

2002

'Sworn' versus 'civilian' career development paths in the fire service in Nevada

Kelly Blackmon

University of Nevada, Las Vegas

Follow this and additional works at: <https://digitalscholarship.unlv.edu/thesesdissertations>

 Part of the [Human Resources Management Commons](#), and the [Public Administration Commons](#)

Repository Citation

Blackmon, Kelly, "Sworn' versus 'civilian' career development paths in the fire service in Nevada" (2002). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 504.

<https://digitalscholarship.unlv.edu/thesesdissertations/504>

This Capstone is brought to you for free and open access by Digital Scholarship@UNLV. It has been accepted for inclusion in UNLV Theses, Dissertations, Professional Papers, and Capstones by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

**‘Sworn’ Versus ‘Civilian’ Career
Development Paths in the
Fire Service in Nevada**

Kelly Blackmon

**Professional Paper
for Master in Public Administration,
University of Nevada, Las Vegas
2002**

ABSTRACT

The Clark County Fire Department has no formal career development path for fire prevention (civilian) personnel as it does for suppression (sworn) personnel. The purpose of this paper is to compare the career paths developed for suppression personnel and prevention personnel in five fire departments throughout the State of Nevada. Each department was chosen because they have over 100 total employees.

Three dimensions relevant to the extent to which a career development path exists were identified and each department was assessed terms of these dimensions. The results illustrated the need to enhance the career development path in prevention to more closely align with suppression's path.

Recommendations include continuing skills training, supervisor training, educational and certification requirements for promotional and supervisory positions, and additional promotional and supervisory levels to increase the career opportunities within the division.

INTRODUCTION

The goal of the fire service is to minimize the risk of life and property loss from fire (Wieder and Smith, 1998). The differences in how this goal is accomplished are what create the myriad positions in the fire service today. The firefighter is the backbone of the fire service in the public eye because they respond in an emergency situation. They hand an old woman the resuscitated cat that she has been frantic to find since the firefighters pulled her from her burning home. They are those who arrive quickly enough to put out a fire so a family's home is not a total loss. Firefighters today are asked to perform an increasing number of tasks including emergency medical service, responding to hazardous materials incidents, knowing where the target hazards are in their first-in area, assisting in training outside entities when needed, and many others too numerous to mention here. On a regular basis these individuals are asked to perform tasks that cannot be taught in a textbook, a classroom, or even a fire training facility. Firefighters are generally well paid and receive an excellent benefits package negotiated through the local firefighter's union or association. Firefighter positions are highly prized. This is the case for the Clark County Fire Department as is evidenced by the number of applicants for the firefighter position in recent years (over 3,000 in the year 2000, according to the Clark County Human Resources Department).

Once the applicants have passed all hiring requirements to become Clark County firefighters, they enter the department's 20-week rookie school. During this 'boot camp', cadets learn the skills they will need to perform the functions of a firefighter. At the end of the 20 weeks, they take an oath and are treated to a formal ceremony during which they are 'pinned' with their badges. It is at this juncture that the difference between

firefighters and fire inspectors is intensified. In the Clark County Fire Department, as well as many other jurisdictions around the country, firefighters are considered 'sworn' employees while fire inspectors are 'civilian'. Throughout this study, 'sworn' and suppression will be used synonymously, as will 'civilian' and prevention.

The major goals of fire inspections are the following: 1) To raise the public's awareness of fire safety considerations in their immediate surroundings, 2) To identify fire hazards that must be eliminated for a safer environment, 3) To record inspection information for inclusion in the public record, and 4) To verify the proper functioning/maintenance of installed fire protection systems and other building fire protection equipment/features. (Murphy, 1996) Although fire inspectors do not take an oath to subject themselves to life-threatening situations daily, they are asked to have knowledge of laws and codes and to make decisions daily that may keep a firefighter or the public from a life-threatening situation in an emergency.

While there is clearly a difference between the duties of a firefighter and those of a fire inspector, the goal remains the same. If life or property is protected, the firefighter accomplished their goal for that day. It is extremely difficult if not impossible to measure the effects of a fire inspector; "Proving that prevention works is the fire service's version of a Zen qu or riddle: How can I show you the fire that I have prevented?... Admittedly, the rewards for saving lives by preventing fires rather than fighting them usually are intangible and for many may seem unfulfilling." (Chubb, 1995) Herein lies much of the division between suppression and prevention – suppression is tangible, prevention is largely intangible. Consequently, when budgets must be trimmed, prevention programs and personnel will be sacrificed before an emergency responder. This being said, the

duties of the fire inspector remain vitally important to the public as well, for without proper inspection programs, firefighter's lives and the lives of the general public are in danger in the event of an emergency.

The fire service as a whole has historically focused on suppression rather than prevention. Many fire departments have created fire prevention bureaus only since the 1960's and 1970's. While the Clark County Fire Department had a fire prevention bureau prior to 1980, the year of the MGM Grand Hotel fire where 88 people lost their lives, the bureau was augmented with personnel and funding following 1980 and the Las Vegas Hilton fire in 1981. Southern Nevada was a leader in writing and adopting many of the fire codes that are in use throughout the world today.

Individuals within the fire service tend to spend 20 or more years in service to the public. This fact creates issues whereby employees may remain in the same position for several years, perhaps even their entire career. The tendency to remain in the same position often leads to complacency and poor morale when individuals become bored with the job they perform. A formalized career development path offers on-going training and additional levels of advancement that can help lead individuals toward creating career goals and achieving those goals to the betterment of the organization as well as themselves.

Architects, engineers, contractors, and hotel executives look to the bureau for answers to fire and life safety questions on a daily basis. As the demands placed on fire prevention bureaus increase, so does the call for professionalism within the division. Where will the professionalism come from? Professionalism will come from a

formalized career path that incorporates continuing skills training, supervisor training, educational requirements for supervisory positions, and required certifications.

This paper examines the current availability of formalized career paths for fire prevention personnel in five local governments. Chapter two will discuss the literature surrounding career development paths and professionalism. Chapter three will explain the methodology for the analysis. Chapter four will demonstrate the findings of the analysis. Finally, Chapter five will offer conclusions with respect to the literature review and findings of the analysis.

LITERATURE REVIEW

A commonly accepted academic definition of ‘career’ “[is] the evolving sequence of a person’s work experiences over time.” (Arthur, Inkson, & Pringle, 1999) Ideally, a career should be a series of positions that maintain a balance between the security (brought by competence and success) and the challenge and stimulation of new problems, ideas, and people. (Dewhirst, 1991) In a world where careers are spanning several different companies, perhaps a few different disciplines, the fire service stands out as a career that individuals enter, give their lives to for 20 or 30 years (barring a major injury), and exit quietly into retirement.

The path an individual takes through their career has become increasingly twisted, with many turns and perhaps a backtrack or two along the way. Potts and Sykes (1993) discuss the term “‘career pathing’ [as] still a useful tool for planning.” It enables management to establish a broad framework for developmental opportunities, and it gives recognition to the time required to impart certain experiences. They go on to develop a career path model: 1) Learning the grass-roots business, 2) Managing operations, 3) Managing line and staff at the corporate level, 4) Senior level management – Executive Vice President or Chief Operations Officer. In suppression, this model equates to Firefighter and Fire Engineer (#1), Fire Captain (#2), Assistant Fire Chief (#3), Deputy Fire Chief or Fire Chief (#4). In prevention, this model equates to Fire Inspector and Plans Checker or Plans Examiner (#1), Senior Fire Inspector or Deputy Fire Marshal (#2), Assistant Fire Chief (#3), and Deputy Fire Chief or Fire Chief (#4). For detailed descriptions of job classifications, see Appendix B.

The goal of creating a career path is growth, for the organization as well as the individual. Dewhirst (1993) suggests:

Career growth results from the creative tension between security on one hand and challenge on the other. Too much challenge can overwhelm the individual who is not fortified with security, self-confidence and successful task experience. Conversely, too much security, without the stimulation of challenging new assignments and tasks, exposure to new problems and people, leads to isolation – an unproductive retreat to routine thinking, yesterday's ideas, and excessive reliance on tried and true methods.

He offers four examples of career enhancement programs: 1) A professional development program to increase employees' knowledge of the business, the competitive environment, and the importance of customer satisfaction and quality improvement, 2) A mastery path program for job families to ensure that employees learn the skills required on particular jobs, 3) A supervisor training program to help supervisors understand their role as developers and coaches of their subordinates, and 4) A career support system to provide employees with information about career opportunities and to provide a mechanism for annual career planning. Potts and Sykes (1993) expand on the notion of growth by adding, "Management and executive development programs to further the growth of key managers (as well as developmental programs for all employees) should respond to identifiable needs that individuals currently have or will have in the future." Growth is achieved when individual, as well as organizational, needs are met.

The responsibility for creating a career development path is changing. “Early companies directed the course of employees’ careers. In today’s companies, the firm’s managers and its employees are increasingly sharing this responsibility. In tomorrow’s organizations... most individuals will assume responsibility for their own competency and career development.” (Miles & Snow, 1996) Arthur et al. (1999) see this changing responsibility also:

Companies may understand careers better if they consider them not as structures predetermined by the company, but as processes driven by individuals. Like organizing, “careering” can be regarded as a process enacted by autonomous individuals, linked in turn to other individuals through relationships in networks... The companies which succeed may not be those which seek to harness people’s competencies in pursuit of predetermined company goals, but those which seek to understand and value people’s competencies as a possible basis for reciprocal change.

“[I]t is up to the individual employees to take ownership of their career development.” (Duncan, 1998) Thomas & Higgins (1996) agree and cite columnist Hall Lancaster in the November 29, 1994 issue of the Wall Street Journal, “The social contract between employees and employers, in which companies promise to ensure employment and guide the career of loyal troops is dead, dead, dead.” Clearly, individuals must take the responsibility for guiding their future occupational endeavors.

A well-defined career development path in any profession serves both the employer and the employee. Potts and Sykes (1993) discuss a management development system that benefits both employer and employee through determining and implementing

career paths that will provide needed growth experiences, training and developing individuals with internal and external programs, and involving senior management in understanding and committing resources to the development plans for employees with high potential. They believe a complete management development system should address the succession plans for key jobs, the developmental plans for individuals, and the implementation plans for achieving both. Therefore, although employers are no longer the guiding force in career development paths, clearly they have a vested interest in the outcome and should stay involved in the process through training, educational opportunities, and communication with employees.

Training drives the successful career development program, for without training, the growth does not occur. Fire suppression relies heavily on training employees to be ready for any possible emergency at any moment. Duncan (1998) believes, “[e]very fire department has a fundamental responsibility to create an environment of continuous learning and development.” He delves further into the aspect of training and contends “[t]he training needed in today’s fire/EMS departments should effectively address the knowledge, skills, abilities, and traits related to success, including leadership, decision making, and interpersonal skills.” Supervisory training is an essential piece of the overall career development path. “Boss training enables bosses to know and effectively make use of the determinants affective individual career motivation, career planning, and decision making... Supervisors who can guide employees’ choices in light of their career motivation will probably be more effective.” (Hicks & London, 1991)

Within the fire prevention bureau, training must also drive the professional nature of the occupation. “A relatively demanding period of training is required for learning

how to do esoteric and complex work well. That course of training tends to create commitment to knowledge so that the professional's work becomes a central life-interest which provides its own intrinsic rewards." (Friedson, 1994) Essentially, the quantity and quality of training lends itself to the future development of an individual.

The fire service traditionally has a very formalized career development path for suppression employees. Generally, a 'rookie' or 'cadet' will begin their career with the knowledge of exactly how many years they must train to step to the next level. In addition to the fact that they have a very clear understanding of the promotional opportunities within their department and what qualifications they must have to achieve the next step, many departments offer the training to the employees to climb to that next step. This formalized career development path has carried over into the paramilitary organization of the fire service from its roots in the military. The armed forces also follow a very strict career development path; the fire service has just modified it to meet its unique objectives.

Although the career path for most suppression employees is very formalized, the fire service as a whole has struggled with being seen from the outside as a 'professional' organization. (Oceguera, 1998) In an effort to create the professionalism internally, several organizations have created programs to foster career development and give credence to the fire service. In 1997, the International Association of Fire Chiefs' Professional Designation Task Force began to work on a program to identify minimum core requirements for senior fire service leaders. One goal of the program is to establish a career development path for those interested in senior fire officer positions. (*Fire Chief Magazine*, 1999) For prevention employees, Murphy (1996) believes, "In addition to

knowing the fire code, identifying potential fire hazards, and exercising good judgment when dealing with the public, a fire inspector can advance professionalism by participating in functions related to fire prevention. These functions may include formal classes; continuing education seminars; studying periodicals and other literature; and affiliations with fire prevention associations, where inspectors can share experiences and discuss current trends in fire protection equipment, proposed fire safety legislation, and other areas.”

Another aspect to the creation of a career development path, as well as contributing to the professionalism of an occupation, is the ability to attain and maintain credentials or certifications. Friedson (1994) supposes that:

Given the necessity of accepting some role for occupational expertise and skill, we must recognize the fact that in order for expertise to exist as a stable and reliable activity it must be institutionalized in some fashion.... Expertise in a complex society is inseparable from some form of credentialism, for there is too much to know to be able to know it directly; one has no alternative but to rely on indicators such as credentials.

Maintenance of certifications within a profession lends credence to the authority that the professional dictates.

Keeping in mind that growth is the goal of a formalized career development path, the achievement of this growth brings about a sense of accomplishment and fulfillment for the individual. Hicks and London (1991) explain:

Opportunities for achievement may be advanced to employees to provide them with a sense of accomplishment, with recognition, and with

occasions for contributing something of more than passing value to the organization. When individuals feel their work is important to the organization, they tend to be more satisfied and may decide to exert extra energy to their work roles. The likelihood of retention is optimized when employees understand the value of their contributions.

Additionally, Shoemaker (1982) notes a personal characteristic related to career success as personal fulfillment. “Personal fulfillment includes the following: know that people need to experience personal satisfaction and that one’s own career can be a source of such satisfaction, establish personal goals that contribute to self-fulfillment, accept the diversity of career goals and lifestyle of others, and seek personal fulfillment through achievement in school, career, and personal life.”

The fire service has brought a well-developed career path for suppression personnel over from its roots in the military. Additionally, an organization such as the International Association of Fire Chiefs recognizes the importance of establishing a career development path for senior officer positions. The fire prevention bureaus have largely been left out of the movement toward a formalized career development path for the fire service. This study examines and documents the extent to which a career path exists for suppression as compared to prevention personnel in the following chapters.

METHODOLOGY

This research project utilized a comparative case study methodology to examine the qualitative data. The four departments in Nevada were chosen to compare with the Clark County Fire Department because they each had over 100 employees. The breakdown for total number of employees is as follows:

Department	Total Number of Employees*	Suppression Employees**	Prevention Employees**
Clark County Fire	647 ¹	531 ¹	32 ¹
Las Vegas Fire & Rescue	505 ²	380 ²	22 ²
Henderson Fire	184 ³	161 ³	14 ³
Reno Fire	331 ⁴	288 ⁴	10 ⁴
North Las Vegas Fire	111 ⁵	93 ⁵	7 ⁵

* Total Number of Employees – Includes Administrative Staff

** Suppression and Prevention Employees – Does not include Administrative Staff

¹ As reported by Clark County Fire Department Administration

² As reported by Las Vegas Fire & Rescue Administration

³ As reported by the Henderson Fire Department website (www.cityofhenderson.com)

⁴ As reported by Reno Fire Department Administration

⁵ As reported by North Las Vegas Fire Department Administration

Administrative staff dedicated to the suppression and prevention divisions were not included in the total number of employees for these divisions, as they do not follow the same career development paths as suppression and prevention employees.

In this study, differences in career development paths were measured in terms of three dimensions - whether there are mandatory training requirements, the number of promotional levels above the entry-level position, and the number of supervisory levels

above the entry-level position. Promotional levels are considered distinct from supervisory levels. In the fire service, promotional levels lead employees to salary steps above the current level with additional certifications and/or education, but do not necessarily lead to supervision of other employees. Supervisory levels are promotional in that they are salary steps above the current level, and in addition include supervisory duties over other employees. Each of these dimensions were assigned a point value. The mandatory training requirement had a point value of one for yes and zero for no. The numbers of promotional and supervisory levels were used as the point value for these dimensions.

Information was gathered through human resource departments, training manuals, local union contracts, and standard operating procedures to measure each dimension. Job descriptions/job announcements were reviewed and compared for minimum qualifications, certification requirements, and education levels required. Standard Operating Procedures were reviewed for mandatory training requirements. Union Contracts were reviewed and compared for promotional and supervisory levels available. Additionally, Nevada State Fire Marshal and National Fire Protection Association (NFPA) certification requirements were reviewed. Certification requirements for NICET (National Institute for Certification in Engineering Technology) were examined. The provisions of NFPA standards for professional qualifications were researched. The National Fire Academy Degrees at a Distance Program, Oklahoma State University Bachelor of Science in Fire Science Degree program, and the Community College of Southern Nevada Associate Degree in Applied Science for Fire Administration were reviewed for degree requirements.

FINDINGS

Table 1 is used to comparatively illustrate the discrepancy between suppression and prevention career development paths. Figure 1 and Figure 2 illustrate the traditional career path of suppression and prevention personnel, respectively. As Table 1 shows, suppression personnel exhibit a more developed and professional career path in terms of all three dimensions. Prevention scores equaled suppression scores in only one entity and with respect to only one dimension: Henderson suppression and prevention personnel have the same number of promotional levels. In all other entities (and in Henderson with respect to the other two dimensions), suppression personnel have less developed career paths.

TABLE 1

Department	Mandatory Training Requirement		Promotional Levels above Entry Level Position*	
	Suppression	Prevention	Suppression	Prevention
Clark County Fire	1	0	14	2
Las Vegas Fire	1	0	10	3
Henderson Fire	1	0.5	5	5
Reno Fire	1	0	4	2
North Las Vegas Fire	1	0	4	2

1 = Yes

0 = No

*Does not include chief officer positions

Department	Supervisory Levels above Entry Level Position*	
	Suppression	Prevention
Clark County Fire	6	1
Las Vegas Fire	3	2
Henderson Fire	3	1
Reno Fire	3	1
North Las Vegas Fire	3	1

FIGURE 1

CLARK COUNTY FIRE DEPARTMENT SUPPRESSION TYPICAL CAREER DEVELOPMENT PATH

Firefighter ➡ Engineer ➡ Captain ➡ Battalion Chief
➡ Chief Officer

Additional Career Paths Available in Suppression –

Fire Investigator I, II

Chief Fire Investigator

Fire Training Instructor

Fire Training Officer

Emergency Medical Services Supervisor

Emergency Medical Services Coordinator

Fire Training Officer – Airport

Fire Volunteer Coordinator

Fire Logistics Officer

Fire Systems Coordinator

FIGURE 2

CLARK COUNTY FIRE DEPARTMENT PREVENTION TYPICAL CAREER DEVELOPMENT PATH

Fire Inspector ➡ Plans Checker ➡ Deputy Fire

Marshal ➡ Chief Officer

Training

Each of the departments has mandated training requirements for suppression employees. The department standard operating procedures or training standards dictate the hours of suppression training needed. The Clark County Fire Department uses the Insurance Services Office (ISO) standard of 20 hours per month (Clark County Fire Department, Standard Operating Procedures, #2.2 and #2.15). The Henderson Fire Department does not specify a required number of training hours monthly. However, they do create a monthly training packet that specifies the amount of time required to complete each objective. The company officer is then required to complete the training for their particular company or station (Henderson Fire Department, Standard Operating Procedures, #T-1A). Las Vegas Fire & Rescue (LVF&R) does not have a mandated number of training hours in writing. LVF&R does, however, utilize a training program that incorporates the required Clark County Health District, OSHA, and NFPA training. (LVF&R Training Division) The North Las Vegas Fire Department also does not have written mandates for training hours. The department has benchmarked the ISO mandate of 20 hours per month and continues to work toward meeting this goal. (North Las Vegas Fire Training Division) The Reno Fire Department has no written mandate or standard operating procedure; however, they also utilize the 20-hour per month ISO standard. (Reno Fire Department Training Division)

In contrast to the suppression training requirements, with the exception of the Henderson Fire Department, none of the departments examined require mandatory training for prevention employees. The Henderson Fire Department mandates hazardous materials awareness level training and the city safety policy (Henderson Fire Department,

S.O.P. #T-1A). Each of these is a single class and there is no requirement for refresher training.

Promotional and Supervisory Levels

Promotional and supervisory levels available above entry-level positions were analyzed utilizing information from local union contracts from each organization. Three of the five departments examined offer two promotional levels above the entry-level position for fire prevention personnel. The Clark County Fire Department offers Plans Checker and Deputy Fire Marshal positions with the Deputy Fire Marshal position as a supervisory position. The Reno Fire Department offers Plans Examiner and Prevention-Captain positions with the Captain position as a supervisory position. The North Las Vegas Fire Department offers Senior Fire Inspector and Assistant Fire Protection Engineer positions with Senior Fire Inspector as a supervisory position. One of the five departments examined offers three promotional levels above the fire inspector position. Las Vegas Fire & Rescue offers Fire Prevention Inspection Supervisor, Assistant Fire Protection Engineer, and Deputy Fire Marshal positions with Fire Prevention Inspection Supervisor and Deputy Fire Marshal positions as supervisory positions. One of the five departments offers five promotional levels above the fire inspector position. The Henderson Fire Department offers Fire Prevention Inspector II, Senior Inspector/Investigator, Fire Prevention Plans Examiner I, Fire Prevention Plans Examiner II, and Deputy Fire Marshal positions with the Deputy Fire Marshal position as a supervisory position.

Training Requirements for Promotion - Suppression

As detailed earlier in Hicks and London's (1991) examples of career enhancement programs, a key element is training and continuing education. In the fire service, this training and continuing education is usually provided by the department and very often leads to career advancement. Training is a fundamental component of a career development path, whether it is for a senior fire officer, firefighter, or fire inspector. For instance, the Clark County class specification for a fire engineer lists the following minimum qualifications: graduation from high school or its education equivalent, 3 years as a Clark County Firefighter, completion of the department's Driver Certification Program, and a current Class B Nevada Driver's License with F endorsement. The Clark County Fire Department offers the Driver Certification Program to those interested in becoming engineers. The class specification for engineer or apparatus operator for each of the departments examined had similar minimum qualifications in that they required service time as a firefighter and a type of driver/operator certification provided by the department.

The Clark County class specification for a fire captain list the following minimum qualifications: graduation from high school or its educational equivalent, current Class B with F endorsement Nevada Driver's License, must have attained the rank of fire engineer and have a total of seven (7) years continuous service with the Clark County Fire Department OR a firefighter with a total of seven (7) years of continuous service with the Clark County Fire Department who has completed the CCFD Engineer's Driver Certification; All applicants must possess certification as a Nevada State Fire Officer I. The Nevada State Fire Officer I classes are taught as a partnership with the Community

College of Southern Nevada. The class specifications for fire captain for each of the departments examined had similar minimum qualifications in that all required service time on the particular department. The Henderson Fire Department also required Nevada State Fire Officer I Certification while Las Vegas Fire & Rescue, the Reno and North Las Vegas Fire Departments did not require this certification. Additional promotional opportunities for the Clark County Fire Department such as Battalion Chief, Logistics Officer, and Volunteer Coordinator require an amount of service time with the department and, in the case of Battalion Chief, four (4) years of experience as a fire captain and satisfactory scores on the promotional exam as detailed in the Clark County class specifications for each of these positions.

Minimum qualifications for promotions within the suppression divisions for each entity are similar in that they require a specific amount of time in a suppression position within the particular department, certifications received within the particular department, and satisfactory scores on promotional exams. Minimum qualifications for promotions within the prevention divisions for each entity are similar in that all departments examined require certifications for promotional opportunities and four of the five require some department experience, however, not necessarily within their particular department. The types of certifications required for promotional opportunities are varied. The Reno Fire Department is the only department examined that has no requirement for service time for promotional opportunities in the prevention division. (Reno Fire Prevention Inspector and Prevention-Captain job descriptions) Two of the five departments examined, Clark County Fire and Las Vegas Fire & Rescue, have an educational requirement for promotional opportunities within the fire prevention bureau. (Clark

County Deputy Fire Marshal job description and Las Vegas Assistant Fire Protection Engineer job description) Clark County's Deputy Fire Marshal requires completion of courses in fire science and LVF&R's Assistant Fire Protection Engineer requires a Bachelor Degree.

Other training partnerships that exist for suppression personnel include University Medical Center (UMC). UMC holds a paramedic class when there is a demand in the community. The Community College of Southern Nevada also offers an Associate of Applied Science Degree in Fire Administration. In Northern Nevada, the University of Nevada, Reno operates a Fire Science Academy and the Truckee Meadows Community College offers a Fire Technology Program.

Training - Prevention

Opportunities abound for the 'sworn' personnel to receive training to climb a career ladder in their field. On the other hand, the 'civilian' employees of every department examined have little or no formal training offered through their respective departments. Partnerships have been created for on-going training through industry contractors, industry organizations, the Community College of Southern Nevada, the International Congress of Building Officials (ICBO), and the Southern Nevada Fire Prevention Association. The Henderson Fire Department is the only department examined that mandates any type of specific training - hazardous materials awareness level training and the city safety policy (Henderson Fire Department, S.O.P. #T-1A). These are single classes and there is no requirement for refresher classes or on-going training.

Although these partnerships for training have been fostered, the Clark County Fire Department has no mandated fire prevention training requirement for current fire inspectors. The department has, however, instituted a training program for fire inspector trainees that must be completed within two years of employment. Two of the five departments examined, Clark County Fire and Las Vegas Fire & Rescue, offer a training position that requires no previous inspection experience. Three of the five departments examined, Las Vegas Fire & Rescue, the Henderson and North Las Vegas Fire Departments, offer a senior inspector position as a promotional opportunity.

While there is an insignificant amount of mandated training in the departments examined, certifications are required for some positions at time of hire or may be required within a certain time from date of hire. Henderson Fire Department fire inspectors are required to obtain an International Fire Code Institute (IFCI) fire inspector certification within 12 months of employment and are expected to meet and maintain performance requirements established in NFPA 1031, “Standard for Professional Qualifications for Fire Inspector I” (City of Henderson class specification for Fire Inspector I). Las Vegas Fire & Rescue has instituted a position similar to the Clark County Fire Department that requires no prior inspection experience but requires the employee to possess a Uniform Fire Code Certification and NFPA 1031 Fire Inspector I certification within 18 months of hire (City of Las Vegas class specification for Fire Inspector I). The North Las Vegas Fire Department requires two years experience in fire code enforcement or related field or two years experience in varied fire fighting activities and an Associate Degree in Fire Science supplemented with formal instruction in fire fighting methods and techniques with fire prevention methods desirable. The North Las

Vegas Fire Department also requires Uniform Fire Code Fire Inspector Certification at time of hire (City of North Las Vegas class specification for Fire Inspector I). The Reno Fire Department, like Clark County Fire and Las Vegas Fire & Rescue, has a position that does not require experience. However, unlike the other two departments, Reno Fire does not have a certification level that must be attained within a limited time of hire (City of Reno class specification for Fire Prevention Inspector). Essentially, no department examined requires continuing skills training, nor does any department offer such training. Yet, each department struggles, as does the entire fire service, to achieve professionalism within the ranks and respect in industry and throughout the community.

“...[T]he greatest way for us to increase professionalism in the fire services is to commit to lifelong learning.” (*Fire Chief Magazine*, 2001) The Clark County Fire Department must place a priority on continuing skills training by instituting mandatory requirements on fire prevention personnel. The technology is changing rapidly and attending classes sporadically will not allow the division to keep pace with industry. There is no standard for continuing skills training for fire inspectors at this time. NFPA 1031, “Standard for Professional Qualifications for Fire Inspector and Plans Examiner” lists the requisite knowledge and skills an inspector or plans examiner should possess, however, it does not indicate a requirement for training. If prevention personnel were required to train an equal percentage of the day as suppression, personnel would have to train for .8 hours per shift or approximately 13 hours per month. Since prevention does not carry such mandates as Clark County Health District training, OSHA requirements, NFPA 1760 training, etc., this percentage seems excessive. The author believes a more

reasonable amount of mandated training time would be 6 hours per month (1.25 hours per week).

Supervisory Training

The importance of supervisory training is becoming apparent in all avenues of professional life today. Fire officer development is emerging as an essential piece of the overall growth of a department. The U.S. Fire Administration hosted the third annual Fire and Emergency Services Higher Education conference in 2001. Following this conference, an outline for a Fire Administration I course was created as a model to help create consistency. The description for this course includes introduction to the organization and management of a fire department and the relationship of government agencies to the fire service with emphasis on fire service leadership from the perspective of the company officer. (www.usfa.fema.gov/nfa) The National Fire Academy sponsors a Degrees at a Distance Program which is offered through seven colleges and universities throughout the country. Upper division requirements of the Bachelor of Science Degree in Fire Science include Advanced Fire Administration, Personnel Management for the Fire Service, and Public Administration. (www.cogswell.edu/ddp.html) The Bachelor of Science degree offered by Oklahoma State University includes a required course entitled Fire Protection Management with a course description of: applied human relations, technical knowledge and skills for achieving optimum effectiveness from a fire protection organization. (www.okstate.edu/ceat/fpst/degreeplan.htm) The Community College of Southern Nevada offers an Associate of Applied Science Degree in Fire Administration. This degree includes requirements for Principles of Management,

Organizational Behavior, and Personnel Supervision. (www.ccsn.nevada.edu/degsheet/fsm_aas.html)

The future of the professional fire service is clearly calling for supervisory and administrative training to promote to the rank of officer. The Clark County Fire Department must insist on supervisory training for future officers by instituting an internal program, partnering with an outside agency, or allowing for educational units to be substituted for all or part of these requirements. The author suggests a combination of instituting an internal program and allowing educational units to be substituted for part of the requirement. An internal program would be beneficial to instruct supervisors in the proper handling of situations within Clark County in general and the Fire Department specifically. Additionally, coursework or continuing education credits in an approved supervisor training course would allow for outside experiences to be brought in and applied to issues facing the Clark County Fire Department supervisor.

Certifications

Finally, certification requirements are an essential part of the overall program. Architects and engineers require educational degrees and certification requirements within their respective fields. The same should hold true for fire inspectors. NFPA currently offers Fire Inspector I, Fire Plan Examiner I, and Certified Fire Protection Specialist certifications “[as] a statement of success; an indisputable mark of performance belonging to the individual member.” (www.nfpa.org) Certifications consist of three phases: preparation (case studies), exam, and practicum followed by a recertification process. The Nevada State Fire Marshal’s Office also offers certifications: Fire Inspector I, II, and III and Plans Examiner I and II. These certifications consist of an exam and

attainment of a certification in the state adopted fire code. Additional exams or coursework may be required. (<http://fire.state.nv.us/Fire%20Inspector.htm>)

Supplementary certifications are available by organizations outside of the fire service such as the National Institute for Certification in Engineering Technologies. (www.nicet.org) Nevada Administrative Code 477.300 requires that designers of fire sprinkler systems or fire alarm systems must hold a NICET Level II certification or equivalent as of January 1, 2003. It would therefore be prudent for a Plans Checker or plans examiner that must review plans drawn by a NICET Level II certified individual to hold an equivalent certification or higher. The NICET Level II certification currently requires work experience (such as field installations) that a fire inspector usually cannot accommodate, however, the coursework is available and a certification for fire inspectors is being considered for the future. Instituting certification requirements into minimum qualifications for promotional and supervisory positions would ensure that personnel would have the requisite knowledge required for their positions. An incentive package for those inspectors that do not wish to advance through the ranks but would benefit greatly from the certification could include assignments to special areas of interest or possibly financial incentives structured such as Emergency Medical Technician-Intermediate, Hazardous Material Technician, and Paramedic levels within the suppression division.

Additional Promotional/Supervisory Levels

In addition to the areas of continuing skills training, supervisor training, educational requirements for supervisory positions, and certification requirements, an extra supervisory level would increase the promotional opportunities within the division

as well as reduce the span of control for supervisors within the division. All of the departments examined, with the exception of the Clark County Fire Department, offer a Senior Fire Inspector (Las Vegas Fire & Rescue and North Las Vegas Fire Department), Senior Inspector/Investigator (Henderson Fire Department), or Captain-Prevention (Reno Fire Department) position. The North Las Vegas Fire Department currently utilizes fire inspectors to conduct fire investigations in addition to their inspection duties. Another possible avenue would be the inclusion of a Plans Checker II position to recognize the high levels of training and certification needed to review plans of hotel/high-rises, casinos, pyramids, Eiffel Towers, and exploding volcanoes that are being added to the skyline of Clark County's jurisdiction. The Plans Checker II would review the most complex plans and would possess the highest degree of certification and knowledge within the plan review area. This certification and knowledge would allow them to solve intricate issues collectively with architects and engineers. The only department examined that utilizes a Plans Examiner II position is the Henderson Fire Department. These additional levels of a career development path would bring the Clark County Fire Department in line with comparable departments in the state.

Recommendations

Within the five fire departments examined, suppression personnel have mandated training requirements that prevention personnel do not have. Minimum qualifications for suppression promotional opportunities are similar throughout the five departments examined. Minimum qualifications for prevention promotional opportunities are varied and dissimilar in many areas. The departments examined offered a similar promotional path for suppression personnel while the promotional path for prevention personnel is

disparate. The findings of the author point to a general lack of a career development path for fire inspectors at the Clark County Fire Department. Subsequently, the author recommends a formalized career development path that includes continuing skills training, supervisor training, educational requirements for supervisory positions, certification requirements for positions, and additional promotional levels within the division. An example of a Clark County Fire Department Fire Prevention Bureau Career Development Path in its entirety can be found in Appendix A at the conclusion of this chapter. Implementation of this example would bring all prevention employees to a minimum certification level, create a mandatory training element for prevention personnel, offer additional promotional and supervisory levels for employees to aspire to, and establish minimum qualifications incorporating certification and education requirements for those additional levels.

CONCLUSION

The growth and development of individuals is key to the success of any program or organization. When the employees of an organization do not feel that it is willing to develop them professionally or personally, morale suffers and productivity slows. However, when the employees of an organization recognize that the organization is working toward employee enrichment, which may include a formalized career development path, positive characteristics are exhibited.

On-going training and development is an essential part of a formalized career development path. This is just as true for fire prevention bureau personnel as it is for suppression personnel. The importance of continuing training for prevention personnel must be realized and brought to the forefront of the fire prevention program of any fire department throughout the nation.

In addition to the acceptance of management to the idea of continuous training and improvement, prevention personnel themselves must embrace the concept of a career development path. The fire service is traditionally slow to change. Management is much more likely to buy in to a concept of a formalized career development path if the employees are willing to assist the process of creating and implementing the plan. Staley (1998) notes:

“...when you use the materials the department provides for you, you learn what the department wants you to know. You’ll mistakenly think that the keys to the universe are located between the covers of your departmental handbooks. You’ll never consider the possibility of seeking out and bringing in other knowledge... You have to be smart enough to realize

that the world is vast and the possibilities and potentials are endless.

Don't let the organization limit you and don't limit yourself.”

The organization must realize that the further it allows the individual to develop and travel the career path, the better the organization as a whole will be.

Supervisors are often promoted due to a score on a written test. Organizations could assist the transition process from line worker to supervisor with training and upper management support. Continuing training and education would assure the organization that the supervisor is well-versed in current laws and proper practices within the purview of their authority.

With the continual technological advances in fire fighting, building construction, and fire and life safety industries, education and certification requirements would allow for the professionalism that is sought by the fire service. As public service agencies, fire departments must be able to meet the needs of the public. For prevention personnel to be credible facing architects and engineers with teams of attorneys, a certain level of education and certification would be necessary. Each jurisdiction must decide what levels of education and certification would give credence to properly exert authority over the industries they govern.

As shown in Chapter four, there was a divide between the career development paths of suppression and prevention in the departments examined. The findings illustrated the need to make changes to incorporate mandated training and create additional promotional and supervisory opportunities within prevention to rectify the discrepancies between prevention and suppression career development paths.

An additional area of research might include a program implementation plan for a formalized career development path for fire prevention personnel. Financial requirements of an extensive training schedule for inspectors, as well as, additional promotional and supervisory levels within the division would have to be explored and detailed for budgetary impact. Implications on union contracts and negotiations would also require exploration.

Recommendations include continuing skills training, supervisor training, educational and certification requirements for promotional and supervisory positions, and additional promotional and supervisory levels to increase the career opportunities within the division.

“Advancement in the fire service requires an increased understanding of the role and benefits of fire prevention.” (Chubb, 1995) The fire service is beginning to recognize the necessity of a properly orchestrated fire prevention program. However, the creation of a properly orchestrated fire prevention program will remain elusive without a formalized career development path.

APPENDIX A

An Example for Clark County Fire Prevention Bureau Career Development Path

All current Fire Inspectors brought to the following certification levels –

- Fire Code certification (in the code adopted by Clark County)
- Recertification in the Fire Code required while employed as a Clark County Fire Inspector
- Certification and/or continuing education credits in current NFPA Standards adopted by Clark County
- NFPA 1031 Fire Inspector I Certification
- Recertification as NFPA Fire Inspector I required while employed as a Clark County Fire Inspector

Mandatory Training Requirement for All Levels of Fire Prevention Bureau personnel –

- 6 hours per month
- 2 outside fire and life safety training seminars/programs (not taught within the FPB) per year

Minimum Qualifications for:

Senior Fire Inspector –

Required at time of application

- 3 years experience as a Clark County Fire Department Fire Inspector
- Fire Code certification (in the code adopted by Clark County at time of promotion)
- NFPA 1031 Fire Inspector I Certification
- Nevada State Fire Marshal Fire Inspector I Certification

Required within 18 months of promotion

- Nevada State Fire Marshal Fire Inspector II Certification
- Six hours Fire Science coursework from an accredited college or university program
- Approved supervisory coursework (may serve dual purpose as six hours Fire Science requirement) OR approved Clark County Supervisory Training

Fire Plans Checker I -*Required at time of application*

3 years experience as a Clark County Fire Department Fire Inspector
 Fire Code certification (in the code adopted by Clark County at time of promotion)
 NFPA 1031 Fire Inspector I Certification
 NFPA 1031 Plans Examiner I Certification
 Nevada State Fire Marshal Fire Inspector I Certification

Required within 18 months of promotion

Nevada State Fire Marshal Fire Inspector II Certification
 Nevada State Fire Marshal Plans Examiner I Certification
 ICBO Plans Examiner Certification

Fire Plans Checker II –*Required at time of application*

2 years experience as a Clark County Fire Plans Checker I (with all requirements of that position achieved)
 Nevada State Fire Marshal Plans Examiner II Certification
 Six hours of Fire Science or Fire Administration coursework from an accredited college program

Required within 18 months of promotion

NICET Level II Fire Protection Engineering Technology Certificate

Deputy Fire Marshal –*Required at time of application*

7 years experience as a Clark County Fire Prevention Inspector I, Senior Fire Inspector, Plans Checker I, or Plans Checker II
 Fire Code Certification (in the code adopted by Clark County at time of promotion)
 NFPA 1031 Fire Inspector I Certification
 Nevada State Fire Marshal Fire Inspector I and II Certification
 Nevada State Fire Marshal Plans Examiner I Certification
 Associate Degree in Fire Science (or closely related field such as Fire Administration)

Required within 18 months of promotion

ICBO Building Official Certification
 Nevada State Fire Marshal Fire Inspector III Certification
 Nevada State Fire Marshal Fire Service Instructor I Certification
 Approved supervisory coursework (may be included in Fire Science or Fire Administration coursework) OR approved Clark County Supervisory Training

APPENDIX B

FIRE PREVENTION POSITIONS*

Class Title	Definition
Assistant Fire Protection Engineer (LVF&R)	To assist in the interpretation and enforcement of fire protection requirements; to perform responsible professional plans review for conformance with all applicable building, fire and life safety codes; and to assist in developing and implementing policies and procedures related to the inspection of fire protection and life safety systems.
Deputy Fire Marshal	Assists in planning, organizing, and directing a fire prevention inspection program. This class is distinguished by the responsibility for assisting the Deputy Fire Chief in the enforcement of all local, state and federal laws and ordinances as they pertain to fire safety and prevention.
Fire Inspector	Performs responsible inspection and investigative work in promoting fire safety and securing compliance with County and state fire prevention codes and regulations. This class is distinguished by the responsibility for improving standards of public safety and securing compliance with fire prevention laws, ordinances and accepted standards through the inspection of buildings and other installations. Work emphasizes the fire safety inspection of commercial and public structures and other installations such as hospitals, hotels, schools, nursing homes and residential structures.
Fire Plans Checker	Performs fire plan and specification review work to ensure compliance with appropriate codes and ordinances. The review of all plans from residential, commercial, industrial, public and other major developments for fire code purposes distinguishes this class from other positions.
Fire Prevention Inspection Supervisor (LVF&R)	To supervise, assign and review the work of staff responsible for fire inspection activities including fire prevention and life safety inspections of commercial, industrial, multi-family dwellings and public assembly buildings; to participate in all work activities; and to provide staff assistance to higher level staff.
Fire Prevention Plans Examiner II (Henderson Fire)	Performs journey level technical work reviewing plans for compliance with fire codes, building codes, and Federal, State, and Local regulations, and performs related duties as required. This class is distinguished as being the journey level in the plans examiner class series within the Fire Prevention Division. Performs technical duties associated with conducting plans review to assure compliance with the Fire Code, Building Code, State Fire Marshal Regulations, and Federal, State, and Local regulations.

* All job descriptions are from Clark County Human Resources Class Specifications unless otherwise noted

FIRE SUPPRESSION POSITIONS

Class Title	Description
Chief Fire Investigator	Administers, directs and supervises the fire investigative section of the Fire Department. This class is differentiated by the responsibility for supervising the investigation of fires to determine the cause of the fire and to mitigate incidents whether through arrest, civil litigation or exceptional means.
Emergency Medical Services Coordinator	Plans, coordinates and monitors the work and training of paramedics and EMT's; coordinates services with area and regional emergency medical service organizations; assists in supervision, planning and coordinating a comprehensive EMS training program for the Fire Department. Responsible for the coordination of the Fire Departments Emergency Medical Service and Rescue Service. Work is performed with considerable independence and is reviewed for overall effectiveness of emergency medical services provided to the public.
Emergency Medical Services Supervisor	Supervises and performs operational, technical, and administrative paramedic oversight during an assigned shift. This class is differentiated by the responsibility for directing the activities of EMS personnel assigned during a particular shift. Work is performed independently within well-established policies and procedures, and is reviewed through inspections, conferences and reports.
Fire Battalion Chief	This is responsible technical supervisory and administrative work in directing a major section of the Fire Department, a fire battalion on an assigned shift, or in serving on a specialized staff assignment. This class is differentiated by the scope of authority and by the supervision received. Work is performed with considerable independence, but within established policy and procedure, and is reviewed for overall effectiveness of the battalion in accomplishing its mission. Is primarily responsible for disciplinary actions during assigned tour. Employees in this class are responsible for the effective and efficient use of apparatus, equipment and personnel in combat or other emergency rescue operations.
Fire Captain	Under general direction, supervises and performs operational, technical administrative fire fighting and fire prevention activities, and is responsible for the operational status and combat performance of a fire company during an assigned duty tour. This class is differentiated by the responsibility for directing the activities of fire fighting personnel assigned during a duty tour. Duties include supervising and participating in fire inspection and prevention activities, proper preventative maintenance, and operation of assigned equipment. Work is performed independently within well-established policies and procedures, and is reviewed through inspections, conferences and reports.
Fire Engineer	Under direction, performs journey level fire fighting duties of a varied and technical nature, drives and is responsible for the proper function of a major item of fire equipment, such as a fire pumper. Primarily, this

	class is responsible for driving an assigned vehicle and personnel to the fire scene, sets up the operation of the equipment, maintains operation of the equipment, and performs preventative maintenance when non-operational. Though work is performed under supervision, work requires initiative, judgment, and knowledge of the fire service.
Fire Fighter	Under general supervision, performs firefighting work in combating, extinguishing and preventing fires. Duties involve training for and participating in varied fire fighting and life rescuing duties and activities in the protection of life and property. Although fire fighting is the most difficult and responsible area of activity, a major portion of time is spent on continued training in the skills and techniques of fire fighting, equipment operation, routine care and maintenance of fire fighting equipment, apparatus, and fire department buildings and grounds.
Fire Investigator	Performs fire investigations to determine origin and cause. Responsibility for conducting investigations to determine causes of fires and to mitigate incidents through arrests or civil litigation distinguishes this position from others in the fire service.
Fire Logistics Officer	Administers, directs and supervises a large and varied administrative operation in the Fire Department. This class is distinguished by the responsibility for supervision of staff services such as office management, purchasing, accounting and maintenance activities to include buildings and fire apparatus. Supervision is exercised over a diverse staff of fire fighters, technical, clerical and other employees.
Fire Systems Coordinator	Provides highly technical and analytical work in planning the overall requirements for communications and computer services within the County Fire Department. Responsible for identification and analyses of problems, systems requirements and recommends equipment modification or additions to increase efficiency and effectiveness of fire department operations.
Fire Training Instructor	Prepares, delivers and evaluates public safety training courses and classes which pertain to the fire service.
Fire Training Officer	Leads, coordinates and directs the specialized functions and activities of the Fire Department Training section. Responsible for the initial and continued training of fire personnel in all aspects of emergency service.
Fire Training Officer- Airport	Plans, coordinates, and conducts a comprehensive training program for the Airport fire unit. This is a single class position in the Airport fire unit. Its primary responsibility is centered in the development and instruction of Airport fire personnel, particularly in the area of handling aircraft emergencies.
Fire Volunteer Coordinator	Responsible for the supervision and administration of the Volunteer Fire Departments and Ambulance Service under the administrative direction of the Fire Department. Primarily, this class is responsible for coordinating activities with Volunteer Fire Departments and the Clark County Fire Department. Work is performed with considerable independence within established policy and procedures.

REFERENCES

- Arthur, Michael B., Inkson, Kerr, and Pringle, Judith K. (1999). *The New Careers Individual Action and Economic Change*. London: Sage Publications. Chap. 1, 7, 9.
- Chubb, Mark. (1995, May). Firefighters: Trained to Prevent As Well As Protect. *Fire Engineering Magazine*. Retrieved March 7, 2002 from http://fe.pennnet.com/Articles/Article_Display.cfm?Section=Archives&Subsection=Display&ARTICLE_ID=58405&KEYWORD=prevention.
- Clark County Fire Department Standard Operating Procedures.
- Cogswell Polytechnical College: Degree at a Distance Program.
www.cogswell.edu/ddp.html.
- Degree Plan – OSU School of Fire Protection and Safety.
www.okstate.edu/ceat/fpst/degreeplan.htm.
- Degree Plan – Community College of Southern Nevada.
www.ccsn.nevada.edu/degsheet/fsm_aas.html.
- Dewhirst, H. Dudley. (1991). Career Patterns: Mobility, Specialization, and Related Career Issues. In Robert F. Morrison and Jerome Adams (Eds.), *Contemporary Career Development Issues*, (pp. 73-108). New Jersey: Lawrence Erlbaum Association.
- Duncan, John R. (1998, August). Time to Fine-Tune Training. *Fire Engineering Magazine*. Retrieved March 7, 2002 from http://fe.pennnet.com/Articles/Article_Display.cfm?Section=Archives&Subsection=Display&ARTICLE_ID=60499&KEYWORD=%22career%20development%22.
- Freidson, Eliot. (1994). *Professionalism Reborn*. The University of Chicago Press. Part IV.
- Henderson Fire Department Standard Operating Procedures.
- Hicks, Nancy and London, Manuel. (1991). Career Decision Making. In Robert F. Morrison and Jerome Adams (Eds.), *Contemporary Career Development Issues*, (pp. 121-150). New Jersey: Lawrence Erlbaum Association.
- Krumboltz, John D. and Hamel, Daniel A. (Eds.) (1982). *Assessing Career Development*. California: Mayfield Publishing Company.

- Miles, Raymond E. and Snow, Charles C. (1996). Twenty-First-Century Careers. In Michael Arthur and Denise Rousseau (Eds.), *The Boundaryless Career: A New Employment Principle for a New Organizational Era* (pp. 97-115). New York: Oxford University Press.
- Murphy, Jack J. (1996, June). The Basics of Fire Inspections. *Fire Engineering Magazine*. Retrieved March 7, 2002 from http://fe.pennnet.com/Articles/Article_Display.cfm?Section=Archives&Subsection=Display&ARTICLE_ID=59086&KEYWORD=prevention.
- National Fire Protection Association, NFPA 1031, "Standard for Professional Qualifications for Fire Inspector and Plan Examiner". 1998 Edition.
- New Program Puts Premium on Professionalism (1999, November). *Fire Chief Magazine*. Retrieved March 7, 2002 from <http://www.industryclick.com/magazinearticle.asp?releaseid=5867&magazinearticleid=73457&siteid=26&magazineid=157>.
- Ocegüera, John. (1998). *Fire Service Professionalism: What Are the Key Elements?* Nevada: University of Nevada, Las Vegas.
- Potts, Tom and Sykes, Arnold (1993). *Executive Talent How to Identify and Develop the Best*. Illinois: Business One Irwin. Chap. 5, 10.
- Staley, Michael F. (1998). *Igniting the Leader Within*. New Jersey: Fire Engineering Books & Videos.
- The Trials of Training. (February 1, 2001). *Fire Chief Magazine*. Retrieved March 7, 2002 from <http://www.industryclick.com/magazinearticle.asp?releaseid=5871&magazinearticleid=73538&siteid=26&magazineid=157>.
- Thomas, David and Higgins, Monica. (1996). Mentoring and the Boundaryless Career: Lessons from the Minority Experience. In Michael Arthur and Denise Rousseau (Eds.), *The Boundaryless Career: A New Employment Principle for a New Organizational Era* (pp.268-281). New York: Oxford University Press.
- United States Fire Administration – National Fire Academy Degrees at a Distance Program – Core Curriculum. www.usfa.fema.gov/nfa/tr_ddp_curr.htm.
- United States Fire Administration – National Fire Academy. Higher Education. www.usfa.fema.gov/nfa/ne_isc.htm.
- Wieder, Michael and Smith, Carol (Ed) (1998). *Fire Inspection and Code Enforcement, 6th Edition*. Oklahoma: Oklahoma State University.

OTHER WORKS CONSULTED

- Agreement 1998 – 2001 Between the City of Henderson, Nevada And General Sales Drivers, Delivery Drivers, and Helpers Teamsters Local #14 (Blue Collar Contract).
- Agreement Between The County of Clark State of Nevada and the International Association of Fire Fighters, Local 1908. July 1, 1998 to June 30, 2002.
- Agreement City of North Las Vegas and Local #1607 International Association of Fire Fighters, July 1, 1999 – June 30, 2004.
- An Agreement Between the City of Las Vegas and the International Association of Firefighters, Local 1285 Non-Supervisory. 1997 – 2001.
- Burris, Kenneth O. (2000, January). The Organizational Vision. *Fire Engineering Magazine*. Retrieved March 7, 2002 from http://fe.pennnet.com/Articles/Articles_Display.cfm?Section=Archives&Section=Display&ARTICLE_ID=58206&KEYWORD=%22career%20development%22.
- City of Reno and Reno Firefighters Local 731, International Association of Firefighters, Labor Agreement, July 1, 2000 – June 30, 2005.
- Connealy, Chris. (2000, August 1). Texas-Sized Schoolin'. *Fire Chief Magazine*. Retrieved March 7, 2002 from <http://www.industryclick.com/magazinearticle.asp?releaseid=5857&magazinearticleid=73280&siteid=26&magazineid=157>.
- Fire & Emergency Services Higher Education Conference, June 2 – 4, 2001, Final Report. www.usfa.fema.gov/nfa.
- Fire Inspector I Certification, Certified Fire Protection Specialist Reference Materials. www.nfpa.org/ProfessionalDev/CertificationPrograms.
- Fire Science Academy: An Overview. University of Nevada, Reno. <http://dce.unr.edu/fsa/overview.html>.
- Hall, Richard and Adams, Barbara. (1998) *Essentials of Fire Fighting, 4th Edition*. Oklahoma: Oklahoma State University.
- Krumboltz, John D. and Hamel, Daniel A. (Eds.) (1982). *Assessing Career Development*. California: Mayfield Publishing Company.
- Mailick, Sidney, Hoberman, Solomon, and Wall, Stephen J. (Eds.) (1988). *The Practice of Management Development*. New York: Praeger.

National Institute for Certification in Engineering Technologies Program Detail Manual for Fire Alarm Systems, Eighth Edition. www.nicet.org.

National Institute for Certification in Engineering Technologies Program Detail Manual for Certification in the Field of Fire Protection Engineering Technology, Fourth Edition - Reprint. www.nicet.org.

National Institute for Certification in Engineering Technologies Operational Policies, Policy 30 – Continuing Professional Development, Revised October, 1999. www.nicet.org/policy30.shtml.

National Institute for Certification in Engineering Technologies Program Detail Manual for Special Hazards Suppression Systems, Second Edition. www.nicet.org.

Schutt, Russell K. (1999). *Investigating the Social World*. California: Pine Forge Press.

State of Nevada Fire Inspector and Plans Examiner Certification Program Established by the Nevada State Fire Service Standards and Training Committee. October 2000 Final Draft. <http://fire.state.nv.us/Fire%20Inspector.htm>.

Sturtevant, Thomas B. (2001). A Study of Undergraduate Fire Service Degree Programs in the United States. www.dissertation.com/library/112130xa.htm.

Truckee Meadows Fire Academy. Truckee Meadows Community College. <http://www.tmcc.edu/fireacademy/>.