

A National Report Card on Women in Firefighting



Denise M. Hulett

Legal Aid Society Employment Law Center
San Francisco, CA

Marc Bendick, Jr.

Bendick and Egan Economic Consultant, Inc.
Washington, DC

Sheila Y. Thomas

Law Offices of Sheila Y. Thomas
Oakland, CA

Francine Moccio

Institute for Women and Work
School of Industrial and Labor Relations (ILR)
Cornell University
New York, NY

April 2008

A National Report Card on Women in Firefighting

Denise M. Hulett

Legal Aid Society Employment Law Center
San Francisco, CA

Marc Bendick, Jr. *

Bendick and Egan Economic Consultant, Inc.
Washington, DC

Sheila Y. Thomas

Law Offices of Sheila Y. Thomas
Oakland, CA

Francine Moccio

Institute for Women and Work
School of Industrial and Labor Relations (ILR)
Cornell University
New York, NY

April 2008

*Research presented in this document was supported by the Ford Foundation.
However, the authors alone are responsible for all findings and conclusions.*

* Contact the authors via: Marc Bendick, Jr., Bendick and Egan Economic Consultants, Inc., 4411 Westover Place NW, Washington, DC 20016, (202) 686-0245, bendickegan@mindspring.com, www.bendickegan.com.



April, 2008

Dear IAWFES members, colleagues in the Fire and Emergency Services, supporters, commissioners and department administrators, legislators, union members and advocates:

We are pleased to introduce “A National Report Card on Women in Firefighting.” This long-awaited study, conducted by two civil rights lawyers and two social scientists, is attached.

The study validates decades of anecdotal wisdom about the inclusion, acceptance, training, testing and promotion of women in fire and emergency services. It also points to a future where, barring continued cultural and traditional resistance, women should comprise 17% (up from the current 3.7% national average) of the first responders work force.

This significant report represents the results of confidential written questionnaires returned by 675 male and female firefighters in 48 states, surveys of 114 departments nationwide, in-depth interviews with 175 female firefighters and case studies in Kansas City, Los Angeles, Seattle, Minneapolis and Prince William County, Va.

We believe the study and its recommendations are critical to the future of the fire service and the basis for continuing collaboration between the International Association of Women in the Fire and Emergency Services and other leading fire service organizations.

“Guided by this study, gender inclusion is the new standard to which departments are likely to be held by the courts, the elected officials to whom they report, and the citizens they serve,” says economist Marc Bendick Jr., Ph.D., who co-authored the study.

We salute the study’s authors for their efforts developing such an important study. Its conclusions will strongly support our legal efforts, including court cases throughout the United States, as well as positively influence public opinion.

We urge you to read and circulate the study to help stimulate discussion and formulate solutions on bridging the gap from where women in the fire services are now to where they should be in the future.

Copies of the study and more information can be found at www.i-women.org.

Respectfully,
Co-Presidents
Cheryl Horvath
Laurie Mooney

The voice of women in fire and emergency services

P.O. Box 5446 • Madison, WI 53705 • www.i-women.org • 608/233-4768 • 608/233-4879 fax

As participants in the fire industry, you are no doubt aware that women firefighters are few and far between nationwide, and that litigation has periodically sought to increase their hiring and promotions and stop harassment.¹ This report presents a new research study to assist fire management resolve these inequities in their departments before litigation imposes the inevitably expensive, imperfect solutions.

With support from the Ford Foundation, the two of us who are civil rights lawyers teamed up with two who are social scientists to look comprehensively at women in firefighting today. Our study does not focus on individual departments but instead looks across departments to see what each can learn from the others. It looks not only at single issues, such as hiring or promotions, but also at what these issues have in common.

We sought answers to these questions through multiple kinds of research. We collected confidential questionnaires from 675 male and female firefighters in 48 states. Women respondents were recruited through professional organizations, personal contacts, and word of mouth, and we asked each woman to recruit a male colleague to complete the same questionnaire. We also collected confidential data from 114 departments in 39 states, ranging in size from 103 paid firefighters to more than 3,000, together employing 51,281 paid firefighters. Then we interviewed 175 women firefighters individually or in focus groups. Finally, we conducted week-long case studies, observing operations and interviewing employees and officials in the Kansas City, Los Angeles City, Minneapolis, Prince William County (VA), and Seattle departments.

This paper presents the major lessons we learned.²

New Data Challenges Low Female Numbers

Among the 350,000 paid firefighters in the nation today, the 2000 Census reports that women number

slightly more than 11,000, or 3.7%. This figure places firefighting in the lowest 11 percent of all occupations in terms of women employees. Even more striking is the large number of departments where the number of women is zero or nearly so. Not one paid women firefighter has ever worked in more than half the nation's departments. Among the 291 metropolitan areas in the 2000 Census, 51.2% had no paid women firefighters in the entire metropolitan area, typically including multiple departments. In 2005, departments in jurisdictions as large as Garden Grove, CA, population 165,000, remained entirely male. New York City counts less than one-quarter of one percent women among its uniformed force, and Los Angeles employs 2.5%.

When fire department leaders are challenged about these numbers, they traditionally respond that women do not want and cannot handle the job, so that low numbers are to be expected. Are they right?

To answer this question, we developed a benchmark for expected female representation using the 2000 Census. We computed the percent of women in the nation's labor force of typical firefighter age (20 – 49) and educational background (high school graduate but no college degree), working full-time in one of 184 occupations resembling firefighting in requiring strength, stamina, and dexterity, or involving outdoor, dirty or dangerous work. These comparison occupations include bus mechanics, drywall installers, enlisted military personnel, highway maintenance workers, loggers, professional athletes, refuse collectors, roofers, septic tank servicers, tire builders, and welders. The proportion of women among the employees in these 184 occupations is 17%.

Women account for about 47% of the whole Civilian Labor Force, about three times the 17% rate. So it is clear that a smaller percent of women than men are likely to seek a firefighting career. But this consid-

¹ *Berkman v. City and County of New York* challenged hiring practices in New York City's department in 1985. Other court challenges have been filed against hiring practices in San Francisco, availability of equipment in Kansas City, MO, promotion practices and hostile work environment in Stamford, CT, and promotion practices in Kansas City, MO.

² For more details, our longer report, "Enhancing Women's Inclusion in Firefighting," is available at www.bendickegan.com/publications. Readers may also want to contact the International Association of Women in Fire and Emergency Services (www.i-women.org) and Black Women in the Fire Service (www.iabpff.org/bwfs/bwfs.htm).

eration does not explain the gap between the 17% of women potentially attracted to this career despite its being dirty, dangerous, and demanding, and the 3.7% women employed there today. In 2000, if women nationwide had been employed at the 17% rate, there would have been 39,742 additional women firefighters, or 50,577 total women, quadrupling their actual number of 11,135.

In that year, if women of color had been employed at their expected rate, then 13,552 (34%) of those additional women firefighters would have been women of color (See sidebar: The Double Disadvantage Facing Women of Color).

The current employment of women in selected fire departments confirms the reasonableness of this 17% benchmark. Women now approach, equal, or even exceed 17% of uniformed officers in a number of jurisdictions. According to the International Association of Women in Fire and Emergency Services, large departments with the highest proportion of women include: Minneapolis, MN (17%); Madison, WI (15%); San Francisco, CA (15%); Boulder, CO (14%); and Miami-Dade, FL (13%). Among the 114 departments examined in our own survey, 16% reported having 10% or more women among their uniformed officers, including two departments with more than 17%.

To examine a broader set of jurisdictions, we calculated the average representation of women among firefighters in all 291 large metropolitan areas in the 2000 Census. Among the 29 (10%) with the highest proportion of women firefighters, the average is 14.5%, including such diverse locations as Allentown-Bethlehem-Easton, PA (12.2%); Anchorage, AK (14.1%); Jacksonville, FL (11.2%); Kalamazoo, MI (23.7%); Racine, WI (18.6%); Redding, CA (17.1%); Sarasota, FL (12.3%); Springfield, IL (19.0%); and Tuscaloosa, AL (24.0%).

So, the first finding from our study is the huge underrepresentation of women among firefighters today. Tens of thousands of women likely to be interested in the career and capable of performing it are available, but they are either not getting hired or are leaving. If courts accept this 17% benchmark for expected representation, the vast majority of departments nation-

The Double Disadvantage Facing Women of Color

Encountering opposition based on their race/ethnicity as well as their gender, women of color face are doubly challenged in pursuing firefighting careers. The women themselves often do not distinguish these two problems, describing their race and gender as inextricably intertwined facets of their lives and identities. But our study observed some important ways in which the two problems interact.

Race and ethnicity problems remain unresolved in many departments today. In our firefighter survey, we asked about employee treatment, opportunities for career advancement, and departments' responsiveness to complaints. An average of 29% of survey respondents of color reported encountering problems in these areas. Our analysis of the 2000 Census showed that persons of color (including both genders) are currently employed in firefighting at only 55.5% of their expected rate.

The 2000 Census reports that women of color totaled 2,444 persons in firefighting, 0.8% of all persons in the field, compared to an expected representation of 5.9% -- that is, current representation only 13.6% of expected representation. The comparable figure for white women is 26.0%. Thus, underrepresentation is about double among women of color compared to white women.

In interviews, women of color described the belief that women "are not cut out for firefighting" as the one issue on which white men and men of color find common ground. At the same time, they reported that some of their white women colleagues distance themselves from efforts by men of color to combat racism and improve departmental practices in areas such as promotions. These circumstances leave women of color feeling particularly isolated and inadequately supported by either women's or minority employee organizations.

wide are potentially vulnerable to litigation for falling far short of the benchmark.

Discrimination and Harassment

Too few women among departments' paid uniformed officers is only the start of potential legal issues our

Table 1: Discrimination or Harassment Experienced by Firefighters

Survey Question	% of Women	% of Men
I have experienced different treatment because of my gender	84.7	12.4
I have encountered problems with ill-fitting equipment	79.7	20.9
My dept. has no procedure of which I am aware for addressing discrimination complaints	65.0	42.7
I have seen supervisors' authority challenged because of the supervisor's gender	49.9	21.0
My gender has created barriers to my career advancement	36.5	7.4
Males and females are not treated the same during fire college and/or probation	33.9	17.8
Promotions are not decided upon fairly	33.9	30.6
Staff in my department are treated differently because of their sexual orientation	30.6	14.4
The hiring process in my department does not fairly select and hire applicants	30.3	22.6
I have not received coaching/mentoring from senior people in my department	25.4	20.4
My supervisor does not address complaints concerning gender-related incidents	23.4	5.6
Males and females are not treated the same during applicants' physical ability screening	13.3	10.5
I have experienced incidents because of my gender involving:		
Shunning/isolation	50.8	2.3
Privacy in showers, dormitory, or when changing clothes	46.2	2.8
Verbal harassment	42.9	2.8
Pornography	31.9	1.4
Sexual advances	30.2	0.5
Dormitory accommodations	28.4	2.3
Training denial or differences	24.3	4.1
Other	21.2	5.5
Station assignments	20.4	0.9
Hazing	18.6	1.4
Hostile notes, cartoons, or other written material	18.2	0.9
Mealtime-related difficulties	13.1	0.9
Assault	6.3	0.0
These Incidents continue in the present	30.6	6.0
Average	34.2	18.8

study identified, however. Our surveys and interviews clearly documented that, when women get hired, their experiences almost universally fall well outside legal boundaries for equal opportunity and non-harassment.

Table 1 presents rates of gender-related discrimination or exclusion reported by respondents to our firefighter survey. Women reported problems at rates ranging

from 79.7% (for ill-fitting equipment) to 6.3% (for assaults) and averaging 34.2% for the 25 problems we asked about. These women's experiences contrasted sharply to their male colleagues, who reported much lower rates of problems on every question. In response to the broadest question — "I have experienced different treatment because of my gender" — a pandemic 84.7% of women agreed, compared to 12.4% of men.

Are women's experiences in firefighting improving over time? We compared the responses of women firefighters 40 and over to their younger counterparts, assuming that the second group's responses reflect more recent years than the first group's. On the topics covered in Table 1, the average rate of reported problems is 6.1 percentage points lower among younger women than their older colleagues — 31.7% versus 37.8%.

On the other hand, responding to the 26th question in Table 1, 34.0% of all women reported that gender-based problems continue into the present. This figure is strikingly similar to the 34.2% average response to the previous 25 questions, asked without specifying a time period.

These data offer little support for calling gender discrimination and harassment problems of the past or rapidly disappearing. Consistent with this slow rate of change, in moving from approximately 0% in 1980 to 3.7% in 2000, the female percent of firefighters has increased less than 0.2 percentage points per year. At that rate, females will not reach 17% of firefighters for another 72 years.

Our study was not intended simply to document problems, however. We were also seeking practical solutions, and we discovered many “best practices” already implemented in selected departments. Here are some of these solutions for six aspects of department operations, starting with recruiting.

Recruiting

How can departments recruit more women among the 17% who are potentially interested in and capable of handling this challenging career?

The first section of Table 2 compares women and men survey respondents in terms of their circumstances prior to their firefighting careers. Four points concerning effective recruitment are suggested by their responses.

First, recruiting initiatives targeting women are perceived as more widespread than they actually are. According to the first line of the table, 69.3% of men believed that their departments made such efforts, but women themselves reported only half that rate. Only

8.8% of women reported being actively recruited, and only 14.2% had encountered recruitment advertising. Low rates of being actively recruited were also reported by our male respondents, suggesting that, without regard to the gender, many departments are not making extensive recruiting efforts, or are doing so ineffectively. Departments seeking to increase female firefighters might start by investing in more, and more effective, recruitment. They should not be deterred by already having more applicants than they can hire, because of the small number of women among current applicants.

Second, personal relationships are very important in recruiting. According to Table 2, 47.5% of female firefighters grew up with a family member or friend who was a firefighter, and 60.5% were introduced to the occupation by such a person. Tellingly, these rates are about the same as for males. Thus, the same person-to-person approaches which are traditional and successful in recruiting men — proverbially, fathers passing down the occupation to their sons — can also work with daughters. In interviews, many women firefighters reported hearing about firefighting opportunities through family members and friends, and some reported being inadvertently recruited when their husbands or brothers were approached. Particularly until a “critical mass” of women become firefighters and start to generate their own referrals, departments seeking to recruit more women should mobilize personal networks of current employees, retirees, and others toward that goal.

Third, men and women typically come to firefighting with different prior experience. According to Table 2, construction and the military are not as likely recruiting arenas for women as for men, while medical employment, active sports, and high schools and community colleges provide more likely recruiting for women than for men. In interviews, women firefighters particularly recalled being recruited at gyms and sports events. To increase female applications, departments can target outreach where recruitment-relevant women are likely to be found.

Fourth, Table 2 reports that women were somewhat less likely than men to have pictured themselves as future firefighters when they were very young. That pattern can be changed by making women firefighter

Table 2: Firefighter Recruitment and Hiring

Operation	Survey Question	% of Women	% of Men
Recruitment	My department recruits and hires women above and beyond its general recruiting efforts	35.6	69.3
	I was actively recruited to become a firefighter	8.8	4.6
	In deciding to become a firefighter, I read about job opening in newspaper or flyer	14.2	12.8
	When growing up, I wanted to be a firefighter	20.9	40.1
	When growing up, I had family members or friends who were firefighters	47.5	48.6
	In deciding to become a firefighter, I was introduced by a family member or friend	60.6	67.4
	At the time I applied, I knew the requirements for the job	68.9	73.4
	Prior to my first paid fire job,		
	I was an EMT, medical technician, nurse, or other medical occupation	46.6	34.4
	I was active in gym/athletic/sports	35.0	15.6
	I had fire fighting experience	11.4	15.6
	I had construction background	5.9	23.8
	I had a fire degree	5.0	8.2
	I had military experience	4.2	18.4
	I am a college graduate	65.2	47.0
Hiring	My department's selection process included a written exam	85.8	87.2
	The written exam accurately measured my ability to perform the job	29.5	33.1
	My department's selection process included an oral board	81.6	85.3
	My department's selection process included a physical abilities test	91.0	89.3
	Of those taking a physical ability test, % who specifically trained to prepare	78.4	55.2
	Of those taking the test, % passed the first time	85.8	97.9
	My department's physical abilities test accurately measured my ability to perform the job	42.8	52.9

increasingly visible as role models, as well as actively suggesting the career to girls and young women. Vocational aspirations of both men and women are strongly influenced by such actions, which expand young persons' sense of what occupations are open to them. However, these processes must start years before individuals apply for jobs. Among survey respondents who reported wanting to be firefighters since they were a child, both males and females first formed that ambition at about age 11.

As they move closer to recruiting age, young women are less likely than young men to acquire firefighting experience prior to seeking career employment, leaving them less aware of this career and less prepared for job-based selection processes. In Table 2, this pattern is reflected in women's lower rates of firefighting

experience and fire science degrees. To increase the representation of women, departments can encourage young women's participation in pre-career activities such as volunteer firefighting, cadet programs for students and scouts, and summer jobs as seasonal forest firefighters. Adult and high school cadet programs are particularly useful in urban areas which lack the volunteer opportunities found in many rural locations.

Testing for Physical Abilities

To perform fire suppression and rescue duties safely and effectively, it is beyond question that firefighters need strength, stamina, and agility. So it was not surprise that, according to Table 2, about 90% of respondents to our firefighter survey reported that their department requires a physical abilities test during

hiring, as did 92.9% of the departments responding to our departmental survey.

Among departments in our survey, the average pass rate for women was 47.3%, about half the 83.9% rate for men. Reducing this “adverse impact” on women could therefore substantially increase female firefighter hiring.

A widely-held stereotype is that women are simply not strong enough to meet the job’s physical requirements, and, consequently, that departments employing women must be endangering public safety by lowering physical standards. This assumption misapplies generalizations about the general population of women to the unusually fit group of women who are typical firefighting applicants. Among recruits to the Milwaukee Fire Department, for example, prior to participating in the department’s training, the average female recruit was in the 85th percentile among women of the same age in physical fitness. Table 2 reports that 35.0% of our women survey respondents were active in gyms or sports before they became firefighters, about double the male rate.

Furthermore, pass rates for both men and women on physical abilities tests are strongly influenced by whether job candidates train prior to being tested. In Milwaukee, where recruits receive 14 weeks’ training prior to the exam, females’ strength increased an average of 21% and fitness by 29%, and by the end of training, the females’ combined size, strength and fitness averaged 96% of their male counterparts’. Among departments responding to our survey, 45.9% provide physical training prior to the test, lasting an average of 5.1 weeks. Departments with pre-training reported a 52.6% pass rate for women, substantially higher than the 34.6% reported by departments not providing training. Accordingly, departments seeking to increase the representation of women typically make physical training an important part of their recruitment and screening process.

One model for doing this involves integrating physical training into the fire academy and placing physical abilities screening late enough in the academy program for the training to have been effective. For example, the Kansas City, MO, department does not administer its test, the CPAT, until job applicants have been in

the academy for 8 weeks. Trainees are first given the test for practice on their second day at the academy, after which a personal trainer develops individualized exercise programs. Then trainees spend one hour a day on physical development and can check their progress by re-taking the CPAT every Saturday.

Other departments’ training takes place prior to the fire academy itself, typically administering a fitness evaluation during the hiring process and requiring candidates to pass before entering the academy. Candidates then participate in several weeks of training, the most effective of which uses the same equipment used in the test itself. During the 1990s, some departments discontinued these classes, despite their success. The reasons given included statewide initiatives banning affirmative action, budget cuts, pressure from the local firefighters’ union, and perceptions of unfairness (i.e. recruits participating in “the women’s program” were alleged to have an unfair advantage due to familiarity with test equipment). To replace these programs, some women started training programs outside their departments, in gyms and backyards, often attended by recruits of both genders.

Another factor influencing pass rates for men and women is the tests themselves, which vary widely in their validity, reliability, job-relatedness, and power to predict on-the-job performance. Among departments in our survey which require a physical abilities test, 21.5% use the CPAT. Another 24.3% rely on tests developed by testing professionals or their state’s civil service commission. The remaining 54.2% implement “home grown” tests, many of them developed with little attention to professional techniques for test development and validation. Some tests reject trainees for slowness in sprinting when many departments forbid sprinting as fatiguing and worsening smoke inhalation. Others impose extreme requirements for strength in isolated muscle groups, rather than testing the whole-body strength which firefighting involves. Still others test upper body strength, where men typically out-perform women, without measuring stamina and agility, which are also necessary for firefighting and where women often outscore men.

Among respondents to our departmental survey, the average pass rate for women on the CPAT was 68.0%,

substantially higher than the 49.0% rate in departments using other tests. The CPAT's ratio of pass rates for women compared to men — 77.4% — was also higher than the 61.7% ratio for all other tests. These outcomes contradict the assumption that the only way to increase the proportion of women passing physical abilities test is to lower standards, because the CPAT requires high levels of physical performance.

In fact, the level of performance required by the CPAT is at the center of widespread criticism of that test. The job relatedness of the test has never been validated using the standard statistical method — “criterion-based validation,” which analyzes whether the test predicts on-the-job performance. Even the weak analyses to which the CPAT has been subjected — “content-based validation,” which focuses on whether test tasks parallel actual job duties — documented that women pass at substantially lower rates than men. Key aspects of the test which appear directly related to this adverse impact on female job candidates and for which there is no proof that they accurately predict on-the-job performance include: the level of the test's strength requirements; its emphasis strength over aerobic capacity; its requirement that all 8 test tasks be completed in a continuous, timed sequence; its applicability in climates and altitudes different from where the test was developed; and its tendency to test coaching on “tricks of the trade” rather than actual physical abilities.

A final factor influencing pass rates is the circumstances under which tests are administered. Our interviews produced numerous stories about tests conducted in ways that assist men to succeed and set women up to fail. Examples include timed trials in which women were required to drag wet hoses over wet pavement while men dragged dry hoses over dry pavement; pre-test training in which men were given performance tips and women were not provided the same information; men tested with properly-fitting clothing and equipment while women struggled with ill-fitting gear; and men tested in front of peers who cheer them on while women were tested in silence. According to our interviews, the CPAT, despite its detailed instructions concerning how each test task is to be administered and training and certification of test monitors, is not immune to similar inconsistencies.

Clearly, departments have many opportunities to increase women's pass rates on physical abilities screening without sacrificing their workforce's ability to perform their jobs safely and efficiently. Departments would be well advised to review their physical abilities tests, their validity and job-relatedness, placement in the hiring sequence, availability of pre-test training, and testing procedures. Departments should seek alternatives to any test — including the CPAT — which has substantial adverse impact on women without validation that the test predicts on-the-job performance.

Uniforms and Equipment

Anthropometricians have determined that, among adults, the average woman has a body size 93% of the average man's, and a 50th percentile woman corresponds in size to a 5th percentile man. Therefore, to equip women, at a minimum a department must order a higher proportion of smaller uniforms and personal equipment than for an all-male staff. However, women are simply smaller versions of men only in terms of overall height and weight. For other dimensions, such as neck circumference, hip breadth, or finger length, women and men are shaped sufficiently differently that gear needs to be designed differently.

According to Table 1, 79.7% of women survey respondents reported problems with ill-fitting equipment, nearly four times the 20.9% reported by men. These problems involved gloves (for 57.8% of female respondents), boots (46.8%), turnout/bunker coats (38.9%), helmets (28.4%), and breathing masks (25.6%). In interviews, one particular complaint from all but the tallest women involved breathing apparatus hitting helmets, tipping them forward to impair vision.

Among departments with women employees responding to our survey, 39.8% reported not having purchased size-adapted clothing and personal equipment. This rate does not appear to reflect short-term constraints, such as the current year's budget or schedules for gradual equipment replacement, because the proportion reporting no such purchases is similar — 37.9% — in departments employing at least 10 women for at least 10 years. And it does not reflect unavailability of suitably-sized gear, which manufacturers have been offering since at least 1995.

Instead, the issue is simple lack of departments' responsiveness. This pattern is illustrated in comments by women firefighters surveyed by the International Association of Women in Fire and Emergency Services in 1995. There, 51% of respondents reported current problems with gear fit. But more tellingly, among the 42% reporting no current problems, many added comments such as: "But only after ten years of problems, memos, and letters," "only because we made such an issue," or "because I bought it myself."

Firehouse Living

Over decades operating with an all-male staff, many fire stations developed a "fraternity house" atmosphere in which sexually-oriented conversation, pornography, and homophobia were common and accepted. While in some departments, that atmosphere has been replaced by a more professional one, it persists in many others. In Table 1, 46.2% of female survey respondents reported incidents involving privacy in showers, dormitory, or when changing clothes, compared to 2.8% of men; 28.4% of women reported incidents related to dormitory accommodations, compared to 2.3% of men; and 13.1% reported problems related to meal times, compared to 0.9% of men.

In our department survey, 55.0% of departments reported major construction or renovation in firehouses or other facilities to accommodate women, such as installing separate bathrooms or dormitories.³ An additional 32.4% reported minor changes, such as signs on bathroom doors or privacy curtains; and 12.6% reported having done nothing. As with clothing and equipment, lack of action here does not reflect short-term considerations such as waiting for scheduled construction and maintenance; among departments employing at least 10 women for at least 10 years, 41.5% reported no major renovations responding to this issue.

In any case, the issue typically involves women having not only physical space in the firehouse but also psychological space — acknowledging that they are full, permanent members of the work team by accommodating their needs and preferences. This interpre-

tation makes particular sense of women's reports, in Table 1, of "mealtime difficulties." According to Table 3 later in this report, mealtime issues by themselves reduces women's satisfaction with firefighting more than 12%, the largest reduction for any gender-related issue. Mealtime difficulties refer to choice of food as well as table conversation and social interaction. Our interviews produced many stories of mealtime harassment, including refusal to cook for or serve an unwelcome firefighter, refusal to take into account dietary restrictions or preferences, and, in extreme cases, food contamination or threats of contamination.

Sexual Harassment

The close living arrangements in firehouses, as well as the importance of teamwork when firefighters' lives literally depend on each other, give particular importance to mutual support among firefighters. What promotes that support, and what destroys it?

One flash point on this subject is pranks, practical jokes, and hazing in the firehouse. Some observers describe these activities as traditional, harmless fun which builds teamwork, relieves boredom, and attracts volunteers. Others emphasize instances in which pranks and hazing turns nasty, especially with sexist, racist, and homophobic content, and represents harassment and intimidation intended to test and drive out unwelcome individuals.

Women we interviewed reported "pranks" involving human feces in boots and on bathroom walls, hardcore pornography, and derogatory messages left in lockers, food contamination, shunning, and dangerous conduct at fires, such as cutting off water supply. They complained about sexual harassment including vulgar statements, unwanted attention, and "locker-room" pranks involving gross and juvenile sexually-related "humor." Some reported a male expectation that women would date their fellow firefighters and stations where the only women previously present serviced on-duty male firefighters ("getting laid and getting paid"). Many women reported that even now, "hardly a day goes by" without some sort of harassment, although most agreed that it is generally less

³ In interviews, women firefighter often opposed separate male and female dormitories as destructive of team spirit and information sharing. They suggested instead that the situation be addressed by appropriate respect and common sense in shared sleeping areas.

blatant and crude than in the past. A small but significant number of women enumerated physical assaults, mostly unreported for fear of retaliation.

Our interviews produced an almost universal consensus that departmental internal procedures for addressing complaints of harassment or discrimination are weak and risk ostracism and retaliation. Unless they face particularly unacceptable behavior, women typically attempt to handle situations themselves or with the support of mentors. When facing a severe problem, they trust outside agencies, such as the EEOC, more than their own department.

Departments seeking to increase the representation of women among firefighters must exercise constant vigilance and control on these issues. Departments can convey distinctions between appropriate and inappropriate behavior through explicit anti-harassment policies, mandatory training communicating these policies to all staff, and enforcement of the policies through proactive monitoring, prompt responses to complaints, and serious punishment — including termination, if necessary — for violators. Our interviews confirmed a direct relationship between harassment in a department and tolerance for it by the department's senior managers. In the few departments that have instituted and seriously enforced a "zero tolerance" policy, incidents decreased.

Despite the relatively straightforward nature of these remedies, women's survey responses make clear that vigilance and control is often not maintained. Table 1 reports that 50.8% of women have experienced shunning or isolation; 42.9%, verbal harassment; 31.9%, pornography; 30.2%, sexual advances; 18.6%, hazing; 18.2%, hostile cartoons or written material; and 6.3%, assaults. Similar incidents were reported by 2.8% or fewer male respondents. Furthermore, 65.0% of women reported that their department has no procedures of which they were aware for addressing such complaints, and 23.4% reported that their supervisors fail to address problems reported to them.

Promotions

Women's representation at advanced ranks has lagged behind even their limited representation in entry-level firefighting. Although only 3 to 5 years' experience is

typically required before firefighters can begin to apply for promotions, among the departments responding to our survey, an average of 10 years elapsed between the first women at the entry-level and at any higher rank. The nationwide number of women in senior positions is so limited that the primary source of information on them is lists of names maintained by professional associations. The contact network of the International Association of Women in Fire and Emergency Services includes about 150 women battalion chiefs or deputy chiefs and 31 department chiefs.

Thus, firefighting exhibits a "glass ceiling," with the representation of women shrinking at each stage up the managerial hierarchy. Among departments in our survey, employment which averages 5.7% at entry level fell to 4.5% among intermediate supervisors (company officer or battalion, assistant, or deputy chief) and 2.6% among department chiefs. In the 2000 Census, women were 3.7% of first-level firefighters and 2.9% of their first line supervisors.

Firefighting also exhibits "glass walls," or gender differences in roles and assignments at the same rank. Among the departments responding to our survey, females average 4.8% among employees in fire suppression, in contrast to 16.6% in such roles as fire inspection and investigation. In our firefighter survey, 36.0% of women were firefighter paramedics rather than firefighters, compared to 30.5% of men. In some cases, these differences reflect individuals' preferences, while in other cases they are involuntary. Either way, they are likely to limit perceptions of women as full members of the working team, as well as prospects for promotions.

In interviews, women firefighters reported disparities in training and assignments which limit their promotional opportunities. Denial of access to classes and equipment to train for certification and promotional exams was a common theme. Women also reported inequitable drilling, having to prove themselves beyond what was expected of their male counterparts. For example, one woman reported that an officer repeatedly required her to perform single-person ladder raises, when the department had long before stopped using that maneuver. Others described frequent station changes, so that they reported to a different officer every shift throughout their probationary period.

Women of color reported retaliatory transfers to all-white, all-male stations in neighborhoods where they were particularly unwelcome. Only occasionally did women report making it through the early stages of their careers because a man “took them under his wing” to buffer the firehouse atmosphere and aid in acquiring skills.

How can departments become even-handed in terms of assigning and advancing women? One key is suggested by the fact that women and men survey respondents described their department’s promotion processes as unfair at almost the same rate — 33.9% and 30.6%, respectively. This consensus suggests that considerable progress for women can be achieved by ensuring that promotion processes are professionally designed and conducted to control personal favoritism and stereotype-prone subjective decision-making. The well-known means for doing so involve replacing informal, “tap on the shoulder” selections with open posting of job vacancies, explicit selection criteria which have been validated as job-related and predictive of on-the-job performance, and training of selecting officials about how to control unconscious bias and stereotypes. Such “cleaning up your act” in promotion decisions need not be gender-specific and would improve opportunities not only for females but also for males not in the “buddy network” which tends to be favored in many departments.

Which Problems are Most Important?

Clearly, women face problems in many different aspects of firefighting. Which of these issues are the most important in determining their satisfaction with a firefighting career? Table 3 identifies two clusters of issues which bother the women responding to our survey the most. The first, labeled “incidents in the workplace,” refers to encounters with discrimination, harassment, or exclusion in their daily work life, combined with lack of response to these incidents by supervisors. The second, labeled “Fairness in Employment Practices,” refers to perceptions that they are not treated equally to males in hiring, assignments, and promotions. Departments seeking to make current

women firefighters more satisfied with their careers and encourage other women to become firefighters should devote their highest priority to these two concerns.⁴

It is noteworthy that neither cluster of issues involves special treatment for women or lower standards for physical performance. They do not call for “affirmative action” but instead simply require departments to ensure equal employment opportunity. In most departments, the first step toward that goal would be to recognize that the “playing field” is not level between the genders today. Departments then need to enforce standards of non-harassment and equal treatment which have been required by law, as well as widely-held social norms, for at least four decades.

The Workplace Culture Underlying these Operational Issues

The patterns just discussed are simple to summarize: The number of women firefighters remains far below its expected level, and even obvious steps to increase it have not been undertaken by most departments. Such findings are typical of workplaces whose culture resents the presence of women and, consciously or unconsciously, intends to exclude them.

Formally defined, a workplace’s “organizational culture” is the system of beliefs, values, and ways of behaving common to that workplace. Less formally, it is simply “the way things are done around here.” These cultures tend to evolve slowly and resist change both actively and passively. Resistance tends to be particularly strong where employees remain for long careers, personal relationships are strong, traditions are maintained with pride, and employment is well rewarded — all circumstances describing firefighting.

Firefighting’s traditional culture is proud and noble, with shared perceptions that the occupation is dangerous and difficult; the key performance requirements are strength and courage; only an elite subset of individuals are capable of performing its duties; and generous pay and prestige reflect these circumstances.

⁴The only high-impact issue not falling within these two clusters is paid child care. In our survey, 39.3% of women and 68.4% of men reported having had young children at some time during their firefighting careers. About 84% of both groups reported that these children were cared for by a family member. For women, the combination of having young children and relying on paid care providers reduced the respondents’ favorable assessment of firefighting as a career by 6.3%

Table 3: Circumstances Which Most Reduce Women Firefighters' Rating of their Careers

Category	Response	Impact on Rating ^a
Incidents in the Workplace	I have experienced gender-based mealtime-related incidents in the workplace	-12.2%
	I have experienced race-based incidents in the workplace	- 8.2%
	I have experienced other incidents in the workplace	- 7.6%
	My supervisor does not address gender complaints	- 7.4%
	I have experienced verbal harassment in the workplace	- 6.3%
	Gender-based incidents in the workplace continue into the present	- 6.1%
Fairness in Employment Practices	The hiring process in my department is not fair	- 5.8%
	My gender is a barrier to my career advancement	- 5.5%
	I have experienced gender-based discrimination in work assignments	- 5.3%
	The promotion process in my department is not fair	- 5.0%
Other	For child care, I have used a paid provider, not family	- 6.3%

^aWomen firefighters in our survey were asked to rate firefighting as if they were advising a young woman considering the career, on a scale of 1= worst career, 5= best career. This column reports the change in this rating associated with each response, divided by women respondent's average rating of 3.8.

Ironically, these perceptions continue to be used to justify absence of women firefighters as the evolving occupation itself erodes their relevance. Obviously, suppression of large fires remains a dangerous, difficult task. However, the shifting balance between fire calls and medical calls brings to prominence skills and abilities which the traditional occupational self-image ignores. Medical calls invoke treatment skills and knowledge more than strength or courage, as well as care-giving skills and aptitudes often associated with nurses or social workers.

Whatever its actual relevance today, as FEMA's manual on women firefighters puts it, "It is the mystique of interior structural firefighting that lures most recruits to city fire departments, and it remains the psychological focus of the urban firefighter's job." This mystique equally remains the focus of resistance to women. To their male peers, women firefighters represent more than competitors for positions they want and constraints on the free-wheeling aspects of firehouse life. They also silently challenge the self-esteem male firefighters derive from perceiving themselves as doing a job for which only a select few have the "right stuff." In these circumstances, opposition such as is documented in Table 1 and throughout this report is perhaps not surprising.

These organizational dynamics are not unique to women in firefighting. Whenever the demographic diversity of a workforce increases, inter-group relations tend initially to worsen rather than improve. Accordingly, departments cannot simply hire women firefighters and allow them to "sink or swim" but instead need proactive strategies to ensure their inclusion. These strategies must address specific issues — from physical abilities tests to dormitory privacy — such as discussed in this report. But they must also address the underlying exclusionary workplace culture of which these issues are symptoms (See sidebar: Five Elements of a Strategy for Culture Change). Doing the first of these without the second will result in no employment increases, only token increases, or increases which are only temporary as newly-hired women are driven out.

Looking Forward

As recently as four decades ago, it was considered "obvious" that women are not capable of, or interested in, firefighting. That explanation will no longer suffice. In estimating an expected representation for women of 17%, our study has factored in the extent to which a smaller proportion of women than men are interested in, and capable of performing, an occupation as dirty, dangerous, and demanding as firefighting.

The main role of such “obvious” but incorrect assumptions today is, consciously or unconsciously, to justify administrative, organizational, interpersonal and technological barriers to women’s employment which are not actually necessary for safe, efficient departmental operations. These barriers to women’s inclusion, and the workplace culture underlying them, remain in place, in varying degrees, in the majority of the nation’s departments. But, as pioneering departments with substantial numbers of women employees demonstrate, these barriers are not inevitable.

To reduce these barriers and bring women’s employment to its potential will require more universal application of best practices adopted by these pioneering departments. It will also require changing the underlying workplace culture from one of exclusion to one

of gender inclusiveness. Inclusion means more than hiring in numbers to match women’s availability. It also mean that, throughout their careers, women are treated equally to males in how they are welcomed, trained, assigned, retained, promoted, and otherwise given the opportunity to thrive. Inclusion is a substantially more ambitious goal than simply increasing the number of women in uniform. However, it is essential if increases in those numbers are to be meaningful and self-sustaining.

Guided by findings from study, gender inclusion is the new standard to which departments are likely to be held. Senior fire managers need to lead their departments in resolving deficiencies proactively, before being forced to by expensive and disruptive litigation.

Five Elements of a Strategy for Culture Change

There is no simple formula for achieving fundamental, permanent changes in a department’s underlying culture. However, research and experience suggest five key elements of such strategies.

First, commitment by top leadership -- mayors, chiefs and other senior appointed or elected officials. These leaders must be visible in announcing the goal of expanded female employment, the reasons for it, and their expectation that those reporting to them will join the effort. They must send this message persistently and insistently, in actions as well as words.

Second, monitoring and accountability translating the broad goal into immediate personal consequences for mid-level managers, first-level supervisors, and others. Contributions toward the goal need to be rewarded in performance appraisals, raises, and promotions. Behavior inconsistent with the goal needs to be sanctioned promptly, visibly, and consistently.

Third, human resource management procedures embodying transparency, objectivity, and performance-relatedness. These procedures need

to replace more traditional procedures which often allow gender stereotypes, individual favoritism, and in-group bias to affect hiring, promotions, assignments, and other decisions.

Fourth, activities changing individuals’ behavior to control hostile acts. Several approaches are often required. One is establishment of a zero tolerance policy for symbolic words or actions which open the door to more serious biased or aggressive behavior. Another is training to increase employees’ aware of pervasive tendencies toward conscious and unconscious bias, and the cumulative significance of even small slights. The most effective training uses real-life examples drawn from the specific workplace and provides tools for dealing with practical situations, such as “scripts” for alternative behavior.

This training needs to be provided to staff at all levels in the department, since culture is a “360 degree” process which all employees help to shape. In addition, special training is usually needed for first-level supervisors, who are the daily face of the department for individual employees.

Fifth, sustained effort. Significant culture change in a complex, long-established workplace may require deliberate effort over 3 to 5 years or longer.

