuses specifically on the prior military experience of female firefighters. The overwhelming majority (91.0%) of female firefighters do not have prior military experience. This was an unexpected finding given the “paramilitary” structure of the fire service. Of those sixty-four respondents with prior military service, 38% were in the Army or Army National Guard; 33% were in the Air Force or Air National Guard; 18% were in the Navy; and 11% were in the Marines. Just under one-fourth of those with prior military experience are still in the Reserve forces.

Question 22 explored the education level of female firefighters when they first entered the fire service. This is in contrast to question 7 discussed in the previous section which addressed the respondents’ current level of education at the time of the survey. As expected given the tradition level of required education, the largest group of respondents, 46.0%, entered the fire service with a high school diploma or graduate equivalency diploma as their highest level of education. Surprisingly, almost one in three respondents (31.0%) entered the fire service with a four-year degree. Just over half (18.5%) had a two-year degree, while 4.0% entered the fire service with a graduate degree.

Question 20 explored further the education of female firefighters when they first entered the fire service. The question inquires the respondents’ major area of educational focus. Almost half were already studying medicine (24.5%) or fire science (23.6%). The next largest group composed 9.3% of respondents and was “undeclared” while completing general education requirements. This group was closely followed by 9.1% of respondents studying science including biology and chemistry. The other major areas of focus are listed as Appendix F.

Question 24 addresses the types of activities female firefighters participated in immediately prior to joining the fire service. Respondents could select multiple activities. Not

surprisingly, of the 801 responses to this question, 1,335 selected activities related to sports and physical fitness. Not included in this group, the next largest group with 475 responses was active in camping, hiking, fishing, and/or hiking. A complete list of these activities is listed as Appendix G.

Question 23 explores the respondent's relationship status at the point of beginning a fire service career. The largest group of respondents, 43.8%, indicated "single, no children" as their status. Just under half as many, or 18.4%, were in a long term relationship and had no children. Table 9 depicts the various relationship statuses of the other respondents.

Table 9

Relationship status at the beginning of the fire service career		
	Number of responses	Percent of responses
Single, no children	364	43.8%
Single with children	83	10.0%
In a long term relationship, no children	153	18.4%
In a long term relationship with children	25	3.0%
Married, no children	78	9.4%
Married with children	109	13.1%
Prefer not to answer	5	0.6%

Question 21 explores the hiring experience of female firefighters. The question asks: "How long did it take for you to get hired in a full-time career suppression position once you began actively pursuing this career?" Nearly two-thirds of respondents (66.2%) successfully completed the hiring process in less than two years. Approximately one-quarter of respondents

(27.7%) were hired in two to five years. The remainder (6.1%) tested for greater than five years before beginning their full-time fire service career.

The final question pertaining to education, experience, and interests explores the activities female firefighters engaged in after becoming hired. Respondents were permitted to select multiple activities. More than half, 56.5%, of the 747 respondents are or were providers of paramedic-level care. This is not surprising given the strong medial interest and education level expressed in earlier questions. Hazardous material specialty was the next greatest activity at 41.2%. Approximately one in three firefighters indicated other special operations activities such as technical rescue. One in five firefighters participated in wild land or forest firefighting activities, and that same amount functioned as a Training Officer or as a fire department Recruiter. Just over one in ten firefighters performed the functions of Safety Officer (13.4%) or Public Information Officer (11.9%).

Attractive and Unattractive Characteristics of a Fire Service Career

Ten survey questions analyze the degree to which the characteristics of a fire service career meet the needs and wants of female firefighters. Question 25 asks: "How would you rate the career opportunities for women entering the fire service?" Over 68% rated career opportunities for females as good or excellent. Less than one in fifteen respondents rated career opportunities as poor.

The next question inquires about the current work environment for females entering the fire service. This question is specifically referring to the attitude of the current workforce toward female firefighters. As with the previous question, the majority of females, 53.6%, rate this aspect of firefighting as good or excellent, however the margin is not quite as wide as seen in the

previous response. More respondents rate their work environment as fair or poor (46.3%) than as good (44.9%).

The State of Arizona is well above the national averages with 78.4% Arizona respondents rating career opportunities as “good” or “excellent” and 69.6% rating the attitude of the workforce toward women as “good” or “excellent.” Of those states with greater than 20 responses, Arizona has the highest rating in both categories. Wisconsin is the next highest state in terms of workforce attitude toward women with a 63.4% approval, and Florida is third with a 61.3% approval rating.

Questions 31 and 32 build on the perception of attitude and work environment. Question 31 asks: “If you had a son, how likely would you be to encourage him to pursue a career in the Fire Service?” With nearly a unanimous response, 88.9% female firefighters would encourage their sons to pursue a fire service career. However, we see a slight shift when female firefighters are asked the same question but for a daughter rather than a son. Twice as many respondents would discourage a daughter from joining the fire service as would discourage a son.

The next area of compatibility explored pertains to the balance between a fire service career and a personal relationship. Once again, a slim majority (53.5%) of respondents list this facet of a fire service career as either good or excellent. More than one-third of respondents (36.5%) list a fire service career compatibility with a personal relationship as fair or poor.

The picture isn’t as positive when female firefighters are asked to rate the compatibility of a fire service career with being or becoming a parent. By a margin of 10%, more women rate this aspect of their career as fair or poor than good or excellent.

Question 10 measures the compatibility of a fire service career based on family and relationship outcomes. Nearly twice as many female firefighters (41.5%) became married after

starting their fire service career as became divorced (22.1%). Greater than one in four respondents became a parent. While 30.8% of respondents entered into a long term relationship, only 19.8% saw their long term relationship end during their fire service career.

Physical facilities are an important part of the work environment. While just over half of all respondents rate their facilities as good or excellent, 359 of the 807 respondents rated their facilities as fair or poor.

Finally, an overwhelming majority of female firefighters rate a career in the fire service as highly compatible with completing higher education. Only 3% of respondents rate this aspect of the fire service as poor.

Recruitment Strategies

Based on the wide variety of programs and philosophies discovered in the literature review, an open-ended survey question was employed to solicit information pertaining to recruitment strategies. Respondents were asked to identify helpful information in developing a recruitment plan. There were a total of 405 text-based responses. In order of prevalence, these responses are organized into nine major categories:

1. To create an inviting environment for female candidates, educate the current (male) workforce and develop an open, accepting culture.
2. To attract more female candidates, explore creative benefits packages and work policies to address family priorities. Child care and maternity assignment options are critical. Explore department-sponsored child care options and non-traditional work schedules.
3. To develop a steady pool of candidates, recruit early and strategically. One in three recruitment comments specifically referenced targeting female athletes.

4. To ensure a knowledgeable pool of candidates, make sure female firefighter candidates understand the demands and challenges of a career in the fire service. Suggestions include seminars, 24-hour ride along programs, and increased exposure to all aspects of firefighting.
5. To maintain a relationship with candidates and new female fire recruits, create a support system or mentoring system. Some respondents advocate using both male and female firefighter-mentors.
6. To ensure all employees are capable of doing their jobs, maintain appropriate hiring standards. The majority of responses urged not to lower standards to allow unqualified females to pass the test. Other responses sought to ensure hiring standards and recruit-academy expectations mirrored actual job requirements.
7. To make female firefighters look and feel like an equal part of the department, ensure personal protective equipment and physical facilities are appropriate for female firefighters. Uniforms should be designed for women. The vast majority of responses sought separate dorm and locker room facilities.
8. To ensure candidates can perform the physical and technical aspects of the job, assist candidates with pre-hire training. In addition to ensuring female candidates understand the demands of the job, pre-hire training should concentrate on fitness and tool / equipment familiarity.
9. To ensure the culture will support females in the workplace, confirm the active support of the fire department leadership team and the Fire Chief.

Retention

A second online retention survey was completed by the four current female Scottsdale firefighters (Appendix H). The survey evaluated four main factors: pay and work-life balance, physical facilities, career development, and organizational culture.

Benefits and Work-Life Balance

Five questions explored the current sworn, female workforce's satisfaction with the current benefits package and work-life balance. The first question inquires the degree of respondent satisfaction with the City of Scottsdale's medical, dental, and vision benefits for their personal use. Three respondents are satisfied with their benefits package, and one respondent is highly satisfied.

The next question asks to what extent the benefits packages meet the needs of the respondents' families and/or dependents. Two respondents are satisfied with the family benefits package, and two respondents are highly satisfied.

The third question is open-ended and asks: "What additional benefit / employee support programs would you like to have access to?" Only two respondents entered comments for consideration. One respondent sought a department-sponsored cooperative childcare program and a support system for assisting working mothers with their needs. The other respondent stated she would like to have access to uniforms made for women rather than altering the current uniforms designed for men.

The fourth question addresses the respondents' satisfaction with their current work schedule and assignment as it pertains to meeting their personal needs. Three of the respondents work 24-hour shifts at fire stations. One respondent, a Deputy Fire Marshal, is assigned a 40-

hour workweek at Fire Department Headquarters. The respondents were equally divided into four categories: strongly agree, agree, neutral, and disagree. None selected strong disagree.

Finally, the fifth question in this series is open-ended and asks how the Fire Department could better meet the work-life balance needs of female firefighters. Again, only two respondents entered comments for consideration. One respondent sought a more flexible schedule in her current assignment and specifically listed compensatory time as an option for further consideration. The other respondent sought accommodations for married couples when both work for the fire department. Specifically, she would like the department to facilitate vacation requests that would allow both partners to take leave on the same day. She indicated that the current system would require both partners to be drawn lottery-style for holiday vacations with the remote likelihood of both being drawn.

Physical Facilities

Four questions inquire about the current Scottsdale Fire facilities. The first question asks “How satisfied are you with the facilities at your current assignment / location in terms of affording you accommodations for personal hygiene needs and privacy?” Two respondents indicated satisfaction at their current location while one candidate was dissatisfied and the other was highly dissatisfied.

Since it is conceivable that the respondents are in their current assignment based on the ability of the facility to appropriately house a co-ed workforce, the next question asks the respondents their degree of satisfaction with the other Scottsdale Fire facilities. The respondents were equally divided into four categories: highly satisfied, neutral, dissatisfied, and highly dissatisfied. Given the fact that most fire department facilities do not have separate facilities for females, the one candidate who responded as highly satisfied most likely misread the question.

The next question attempts to further quantify the degree of satisfaction with all Scottsdale Fire facilities. Respondents are asked to estimate the percent of Scottsdale Fire facilities that meet their personal hygiene and privacy needs. All respondents indicated less than half of the facilities meet their needs. One respondent indicated that 0-25% of facilities meet her needs while the other three respondents indicated that 26-50% of the facilities meet their needs.

Finally, the last question in this series is open-ended and asks how the Fire Department could better meet the personal hygiene and privacy needs of female firefighters. All four respondents entered information for consideration. Three specifically focused on the need for separate bunk rooms, locker rooms, and bathroom facilities. The fourth respondent suggested expanding the current male facilities. She attributed the lack of privacy at her fire station to male overflow from the overcrowded male locker room and bathroom facilities. In her situation, males on the other shifts occupy all of the locker space in the women's locker room because there isn't sufficient room for all males to have a locker in their space.

Career Development

Four questions address the level of satisfaction female firefighters have with their opportunities for career development. The first question is rather broad and "Please rate the following statement: I feel engaged in the Scottsdale Fire Department." Three respondents indicated that this statement was somewhat true while one felt neutral on the subject.

The next question asks to what extent respondents feel they provided an opportunity to influence key departmental aspect. The question asks: "Please rate the following statement: I am afforded reasonable opportunities to be involved in Fire Department issues that are important to me." Two respondents rated the statement as definitely true while the other two rated it as somewhat true.

The third question in this series asks respondents to rate the career development opportunities afforded to females as compared to their male counterparts. Again two respondents rated the statement as definitely true while the other two rated it as somewhat true.

The final question in this series attempts to shed light on the defined career longevity of female firefighters. The question asks respondents to rate the following statement: "I have a clear plan in mind for my career with the Scottsdale Fire Department." Two respondents indicated the statement is definitely true while one felt neutral and the final respondent indicated the statement was somewhat untrue.

Organizational Culture

The final section of this survey contains five questions and addresses the issue of organizational culture within the Scottsdale Fire Department. The first question focuses on the work environments in the respondents' current assignments. The question asks respondents to rate the following statement: "I feel welcome in my current work assignment / team / crew." Three respondents feel this is definitely true while one feels it is somewhat true.

The next question broadens the scope of cultural evaluation and asks respondents how welcome they feel when working with other Scottsdale Fire crews or teams. Two respondents feel they are definitely welcome in other work groups while two feel only somewhat welcome.

The third question in this series inquires about offensive behavior in the Scottsdale Fire Department. Respondents are asked to pick the most appropriate choice for the following statement: "In the past year, a Scottsdale Fire employee had made comments which were offensive to me regarding females in the fire service." Only one candidate has not been subject to behavior she feels was offensive. Of the three respondents who were subject to offensive

behavior two feel that such offensive behavior is extremely isolated in the department. One respondent feels that offensive behavior exists strongly in pockets of the department.

The fourth question evaluates the perception of female firefighters regarding the current status of Scottsdale Fire culture as it pertains to valuing female firefighters. The question asks: “Which of the following statements is most reflective of your perception of the culture of the Scottsdale Fire Department as it pertains to valuing female firefighters?” Three respondents indicate the culture is slowly improving. One respondent feels the culture is not shifting but is already in a good place.

The last question on the survey addresses the respondents’ perception about the extent to which they will be successful in realizing their full professional potential in the Scottsdale Fire Department. One respondent feels neutral to this question. Two respondents agree they can realize their full professional potential in the Scottsdale Fire Department. The final respondent strongly agrees that she will be able to realize her full professional potential in the Scottsdale Fire Department.

DISCUSSION

Recruitment

A national survey of 913 female firefighters provides the basis for comparing the experiences and advice of current female firefighters with the information discussed in the literature review in light of the questions this research paper seeks to answer.

Fire Service Decision Point

The majority of the programs examined in the literature review espouse recruitment programs targeted at young females. This includes such programs as BLAZE (Van Nort, 2001) and Camp Inferno (Harper, 2005) which target females in their late teens and early 20’s. The

quality of these programs in terms of breaking down stereotypes and shining the light on non-traditional careers available to women is not in question. These programs do produce qualified candidates who go on to pursue a career in the fire service. However, the data from the national survey indicates that the majority of women in the fire service (56.8%) decide on a fire service career after this point in their lives. Further, over half of the women in the fire service (55.0%) chose a career in the fire service while in another career field or while between career fields. Then-Madison (WI) Fire Chief Edward Durkins acknowledges this fact in stating his department's top candidates were already successfully employed; he just needed to find them (1981). This is supported by the fact that 92.3% of female firefighters were otherwise employed immediately prior to joining the fire service.

Balancing this finding is the fact that 42.2% of female firefighters begin seriously considering a career in the fire service before the age of 23. The implication for the Scottsdale Fire Department is to develop a multifaceted recruitment plan targeting females of all ages.

Common Experiences, Education, and Interests

The results of the national survey uncover a great deal of empirical data not found in other research or published articles. While several articles acknowledge the fact that many females enter the fire service from another career field, few seek to define this relationship.

While Eve Ritchie (2001) finds a strong connection between women leaving the military and those seeking a fire service career in Great Britain, the same strong connection does not exist in the United States. Less than ten percent of female firefighters have prior military experience. However, over one-fourth of all female firefighters in the United States enter the fire service with prior medical experience. More than one-fifth of females enter the fire service having left a general office position. The implication for the fire service is two-fold. First, recruitment

activities need to target a very broad candidate pool. Second, to find females in other careers who may consider a career in the fire service, one must look deeper into the activities and experiences of current female firefighters.

Consider the following: At the time of hire, the survey results indicate that approximately one-fourth of all females worked out at commercial gyms. One-fourth of current female firefighters played organized sports in high school, college, or beyond. One in five current female firefighters enjoys camping, hunting, hiking, and fishing at the time of their hiring. One in five volunteers either for their church or for a community group.

The implication of the two previous paragraphs is substantial. Successful recruitment must rely on a matrix of the current workforce's experience, education, and interests. For example, a recruitment campaign targeting females in nursing degree programs may have little return on investment. However, the same recruitment opportunity targeting a group of female nursing degree students who are also in a hiking club may yield stronger results.

Here is another example of a potentially successful recruitment plan using a matrix of data: since one in five female firefighters enters the fire service from a career in general office work and further since one in five female firefighters enjoys camping-type activities, recruiting females from industries that cater to outdoor activities, such as REI, may yield stronger results as well. The challenge for fire departments is to find where these overlapping interests naturally exist or create opportunities for these overlapping interests to come forward.

As previously stated, recruitment activities need to target a broad candidate base. The FDNY softened many of its recruitment materials in an attempt to draw a more diverse candidate pool (Chan, 2006). The new campaign features firefighters having fun with family off duty and enjoying the humor of their fellow crewmembers in a fire house. The new ad campaign

downplays the physical challenges and heroics of the job as depicted in the earlier marketing strategy. However, the results of the survey indicate that 18.4% of females are drawn strongly to the physical demands of a firefighting career. This accounts for more responses than for the shift schedule and camaraderie combined. While more people may find the campaign attractive, the new marketing strategy may ultimately draw candidates who become disillusioned with the fire service. The implication for the Scottsdale Fire Department is to develop a marketing strategy that captures aspects of firefighting that are most prevalently known to be attractive to female candidates.

Attractive and Unattractive Characteristics of a Fire Service Career

The literature review identifies several aspects of a career in the fire service that challenge some women. Primary among those is the challenge integrating into an existing culture that may be less than healthy. Paul McGill references this challenge when he attributes the “male dominated culture... as being a barrier to women” (2002, p. 56). This culture may be slowly receding as 68.4% of female firefighters rate career opportunities for female candidates as “good” or “excellent.” The approval rating drops to 53.7% when respondents are asked to rate the attitude of the workforce toward women. As previously stated, Arizona has the highest approval rating in the nation for both these categories. The implication for the Scottsdale Fire Department is to seek local best practices for creating a recruitment program attractive to female candidates.

Recruitment Strategies

The national survey results uncover two distinct tracks female candidates follow in establishing a career in the fire service. The largest percent of candidates enter the fire service from another career and make that career choice after their early 20's. The other track, which is

not far behind in terms of percentage, is composed of those candidates who set their sites on a fire service career early in their lives.

Little published research exists regarding the recruitment of female firefighter candidates from alternate careers. Ritchie (2001) finds a strong female candidate pool in the British military, but United States statistics point to a less fruitful connection. The lack of research information regarding recruitment strategies for the 55% of females that enter the fire service from another career implies the Scottsdale Fire Department will need to develop a unique recruitment strategy. The implication of connecting these dots could result in a recruitment plan unique to the Scottsdale Fire Department, thus providing a competitive advantage.

Much research exists regarding recruitment programs for younger females; however, information is not available on the success rate of these programs nor was information available regarding the selection process for program participants. According to the national recruitment survey, less than two percent of female firefighters are influenced by a teacher or guidance counselor when selecting their fire service career. The implication of this is tremendous: teachers and guidance counselors must be educated about career opportunities for females in the fire service, or a different mechanism must be engaged for referring young females to fire service emersion programs, such as BLAZE and Camp Inferno.

The other implication of a lack of outcome data from emersion-type recruitment programs is that data will need to be collected to substantiate the necessary financial investment for program development and delivery. Given the career developing byproduct for young female firefighters who administer these programs (Harper, 2005), some benefits may be more difficult to measure but ultimately may be more significant.

Interestingly, although the majority of current female firefighters do not set their sites on a fire service career early in life, early recruitment is the third most prevalent piece of advice represented in the survey. An interpretation of this fact is that current females who enter the fire service later in life may have started their fire service career earlier if it had been presented as an option. A major implication of this interpretation is to not assume the demographic of female firefighters will remain constant. Strategic, outcomes-based recruitment may significantly shift the commonality among female firefighters. Success for the Scottsdale Fire Department will require constant evaluation.

Retention

An internal Scottsdale Fire Department survey provides the basis for comparing the experiences and advice of current Scottsdale female firefighters with the information discussed in the literature review in light of the questions this research paper seeks to answer. The study results based on this survey closely mirror the information uncovered in the literature research.

Benefits and Work-Life Balance

Results from the local retention survey are consistent with national trends and issues. The 2005 University of Oklahoma females in an information technology study finds family priorities to be the primary cause of females leaving their jobs. McGill (2002) points out the critical role of family friendly benefits and practices in retaining female employees. Fortunately the general consensus among Scottsdale female firefighters indicates satisfaction with traditional employee benefits such as medical and dental care. Unfortunately, non-traditional City benefits and family practices do not rate as highly. Mathis (2002) documents an initiative in California to assist firefighters with childcare issues. One respondent with a young child would like to see the same initiative enacted in Scottsdale. Susan Heathfield (2006) notes the number one reason

employees search for new jobs is to find better pay and benefits. The implication for Scottsdale is to continue offering solid traditional benefits while simultaneously evaluating options for non-traditional needs such as maternity support, vacation policies friendly to married firefighters, creative work schedules, and extended childcare options.

Physical Facilities

Scottsdale finds itself in a similar situation as Madison, Wisconsin 27 years ago with regard to physical facilities. At the brink of recruitment efforts designed to increase workforce diversity, then-Chief Durkin analyzed his fire facilities and found them to be insufficient in supporting the needs of both genders (1981). Less than half of Scottsdale Fire facilities meet the needs of female employees in terms of privacy and personal hygiene needs. While current facilities are capable of the type of interim accommodations listed in the United State Fire Administration's 1999 text *Many Faces, One Purpose: A Manager's Handbook on Women in Firefighting*, these accommodations, such as a reversible sign for a restroom door, are inadequate. One respondent calls attention to the inadequacy of the male locker room as a significant factor in the overflow into the limited female space. The implication of this observation goes beyond retention of females and may in fact impact the retention of all fire personnel.

Career Development

Heathfield (2006) draws the connection between personal development goals and retention of quality employees. The Scottsdale Fire Department received mixed results with regard to personal development goals. While all respondents feel they had similar opportunities to succeed as their male counterparts, only two respondents have clearly defined career plans. A reasonable interpretation of this information is that all Scottsdale fighters, regardless of gender,

may share a similar statistic. If only half of the department has a clearly defined action plan for professional development in the Scottsdale Fire Department, there are over 100 current employees without a strong and lasting tether to this organization. Again, the implications are larger than simply retaining female firefighters. This is an issue that impacts the retention of Scottsdale Fire's entire workforce.

Organizational Culture

Heathfield (2006) states an unwavering dedication to respecting all employees is a primary key to retention efforts while McGill (2002) advocates a culture of zero tolerance for behavior that creates a hostile or harassing work environment. Three-fourths of the Scottsdale's female firefighters have been subject to offensive behavior in the workplace. Fortunately, all respondents feel welcome in their current assignment, and all respondents feel our culture is either improving or good. However, the department cannot ignore offensive behavior. If left unchecked, offensive conduct has the potential to spread and become a cultural norm. This affects more than the retention of our current employees as offensive conduct impacts the department's ability to recruit new members. Further, this type of behavior places the department and City in a precarious position in terms of liability.

RECOMMENDATIONS

The Scottsdale Fire Department now possesses a wealth of information pertaining to the recruitment and retention of female firefighters. The next step in this process should be the development and implementation of a recruitment and retention action plan. Given the volume of information from the literature review, the two online surveys, and the multiple interpretations that can be reasonably inferred, a departmental team should be established to evaluate this information, consider the goals and parameters of the Scottsdale Fire Department, and author an

action plan to be submitted to City and Fire Department senior management. Based on the author's interpretation of this information, the following recommendations should be evaluated in developing a master plan for the recruitment and retention of female firefighters.

Recruitment

The online national recruitment survey identifies two major avenues female candidates follow in pursuing a fire service career. The Scottsdale Fire Department should develop a recruitment strategy that markets to these two major subcategories: females who enter the fire service from a different career field and females who pursue a career in the fire service prior to entering a profession.

Target females entering the fire service from other career tracks

The majority of female candidates, 55%, enter the fire service from a different career track or between career tracks. Strategic recruitment of these candidates appears to be uncharted territory. The literature review reveals no published information pertaining to recruiting females from non-fire service related career tracks. This is a major untapped resource of quality candidates. The Scottsdale Fire Department's recruitment strategy should seek to capitalize on the demographic information provided by the online survey. From that information, a candidate matrix should be developed. This matrix will aid the department in focusing recruitment efforts by layering candidate information over department objectives and opportunities.

One such matrix-based recruitment initiative may be based on the following survey information and organizational objective. Approximately 40% of females enter the fire service from a different career track, and over 40% of those candidates come from a medical-related career field. One in five female firefighters came to the fire service due to the community service focus of the career and just as many were drawn to the physical aspects of firefighting.

One in five female firefighters was also active in outdoor hobbies such as hiking and camping immediately prior to joining the fire service. Taking these facts into account, the Scottsdale Fire Department could partner with medical facilities to develop and deliver first aid classes for hiker safety. The class could be taught as part of a guided hike by members of the department's Technical Rescue Team at one of Scottsdale's popular desert trails. With one-half million acres of desert preserve land in the City of Scottsdale, this initiative would address the need for such instruction while simultaneously identifying prospective firefighter candidates. Female medical professionals interested in this partnership would most likely have an interest in fitness activities and an interest in providing community service. These are key predictors of prospective firefighter-recruit candidates as is prior medical training and experience. This is just one conclusion a department recruitment team could draw from the data provided in this research study. This conclusion marries a current need in the organization (hiker safety education) with a pool of qualified instructors in a setting that highlights the opportunities in the fire service.

The department recruitment team should group and sort all demographic data from the survey to identify myriads of diverse activities which connect the fire department with females who are more likely to be attracted to a career in the fire service.

Target females who choose a fire service career at a young age

While the majority of females entering the fire service come from a different career field, just over 40% of female firefighters enter the fire service at age 22 or younger, conceivably prior to entering a career profession. This avenue for entering the fire service has been formally explored as a recruiting opportunity by progressive departments throughout the nation. The Scottsdale Fire Department recruitment team should develop an action plan to implement recruitment programs tailored to attract young females. There are several programs identified in

the literature review such as BLAZE and Camp Inferno. The recruitment team should analyze these programs while developing Scottsdale's program.

The Scottsdale Fire Department is well poised to deliver the "fire service career opportunity" message to young females in the Scottsdale Public Schools. When instructing school children on public safety, the department should include information pertaining to career opportunities in the fire service for all students, regardless of gender. This that message may plant some seeds in the minds of young females. However, based on the survey results, the Scottsdale Fire Department must address the fact that two-percent of female firefighters were influenced in their career selection by an instructor or guidance counselor. The fire department should partner with high school and college instructors, coaches, and counselors to raise the level of awareness among these professionals about career opportunities for females in the fire service.

The final recruitment recommendation centers on data and outcomes. As the Scottsdale Fire Department implements new recruitment initiatives, it should track the success of these initiatives. As more females enter the fire service, their demographic information may change. This will aid the department in developing effective recruitment programs and in times of limited resources will assist the department in identifying the most efficient recruitment programs.

Retention

With so few females in the Scottsdale Fire Department, losing one female would have a significant impact. Based on information from the literature review and the results of the retention survey, the Scottsdale Fire Department should reevaluate its operation to retain current and future female firefighters.

Address work-life balance

Family issues play a significant role in retaining female firefighters. This is the second-most expressed comment in the national recruitment survey and appeared on the local retention survey. The Scottsdale Fire Department should partner with its workforce, both male and female, to discuss options for enhancing work-life balance. This is an issue that transcends gender although issues surrounding pregnancy are much more poignant for female firefighters. Since the Scottsdale Fire Department has so few female firefighters, the department should host a summit for all female firefighters in the region to discuss challenges and solutions. There may be greater resources and opportunities if the challenges facing female firefighters are addressed without distinction based on geopolitical boundaries. The Scottsdale Fire Department should take the lead on this issue.

The Scottsdale Fire Department should take whatever steps are necessary to preserve the health of firefighter marriages when firefighters co-marry. The department should develop a list of options rather than a strict policy. For example, some firefighter couples may want to be on the same shift while others, for childcare reasons, may want to be on different shifts. The department should develop a policy that allows both options based on preference. The department should also work to accommodate personal leave requests for couples, and for couples with children the department should be creative in helping to identify creative options for childcare. One such option may be a modification to work hours that allows for the transition of childcare from one parent to the other.

Develop a plan that addresses fire department facilities

People are less likely to stay where they don't feel welcome. Failing to design or reconfigure facilities with a female's needs in mind has the potential for delivering a powerfully

negative statement. Less than half of the Scottsdale Fire Department's current facilities meet the needs of any of its female firefighters. The department should work with its current female workforce to develop a plan with short and long term objectives that addresses all facilities. Short term objectives would include minor modifications or changes in practice that may have an immediate impact on the facility's ability to accommodate both genders. An example of one short term objective would be to increase the available locker space in the men's locker room to eliminate the overflow of male firefighters into female locker rooms. Working collaboratively, facilities management personnel and current female firefighters should develop short term solutions for every Scottsdale Fire facility.

Long term objectives fall into two major categories: new construction and major renovation. As standard practice the Scottsdale Fire Department solicits field personnel to assist in designing new facilities. The department must ensure that one spot on the design time is reserved for a female to ensure the adequacy of female accommodations. When prioritizing facilities for major renovation, the department should consider the ability of the facility to accommodate females as a high priority consideration. The department should develop a standing plan for major renovations. To receive the most value for this plan, it should be published on the department's intranet with the scope of the renovation and a projected timeline. Due to budgetary constraints, it is unlikely that all renovations will be addressed in rapid fashion; however, communicating the department's dedication to facility support provides a light at the end of the tunnel for current employees.

Implement a career planning program

If half of the Scottsdale Fire Department's female firefighters have no personal career plan, it is reasonable to assume that a large segment of all Scottsdale firefighters is similarly

positioned. While it is encouraging that females feel they have an equal opportunity to success as males in the Scottsdale Fire Department, it is unfortunate that all employees haven't defined how they plan to capitalize on these opportunities. Since this is a global issue, the fire department should partner with City Human Resources to develop a career planning program. This program should identify paths for all departmental career opportunities. With this program in place, all employees should be able to assess their current status, identify career goals, and easily develop a map connecting them with their career goals. When career goals include promotions, the department should develop training programs and exposure opportunities to assist all employees with attaining the knowledge, skills, and ability to participate competitively in the promotional process. To retain current and future employees, the department must assist employees in visualizing their career development specifically in the Scottsdale Fire Department.

Address aspects of organizational culture that threaten retention of females

Three of four female firefighters have been subject to offensive behavior in the last year. This is unacceptable. The Scottsdale Fire Department should vigilantly address this issue. The plan for addressing this issue should be developed only after soliciting ideas and solutions from each female firefighter. Senior management should fight the urge to know how best to solve someone else's problem better than they. To address this issue and communicate its importance, the Fire Chief should develop routine open lines of communications with all female firefighters. In some organizations this would be a daunting task; however, with only four female firefighters, the Scottsdale Fire Department is well positioned to implement such a strategy. The Fire Chief communicates importance in how he schedules his workweek. Few issues are as important as establishing a healthy culture and retaining quality employees.

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Appendix A

July 1, 2005 Scottsdale Fire Department Emergency Response Personnel Demographics

Sworn Rank	Total in position	Number of Females	Percent of Females
Firefighter	84	3	3.57
Engineer	57	1	1.75
Captain	49	0	0
Battalion Chief	6	0	0
Total	196	5	2.55

Appendix B

Online Survey

Recruitment & Retention of Female Fire Service Professionals

SECTION ONE. Background information

THIS SURVEY IS INTENDED FOR FEMALE FIRE SERVICE PROFESSIONALS ONLY.

The information from this survey will be used to help create a Recruitment and Retention Plan for females in the Fire Service. Your participation is sincerely appreciated. Survey responses are anonymous unless you elect to enter your email address. Even in that case, results and/or comments would NEVER be attributed to any individual or published with your contact information.

To express my appreciation for completing the survey, ONE LUCKY PARTICIPANT WILL BE DRAWN FOR A \$25 STARBUCKS (or store of your choosing) GIFT CARD.

When you complete the survey, you will see the results-to-date. I had to turn off your ability to review the comments as it would have also allowed you to view the email addresses of other respondents (I'm serious about keeping your responses anonymous). If you are interested in the final results, enter your email address at the end of the survey -- at that time, I will delete all email addresses from the data but keep the open comments intact. PLEASE FEEL FREE to forward this survey link to other female fire service professionals.

If you have any questions, please contact me:

Garret Olson, Deputy Fire Chief, Scottsdale Fire Department,
480.312.1891, gmolson@scottsdaleAZ.gov. Thank you!

1. What is your current rank?

- Firefighter-Recruit
- Firefighter
- Engineer / Driver Operator
- Lieutenant
- Captain
- Battalion Chief
- Deputy Chief
- Division Chief
- Assistant Chief
- Fire Chief
- Other (please specify on line below)

2. What other assignments have you been involved with during your fire service career (check all that apply)?

- Paramedic-level care
- Hazardous Materials
- Special Operations (such as mountain rescue, water rescue, etc.)
- Wild land / forest firefighting
- Training Officer
- Safety Officer
- Public Information Officer
- Recruiter

3. Which of the following best describes your current work assignment?

- Currently assigned in an emergency response ("front line") position
- Currently assigned an administrative or support position, but was previously in an emergency response position
- Currently assigned an administrative position and have never been assigned in an emergency response position

4. What is the size of your fire department (career, uniformed / sworn members only)?

- Less than 25
- 25-50
- 51-100
- 101-250
- 251-500
- 501-1000
- Greater than 1000

5. What is the approximate percentage of uniformed / sworn females in your department?

- Less than 3%
- 3-5%
- 6-10%
- 11-15%
- 16-25%
- Greater than 25%

6. How long have you been in the Fire Service?

- Less than 5 years
- 5-10 year
- 11-15 years
- 16-20 years
- 21-25 years
- 25+ years

7. What is your highest level of education?

- High school diploma / GED
- Associates' (2-year) degree
- Bachelors' degree
- Masters' degree
- Doctorate degree

8. Please list your degrees if applicable:

9. Which of the following best describes your family / relationship situation?

- Single, no children
- Single with children
- In a long term relationship, no children
- In a long term relationship with children
- Married, no children
- Married with children
- I prefer not to answer

10. Which of the following have occurred for you since beginning your fire service career (check all that apply):

- I got married
- I got divorced
- I entered into a long term relationship
- A long term relationship ended
- I became a parent
- None of the above
- I prefer not to answer
- Other (please specify on the line below)

11. What state do you work in?

SECTION TWO: About you, PRIOR to your full time career in the Fire Service
This information will help to identify common activities, interests, and decision points for
females who go on to have a career in the Fire Service...

12. At what stage in your life did you first seriously begin considering a career in the Fire Service?

- As a young child (elementary or junior high school)
- In high school
- In college
- While between careers
- While in a previous career

13. Referring to the question above, what was your approximate age when you first seriously considered a career in the Fire Service?

- 12 years or younger
- 13-18 years of age
- 18-22 years of age
- 23-30 years of age
- 30-40 years of age
- Greater than 40 years of age

14. What interested you MOST about a career in the Fire Service?

- The pay / benefits package
- The shift schedule / work hours
- The medical services aspect
- The fire suppression aspect
- The community service focus of this career
- The camaraderie of the fire crews
- The physical aspect of the job
- The culture of my fire department
- Other (please specify below)

15. If you didn't enter the Fire Service, what career field would have been your alternate choice?

16. Who played the strongest role in encouraging / assisting you with this career aspiration?

- A teacher
- A coach
- A guidance counselor
- A MALE firefighter
- A FEMALE firefighter
- My spouse / partner
- One of my parents
- Nobody played a particularly significant role – I motivated myself
- Other (please specify on the line below)

17. Do you have military experience (check all that apply)?

- No
- Yes, and am currently in the Reserves
- Yes, but am no longer active
- If yes, what branch of the military?

18. Which of the following best describes your employment immediately prior to joining the Fire Service?

- I was unemployed and not attending school / college
- I was unemployed and attending school / college
- I was employed and not attending school / college
- I was employed and attending school / college

19. If you were employed in the question above, what was your job description / title?

20. If you were in school, what was your area of focus (i.e. Fire Science, General Ed, Medicine, Education, Business, etc.)?

21. How long did it take for you to get hired in a full-time career suppression position once you began actively pursuing this career?

- Less than 2 years
- 2-5 years
- 5-10 years
- Greater than 10 years

22. What was your highest level of education WHEN YOU FIRST BEGAN YOUR CAREER in the Fire Service?

- High school diploma / GED
- Associates' (2-year) degree
- Bachelors' degree
- Masters' degree
- Doctorate degree
- If you had a degree(s), please list

23. Which of the following best describes your family / relationship situation WHEN YOU FIRST BEGAN YOUR CAREER in the Fire Service?

- Single, no children
- Single with children
- In a long term relationship, no children
- In a long term relationship with children
- Married, no children
- Married with children
- I prefer not to answer this question
- Other (please specify)

24. Immediately prior to joining the Fire Service, what activities did you participate in (check all that apply)?

- Volunteer work / community service
- Volunteer work through my church
- College or high school sports
- Team / Club sports
- Coaching athletics
- Exercising at a commercial gym
- Student government (high school or college)
- Political advocacy / activity
- Camping, hiking, fishing, and/or hunting
- Please list any other activities that were significant to you at this phase in your life:

SECTION THREE. Information about your Fire Service experience...

The information on this page will help us create a work environment conducive to retaining female employees...

25. How would you rate the CAREER OPPORTUNITIES for women entering the fire service today?

- Excellent
- Good
- Fair
- Poor

26. How would you rate the WORK ENVIRONMENT for women entering the fire service today as it pertains to THE ATTITUDE OF THE CURRENT WORKFORCE?

- Excellent
- Good
- Fair
- Poor

27. How would you rate the WORK ENVIRONMENT for women entering the fire service today AS IS PERTAINS TO PHYSICAL FACILITIES (dorms, restrooms, showers, etc.)?

- Excellent
- Good
- Fair
- Poor

28. How COMPATIBLE is a career in the fire service for a woman in a LONG-TERM RELATIONSHIP / MARRIAGE?

- Excellent
- Good
- Fair
- Poor
- No opinion

29. How COMPATIBLE is a career in the fire service for a woman who is or desires to be a PARENT?

- Excellent
- Good
- Fair
- Poor
- No opinion

30. How COMPATIBLE is a career in the fire service for a woman who seeks to COMPLETE A COLLEGE DEGREE?

- Excellent
- Good
- Fair
- Poor
- No opinion

31. If you had a SON, how likely would you be to encourage him to pursue a career in the Fire Service?

- Very likely
- Somewhat likely
- Not likely
- Absolutely not

32. If you had a DAUGHTER, how likely would you be to encourage her to pursue a career in the Fire Service?

- Very likely
- Somewhat likely
- Not likely
- Absolutely not

33. If you was asked to give advice to a woman seeking a career in the fire service, that advice would be:

34. Overall, how would you grade your career satisfaction?

- "A," I'm thrilled I pursued this career
- "B," I'm glad I pursued this career
- "C," I'm OK with my decision to pursue this career
- "D," I'm not sure this was such a good career choice
- "F," I wish I had done something else, and may change careers

35. Is there anything you weren't asked that you think would be helpful in developing a recruitment and retention plan for women in the fire service? Every answer will be read and thoroughly considered. Thank you so much for your time and candor.

36. When you complete this survey, you will see the results so far. Would you like a copy of the FINAL survey results?

- No
- Yes, please email them to me at:

37. PRIZE DRAWING: Your email address won't be used for anything other than this survey. If you would like to be drawn for a \$25 gift card, check yes and enter your email address. This is my way of saying "thank you and please pass this on to other professional females in the Fire Service"!

- No, thank you.
- Yes, here's my email address:

Appendix C

Online Survey Results

Recruitment & Retention of Female Fire Service Professionals

1. What is your current rank?

	Response percent	Responses
Firefighter-Recruit	1.7%	15
Firefighter	44.7%	392
Engineer / Driver Operator	10.1%	89
Lieutenant	7.3%	64
Captain	12.3%	108
Battalion Chief	4.2%	37
Deputy Chief	1.6%	14
Division Chief	1.0%	9
Assistant Chief	0.8%	7
Fire Chief	2.3%	20
Other (please specify on line below)	13.9%	122

2. What other assignments have you been involved with during your fire service career (check all that apply)?

	Response percent	Responses
Paramedic-level care	56.4%	425
Hazardous Materials	41.6%	313
Special Operations (such as mountain rescue, water rescue, etc.)	33.2%	250
Wild land / forest firefighting	20.6%	155
Training Officer	21.2%	160
Safety Officer	13.3%	100
Public Information Officer	12.0%	90
Recruiter	22.6%	170

3. Which of the following best describes your current work assignment?

	Response percent	Responses
Currently assigned in an emergency response ("front line") position	83.9%	729
Currently assigned an administrative or support position, but was previously in an emergency response position	15.2%	132
Currently assigned an administrative position and have never been assigned in an emergency response position	0.9%	8

4. What is the size of your fire department (career, uniformed / sworn members only)?

	Response percent	Responses
Less than 25	4.5%	39
25-50	9.9%	86
51-100	15.5%	135
101-250	16.3%	142
251-500	14.0%	122
501-1000	13.5%	118
Greater than 1000	26.4%	230

5. What is the approximate percentage of uniformed / sworn females in your department?

	Response percent	Responses
Less than 3%	37.1%	322
3-5%	27.6%	240
6-10%	20.3%	176
11-15%	8.1%	70
16-25%	5.2%	45
Greater than 25%	1.8%	16

6. How long have you been in the Fire Service?

	Response percent	Responses
Less than 5 years	22.2%	194
5-10 year	29.2%	255
11-15 years	18.7%	163
16-20 years	14.9%	130
21-25 years	10.0%	87
25+ years	4.9%	43

7. What is your highest level of education?

	Response percent	Responses
High school diploma / GED	26.2%	228
Associates' (2-year) degree	28.8%	251
Bachelors' degree	36.7%	320
Masters' degree	7.5%	65
Doctorate degree	0.8%	7

8. Please list your degrees if applicable:

540 responses

9. Which of the following best describes your family / relationship situation?

	Response percent	Responses
Single, no children	20.7%	183
Single with children	11.8%	104
In a long term relationship, no children	14.2%	125
In a long term relationship with children	6.7%	59
Married, no children	13.1%	116
Married with children	32.0%	283
I prefer not to answer	1.5%	13

10. Which of the following have occurred for you since beginning your fire service career (check all that apply):

	Response percent	Responses
I got married	41.5%	361
I got divorced	22.1%	192
I entered into a long term relationship	30.8%	268
A long term relationship ended	19.8%	172
I became a parent	28.3%	246
None of the above	25.1%	218
I prefer not to answer	0.7%	6
Other (please specify on the line below)	11.5%	100

11. What state do you work in?

State	Response percent	Responses
Alabama	10.3%	3
Alaska	0.9%	8
Arizona	18.5%	161
Arkansas	0.0%	0
California	9.9%	88
Colorado	2.9%	25
Connecticut	1.2%	10
Delaware	0.2%	2
District of Columbia	0.0%	0
Florida	7.7%	67
Georgia	0.3%	3
Hawaii	0.8%	7
Idaho	0.2%	2
Illinois	5.6%	49
Indiana	1.4%	12
Iowa	1.0%	9
Kansas	0.3%	3
Kentucky	0.3%	3
Louisiana	0.1%	1
Maine	0.3%	3

Maryland	8.9%	81
Massachusetts	0.5%	4
Michigan	0.5%	4
Minnesota	1.0%	9
Mississippi	0.1%	1
Missouri	0.6%	5
Montana	0.2%	2
Nebraska	3.6%	31
Nevada	0.5%	4
New Hampshire	0.0%	0
New Jersey	0.2%	2
New Mexico	0.2%	2
New York	2.5%	22
North Carolina	3.7%	32
North Dakota	0.0%	0
Ohio	2.3%	20
Oklahoma	0.1%	2
Oregon	1.6%	14
Pennsylvania	1.0%	9
Rhode Island	0.0%	0
South Carolina	0.0%	0
South Dakota	0.3%	3
Tennessee	1.5%	13
Texas	6.6%	57
Utah	0.1%	1
Vermont	0.0%	0
Virginia	5.4%	47
Washington	2.5%	22
West Virginia	0.0%	0
Wisconsin	3.6%	31
Wyoming	0.1%	1
Total		868

SECTION TWO: About you, PRIOR to your full time career in the Fire Service
This information will help to identify common activities, interests, and decision points for
females who go on to have a career in the Fire Service...

12. At what stage in your life did you first seriously begin considering a career in the Fire Service?

	Response percent	Responses
As a young child (elementary or junior high school)	7.2%	60
In high school	14.8%	124
In college	22.9%	192
While between careers	16.8%	141
While in a previous career	38.2%	320

13. Referring to the question above, what was your approximate age when you first seriously considered a career in the Fire Service?

	Response percent	Responses
12 years or younger	3.8%	31
13-18 years of age	13.2%	109
18-22 years of age	25.2%	208
23-30 years of age	44.2%	364
30-40 years of age	12.6%	104
Greater than 40 years of age	1.0%	8

14. What interested you MOST about a career in the Fire Service?

	Response percent	Responses
The pay / benefits package	7.6	63
The shift schedule / work hours	9.8	81
The medical services aspect	12.5	104
The fire suppression aspect	9.6	80
The community service focus of this career	20.0	166
The camaraderie of the fire crews	6.0	50
The physical aspect of the job	18.4	153
The culture of my fire department	2.5	21
Other (please specify below)	13.5	112

15. If you didn't enter the Fire Service, what career field would have been your alternate choice?

767 responses

16. Who played the strongest role in encouraging / assisting you with this career aspiration?

	Response percent	Responses
A teacher	1.7%	14
A coach	0.4%	3
A guidance counselor	0.2%	2
A MALE firefighter	23.8%	198
A FEMALE firefighter	8.9%	74
My spouse / partner	8.3%	69
One of my parents	11.9%	99
Nobody played a particularly significant role – I motivated myself	34.5%	287
Other (please specify on the line below)	10.4%	87

17. Do you have military experience (check all that apply)?

	Response percent	Responses
No	91%	758
Yes, and am currently in the Reserves	1.8%	15
Yes, but am no longer active	6.2%	52
If yes, what branch of the military?	7.9%	66

18. Which of the following best describes your employment immediately prior to joining the Fire Service?

	Response percent	Responses
I was unemployed and not attending school / college	2.6%	22
I was unemployed and attending school / college	5.0%	42
I was employed and not attending school / college	45.8%	382
I was employed and attending school / college	46.5%	388

19. If you were employed in the question above, what was your job description / title?

776 responses

20. If you were in school, what was your area of focus (i.e. Fire Science, General Ed, Medicine, Education, Business, etc.)?

497 responses

21. How long did it take for you to get hired in a full-time career suppression position once you began actively pursuing this career?

	Response percent	Responses
Less than 2 years	66.2%	535
2-5 years	27.7%	224
5-10 years	5.2%	42
Greater than 10 years	0.9%	7

22. What was your highest level of education WHEN YOU FIRST BEGAN YOUR CAREER in the Fire Service?

	Response percent	Responses
High school diploma / GED	46.0%	382
Associates' (2-year) degree	18.5%	154
Bachelors' degree	31.0%	258
Masters' degree	3.6%	30
Doctorate degree	0.4%	3
If you had a degree(s), please list	17.6%	146

23. Which of the following best describes your family / relationship situation WHEN YOU FIRST BEGAN YOUR CAREER in the Fire Service?

	Response percent	Responses
Single, no children	43.8%	364
Single with children	10.0%	83
In a long term relationship, no children	18.4%	153
In a long term relationship with children	3.0%	25
Married, no children	9.4%	78
Married with children	13.1%	109
I prefer not to answer this question	0.6%	5
Other (please specify)	1.7%	14

24. Immediately prior to joining the Fire Service, what activities did you participate in (check all that apply)?

	Response percent	Responses
Volunteer work / community service	47.6%	381
Volunteer work through my church	10.9%	87
College or high school sports	24.1%	193
Team / Club sports	36.8%	295
Coaching athletics	15.0%	120
Exercising at a commercial gym	67.4%	540
Student government (high school or college)	3.9%	31
Political advocacy / activity	4.5%	36
Camping, hiking, fishing, and/or hunting	59.3%	475
Please list any other activities that were significant to you at this phase in your life:	31.1%	249

SECTION THREE. Information about your Fire Service experience...

The information on this page will help us create a work environment conducive to retaining female employees...

25. How would you rate the CAREER OPPORTUNITIES for women entering the fire service today?

	Response percent	Responses
Excellent	20.8%	168
Good	47.6%	384
Fair	25.4%	205
Poor	6.2%	50

26. How would you rate the WORK ENVIRONMENT for women entering the fire service today as it pertains to THE ATTITUDE OF THE CURRENT WORKFORCE?

	Response percent	Responses
Excellent	8.8%	71
Good	44.9%	363
Fair	35.4%	286
Poor	10.9%	88

27. How would you rate the WORK ENVIRONMENT for women entering the fire service today AS IS PERTAINS TO PHYSICAL FACILITIES (dorms, restrooms, showers, etc.)?

	Response percent	Responses
Excellent	14.7%	119
Good	40.8%	329
Fair	29.6%	239
Poor	14.9%	120

28. How COMPATIBLE is a career in the fire service for a woman in a LONG-TERM RELATIONSHIP / MARRIAGE?

	Response percent	Responses
Excellent	13.5%	109
Good	40.0%	322
Fair	28.8%	232
Poor	7.7%	62
No opinion	10.0%	81

29. How COMPATIBLE is a career in the fire service for a woman who is or desires to be a PARENT?

	Response percent	Responses
Excellent	9.8%	79
Good	30.0%	241
Fair	31.5%	253
Poor	19.4%	156
No opinion	9.3%	75

30. How COMPATIBLE is a career in the fire service for a woman who seeks to COMPLETE A COLLEGE DEGREE?

	Response percent	Responses
Excellent	38.7%	311
Good	40.8%	328
Fair	15.3%	123
Poor	3.0%	24
No opinion	2.1%	17

31. If you had a SON, how likely would you be to encourage him to pursue a career in the Fire Service?

	Response percent	Responses
Very likely	52.7%	424
Somewhat likely	36.2%	291
Not likely	9.7%	78
Absolutely not	1.4%	11

32. If you had a DAUGHTER, how likely would you be to encourage her to pursue a career in the Fire Service?

	Response percent	Responses
Very likely	42.2%	339
Somewhat likely	36.2%	291
Not likely	15.6%	125
Absolutely not	6.0%	48

33. If you was asked to give advice to a woman seeking a career in the fire service, that advice would be:

769 responses

34. Overall, how would you grade your career satisfaction?

	Response percent	Responses
"A," I'm thrilled I pursued this career	54.2%	436
"B," I'm glad I pursued this career	34.3%	276
"C," I'm OK with my decision to pursue this career	7.8%	63
"D," I'm not sure this was such a good career choice	2.5%	20
"F," I wish I had done something else, and may change careers	1.2%	10

35. Is there anything you weren't asked that you think would be helpful in developing a recruitment and retention plan for women in the fire service? Every answer will be read and thoroughly considered. Thank you so much for your time and candor.

414 Responses

36. When you complete this survey, you will see the results so far. Would you like a copy of the FINAL survey results?

	Response percent	Responses
No	16.8%	133
Yes, please email them to me at:	83.2%	660

37. PRIZE DRAWING: Your email address won't be used for anything other than this survey. If you would like to be drawn for a \$25 gift card, check yes and enter your email address. This is my way of saying "thank you and please pass this on to other professional females in the Fire Service"!

	Response percent	Responses
No thank you.	15.8%	112
Yes here's my email address:	84.2%	596

Appendix D

Influential forces in pursuing a firefighting career

Influential force	Number of responses	Percent of responses
A teacher	14	1.7%
A coach	3	0.4%
A guidance counselor	2	0.2%
A male firefighter	198	23.8%
A female firefighter	74	8.9%
My spouse / partner	69	8.3%
One of my parents	99	11.9%
Nobody, self motivation was the key	287	34.5%
Other family members	35	4.3%
Friends (not included in other categories)	24	2.9%
Multiple influences	2	0.2%
Coworkers	7	0.9%
Recruiter	3	0.4%
Religion	2	0.2%
Television / recent events	3	0.4%
Dared not to do it	1	0.1%

Appendix E

Job title immediately prior to becoming a Firefighter

Field	Responses	Percent of responses
Medical field	104	25.7%
Law enforcement	14	3.5%
Legal field	4	1.0%
Education	7	1.7%
Coach / fitness instructor	16	4.0%
"Blue collar," miscellaneous	39	9.7%
Military	4	1.0%
Officer worker, general	90	22.3%
Sales	27	6.7%
Fire service, non-responder	8	2.0%
Service industries	33	8.2%
Social work	10	2.5%
Government, miscellaneous	7	1.7%
Homemaker	4	1.0%
Self-employed	8	2.0%
Child care	4	1.0%
Other	25	6.2%
Total	404	

Appendix F

Major area of educational focus immediately prior to becoming a Firefighter

Educational focus	Responses	Percent of responses
General Education	42	9.3%
Medical	111	24.5%
Fire Science	107	23.6%
Business	33	7.3%
Science	41	9.1%
Liberal Arts	13	2.9%
Government	6	1.3%
Law / Criminal Justice	15	3.3%
Engineering / Design	9	2.0%
Physical Education	17	3.8%
Social Sciences	5	1.1%
Education	26	5.7%
Communications	13	2.9%
Accounting	5	1.1%
History	1	0.2%
Computer Programming	4	0.9%
Other	5	1.1%
Total	453	

Appendix G

Major activities immediately prior to becoming a Firefighter

Field	Responses	Percent of responses
Volunteer work / community service	381	15.8%
Volunteer work / church related	87	3.6%
College or high school sports	193	8.0%
Team / club sports	295	12.2%
Coaching athletics	120	5.0%
Exercising at a commercial gym	540	22.4%
Student government	31	1.3%
Political activity / advocacy	36	1.5%
Camping, hiking, fishing, and/or hunting	475	19.7%
Other physical fitness activities	187	7.7%
Hobbies, non-physical	31	1.3%
Family-centered activities	24	1.0%
Volunteer firefighting	15	0.6%

Appendix H

Scottsdale Fire Department Retention Survey

SFD Retention Survey
SECTION ONE. Benefits and Work-life Balance

This section will ask you questions about the City and Fire Department's current benefits package and how your personal life integrates with your professional life.

1. Overall, how satisfied are you with the City's medical, dental, and vision benefits in meeting YOUR PERSONAL NEEDS?

- Highly satisfied
- Satisfied
- Neutral
- Dissatisfied
- Highly dissatisfied

2. Overall, how satisfied are you with the City's medical, dental, and vision benefits in meeting the needs of YOUR FAMILY / DEPENDENTS?

- Highly satisfied
- Satisfied
- Neutral
- Dissatisfied
- Highly dissatisfied

3. What additional benefit / employee support programs would you like to have access to?

4. My current schedule and assignment works well for my personal needs.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

5. What could the Scottsdale Fire Department do to better facilitate your work-life balance needs?

SECTION TWO: Fire Department Facilities

6. How satisfied are you with the facilities AT YOUR CURRENT ASSIGNMENT / LOCATION in terms of affording you accommodations for personal hygiene needs and privacy?

- Highly satisfied
- Satisfied
- Neutral
- Dissatisfied
- Highly dissatisfied

7. How satisfied are you with the OTHER FIRE DEPARTMENT FACILITIES in the City of Scottsdale in terms of affording you accommodations for personal hygiene needs and privacy?

- Highly satisfied
- Satisfied
- Neutral
- Dissatisfied
- Highly dissatisfied

8. PLEASE ESTIMATE: What percent of the Scottsdale Fire Department facilities meet your personal hygiene and privacy needs?

- 0-25%
- 25-50%
- 51-75%
- 76-90%

9. How could Fire Department facilities better meet you needs in terms of personal hygiene and privacy?

SECTION 3: Professional Development

10. PLEASE RATE THE FOLLOWING STATEMENTS:

I feel engaged in the Scottsdale Fire Department.

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

11. I am afforded reasonable opportunities to be involved in Fire Department issues that are important to me.

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

12. I am afforded EQUAL OPPORTUNITIES to develop my career AS MY MALE COUNTERPARTS.

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

13. I have a clear plan in mind for my career with the Scottsdale Fire Department.

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

SECTION FOUR: Fire Department Culture

14. I feel welcome in my CURRENT WORK ASSIGNMENT / TEAM / CREW?

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

15. I feel welcome when working with Scottsdale crews / teams OTHER THAN THOSE IN MY CURRENT ASSIGNMENT.

- Definitely true
- Somewhat true
- Neutral
- Somewhat untrue
- Definitely untrue

16. In the past year, a Scottsdale Fire employee has made comments which were offensive to me regarding females in the fire service.

- True, this type of conduct is pervasive in the Scottsdale Fire Department.
- True, this type of conduct exists strongly in pockets of the Scottsdale Fire Department.
- True, however this type of conduct is extremely isolated in the Scottsdale Fire Department.
- False.

17. Which of the following statements is most reflective of your perception of the culture of the Scottsdale Fire Department AS IT PERTAINS TO VALUING FEMALE FIREFIGHTERS (please read all options before replying)?

- The culture is improving rapidly.
- The culture is improving slowly.
- The culture is not shifting BUT is already in a good place.
- The culture is not shifting and is in a bad place.
- The culture is deteriorating slowly.
- The culture is deteriorating rapidly.

18. I believe I can realize my full fire service professional potential in the Scottsdale Fire Department.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree