

Hidden Hurdles:

An Exploration of possible barriers women encounter when pursuing a career as
an operational firefighter in Ontario

Subject keywords: Gender, Fire Service, Human Resources, Diversity,
Employment Equity

Geographic keywords: Ontario, Canada

MPA Research Report

Submitted to

The Local Government Program
Department of Political Sciences
The University of Western Ontario

Lydia Wilcox
May 2018

Abstract

The focus of this research paper was to explore the possible barriers women may encounter when pursuing a career as an operational firefighter in Ontario. Primary research was used to analyze empirical data collected through an on-line survey while guided by literature on concepts related to human resources best practices. Secondary research on bona fide occupational requirements (BFORs) and physical abilities testing used for firefighter candidates was also explored to investigate the validity of candidate physical testing being used in Ontario. The research in this paper showed that fire services were inconsistent when using HR best practices while hiring firefighting candidates. The lack of consistency in using HR best practices for hiring causes barriers for women pursuing a career as an operational firefighter, as gender stereotyping and bias during the screening and selection process can have an impact on their candidacy for the position. Secondary research regarding physical abilities testing and BFORs demonstrated that Ontario fire services are using physical testing that may not be defensible as a BFOR if challenged by a Human Rights tribunal, due in part to the validity regarding the methodology used to establish the testing, against the three-part test for BFORs established by the Supreme Court of Canada in 1999.

Acknowledgements

A paper such as this cannot be accomplished in isolation. I have often joked that I have been writing this paper for 10+ years, ever since I was given the responsibility and opportunity to Ride the Trucks of Kitchener Fire. After 10 years, there are a lot of people that should be acknowledged for making this paper possible. First and foremost, if you have ever 'chatted' with me about my ideas and opinions thank you, there are an awful lot of you out there. This includes my Western MPA colleagues and professor, your encouragement and feedback were always helpful.

To the ladies and men that came before me, that walk with me now, and will come after me, this paper was about you. It came from your conversations and comments; your frustration and triumphs. I want to acknowledge the work you do every day, regardless of which community you belong to; LGBTQ, visible minority, persons with disabilities, and/or aboriginal, we are all in this together. Thank you.

I would like to acknowledge and thank the HR departments who participated in the survey. Also, I hope this isn't the last survey of its kind. Without your input and information this paper could not have happened.

To Carol Agócs, for jumping in right from the get go. You listened to me patiently then gently guided and moulded my ideas into what this paper is today. To Catherine Burr, for being straight with me when I needed it. Your help and enthusiasm were everything I needed to let me know I was on the right track.

To Fire Service Women Ontario (FSWO), the Ontario Association of Fire Chiefs (O AFC) and members of the Ontario Professional Fire Fighters Association (OPFFA), thank you for the conversations and your willingness to help out where you could.

To the Kitchener Fire Department (KFD) including the firefighters on the floor to the Chiefs, thank you for supporting me on this journey. An unexpected outcome of doing my MPA was having to work a lot of days not on my shift or at my hall, in doing this I got to see a lot more of the great people that work at the KFD. I can say, Kitchener Fire has a lot of good people working for it, but not as good as my crew; Station 5, B2.

Most importantly, to my family; Theresa's patience and superior editing, mum stepping in when I am about to lose it, and Reece and Cameron for stepping up when you needed to and making me proud I couldn't have done this without you.

Most importantly, thank you Frank, you are still the best.

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Chapter 1 - Introduction

This paper examines the steps individuals must undertake when pursuing a career as an operational firefighter in Ontario. The steps are neutral facing, meaning all candidates regardless of their demographic position must complete and be successful in order to receive a job offer from a municipal fire department. For candidates, this includes the same pre-qualification physical testing as well as meeting prescribed screening and selection criteria to be considered as a potential candidate.

The aim of this paper is to explore the potential barriers women face during candidate testing, as well as during the screening, selection and hiring process when applying to a municipal fire service as an operational firefighter.

Chapter 2 explores the scientific establishment of physical abilities testing in Canada, a requirement for firefighters and how bona fide occupational requirements (BFORs) are established to discriminate between who and who cannot perform to the physical standards of the job. While these tests appear to be neutral facing, requiring each candidate to complete the same physical tests, this paper explores how the tests may be a barrier to women. In addition, Chapter 2 discusses where bias may enter the screening and selection of candidates and how the use of human resources best practices may mitigate gender stereotyping. An examination of bias may provide insight into the causes of adverse impact on the number of women being hired. Adverse impact occurs when the selection rate for a protected group, in this case women, is lower than that of a relevant comparison group such as men (Catano, Wiesner, & Hackett, 2016).

Chapter 3 discusses the methodology applied to this paper. Primary research through an anonymous survey was used to explore how human resource departments and municipal fire services in Ontario work together to conduct screening and selection of firefighter candidates. The survey also included an exploration of the use of programs to target the hiring of women in municipal fire services.

Chapter 4 looks at how physical testing used in Ontario has been established, using scientific best practices to measure performance standards of firefighting candidates. The limitations when establishing this testing will be discussed as well as how agencies developing the tests can lessen the adverse impact or barriers these tests create for women. Additionally, Chapter 4 will review primary research on the hiring practices of Ontario fire services in the screening and selection of operational firefighters.

Chapter 5 will close the paper with a discussion and concluding remarks surrounding barriers women are faced with when entering a career as an operational firefighter in the province of Ontario. The discussion will focus on the concept of systemic discrimination as defined by Agòcs (2004, p.2) "... it consists of patterns of behaviour that are part of the social and administrative structures of the workplace, and that create or perpetuate a position of relative disadvantage for some groups and privilege for others. Systemic discrimination is multi-dimensional and may entail separate and cumulative impacts on grounds of race, gender, disability and other identities" (Agocs, 2004, p. 2). Finally, this paper will demonstrate the

compounding effects of the barriers women face when pursuing a career as an operational firefighter in Ontario.

Chapter 2 - Literature Review

The focus of this chapter is to outline contemporary research and literature in the areas of women in the profession of firefighting, fire culture, testing procedures for firefighting including physical abilities testing, human resources best practices and a discussion around human rights legislation and bona fide occupational requirements.

Women in Firefighting

There has been a lot of attention regarding women's low level of representation in typically male-dominated workplaces. Firefighting stands among those occupations with a well-earned reputation for being a predominantly male occupation. Women are more under-represented in the fire service than in policing and the military. According to the 2016 National Household Survey, women made up only 5% of full-time firefighters in Ontario, in contrast 22% of police officers and 16% of non-commissioned military personnel are women (StatsCan, 2018).

Much research has been focussed on the hyper-masculinized culture of the fire service and how this culture has come to prevent women from pursuing firefighting as a career. "The physical demands of firefighting and an occupational culture steeped in tradition and masculine bravado are often cited as prevailing reasons why the fire service has been slow to hire more women" (Schermerhorn-Collins, 2017, p. 3)". Gendered language such as "brotherhood" and "firemen" in addition to stereotypes regarding women's lack of physical strength, or not being interested in dangerous dirty work (Schermerhorn-Collins, 2017), perpetuate a culture where women will not 'fit in' or be welcome.

While the number of women in firefighting has increased they remain 'tokens' owing to their small numbers, and often must represent their entire gender, leading to heightened scrutiny (Kanter, 1977), isolation and exclusion (Hulett, Bendick, Thomas, & Moccio, 2008). Some Fire Chiefs are beginning to recognize the lack of diversity within their ranks and are calling for more women and visible minorities (Dalton, 2018; Fraser, 2018). In contrast, other Chiefs are having to apologize to the women who serve under them for the years of sexual harassment and discrimination they have endured, sometimes years after the discrimination has happened, and the original Chief has left the organization (Tattrie, 2017).

Occupational Culture

Occupational culture plays an important role in shaping all organizations, including the fire service. Culture can be analysed in three levels as described by Schein & Schein (2016):

- 1) **Artifacts:** Visible and Sensory Phenomenon: these are the things you hear, see and feel within an occupation, including the architecture of the physical environment, clothing, language and technology.
- 2) **Espoused Beliefs and Values:** the original members feelings of what ought to be, as distinct from what is. These values are passed down, and decisions made become the framework for how things work. This is where social validation, which is the beliefs and values are being confirmed by the shared social experiences of the group. Espoused beliefs and values are often ambiguous leaving large areas of behaviour unexplained, leading to statements such as 'this is the way we do things around here' when someone inquires as to why things are done the way they are.
- 3) **Taken-for-Granted Underlying Basic Assumptions:** These are assumptions that are unconscious and assume that a framework of how an organization runs is the correct way. These basic assumptions come to be strongly held within the group and "find behaviours based on any other premise inconceivable" (Schein & Schein, 2016, p. 21). For an individual or an organization to rethink these assumptions would destabilize their view of the world. "We tend to want to perceive the events around us as congruent with our assumptions, even if that means distorting, denying, projecting, or in other ways falsifying to ourselves what may be going on around us (Schein & Schein, 2016, p. 22)".

Schein & Schein's (2016) work lays the foundation for assumptions within the culture of an organization and aligns with research on injunctification, or the "motivated tendency to construe the current status quo as the most desirable and reasonable state of affairs" (Kay, et al., 2009, p. 421). Their research found support for the hypothesis that people will "react negatively to someone who acts counter to the way things should be" (Kay, et al., 2009, p. 428) which aligns with the espoused beliefs presented by Schein & Schein (2016) that members have strong feelings about the way things ought to be. Organizations where careers are long, and personal relationships are strong, where employment is well rewarded and traditions are maintained with pride such as the fire service, are among those cultures that tend to evolve slowly and resist change both passively and actively (Hulett, Bendick, Thomas, & Moccio, 2008).

Further to this, research also shows when women do not conform to their gendered stereotypes, they often face a negative backlash (Kay, et al., 2009). When women first joined the fire service they faced greater scrutiny and harassment often having to fight their way into a department that made it clear, they were not welcome (May, 1987; Roberts, 2016).

As demonstrated through the literature, culture, language, tradition and the treatment or perceived treatment of women hinders or creates barriers for women who are considering a career as an operational firefighter. The next section will discuss the physical abilities testing required for all potential firefighters, further highlighting possible barriers women endure during the testing, thus creating a foundation of systemic discrimination.

Firefighter Physical Abilities Testing

Firefighting is a physically demanding profession. As such, physical testing is required for all candidates who are considering becoming a firefighter. Further, physical testing must be established to differentiate between those candidates that are physically capable of performing the job safely and effectively and those that cannot. While physical testing may be viewed as a discriminatory process, and in most cases illegal, emergency service occupations including the fire service have a duty of care to the public and their employees to provide a safe work environment. Therefore, this obligation allows for the requirement of physical testing to assess an applicant's physical ability in order to select who and who cannot perform the job.

Physical abilities testing has long been used as a pre-hire determinant to become a firefighter. This type of testing is used to screen an applicant's physical abilities on the basis of job function and physical fitness. Several types of tests are used in the development of these assessments. These include content validation tests, assessing an applicant's skills and abilities for carrying equipment and completing prescribed tasks; while construct validation tests examine an applicant's physical fitness based on strength, speed and agility. Further, a hybrid of the two tests is referred to as criterion validation testing, blending both content and construct validation tests to scrutinize the ability of a candidate to accomplish a prescribed task in a safe, efficient and timely manner (Adams, 2016).

Fire services throughout Ontario are not consistent in their choice of the tests administered to pre-screen candidates, however, most urban fire services use criterion base testing (Jamnik, Gumienak, & Gledhill, 2013) for assessment purposes.

Developing Physical Testing

The purpose of establishing a physical test for employment is to evaluate a candidate or incumbent's readiness for work. These tests are commonly used for public service occupations such as policing, firefighting and the military. Developing physical testing for readiness for work "implies the requirements for physiological attributes consistent with objectively established demands of the workplace" (Petersen, et al., 2016, p. 49). In the context of readiness for work, performance standards or qualities which are necessary to complete the work distinguish between acceptable and unacceptable work completion in a safe and effective manner (Petersen, et al., 2016). Cut scores are points on a scale, which are utilized to divide those that are acceptable from those that are not, in regard to a performance standard (Petersen, et al., 2016).

While there is not one standard method of establishing a physical test, there are two scientific methods most commonly used. The first is "methods based mainly on the statistical distribution of test scores while the second is based mainly on the judgements of experiential or subject matter experts as raters" (Zumbo, 2016, p. 76). Subjectivity is a weakness of both methods but using scientifically established procedures can greatly reduce its impact.

The first method, also referred to as norm-referenced test interpretation, typically collects data from a sample of test-takers who are currently working in a specific occupational group. This data then establishes the mean and distribution of test scores and uses this information to establish a cut score using some measure of variability (standard deviation or standard error) (Zumbo, 2016). Drawbacks to norm-referenced testing include assumptions regarding the

capability of the test takers to perform the job adequately. Additionally, the sample group must be representative of the target population and sufficient in size to accurately represent the established performance standards (Zumbo, 2016).

The second method of establishing physical testing, which uses subject matter experts as raters, is tied to criterion based referenced tests. These tests are designed to the performance standard of the job. This testing involves the “selection of a cut-score that accurately categorizes test takers into meaningful groups based on specific defined criteria” (Zumbo, 2016, p. 78). Typically, these tests are designed with the purpose of determining mastery or absolute levels of performance. The subject matter experts should come from several disciplines, including research scientists, policy experts, those currently in the occupation and representatives of key groups including women working in the occupation.

To establish a cut-score, the bookmark method is often used for physical testing. This method involves viewing multiple rounds of visually recorded prototype test takers completing a circuit test at different time intervals. Once the recordings have been viewed, the raters independently ‘bookmark’ what they believe to be the minimally acceptable performance of the circuit. Then the raters discuss with each other the reasoning for their choice. This is repeated a minimum of three times until a final cut score is established (Zumbo, 2016). The purpose of the discussion is to re-evaluate decisions made, while taking into consideration the rationale of other panel members. This cuts down on the subjectivity and bias that criterion-based reference testing can be subject to (Tipton, Milligan, & Reilly, 2013).

When establishing any occupation physical standard, “it is important for those undertaking the task to validate the test on a separate cohort of individuals to demonstrate that it is valid, robust and not merely relevant for those who contributed to its development” (Tipton, Milligan, & Reilly, 2013, p. 2444). Zumbo (2016) also stresses the importance of maintaining records of the test development procedure and decisions, which increases the defensibility of the test if it is ever legally challenged.

Physical Abilities Testing and Bona Fide Occupational Requirements

A bona fide occupation requirement (BFOR) is defined by the Government of Canada as “a rule that establishes a requirement that is necessary for proper or efficient performance of a job” (Canadian Human Rights Commission, 2018). The current application of BFORs is a result of a decision by the Supreme Court of Canada. Tawney Meiorin was an active forest firefighter for the Province of British Columbia for three years prior to being dismissed for failing a physical running test, which was a requirement of her continued employment. Ms. Meiorin argued that the running test was designed to measure an aerobic standard which discriminated against women. An appeal to the Supreme Court of Canada found that the aerobic standard was not a valid BFOR. With this decision the Supreme Court reevaluated the traditional method of determining if the discrimination was direct (overt) or adverse (covert) and determined that the distinction was artificial and difficult to categorize. It decided that the old method led to inconsistent outcomes and legitimized systemic discrimination (Canadian Human Rights Commission, 2007). This led to the court’s 1999 decision to establish a unified test to be

applied to all cases of direct and adverse impact discrimination. The three rules to be applied include:

- 1) That the employer adopted the standard for a purpose rationally connected to the performance of the job;
- 2) That the employer adopted the particular standard in an honest and good faith belief that it was necessary to the fulfilment of that legitimate work-related purpose; and
- 3) That the standard is reasonably necessary to the accomplishment of that legitimate work-related purpose. To show that the standard is reasonably necessary, it must be demonstrated that it is impossible to accommodate individual employees sharing the characteristics of the claimant without imposing undue hardship upon the employer. (Supreme Court of Canada, 1999)

The decision by the Supreme Court of Canada establishes that a test cannot have an adverse impact on a group unless removing it would impose undue hardship on the employer, including lowering standards to accommodate applicants that do not meet the pre-requisite standard. Additionally, the employer has a responsibility to prevent 'workplace negligence' that puts the lives of the public and other emergency service workers at risk (Jamnik, Gumienak, & Gledhill, 2013), making the establishment of physically testing for employment subject to a high level of scrutiny for reliability and validity.

As seen through the literature, systemic discrimination is evident with the compounded barriers women face. This includes the physical testing methods, especially the norm-reference method requiring normalization of data through the group. In this case, literature has demonstrated women only make up 5% of full-time firefighters, which means, the norm-reference method is based on a group dominated by men. Further, the second method despite

requiring three trials and continuous review of a rating panel can still be open to subjectivity.

The next section will examine Human Resources best practices, identifying possible additional barriers women may face during the recruitment through to interview and hiring stages.

Human Resources Best Practices

Following Human Resources (HR) best practices theoretically eliminates much systemic bias

when recruiting and hiring the best candidate for any job. When looking at operational

firefighting, firefighter candidates are required amongst many other tasks to undertake physical

testing as a pre-employment requirement. However, like any other occupation, to become a

firefighter in Ontario a candidate must apply to individual municipalities and proceed through

their candidate screening and selection process.

This section explores where gender stereotypes and bias may enter the screening and selection process for women entering male dominated occupations, such as the fire service.

Recruitment and Selection

The demographics of the fire service seem to remain invisible to the general public. Even when

national polls rate firefighting as the most trusted profession, the public seems to turn a blind

eye to the number of women on the job. With no visibility, fire service women have had to

create their own programs to attract other women. Attracting potential candidates is a form of

recruitment, and attraction programs such as CampFFIT (female firefighters in training), and

other similar programs encourage teenage women to try firefighting skills and gain exposure to

emergency services (FSWO, 2018). These camps run through municipal fire services and are

often spearheaded by women already working as firefighters. Through programs such as these, the number of women in college pre-service firefighting programs is on the rise (Dalton, 2018; Fraser, 2018), however, the number of woman hired as operational firefighters still remains insignificant in comparison to their male counterpart.

Braedley (2018) recommends that in order to counter systemic discrimination, employment equity measures must be established to make jobs available to under-represented groups in the labour market. While the Province of Ontario does not have Employment Equity legislation, section 14 of the Ontario Human Rights Code (OHRC) (Ontario, 1990) does allow employers to use special programs to target under-represented groups within their workplace in order to provide equal opportunity for employment. This allows fire services to use section 14 special programs to collect demographic data for creating an equal opportunity hiring environment.

Job Analysis

It is the responsibility of the employer to create job descriptions that are a fair and accurate representation of the job being advertised. The job advertisement should properly reflect the knowledge, skills and abilities (KSAs) which are essential (Catano, Wiesner, & Hackett, 2016). Prior to advertising, a current review or job analysis should be undertaken to assess whether requirements have changed since it was previously filled. A job analysis provides objective evidence of the KSAs required to effectively do the work (Catano, Wiesner, & Hackett, 2016).

Studies show when information regarding a trait or role in question is ambiguous, decision makers are left to rely upon stereotypes, which occur in both male and female dominated

occupations (Koch, D'Mello, & Sackett, 2015). Through a current job analysis an employer can develop minimum qualifications specifically based upon the KSAs required to perform the advertised job and not rely on stereotypes about the job itself.

Job Advertisement

Job advertisement is a method of recruiting potential candidates. Even when jobs are advertised widely through several different forms of media, they are often communicated by word of mouth through informal networks. These networks tend to be homogenous, due in part to society's tendency to socialize with those who share similar traits. This includes, gender, race, education, religious beliefs or socioeconomic status. This in-group sharing of information which occurs heavily in the fire service, limits an applicant pool to those who already share group traits or characteristics (Bendick & Nunes, 2012). When in-group sharing of information occurs, especially through informal mentoring, or coaching, the information rich network of the in-group gives advantage to those within the social network who typically resemble the current workforce (Hulett, Bendick, Thomas, & Moccio, 2008).

Gendered language used in postings also has an impact when women are interested in male-dominated jobs. Research has shown that women and men use language differently; women generally use more communal language such as collaboration, understanding and interdependent while men use agentic language such as independent, principled and ambitious (Gaucher, Friesen, & Kay, 2011, p. 111). The use of gendered language can have an adverse impact on women as "masculine wording in real job advertisements primarily serves to keep women out of the areas that men typically occupy" (Gaucher, Friesen, & Kay, 2011, p. 118).

This research also indicated that women felt less belongingness in occupations where masculine language was used, such as “brotherhood”, “fireman” or “fraternal”. The use of masculine wording can also have an impact on the overall skills and training required to do the job, which further reduces the feeling of belongingness for women, thereby reinforcing the hypothesis that gendered wording signals who belongs to a group and who does not (Gaucher, Friesen , & Kay, 2011).

The use of gendered wording in advertising can be so deeply embedded within the social structure that it is overlooked by society at large, and when ingrained into recruitment practices perpetuates gender division within an organization. This is not to say that the use of gendered wording in job advertisements is an explicit bias, as it is not. This most often occurs outside of people’s awareness and may not be deliberate. As Schein & Schein (2016) illustrated, there is an underlying assumption that the way jobs had been advertised in the past was done correctly. This can also be said with firefighting job descriptions; such that a masculinized job qualification would be to “demonstrate the ability to act decisively in emergencies” whereas a feminized job advertisement would read “demonstrated ability to respond appropriately to emergencies”.

Research has also shown, that using ‘gender fair’ language in job advertisements has curtailed some bias effects. This is the result of developing job descriptions based upon accurate knowledge, skills and abilities (KSAs) required to successfully perform the job (Heilman, 2012).

Screening Criteria

The function of screening during the hiring process is to identify individuals who meet the minimum qualifications for the advertised job. Those who lack the minimum qualifications do not receive any further consideration. Those who do meet the minimum qualifications will then be screened for job related KSAs including relevant education, job experience, training or volunteer work. The job relatedness of the KSAs should be established using a current job analysis. This works to decrease the possibility of discriminating or having an adverse impact on a designated group, since essential job duties and responsibilities have been established prior to the commencement of candidate screening (Catano, Wiesner, & Hackett, 2016).

Legislation prohibits employers from asking for information which is not allowed on discriminatory grounds, including but not limited to age, sexual orientation, religion or family status, unless it can be established that the information being requested is a BFOR (Catano, Wiesner, & Hackett, 2016). While some occupations are an exception to this rule, such as firefighting which require physical ability testing prior to a job offer, an employer may have to justify to a human rights tribunal why gathering prohibited information about a candidate is necessary to perform a job (Filsinger, 2015).

A resume creates a first impression for an employer. Not only does it include relevant job and educational information about the candidate, it can also reveal biographical information, including age, family status, religion and gender. The information provided in resumes by candidates, can create biased decision making and should not be considered during the screening process (Catano, Wiesner, & Hackett, 2016).

Interviews

While interviews are the time when a candidate can counter any assumptions or stereotypes that may occur either during the resume and application screening stage, assumptions may also take root in the interview. It is the responsibility of the person or persons who are interviewing a candidate to prepare for the interview to decrease the chance of gender stereotypes and bias from becoming a barrier. Three areas should be addressed prior to the interviewing stage;

- 1) Have a standard set of questions – a standard set of questions not only keeps the interview on track but ensures that candidates are treated fairly.
- 2) Use interview teams or panels – a panel allows interviewers to compare impressions and reduce the impact of individual bias. At least one person on the panel should be knowledgeable about the job being offered.
- 3) Beware of prohibited questions – prohibited questions can only be asked if it can legally form the bases of a hiring decision -a prohibited questions include questions regarding, race, religion, sex, sexual orientation, marital status, family status, records of offences, age and disability (Filsinger, 2015).

Interviews are also used to assess “non-cognitive abilities, including social skills, initiative, dependability, perseverance, teamwork, leadership skills, adaptability, or flexibility and organizational fit” (Catano, Wiesner, & Hackett, 2016, p. 404). It is this assessment during interviews that gender bias can affect the outcome of decision makers in a male dominated work force (Koch, D'Mello, & Sackett, 2015). This occurs when skills are not clearly defined and are left to interpretation by the interviewer. To lessen the impact of bias, a previously established rating scale based upon accurate KSAs from a recent job analysis can be used to assess the candidate’s ability to do the job (Catano, Wiesner, & Hackett, 2016).

Interviews that engage candidates in open-ended conversations, and not having structured questions or a rating system, are termed unstructured interviews. This type of interview allows an interviewer to interpret a candidate's behaviour and responses in an undisciplined fashion, creating room for discrimination (Catano, Wiesner, & Hackett, 2016). Research has shown that unstructured interviews are plagued with bias and perceptual and information-processing errors (Posthuma, Morgeson, & Campion, 2002). A way to counter the bias which occurs in unstructured interviews is using structured interviews, contributing to the increase in interview reliability and validity (Huffcutt & Arthur, 1994).

Selection Criteria

"The selection process for hiring is probably the most responsible for discrimination than any other area of employment practice (Filsinger, 2015, p. 56)." During the selection stage, human resources professionals and line managers including fire service members are required to make hiring decisions quickly, often leading to subconscious assumptions regarding candidates' abilities to do the job or 'fit-in' (Heilman, 2012). These assumptions may lead to subtle forms of discrimination (Filsinger, 2015) and bias, especially in occupations such as the fire service, where women have struggled to 'fit in' for decades.

Male dominated type positions such as firefighting are generally associated with male agentic characteristics, such as leadership, or being active, competent, athletic and courageous, which when coupled with gender stereotypes creates a 'lack of fit' for women entering these occupations. There is an expectation that a person's 'fit' with the job is not only related to their

abilities, but also that they have the attributes to do the job. As women stereotypically do not have the attributes associated with masculine jobs, it is assumed that they are not equipped to handle the job (Heilman, 2012).

Final Candidate Selection

Legislation such as the Ontario Human Rights Code R.S.O 1990 (OHRC) is designed to protect job applicants from discrimination. Section 23 of the OHRC protects job applicants by requiring the advertisements, application forms, interviews, and pre-employment testing programs to comply with human rights law (Ontario, 1990). At each stage of the employment process, an employer should document all decisions made. Proper documentation made at the time of the decision provides employers a credible basis to defend against allegations of discrimination (Filsinger, 2015).

Most people hold implicit biases regarding certain behaviours of people who identify with a group. This has implications in the selection of candidates for jobs that have typically been held by males (Koch, D'Mello, & Sackett, 2015; Luzadis, Wesolowski, & Snavelly, 2008). These biases either conscious or unconscious can lead to employment decisions based on stereotypes rather than ability to perform the job (Bendick & Nunes, 2012). Ambiguous qualifications can also lead to bias, allowing it to flourish. Ambiguity within the criteria for evaluation also leads to bias in performance outcomes, therefore to curtail biased evaluation of women, information must be job relevant and based upon established KSAs. If relevant information of performance and evaluation criteria are not established through KSAs, biased expectations will eventually become the basis for organizational decision making (Heilman, 2012).

Bias in Hiring

Over time, the OHRC has decreased the amount of explicit bias in hiring through requirements for employers to maintain a workplace that is free from discrimination and harassment (Ontario Human Rights Commission, 2013). This however does not mean employment is free from bias. Implicit bias causing discrimination can have an adverse impact on members associated with a demographic group.

Stereotypes serve as shortcuts for forming impressions that help with energy saving decision making. Gender stereotyping when hiring may lead to both advantages and disadvantages that may not be due to a candidate's knowledge abilities and skills, but because of the group they belong to (Heilman, 2012). Therefore, gender stereotyping may occur during the hiring process when checks and balances are not put in place to guard against it (Koch, D'Mello, & Sackett, 2015; Warren, 2009). For example, research has shown that men consistently have higher ratings than women in masculine jobs, and that women may be more likely to face discrimination in male dominated environments. Even when the environment was not male dominated, research found that male raters favoured male candidates regardless of the sex distribution of the job (Koch, D'Mello, & Sackett, 2015).

To counter this, evidence from the research showed that when hiring decision makers were experienced human resources professionals they showed less gender bias in candidate selection. It is thought that these experienced professionals had learned to avoid stereotypical thinking. Additionally, when decision makers had an increased feeling of accountability

regarding their decision, and believed that their decision had real-life consequences, they tended to make less biased decisions (Koch, D'Mello, & Sackett, 2015).

Chapter 3 – Research Approach

The intent of this research paper is to understand and identify the barriers women may face when entering a male dominated career such as firefighting. The approach included primary and secondary research including analysis of empirical data collected through an on-line survey. The construction and analysis of the survey was guided by literature on concepts related to human resources best practices, bona fide occupational requirements and physical abilities testing.

Literature Review

To understand barriers women are faced with when entering a career in firefighting, an examination of contemporary research in human resources best practices, including areas related to Human Rights, bona fide occupational requirements (BFOR), and firefighting qualifications was necessary. To fully appreciate these concepts, Chapter 2 of this paper provides their basis. Specifically, research on physical abilities testing was discussed using the latest available literature regarding the scientific establishment of defensible BFORs. Further, this literature was examined to evaluate the methodology used in creating candidate physical abilities tests predominantly executed in the province of Ontario.

The literature review also examined best practices in human resources management, aimed at understanding where possible barriers exist with women entering a career in firefighting. These concepts are identified in Chapter 2 of this paper and cover the areas of screening and selection; pre-hire qualifications, job postings, information gathering, screening criteria, interviews and candidate selection.

Human Resources Best Practices Survey

To fully appreciate and understand barriers women face when entering firefighting as a career, a survey was created examining first hand human resources best practices. Using the University of Western Ontario's Qualtrics survey database, a survey was created, asking 48 questions, related to hiring practices of Ontario municipal human resources departments. A notice inviting participation in the on-line survey was sent to 45 hiring staff in municipal human resources departments across Ontario, who employed full-time firefighters, part-time firefighters or both.

The survey was distributed on-line beginning March 22, 2018 and closed April 29, 2018.

Of the 45 municipalities who received the survey, 25 municipalities accessed it during the open period, with 17 municipalities starting the survey, and 16 municipalities completing the entire survey.

The survey questions are aligned with the themes introduced in the literature review and methodology section of this research paper. Survey themes included; pre-hire qualifications, job postings, information gathering, screening criteria, interviews and candidate selection. A later section of this paper will provide an analysis of the results found through the survey.

Refer to Appendix A for the survey questions, and table 1 below for the survey themes and rationale. The rationale provided in the table is to coincide with the literature review and the findings from the survey.

Theme	Number of Questions Asked	Rationale
Understanding Respondents	5 (Q1-3)	Understanding responding municipalities
Job Analysis	4 (Q4-7)	Establish a concept of what physical testing and education is required prior to application
Job Advertisement	19 (Q8-16)	Establish if job analysis has been completed, and any modifications to job postings due to job analysis
Information Gathering	9 (Q17-25)	Determine recruiting practices and collection of demographic data
Selection Criteria	8 (Q26-33)	Establish how municipal fire services and HR departments work together for candidate selection
Interviews	11 (Q34-44)	Explore how municipal fire services conduct candidate interviews
Final Candidate Selection	4 (Q45-48)	Establish how municipal fire services retain and use candidate data for selection and information retention

Table 1 Survey Themes and Rationale

Limitations of the On-Line Survey

This research did not focus on data specifically representative of women in the fire service and did not request the number of women hired or employed within the municipalities. Since numbers related to gender are not present, this research will not be examining the relationship between hiring women and Human Resources best practices.

Although 17 municipalities responded to the on-line survey, it would be inaccurate to assume they are representative of all municipalities. Instead the results can only provide an illustrative overview of a municipality's hiring practices for firefighters, and definitive results are not possible based on the dataset.

Although confident all 45 municipalities who received an invitation to complete the survey met the criteria of employing either full-time or part-time firefighters, there is a possibility that some municipalities may have been excluded unintentionally from the study, on the basis that this information is not published nor easily accessible at the provincial level.

Chapter 4 - Analysis

Applying Physical Testing in Canada

While human rights legislation is similar in countries with a legal system based on common law, there are some differences to note that affect Canada. For example, in the United States an employer cannot adjust scores or apply different cut-off times in the case of physical testing results, based on age and gender; however, in Canada, when considering a bona fide occupational requirement (BFOR), age and gender must be considered (Adams, 2016) for the purpose of minimizing any adverse impact on candidates.

In applying the Meiorin decision, the Supreme Court of Canada found that researchers had developed the testing standard based on the average performers or norm-referenced and did not distinguish between males and females. The researchers had failed to measure for actual job performance-based needs (Adams, 2016). The court determined that to meet the criteria for a BFOR the test should have been based on the “minimum aerobic capacity to perform the job safely and efficiently” (Supreme Court of Canada, 1999, p. 40). This means that to qualify as a BFOR the physical employment standard must represent a minimum level of safe and efficient job performance (Adams, 2016; Cox & Messing, 2006; Jamnik, Gumienak, & Gledhill, 2013). This does not mean “applying different standards to different groups of individuals, but in an approach that holds employers to demonstrating a sufficient connection between a uniform physical standard of employment and the actual minimum requirements to perform the job safely and efficiently” (Adams, 2016, p. 63).

This means that in Canada, the physiological standard should be based on the 'safe and efficient' performance of front line female and older male workers (Jamnik, Gumienak, & Gledhill, 2013). It needs to be taken into consideration that women on average have 30% less ability to access and use oxygen for energy compared to men (Cox & Messing, 2006). When this is applied to short duration timed physical testing, women's bodies are not able to compensate and are at a disadvantage during the test. This is not to say that women are incapable of meeting the same physical requirements as men. Historically some "women were specifically chosen by employers because they possess physical attributes similar to those traditionally possessed by men and have thus been able to meet the previous male-based norms" (Cox & Messing, 2006, p. 35) . This small percentage of women were often used in the feminist movement to demonstrate women as being "equal" but "denying the reality of biological differences between women and men can actually be harmful to attempts to recruit and retain women in non-traditional jobs" (Cox & Messing, 2006, p. 32).

Ontario Fire Services

Fire services in Ontario are municipally based and have the ability to choose which physical test candidates must pass prior to application, either by contract to a third-party agency or through the administration of their own in-house physical testing. The majority of services use only two tests through third party agencies.

York University Physical Abilities Test

The York University test (York Test) was first established in 1992. This test was established using a job analysis and norm-referenced testing to establish what tasks would be selected for

the test and which tasks would either be a pass/fail or timed event. To establish the cut-off scores for the timed tasks, they were performed by 53 randomly selected experienced firefighters; these performance times were used to establish the standards of the acceptability for the tests (Gledhill & Jamnik, 1992).

This physical testing was established to simulate commonly encountered and essential firefighting operations as described in table 2.

Task	Timed or Untimed
Ladder Climb	Untimed
Claustrophobia Test	Untimed
Ladder Lift	Untimed
Rope Pull	Timed
Simulated Hose Advance/Drag	Timed
Hose Carry/Stair Climb	Timed
Victim Drag	Timed

Table 2 Essential Firefighting Operations

When this test was first established in 1992, no indication of gender was indicated in the test bank of incumbent firefighters, though the age range was identified between 24 and 40 years (Gledhill & Jamnik, 1992). Due to the very low numbers of women in firefighting at that time, it is very unlikely that any of the test participants were women and having no test takers over the age of 40 means that older men were also not represented in the test scores.

Since 1992, the same professionals who established what has come to be known as the 'York Test' in firefighting communities have worked to improve its validity. They, like others in their field have attempted to establish a research process template for the development of physical

tests, taking into consideration Canada's Supreme court decision in 1999, regarding BFORs. In their 12-step process, the 10th step "evaluate the results of applying the physiological employment standard then address any adverse impact and the possibility of accommodation" (Jamnik, Gumienak, & Gledhill, 2013, p. 2449) helps to expose how essential it is to consider adverse impact when developing physical abilities testing. Jamnik et al. (2013) stressed the importance of taking into consideration that sub-groups of incumbents such as women and older males who are still performing the critical job tasks, and it is the standard by which they do their job from which performance standards and cut-scores should be derived (Jamnik, Gumienak, & Gledhill, 2013).

Candidate Physical Abilities Test

The Candidate Physical Abilities Test or CPAT is used by the vast majority of fire services in Ontario. This physical ability test was developed in partnership between the International Association of Fire Fighters (IAFF) and the International Association of Fire Chiefs (IAFC). It was developed using subject matter experts as raters to establish a cut score using the bookmark method. The task force was developed in 1998, and consisted of subject matter experts from various fields, including, firefighting, law, kinesiology, exercise physiology and psychology. This task force established a job analysis through a Likert survey sent to all ten participating jurisdictions, with only one participating jurisdiction being Canadian. The survey was designed to identify the essential tasks of entry level firefighters and was completed by 980 respondents. Through this survey data the job tasks that would make up the CPAT were established (IAFF, 1999). The methodology for establishing the tasks that went into the CPAT was valid, as

research indicates a job analysis needs to be completed prior to establishing a test (Jamnik, Gumienak, & Gledhill, 2013; Petersen, et al., 2016; Zumbo, 2016).

To establish the cut score the task force used 33 training officers (7 female) as raters from the ten participating jurisdictions to view visual recordings of a male and a female firefighter completing the CPAT circuit. There was no description in the research to indicate which recordings were completed by the male and which were completed by the female. In total there were 13 recordings ranging from a time of 7min30sec to 12min10sec. The raters were tasked to analyse for a specific intensity that “separates minimally acceptable from unacceptable job performance” (IAFF, 1999, p. 76). After viewing the recordings, the raters bookmarked what they believed to be acceptable, marginally acceptable, marginally unacceptable and unacceptable. Only one round of bookmarking was completed. The videos showing a test time of 10min11sec and 10min 30 sec were equally chosen between acceptable and marginally acceptable, and from this a time of 10min20sec was extrapolated from the group’s decision. There was no discussion regarding why raters’ choices the way they did (IAFF, 1999) therefore, no discussion as to why nine of the 33 raters had a much higher time for marginally acceptable at 11 min25sec than the 10min 20sec ultimately decided upon.

In contrast, a very similar procedure was used to establish physical testing for Canadian Forces firefighters, after the previous physical test was challenged for age and gender discrimination and found not to be a BFOR. In this case the adjudicator found the test protocol to be sound

but the previous circuit test established prior to 1999 was discriminatory on the basis of age and gender (Rogers, Docherty, & Petersen, 2014).

Like the CPAT the Canadian forces use a circuit test as a performance standard for their firefighters. To establish this test, 25 experts were used as raters, to view 9 video recordings of test takers completing the circuit. The raters were asked to use the bookmark method to make their decisions regarding the opinion of the minimally acceptable level of performance (Rogers, Docherty, & Petersen, 2014). Where the two methodologies differ was the number of rounds of bookmarking that occurred. With the Canadian forces, three rounds were used, with discussion amongst raters encouraged between rounds as to the reasoning of their choices. In contrast the development of the CPAT only saw one round with no discussion. Using multiple rounds with discussion or argument reduces the subjectivity or bias which can occur when developing a physical abilities test (Tipton, Milligan, & Reilly, 2013). By opening up discussion regarding raters' choices, the group can establish a dialogue regarding how age and gender affect not only work performance but also the different techniques that are used by persons with different physical attributes to safely and effectively do the job.

Further criticism of the CPAT comes from Hulett et. al (2008) who argues that the test emphasises strength over aerobic capacity, and adversely affects women who have a statistically lower pass rate than men. The development of the CPAT was conducted in the U.S where physiological differences between older men and women cannot be taken into

consideration when establishing physical testing, unlike in Canada, where it is a requirement as per the Supreme Court decision on BFORs.

Survey Results: Looking at Human Resources Best Practices

Understanding the Respondents

Surveys were distributed to municipalities who hired full-time firefighters, part-time firefighters, or both, including 45 municipalities across the province of Ontario. Municipalities with only paid on-call firefighters or volunteer firefighters were excluded in the distribution.

Survey results are available in Appendix B.

Of the 45 municipalities who received the survey, 22 initially started the survey with 16 municipalities completing it. Through the majority of the survey, there was a total of 17 respondents. Of the 16 municipalities, only one municipality is exclusive to hiring part-time firefighters, with the remaining municipalities hiring predominantly full-time firefighters and five of the respondents hiring both full- and part-time firefighters. Table 3 details the number of part-time and full-time operational firefighters actively working for the municipality based on municipal responses. In the case of municipalities with part-time firefighters on staff, this ranges between 41 to more than 61 part-time firefighters. Further, when examining the results, a greater number of municipalities have less than 200 full-time firefighters with only three municipalities having more than 400 full-time firefighters.

Number of Part-Time Staff	Respondents	Number of Full-Time Staff	Respondents
0	17	0	0
1-20	0	1-100	9
21-40	0	101-200	8
41-60	1	201-300	2
61+	4	301-400	0
		401+	3
Total	22		22

Table 3 Survey Results by Municipality Size

Recruitment and Selection

The Ontario Human Rights Code (OHRC), sec. 14, allows employers to develop special programs to attract candidates for the achievement of equal employment opportunity. When asking municipalities if they request voluntary declaration by job applicants of their memberships in under-represented groups under sec. 14 of the OHRC, 13 respondents said no, compared to four saying yes; three fire services employ 200 or more firefighters and one employs less than 100. Of those four, they all collected information on the three designated groups, save for physical disabilities as this is not pertinent to fire services. Only three respondents' services retained and made use of the information for fulfilling corporate policies as well as gathering statistics. When explaining how they utilized the data, respondents stated that it was to meet the goals for increasing representation in the fire department as well as meeting established program goals to hire more individuals from underrepresented groups. All three of these departments employed 200 or more firefighters. Two of the respondents specifically looked at the data for trends in fire service candidate applicants.

For most respondents who do not collect and retain this voluntary data, reasons included: the fire service had not requested it, that it is not necessary to request the data, and in one case, the municipality who employed more than 400 firefighters felt it is illegal to request the data. Of the remaining six respondents who do not retain the data, their rationale spanned from organizationally it is not required, hiring practices are done from within (volunteer to full-time), they do not have diversity targets, or that they are presently looking into the collection process.

When asking municipalities if they are aware of any programs provided by their fire service to familiarize community members with fire service careers, including pre-entry programs involving physical educational or other relevant pre-entry requirements, ten of the 17 respondents are aware of the programs, with eight of the ten indicating that firefighters assist with the delivery of these programs. Meanwhile, four of the 17 respondents indicated they were not aware of a program being offered, while three were unsure if they were.

Job Advertisements

With respect to job advertisements, equally the fire department personnel and human resources are responsible for the approval of job postings. However, only eight respondents indicated through the approval process that job postings are reviewed for gendered language, while four indicated it was not reviewed for gendered language, and five respondents were unsure of a review process. No trend was evident regarding the size of the fire service and whether gendered language was reviewed.

Job Analysis

Questions four through seven of the survey reflect physical candidate testing for the pre-hiring of firefighters. Based on the 17 responses, most of the respondents use a third-party testing facility while only two used in-house testing, and seven used a combination of in-house and third party. Based on the results of the physical candidate testing provided to the human resources department, only one municipality indicated that results received were based on speed. The remaining were based on dichotomised pass/fail results. It is also worth mentioning that one respondent indicated that they are currently rebuilding their recruitment process for both volunteer and career firefighters and will be re-evaluating results received from physical candidate testing.

Except for three municipalities, all other respondents indicated the physical candidate testing had been validated and tested for job relatedness by an outside or third-party agency. Finally, with response to pre-selection criteria, ten of the 17 municipalities indicated their fire service requires the completion of the National Fire Protection Association Certification, NFPA 1001 1&2 prior to a candidate applying for an operational firefight position.

Questions eight through 16 were related to a firefighter's job duties, specifically to the accuracy of those duties. Questions were related to whether job analysis had been conducted in the past 5 years, whether there were required modification necessary to their job descriptions based on the analysis, whether job postings reflected updated modifications, and if an accurate assessment of their knowledge, skills, and, abilities (KSAs) were identified. This included other attributes or qualifications and whether pre-determined rubrics were used for candidate

assessments. Additionally, respondents were asked if when creating and approving job postings they are specifically reviewed for gendered language.

Only three respondents indicated that within the past five years, a job analysis for the role of an operational firefighter had been conducted, with two of these being large departments with 400 firefighters or more, while ten respondents did not know. Of those three respondents, only one municipality, a large department, modified the expectations and the occupational needs and duties of a firefighter, with it being reflected in the job posting.

Fairly consistently, each of the municipalities indicated that the job requirements for a career firefighter are based on KSAs, with abilities scoring the lowest (14 out of the 17 respondents) compared to skills (all 17 respondents), and knowledge (15 out of 17 respondents). Those municipalities that did not consider knowledge as a job requirement employed less than 100 firefighters.

When examining the required qualifications further, for the purpose of selecting a candidate, the questions were asked if preferred assets were considered separately from candidate's qualifications. Survey results indicated eleven of the respondents had indicated that they were considered separately while five responded no, and one did not indicate either way. Based on assessing preferred assets, six respondents indicated an established rubric or rating system was applied, compared to six who did not or were unsure if they did. When assessing preferred assets rated using an established rubric, the results were consistent across the board, with no

one asset standing out. Post-secondary education, paramedic, and career firefighting experience as well as demonstrated community experience ranked equally high. The survey showed that the majority of larger fire services considered preferred assets separately from required qualifications, but the size of the department did not determine how the assets were utilized in the selection process.

Screening Criteria

The following series of questions deal specifically with Human Resources best practices regarding the hiring process of operational firefighters. The initial question examines whether a municipality has a dedicated HR member for their fire service. Of the 17 respondents, seven indicated they do, while ten municipalities do not have a dedicated HR professional reporting into their fire service. There were no trends regarding the size of municipalities with a dedicated HR professional.

When asked if an established rubric or rating system was used against candidates required qualifications, 13 of 15 respondents indicated yes, while two indicated no. Of those, ten indicated the use of a rubric or rating system to assess preferred assets for candidates. In the case of a dedicated fire service HR professional, when asked which candidate applications are forwarded to fire service personnel for review and decision, three of the 14 respondents indicated all applicants were forwarded, while nine indicated applicants meeting the required qualification were forwarded. For two respondents, only those applicants meeting an established rubric for required qualifications and preferred assets were forwarded to fire service personnel for review and selection. When asked across the board, as an HR

professional that is not necessarily dedicated to the fire service, if they assist their fire service in the selection of candidates to move forward to the interview stage, all 17 respondents indicated that they do.

When asked if HR professionals complete the full suite of HR hiring practices for the fire service including candidate interviewing, 16 of the 17 respondents indicated yes, while one respondent from a large municipality indicated they did not.

When asking HR professionals if the fire personnel who were responsible for reviewing candidate applications are trained in human resources best practices, in the majority of cases, they are, save for three of the 17 respondents who indicated they were unsure. Fig 1. below identifies the categories of training completed for fire service personnel who reviewed firefighting candidate applications.

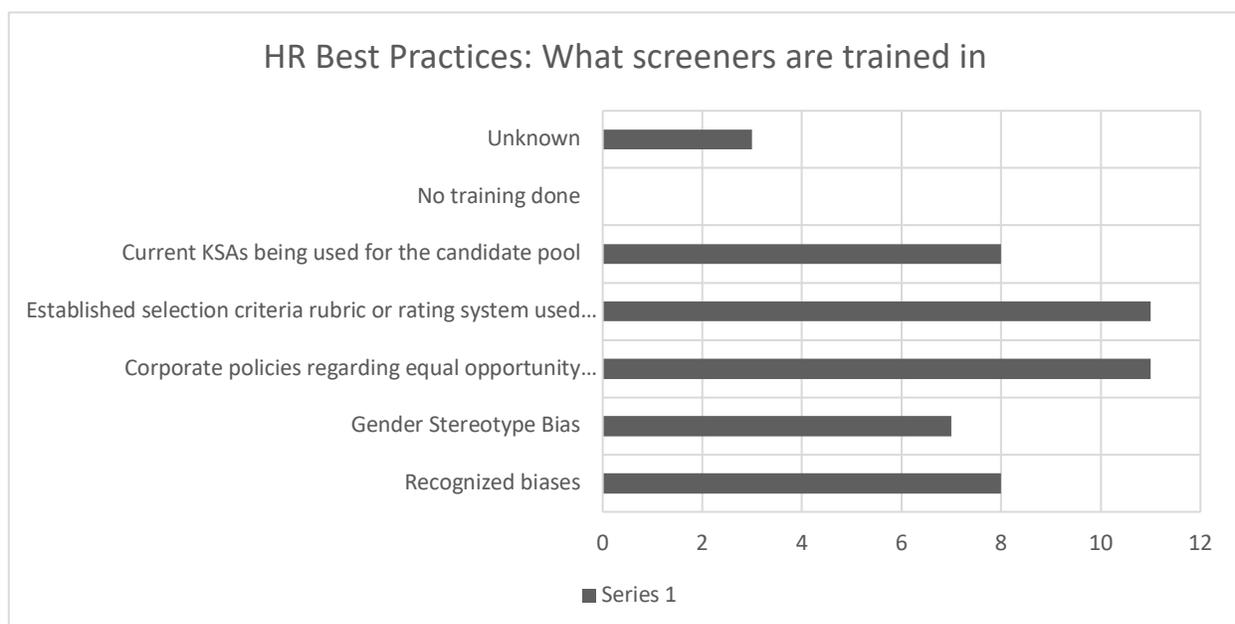


Figure 1 HR Best Practices: What screeners are trained in

Further to training of HR best practices for fire service personnel who are responsible for reviewing candidate applications, Fig.2 provides a pictorial representation of how and the frequency that training is completed for fire service personnel.

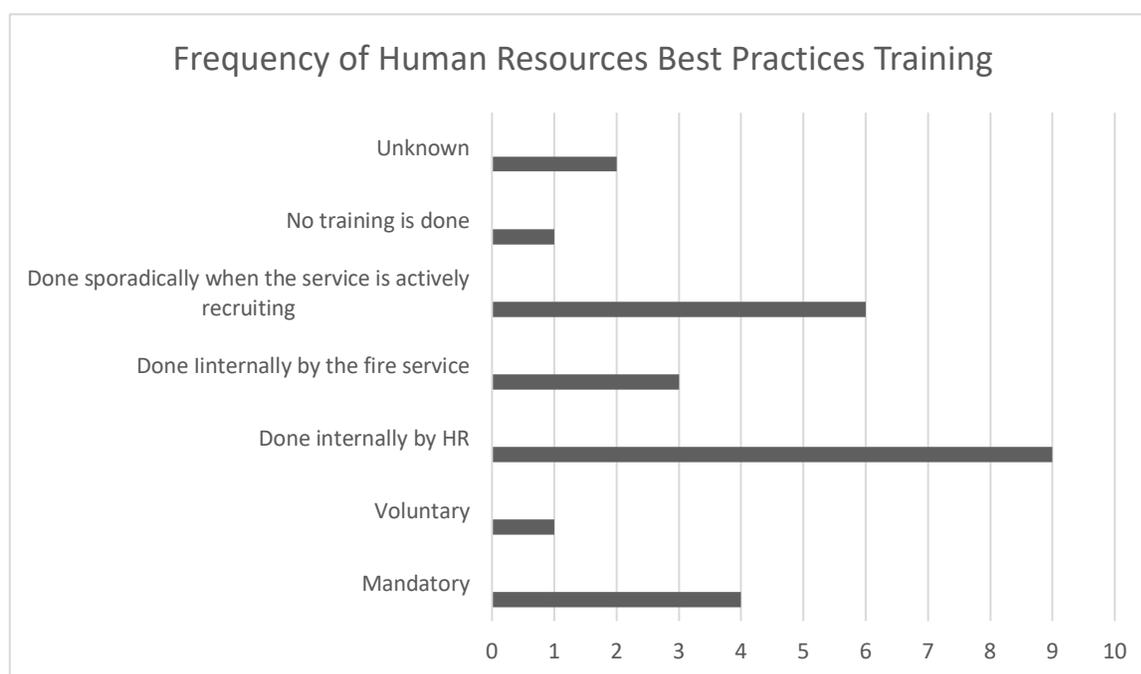


Figure 2 Frequency of Human Resources Best Practices Training

Interviews

During the interview process, 14 of the 17 HR respondents indicated they are present during a candidate's interview. Conversely, three municipalities indicated HR was not present during a candidate's interview, two of which were large fire services, while one employed 100 or fewer firefighters. Of those municipalities where an HR professional does not participate in a candidate's interview, all three indicated that someone present on the interview panel had been trained in the area of prohibited questions, bias and deviation from prepared questions. Of all 17 respondents, each indicated that interview questions were prepared and consistently

asked across all candidates, with both fire service and HR personnel involved in the development of the interview questions and rating scheme.

During interviews, only one respondent, a fire service of less than 100 firefighters, indicated a representative panel from the fire service was not present, compared to the remaining 16 respondents. Of those which responded a panel was present, panel members included a union representative, and senior fire officer, training officer, HR personnel, a woman and a member of a visible minority. Fig.3 provides a graphical representation of panel representatives. When asking municipalities if the panel membership remains consistent through the hiring process, and prior to the hiring decision, 13 of the 15 respondents indicated yes, while two noted the panel was inconsistent. Both respondents indicating that panels were not consistent were large fire services with 400 or more firefighters. The inconsistency in these panels may be due to the large volume of applicants being interviewed during the screening process. When asked if panel members were made aware of any potential bias during the interview and hiring process, eleven of the 15 respondents indicated yes, while two indicated no, and the remaining two were unaware.

Further, of the fire services who utilized a panel, when asked if they were made aware of HR best practices regarding prohibited questions and refraining from deviating from prepared questions, 14 of the 15 respondents indicated always. One of the respondents indicated they sometimes deviated.

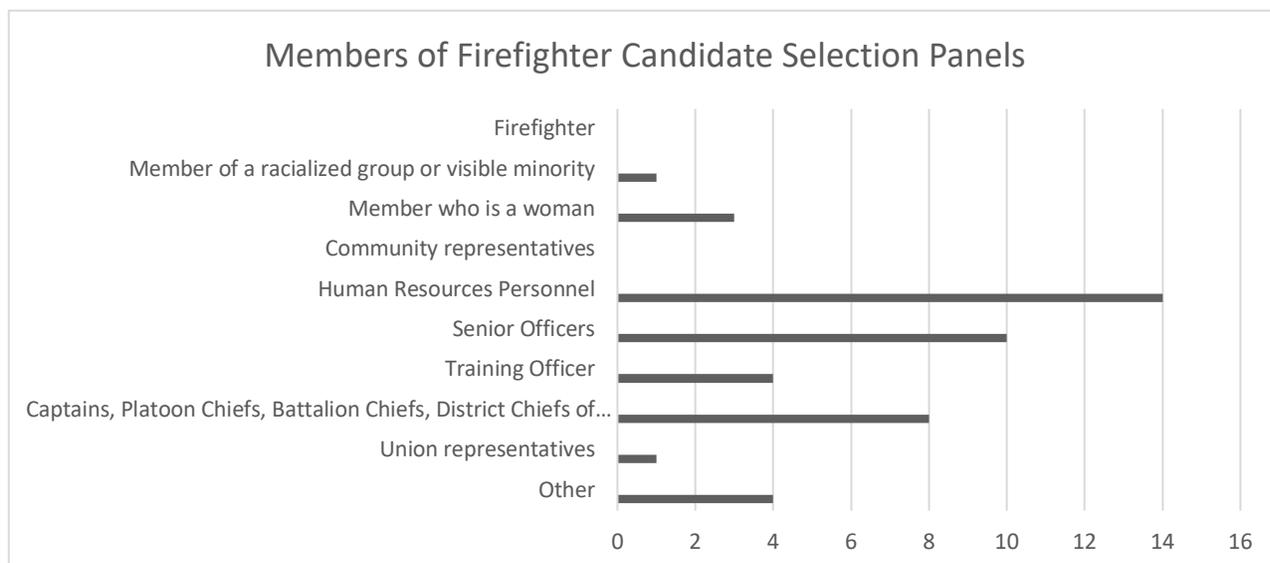


Figure 3 Members of Firefighter Candidate Selection Panels

Final Candidate Selection

The final questions of the survey surround the decision criteria. When asked if the decision makers assess each candidate against the pre-determined or established selection criteria all respondents indicated yes. Further, nine respondents indicated the assessment of a candidate was completed immediately after their interview, and before the next candidate. Four respondents indicated an assessment was completed prior to the completion of the interviewing day, while one respondent noted assessments were completed within 48hours of completing the interview phase, and the remaining indicated as soon as possible, following the conclusion of all interviews.

When asking municipalities if they retained written records from their interviews and selection meetings, 13 of the 16 respondents indicated they were retained for a period of time after hiring, with the remaining three stating they did not retain written records. Of the 13

respondents, records were retained for at least six months, and up to a period based in accordance with the municipalities retention by-laws varying between one and seven years.

Chapter 5 - Discussion

The research in this paper was not designed to definitively identify barriers to women entering the fire service. Its purpose was to explore where barriers may exist for women looking to become operational firefighters in Ontario.

Examining the Literature

To enter the profession of firefighting in Ontario, most municipalities require firefighter training and certification using the National Fire Protection Association (NFPA) 1001 firefighter training standard. Evidence of this was seen in the survey results with 11 respondents indicating a pre-hiring requirement included the completion of the NFPA training¹. When it comes to women graduating from these programs, the numbers are increasing, however that number is not consistent with women in the role of full-time firefighters, which remains at 5% (StatsCan, 2018). This information points to the possibility that there may be barriers between graduating from a pre-service firefighting program and job offer.

The recruitment process for any individual wanting to apply to a municipal fire service is neutral facing, in that regardless of your personal demographic status you must pass the same physical testing and interview process as every other potential candidate. However, upon closer examination of physical testing standards and interview processes, there may be evidence that women face more barriers than their male counterparts.

¹ As of January 1, 2019, all firefighters hired within the Province of Ontario will be required to have NFPA 1001 1&2 as per O. Reg. 379/18 Firefighter Certification, which is an amendment to the Ontario Fire Protection and Prevention Act 1997

To control bias in hiring decisions, it is important to understand how bias may occur. Bias can occur explicitly, through direct discrimination, which is generally easy to identify (Filsinger, 2015), such as 'male only' job advertisements. The more difficult bias to identify is implicit, where the bias is an unconscious association of traits with members from a demographic group (Bendick & Nunes, 2012). An example would include rating candidates on their speed or strength in completing physical abilities testing, which can lead to discrimination against women and members of some visible minority groups (Cox & Messing, 2006; Filsinger, 2015).

As discussed previously, most municipal fire services use third party contracting for firefighter candidate physical testing. Except for York University Physical Abilities test, the Candidate Physical Abilities Test (CPAT) is used by most municipalities. This paper has established the methodology of the CPAT may be flawed, compared to similar scientifically established physical testing. Additionally, the CPAT was established only months prior to the Canadian Supreme Court decision in 1999, which establishes the three-part test for bona fide occupational requirements. The Supreme Court's decision regarding BFORs states that performance standards for women and older men must be established and used and testing can no longer rely on performance standards from normative group samples. This normative group sample testing had historically been represented by Caucasian males and have not been adjusted for gender or age.

Physical Testing and BFORs

While employment standards testing can be developed and established with the purpose of developing a BFOR it is not until a tribunal or court has established that the specific physical

test does qualify as a BFOR. These judgements only occur when candidates undergoing physical abilities testing for employment are unsuccessful and choose to take legal action (Jamnik, Gumienak, & Gledhill, 2013). Several barriers can stand in the way of access to justice for these firefighting candidates. Candidates are often at a disadvantage because they are not employed in the field they are applying to, therefore have no union representation, typically do not know each other, nor do they have access to information regarding test scores or hiring rates between men and women. With regards to the CPAT, a pass/fail database is only available to those who are licensed by the International Association of Fire Fighters (IAFF) to administer the test. Therefore, it is challenging to attain pass/fail rates by gender. Through this research, only one reference to pass/fail rates was found in a published document. A research document on the physiological demands of the CPAT accessed the database in 2009; at that time the test had a pass rate of 98% for males and 48% for females, (Williams-Bell, Villar, Sharratt, & Hughson, 2009). This is ten years after the CPAT was established and three years after mandatory familiarization was required when the test was challenged to the U.S. Equal Employment Opportunity Commission for having a discriminatory impact on female candidates, (EEOC (IAFF, 2007).

This familiarization was also made mandatory in Canada, which means third party agencies charge money to have candidates familiarize themselves with the CPAT for a cost of \$150, or candidates can voluntarily exclude themselves and attempt the CPAT with no familiarization for a cost of \$223. Research completed by the IAFF has indicated that a six-week training course can also improve an individual's success at completing the CPAT (IAFF, 2007). Generally, this

six-week training course involves specialized equipment and a gym membership, increasing the cost of applying to fire services and time spent training.

While this research only focussed on major physical testing required by fire services, additional tests and reporting of tests may cause barriers to any individual applying to the fire service.

Others include:

- 1) **Eyesight:** Ontario and Saskatchewan are the only jurisdictions in North America which still require 20/30 uncorrected vision prior to applying to a fire service. This requirement is a recycled test from policing (Carmean, 1989). The NFPA standard which speaks to eyesight requirement was changed in 1992 and now states a candidate can have 20/40 vision corrected or 20/100 uncorrected (NFPA, 2018). This requirement forces many candidates to go through costly corrective eye surgery.
- 2) **Body Fat Percentage:** Any physiological employment standard must be based on the current ability to perform the job, and not on the future likelihood of failure to perform the job. Therefore, third party facilities using body fat percentage or the Body Mass Index (BMI), to establish future cardiac performance or weight related problems, cannot disqualify a candidate based on these physiological measures (Jamnik, Gumienak, & Gledhill, 2013, p. 2448).
- 3) **Rating for Speed or Strength:** Due to the physiological difference between men and women, any physical test which rates candidates for speed or strength is considered discriminatory against women (Adams, 2016). It is important to note that one responding municipality in the survey did state that they received candidate's ratings based upon speed of physical test completion.

Physical abilities testing has often been seen as neutral facing but can be causing adverse impacts to women. As Cox & Messing states, "physical employment testing can still act as a highly effective barrier to women's entry into non-tradition jobs" (Cox & Messing, 2006, p. 25).

If the physical aptitude testing being applied does not meet the Canadian requirements for BFORs then barriers to women still exist.

Human Resources Survey

One of the most potent ways a leader can embed and perpetuate their values into an organization is through the selection process. This often operates inconsistently and often resembles present member's leadership style, assumptions, values and beliefs. When hiring, leaders often assume the required characteristics in a candidate that is justifiable for hiring. It is not until someone from outside the organization becomes involved in the screening and selection process that the amount of 'fitting-in' to an organization is exposed (Schein & Schein, 2016).

The survey that was distributed to human resourced departments in Ontario was only to gather information of how municipal fire services are screening and selecting firefighter candidates.

This research has identified some areas that may require further consideration.

When asked about the current completion of job analysis, most municipalities had not completed one in the previous 5 years. Like most occupations, the role of a firefighter is constantly changing. For instance, in the last five years, Canada has experienced and continues to experience an opioid crisis; and greater natural disasters requiring emergency responses. These are just two examples requiring an examination into the role of a firefighter, as often, firefighters as first responders are first to the scene in an opioid overdose, or to a natural disaster. Without conducting a proper job analysis, or updating a firefighter's job description,

current job postings remain stagnant and do little to attract the people with the current and appropriate KSAs to the service. As indicated in the survey three municipalities complete job analysis which is congruent with the literature that a job analysis is essential (Catano, Wiesner, & Hackett, 2016) and reduces the reliance on stereotypes in screening and selection (Koch, D'Mello, & Sackett, 2015). Additionally, while Fire Chiefs are calling for more diversity within their ranks, job postings are not consistently being reviewed for gendered language, which has been proven to exclude and keep women out of areas that men typically occupy (Gaucher, Friesen, & Kay, 2011). While some fire services are collecting demographic data under sec. 14 to target prospective candidates, several respondents do not, with one believing it to be illegal.

Most survey respondents did instruct interview panel members on bias and stereotyping, but this was not consistent and, in some cases, did not exist. The literature shows when bias and gender stereotyping are not addressed decision makers in a male dominated work force tend to favour male candidates over female (Koch, D'Mello, & Sackett, 2015). No respondents reported that firefighters were used for interviewing, despite other members of the fire service personnel present on the board including a training director. While this is not surprising, something to be considered is with the short duration and low number of women in operational firefighting, the women may not have experienced operational firefighting. In general, this would mean that the people with operational firefighting experience on the interview panel are those that have received advantage from its organizational structure and culture and have never experienced the unique reality of a woman doing the job. By inviting women who are operational firefighters to the interview table, they would be opening a door

to a conversation from an individual with a very different work experience than the norm. As Filsinger (2015) states, panels should consist of people knowledgeable about the job being offered. Women in the role of operational firefighter are uniquely experienced in the job.

Concluding Remarks

This research has shown that while there are no overt barriers to women entering the fire service, the cumulative effect of many barriers which women face may be limiting the number of women reaching the interview table and receiving job offers.

Poor methodology when establishing physical testing has created a test where women fail at a disproportionately higher rate than men. The fact that women are not aware of their gender failure rate keeps them at a disadvantage by forcing them to do additional physical training or retake the test at a personal monetary and time cost. Further, this has the potential to eventually discourage good candidates from continuing with the process. Additionally, the test most predominantly used in Ontario for candidate selection has not been updated in 19 years, even though technology, and techniques used in the fire service are constantly evolving. The continued use of this test reinforces Schien's theory on underlying basic assumptions and beliefs and values, in that the values of the 'way we do things around here' are being passed down and that the way testing is being applied is correct with no questions asked.

While the survey of human resources departments in Ontario municipalities did not show any trends as to which departments consistently use HR best practices to hire operational firefighting candidates, there were some results to note. Generally, larger municipalities used

special programs to target under-represented groups within the fire service. These findings were also consistent with municipalities that had corporate hiring policies. These municipalities most likely have the resources to develop strategies and policies regarding best hiring practices, but they are also services which may be more visible and under more scrutiny by the media regarding their hiring practices (Cain, 2015). While Toronto Fire Services cannot definitively be identified as having been one of the respondents in this paper's survey, as a large municipal fire service it has actively engaged in diversifying its workforce since 2015. Through the active use of a Diversity Recruitment and Inclusion plan, Toronto Fire Services has increased the number of women in the role of operational firefighter to 5% in 2016 (Toronto Fire Services, 2017).

The inconsistency in hiring practices amongst fire services in Ontario leads to barriers for women, as the research indicated, some municipalities did not have HR professionals present during interviews, while other municipalities did not train interviewers on gender bias, prohibited questions and deviating from established questions. Each of these areas not only creates barriers to women but also may expose municipalities to legal action from candidates.

While some municipalities did make use of the special programs provision within the Ontario Human Rights Act section 14, most municipalities did not. While Fire Chiefs are calling for more diversity, they are not using a tool provided for them by the Ontario government.

Systemic discrimination as described by Agòcs causes disadvantage for some groups including women, and it is the cumulative effects of the barriers described in this paper that are

decreasing the number of women who receive job offers as operational firefighters in Ontario. While there has been an increase in the number of women completing pre-service firefighting training, it is up to the fire service to identify the barriers women are facing and address them.

The fire service can do a better job at identifying and addressing the barriers women face when entering the fire service. By updating physical abilities testing, eliminating recycled and discriminatory testing such as ratings based on speed and strength, the Ontario fire service can reduce barriers faced by candidates.

As fire services begin to recognize the need for diversity, they also realize the benefits of having a diverse team. Therefore, they should consider applying human resources best practices including conducting frequent job analysis for writing job descriptions for recruitment, through to creating standardized processes in the screening, interviewing and selection phases of hiring operational firefighters. Incorporating HR best practices into the hiring of operational firefighters not only standardizes the screening and selection, but more importantly, it reduces the barriers for candidates. While Fire Chiefs and Fire Associations call for more diversity, they should also be working with their internal HR Departments and the Professional Association for Human Resource Management to create a toolkit, ensuring standardized processes are in place, assisting municipal fire services to reduce and break down any barriers, reduce gender bias and stereotyping during the recruitment and hiring of future operational firefighters.

Chapter 6 - Future Research

Through the research for this paper it was discovered that no official statistics regarding the demographics of the fire service in Ontario were available. The only statistics came from the 2016 National Household Survey completed by Statistics Canada. Without having the demographics, it is difficult to comprehend the status of women serving in the fire service. This also challenges diversity strategies when there are no numbers to evaluate continuity and change in representation levels. Therefore, more statistics need to be gathered at every stage, from recruitment, all the way through the promotional process, to create effective diversity programs.

The survey used in this research should be expanded for demographic data and repeated at 5-year intervals to create a better understanding of how successful departments use special programs to target the hiring women and visible minorities. It would also be advantageous to couple this with tracking of rank and tenure within the fire service, to see how women and visible minorities are progressing through the hierarchy.

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Appendix A

Human Resources Survey

The following pages include the survey questions distributed to 45 municipalities across the province of Ontario. This survey has not been altered save for formatting.

Start of Block: Demographics

Q1 Does your municipality hire

- Only part-time operational firefighters
- Only full-time operational firefighters
- Both

Q2 How many part-time operational firefighters do you have on staff?

- 0
- 1 to 20
- 21 to 40
- 41 to 60
- 61 or more

Q3 How many full-time operational firefighters do you have on staff?

- 0
- 1 to 100
- 101 to 200
- 201 to 300
- 301 to 400
- 401 or more

End of Block: Demographics

Start of Block: Pre-hire Qualifications

Q4 What type of physical candidate testing does your fire service utilize for pre-hire candidates?

- Third party testing facility
- In house testing
- A combination of A & B
- Other - please specify _____

Q5 What is included in the results of the physical candidate testing provided to HR, either by the candidate directly or the testing facility? Please select all that apply.

- Pass/Fail Only
- Rating based on speed
- Rating based on strength
- Body fat %
- Other - please specify _____

Q6 As far as you are aware, has the physical candidate testing used by your municipality been validated and tested for job relatedness by an outside or third-party agency?

- Yes
- No
- Unknown

Q7 Does your fire service require the completion of the National Fire Protection Association Certification (NFPA) 1001 1&2 prior to applying?

Yes

No

End of Block: Pre-hire Qualifications

Start of Block: Job Postings

Q8 Within the past 5 years, has there been a job assessment for the position of operational firefighter?

- Yes
- No
- Unknown

Q9 Did it result in any modification to the expectations, occupational needs and duties, of the role of firefighter?

- Yes
- No

Q10 Were the modifications reflected in your job postings?

- Yes

No Q11 Are the job qualification requirements or preferred assets based on Knowledge, Skills, Abilities (KSAs)? Please indicate all that apply.

Knowledge - for example: Post-secondary education, Fire Protection Engineering or Prevention education and medical training

Skills - for example: the number of years with; previous firefighting experience, as a personal support worker, or trade experience,

Abilities - for example: moving non-ambulatory patients, use of hand tools or communicating effectively with members of the public, including different ethnic backgrounds, communicating and working in a team environment.

Q12 Are preferred assets considered separately from required qualifications for the purpose of candidate selection? For example: Military or trade experience, post-secondary education, nursing, personal support worker.

- Yes
- No

Q13 Are the preferred assets rated using an established rubric, or rating system?

- Yes
- No, we do not rate preferred assets using an established rubric, or rating system

Unknown

Q14 Please select all the preferred assets that are rated in the established rubric from the list below

- Post-secondary education
- Nursing
- Paramedic
- Fire Engineering
- Mechanical Engineering
- Volunteer firefighting experience
- Career firefighting experience
- Demonstrated Community Experience
- Specialized training
- Other - please specify _____

Q15 Who approves job postings? Please choose all that apply.

- Fire department personnel
- Human Resources professionals
- Union representatives
- Other - please specify _____

Q16 Are job posting reviewed for use of gendered language? For example, using terms such as collaborative and committed instead of individual and assertive.

- Yes
- No
- Unknown

Q17 Are you aware of any programs provided by your fire service to familiarize community members of careers related to fire service, including pre-entry programs involving physical, educational or other relevant entry requirements?

- Yes
- No
- Unknown

Q18 Do current firefighters assist with the delivery of this program?

- Yes
- No
- Unknown

End of Block: Job Postings

Start of Block: Selection Criteria for the role of Operational Firefighter

Q19 Section 14 of the Ontario Human Rights Codes allows for Special Programs, allowing employers to develop a program to achieve equal opportunity. Does your municipality ask candidates to voluntarily declare membership in one or more of the designated groups?

- Yes
- No

Q20 Which designated groups are listed? Please specify all that apply.

- Woman or Female
- Member of a Visible Minority
- Aboriginal
- Other - please list _____

Q21 Do you retain this data?

- Yes
- No

Q22 Do you make use of the data?

- Yes
- No
- Unknown

Q23 Please explain why you do retain this data

- It is corporate policy
- It is fire service policy
- For gathering statistics
- Other - please explain _____

Q24 Please explain how you use this data? Select all that apply.

Your fire service established goals for increasing the representation of under-represented groups (women, visible minorities, Aboriginal people) within a _____ timeframe.

Your service has an established program to hire more persons from under-represented groups (women, visible minorities, or Aboriginal people) but do not have an established goal or timeframe.

Your fire service is looking for trends in candidate applicants.

Other - please explain _____

Q25 Please explain why you do not retain this data

It has never been requested by the fire service

It is illegal to request this data

It is not necessary to request this data

Other - please explain _____

Q26 Does your municipality have a dedicated HR staff member for your fire service?

Yes

No

Q27 Does your HR staff member use a previously established rubric, or rating system to rate candidates based on required qualifications?

Yes

No

Q28 Does your HR staff member use a previously established rubric or rating system to rate preferred assets of candidates?

Yes

No

Q29 If your municipality has an HR staff member for your fire service, which candidate applications are sent to fire service personnel for review and decision? (Select all that apply)

All applicants

All applicants meeting the required qualifications

Applicants are rated using an established rubric for required qualifications and preferred assets and forwarded for review and selection.

Q30 Do you as an HR department assist your fire service in the selection of candidates to move forward to the interview stage?

Yes

No

Q31 Does an HR representative complete the full suite of HR hiring services for the fire department, including candidate recruitment, selection, internal testing (if applicable, or collection of information from third-party testing centre) and candidate interviewing?

Yes

No

Q32 Are fire service personnel who are reviewing the candidate applications, trained in human resources best practices? Please choose all that apply

- Recognize biases
- Gender Stereotype Bias
- Corporate policies regarding equal opportunity employment
- Established selection criteria, rubric or rating system used for recruitment
- Current KSAs being used for the candidate pool
- No training done
- Unknown

Q33 Please choose all that pertain to the training of HR best practices of fire service personnel reviewing candidate applications:

- Mandatory
- Voluntary
- Done internally by HR
- Done internally by the fire service
- Done sporadically when the service is actively recruiting
- No training is don
- Unknown

Start of Block: Interviews

Q34 Is at least one HR personnel present during firefighter candidate interviews?

Yes

No

Q35 Is someone on the interview panel trained in any of the areas listed below? Please select all that apply.

Prohibited questions

Deviating from prepared questions

Bias

Other - please explain _____

Q36 When conducting candidate interviews, is a prepared list of interview questions used?

Yes

No

Q37 Are questions consistent across all candidates?

Yes

No

Q38 Do fire service personnel and HR personnel work together to develop interview questions and a rating rubric for candidate interviews?

Yes

No

Q39 Who is responsible for establishing the interview questions?

- Human resources personnel
- Fire service personnel
- Questions from previous hiring interviews are used

Q40 Are candidate interviews completed using a panel of representatives from the fire service?

- Yes
- No

Q41 Please indicate who would be on the panel? Please choose all that apply.

- Firefighter
- Union representatives
- Captains, Platoon Chiefs, Battalion Chiefs, District Chiefs or Lieutenant
- Training Officers
- Senior Officers
- Human Resources personnel
- Community representative
- Member who is a woman
- Member of a radicalized group or visible minority
- Other - please specify _____

Q42 Does the panel's membership stay consistent throughout the entire interview process prior to a hiring decision?

Yes

No

Q43 If your fire service uses an interview panel, are the members of that panel made aware of potential bias in interviewing and hiring?

Yes

No

Unknown

Q44 If your fire service uses a panel as described in the prior questions, is the panel made aware of best HR practices when interviewing candidates, including avoiding prohibited questions and not deviating from the prepared questions?

Always

Sometimes

Never

End of Block: Interviews

Start of Block: Candidate Selection

Q45 After the interview process do the hiring decision makers assess each candidate against the established selection criteria?

Yes

No

Q46 When is the assessment done?

- Immediately, before the next candidate
- Prior to the end of the interviewing day
- Within 48 hours of the interview
- Other - please specify _____

Q47 Are written records of interviews and selection meetings retained for an established period of time after hiring?

- Yes
- No

Q48 How long do you keep the candidate interview records?

- Until all job offers are approved
- Until the recruit class begins
- Until the recruit class ends
- Up to six months
- Up to two years
- Other - please specify _____

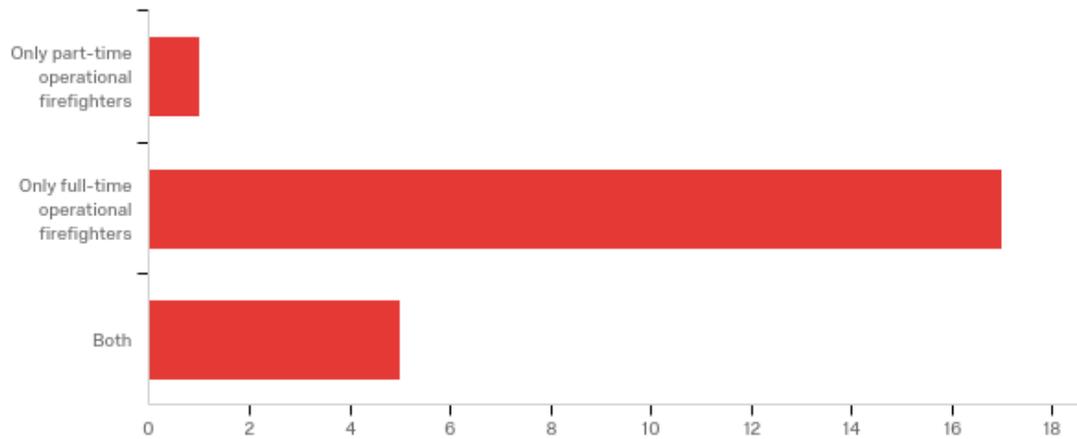
End of Block: Candidate Selection

Appendix B

Human Resources Survey Results

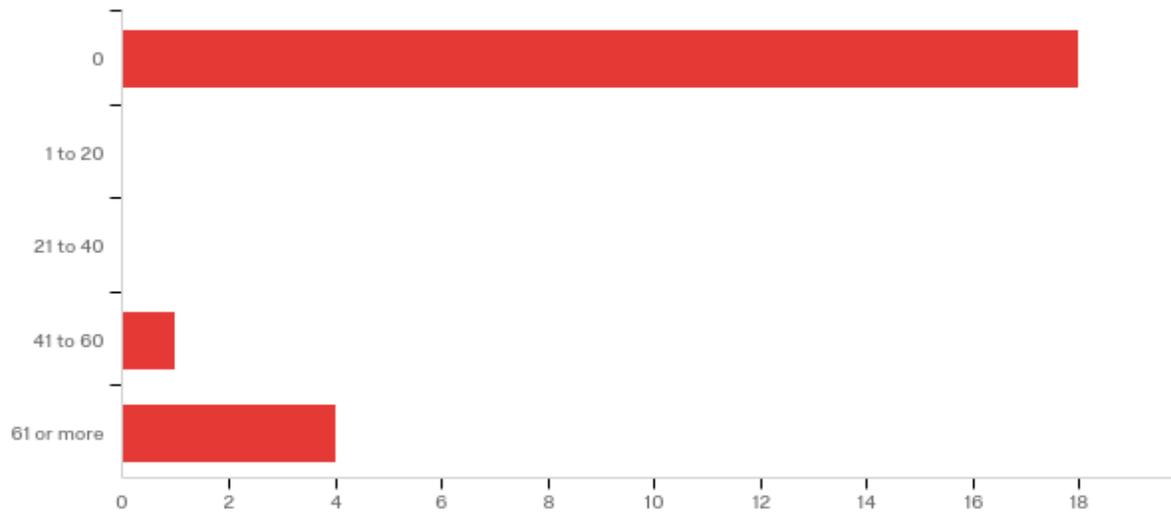
The follow sections include the survey results, unaltered save for formatting purposes.

Q1 - Does your municipality hire



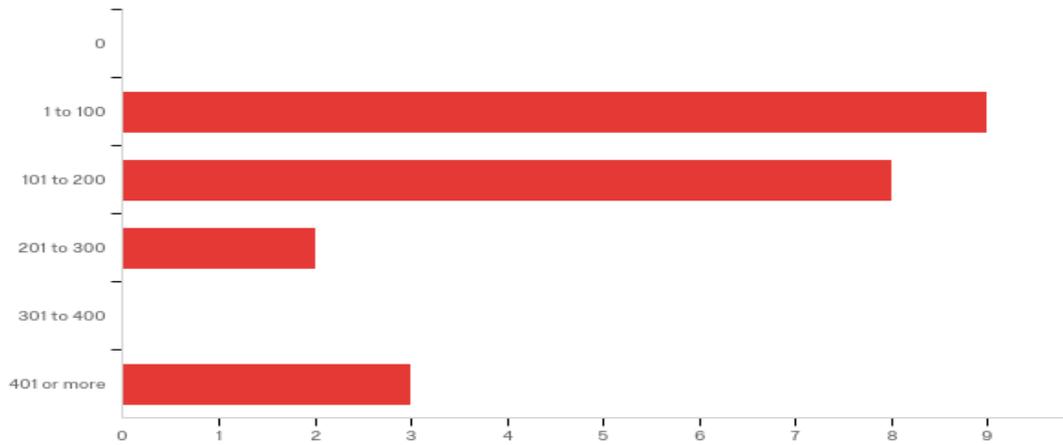
#	Answer	%	Count
1	Only part-time operational firefighters	4.35%	1
2	Only full-time operational firefighters	73.91%	17
3	Both	21.74%	5
	Total	100%	23

Q2 - How many part-time operational firefighters do you have on staff?



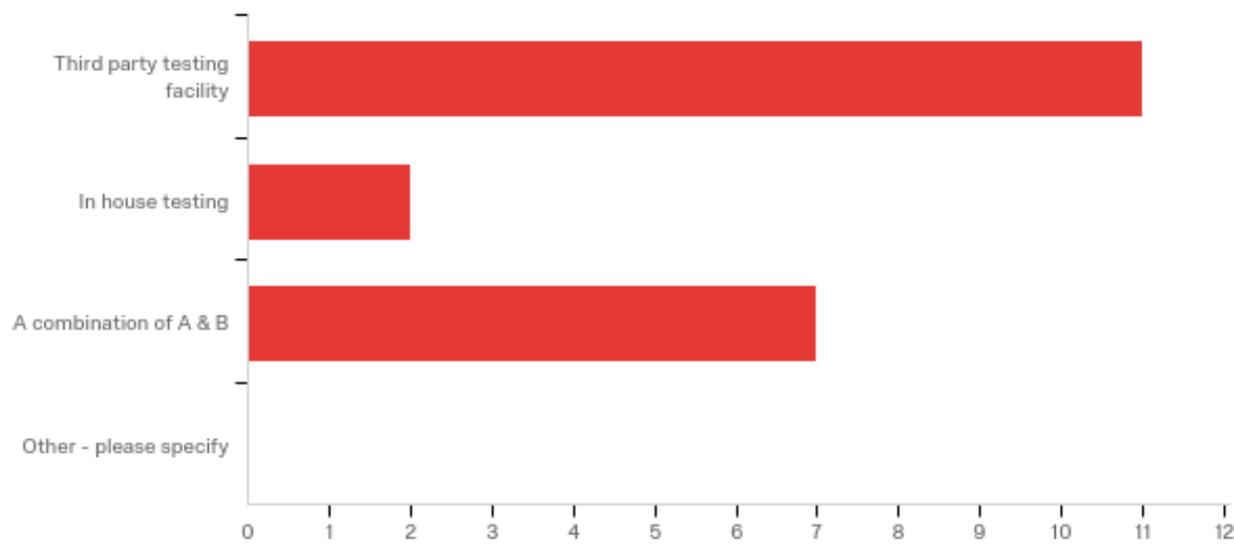
#	Answer	%	Count
1	0	78.26%	18
2	1 to 20	0.00%	0
3	21 to 40	0.00%	0
4	41 to 60	4.35%	1
5	61 or more	17.39%	4
	Total	100%	23

Q3 - How many full-time operational firefighters do you have on staff?



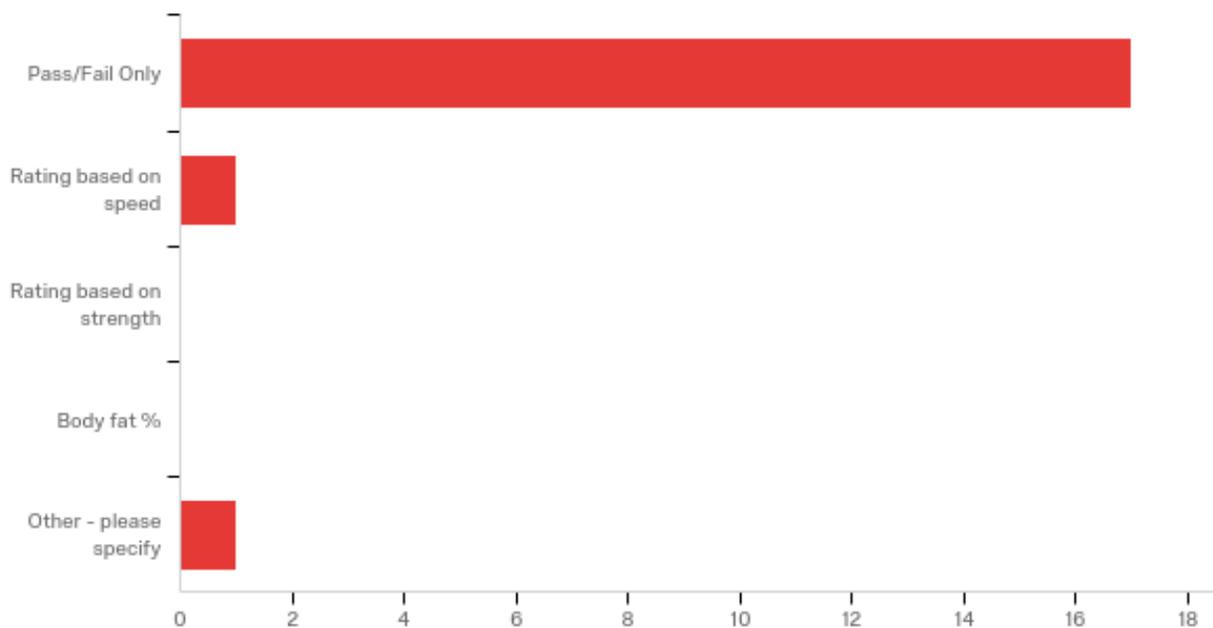
#	Answer	%	Count
1	0	0.00%	0
2	1 to 100	40.91%	9
3	101 to 200	36.36%	8
4	201 to 300	9.09%	2
5	301 to 400	0.00%	0
6	401 or more	13.64%	3
	Total	100%	22

Q4 - What type of physical candidate testing does your fire service utilize for pre-hire candidates?



#	Answer	%	Count
1	Third party testing facility	55.00%	11
2	In house testing	10.00%	2
3	A combination of A & B	35.00%	7
4	Other - please specify	0.00%	0
	Total	100%	20

Q5 - What is included in the results of the physical candidate testing provided to HR, either by the candidate directly or the testing facility? Please select all that apply.



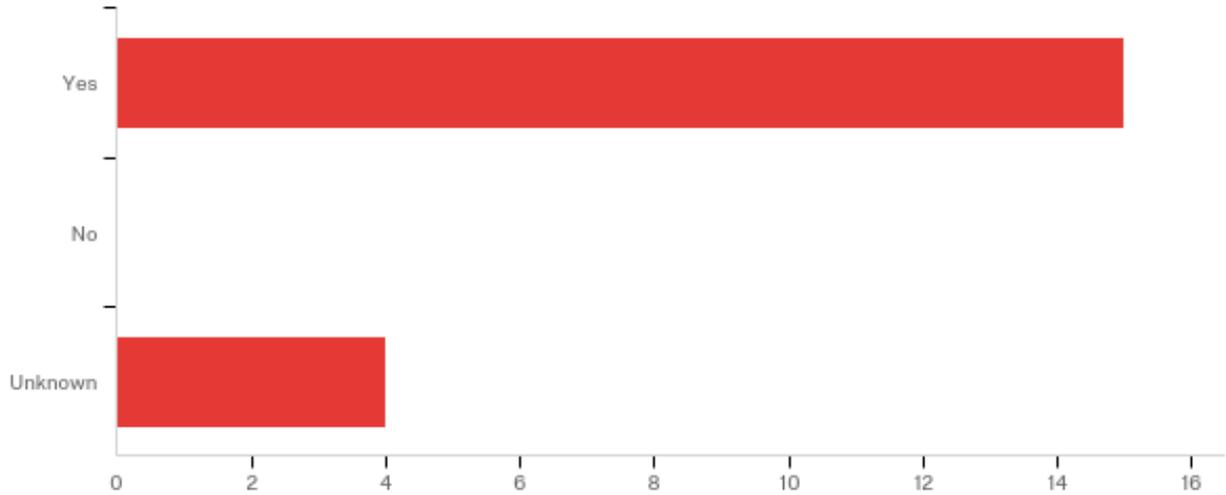
#	Answer	%	Count
1	Pass/Fail Only	89.47%	17
2	Rating based on speed	5.26%	1
3	Rating based on strength	0.00%	0
4	Body fat %	0.00%	0
5	Other - please specify	5.26%	1
	Total	100%	19

Other - please specify

Other - please specify - Text

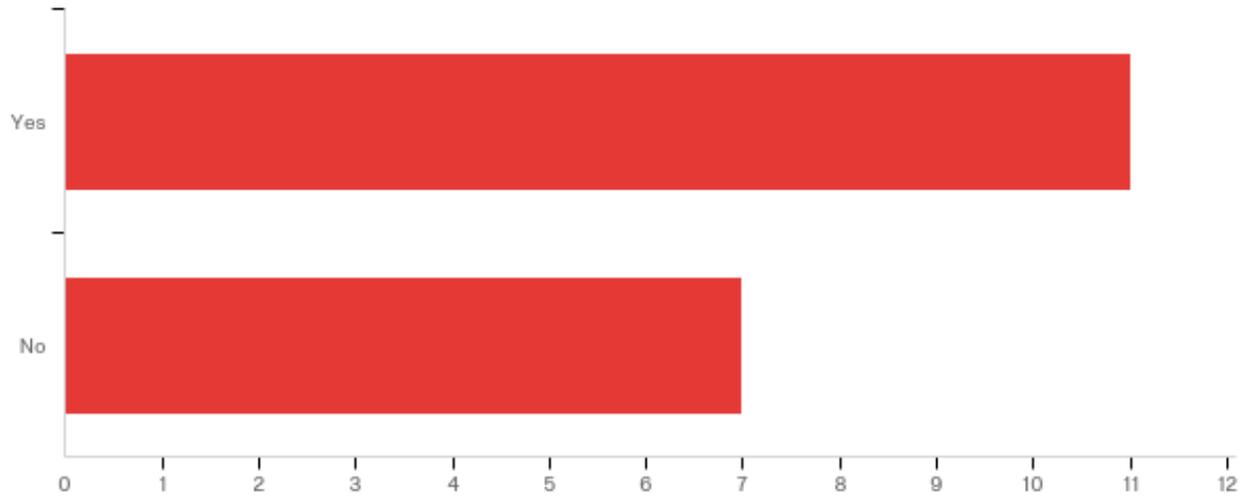
Unsure as we are currently rebuilding our recruiting process for career and volunteer fire fighters

Q6 - As far as you are aware, has the physical candidate testing used by your municipality been validated and tested for job relatedness by an outside or third-party agency?



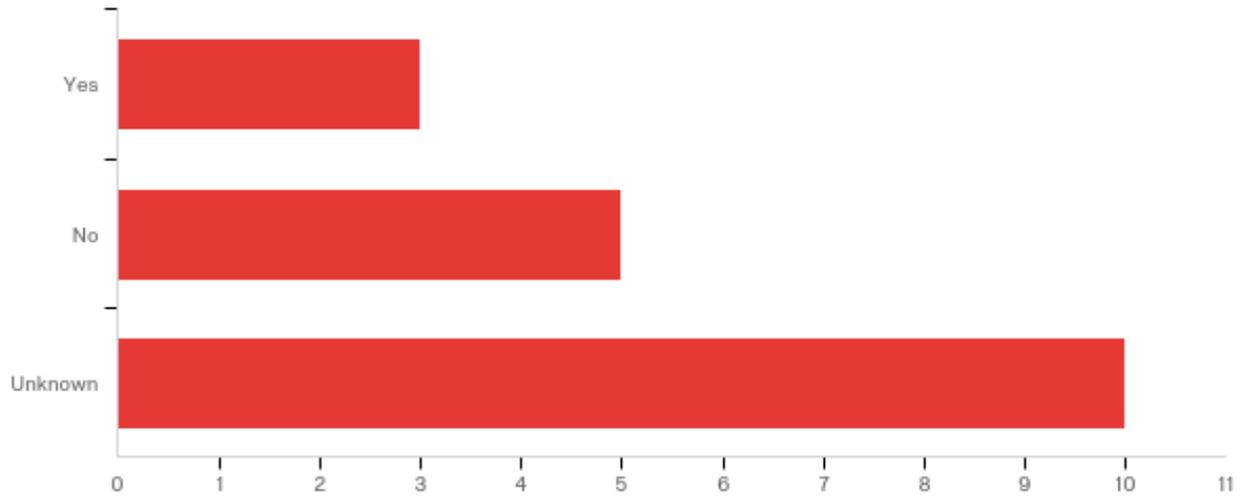
#	Answer	%	Count
1	Yes	78.95%	15
2	No	0.00%	0
3	Unknown	21.05%	4
	Total	100%	19

Q7 - Does your fire service require the completion of the National Fire Protection Association Certification (NFPA) 1001 1&2 prior to applying?



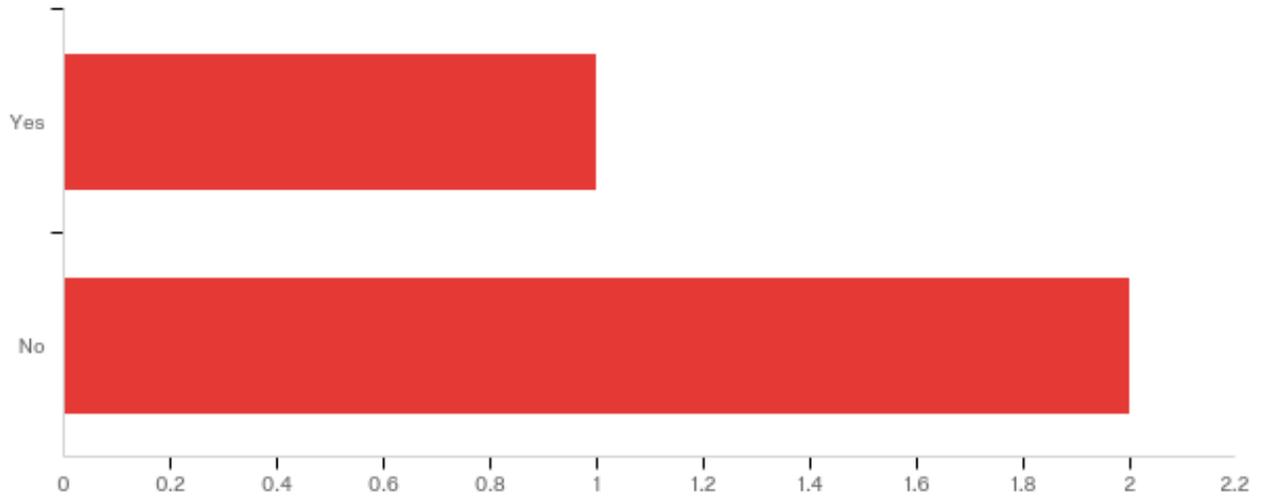
#	Answer	%	Count
1	Yes	61.11%	11
2	No	38.89%	7
	Total	100%	18

Q8 - Within the past 5 years, has there been a job assessment for the position of operational firefighter?



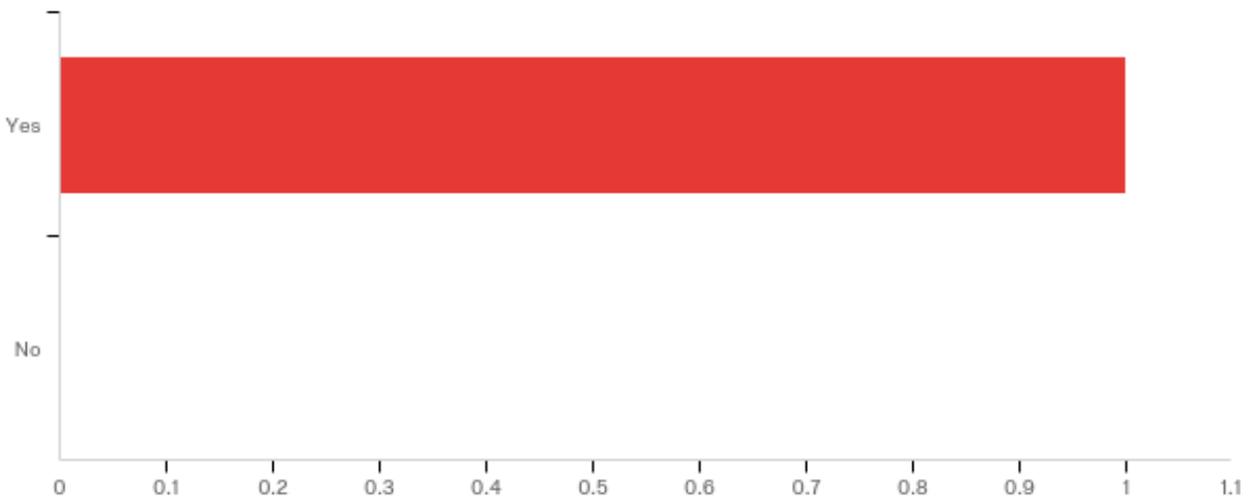
#	Answer	%	Count
1	Yes	16.67%	3
2	No	27.78%	5
3	Unknown	55.56%	10
	Total	100%	18

Q9 - Did it result in any modification to the expectations, occupational needs and duties, of the role of firefighter?



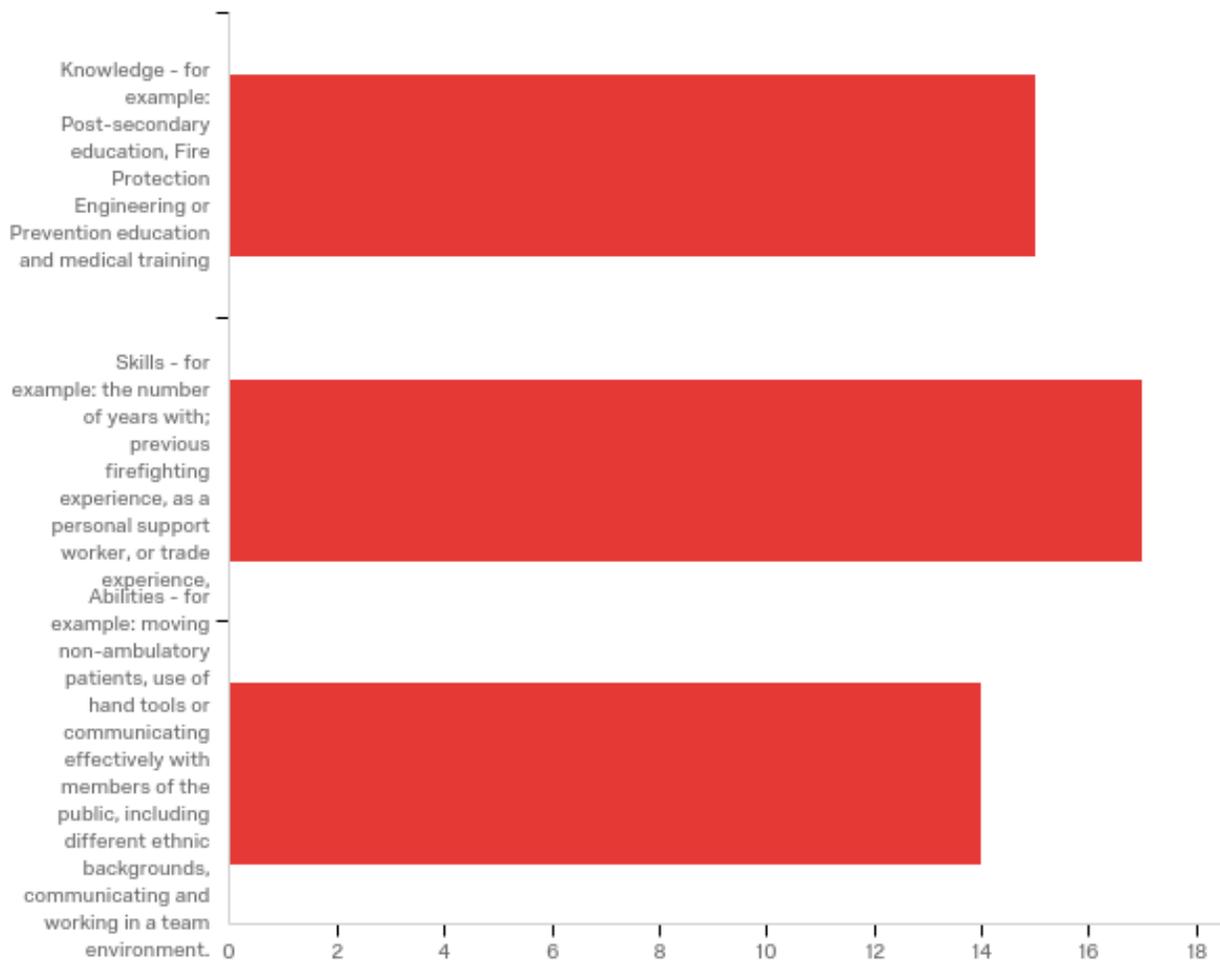
#	Answer	%	Count
1	Yes	33.33%	1
2	No	66.67%	2
	Total	100%	3

Q10 - Were the modifications reflected in your job postings?



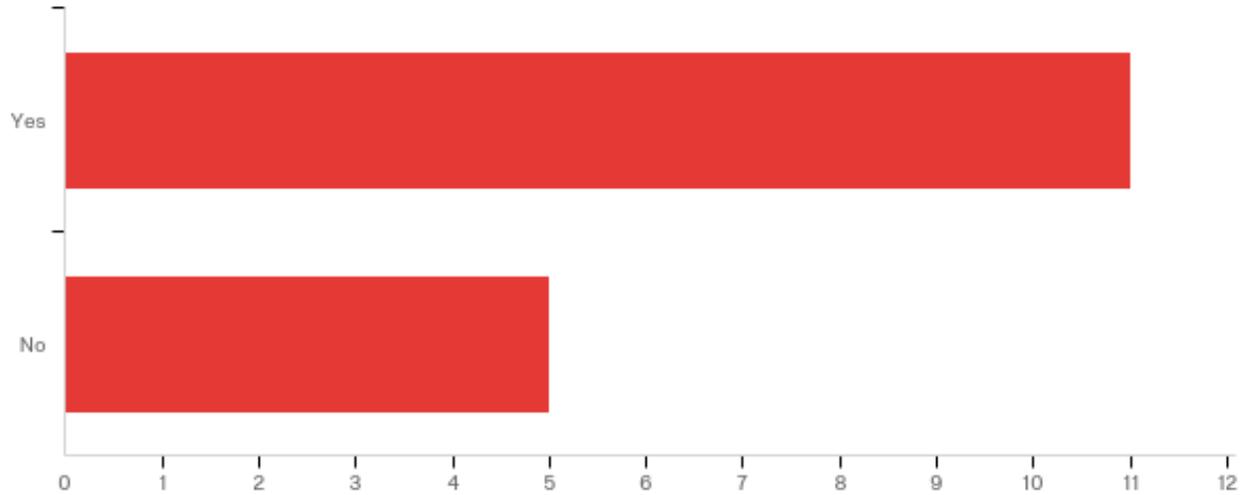
#	Answer	%	Count
1	Yes	100.00%	1
2	No	0.00%	0
	Total	100%	1

Q11 - Are the job qualification requirements or preferred assets based on Knowledge, Skills, Abilities (KSAs)? Please indicate all that apply.



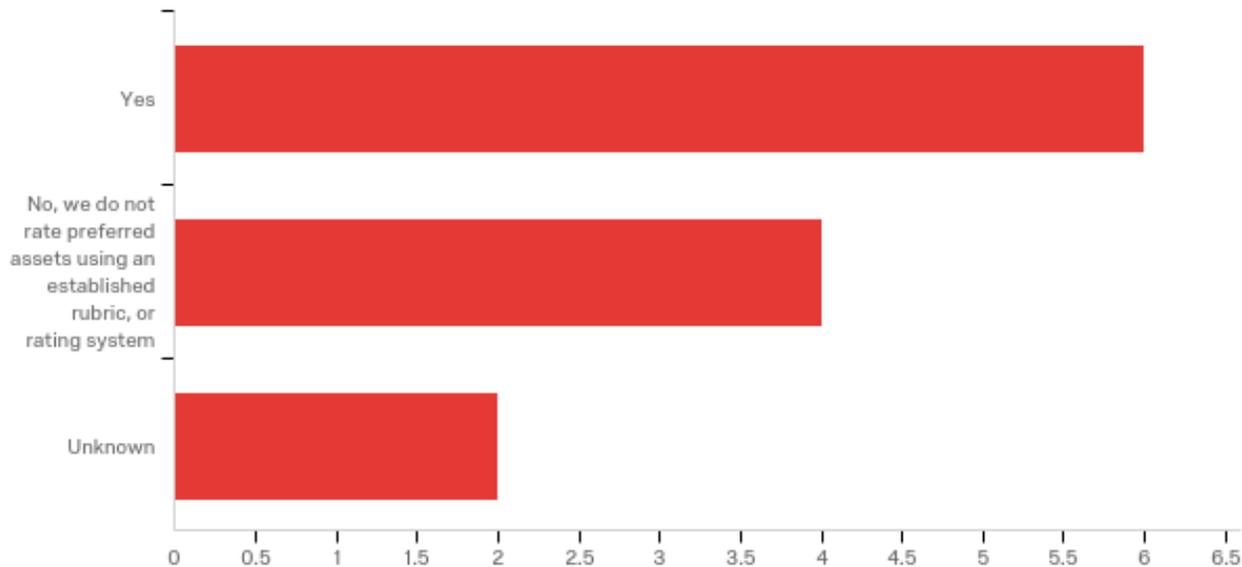
#	Answer	%	Count
1	Knowledge - for example: Post-secondary education, Fire Protection Engineering or Prevention education and medical training	32.61%	15
2	Skills - for example: the number of years with; previous firefighting experience, as a personal support worker, or trade experience,	36.96%	17
3	Abilities - for example: moving non-ambulatory patients, use of hand tools or communicating effectively with members of the public, including different ethnic backgrounds, communicating and working in a team environment.	30.43%	14
	Total	100%	46

Q12 - Are preferred assets considered separately from required qualifications for the purpose of candidate selection? For example: Military or trade experience, post-secondary education, nursing, personal support worker.



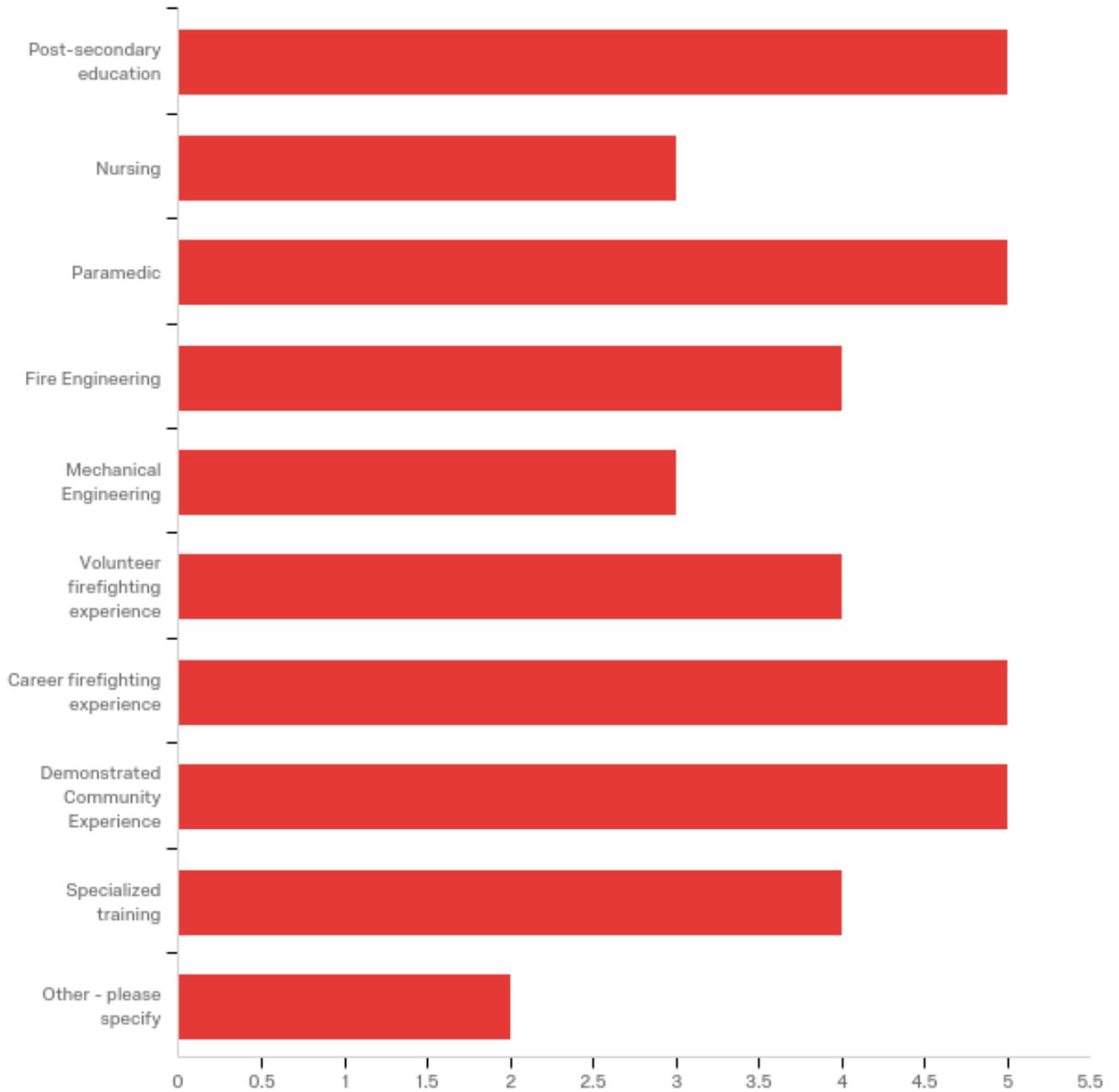
#	Answer	%	Count
1	Yes	68.75%	11
2	No	31.25%	5
	Total	100%	16

Q13 - Are the preferred assets rated using an established rubric, or rating system?



#	Answer	%	Count
1	Yes	50.00%	6
2	No, we do not rate preferred assets using an established rubric, or rating system	33.33%	4
3	Unknown	16.67%	2
	Total	100%	12

Q14 - Please select all the preferred assets that are rated in the established rubric from the list below



#	Answer	%	Count
1	Post-secondary education	12.50%	5
2	Nursing	7.50%	3
3	Paramedic	12.50%	5

4	Fire Engineering	10.00%	4
5	Mechanical Engineering	7.50%	3
6	Volunteer firefighting experience	10.00%	4
7	Career firefighting experience	12.50%	5
8	Demonstrated Community Experience	12.50%	5
9	Specialized training	10.00%	4
10	Other - please specify	5.00%	2
	Total	100%	40

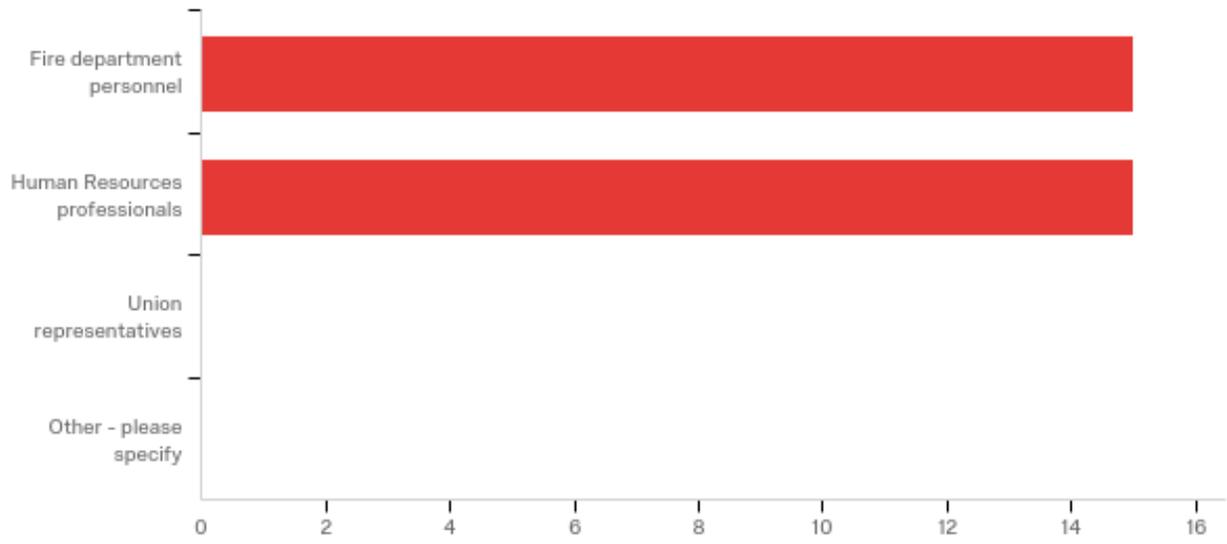
Other - please specify

Other - please specify - Text

relatable experience, i.e. trades, medical, large vehicle operation

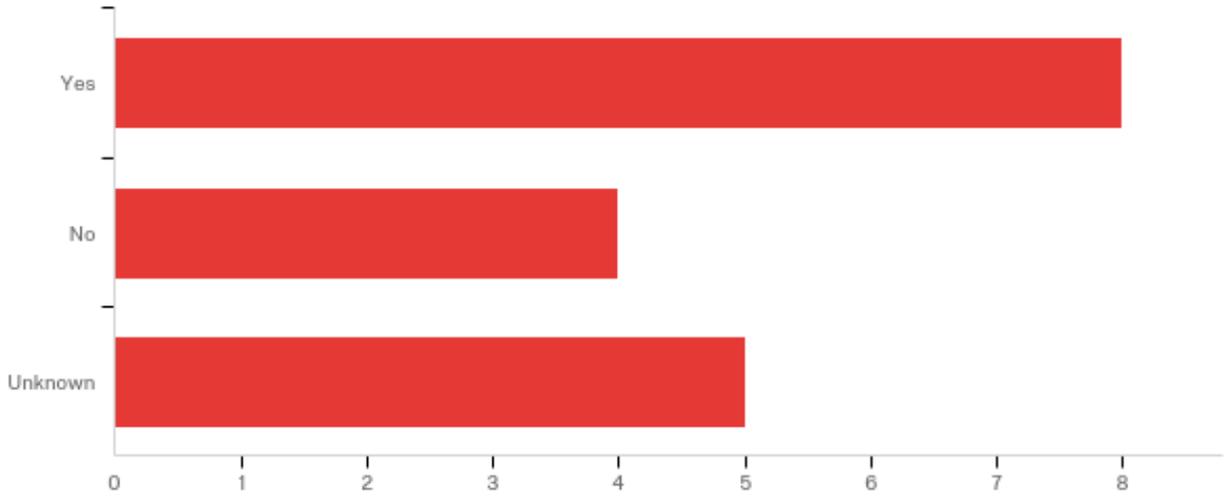
Trades

Q15 - Who approves job postings? Please choose all that apply.



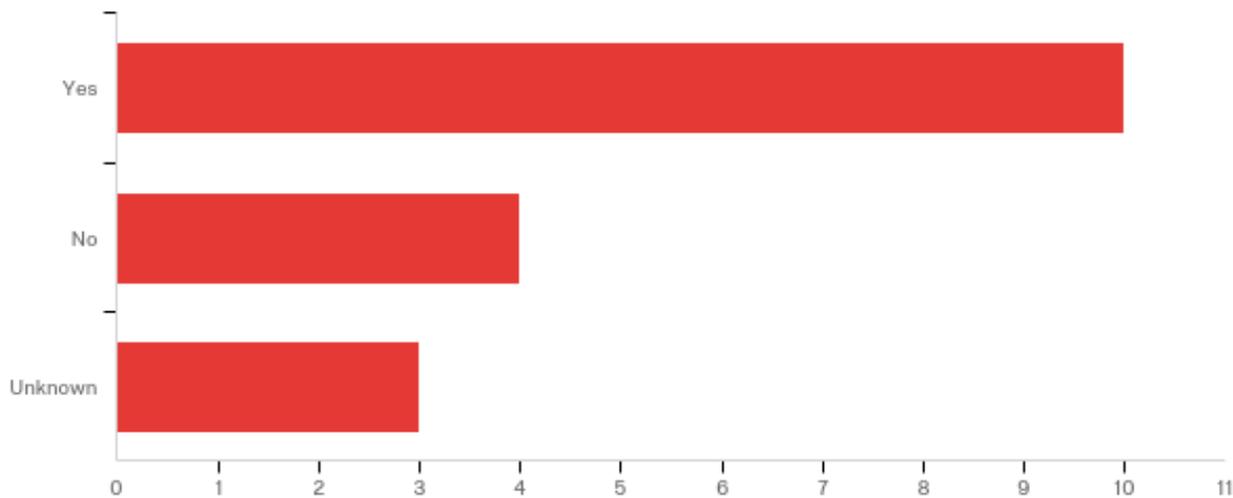
#	Answer	%	Count
1	Fire department personnel	50.00%	15
2	Human Resources professionals	50.00%	15
3	Union representatives	0.00%	0
4	Other - please specify	0.00%	0
	Total	100%	30

Q16 - Are job posting reviewed for use of gendered language? For example using terms such as collaborative and committed instead of individual and assertive.



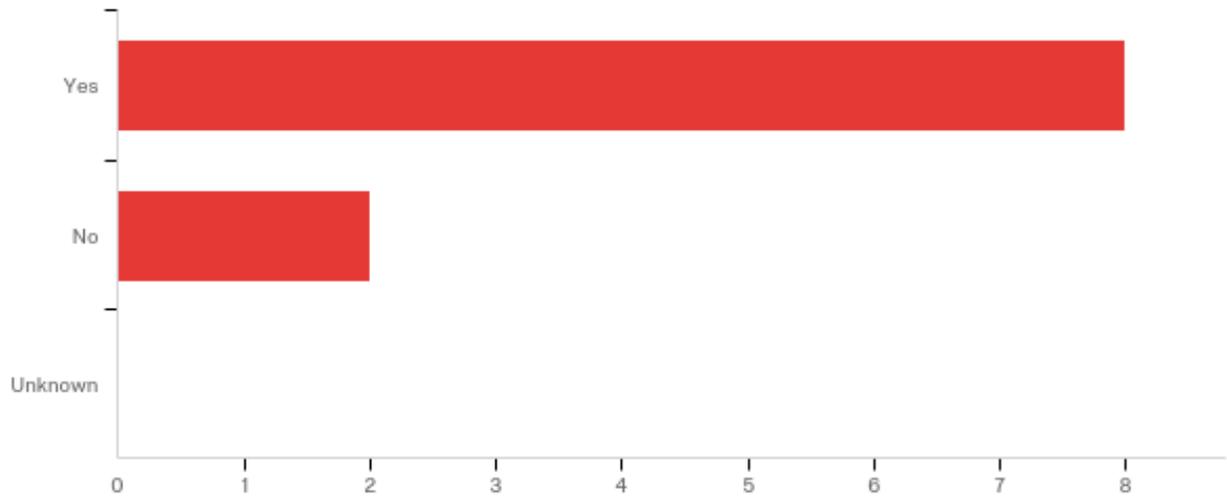
#	Answer	%	Count
1	Yes	47.06%	8
2	No	23.53%	4
3	Unknown	29.41%	5
	Total	100%	17

Q17 - Are you aware of any programs provided by your fire service to familiarize community members of careers related to fire service, including pre-entry programs involving physical, educational or other relevant entry requirements?



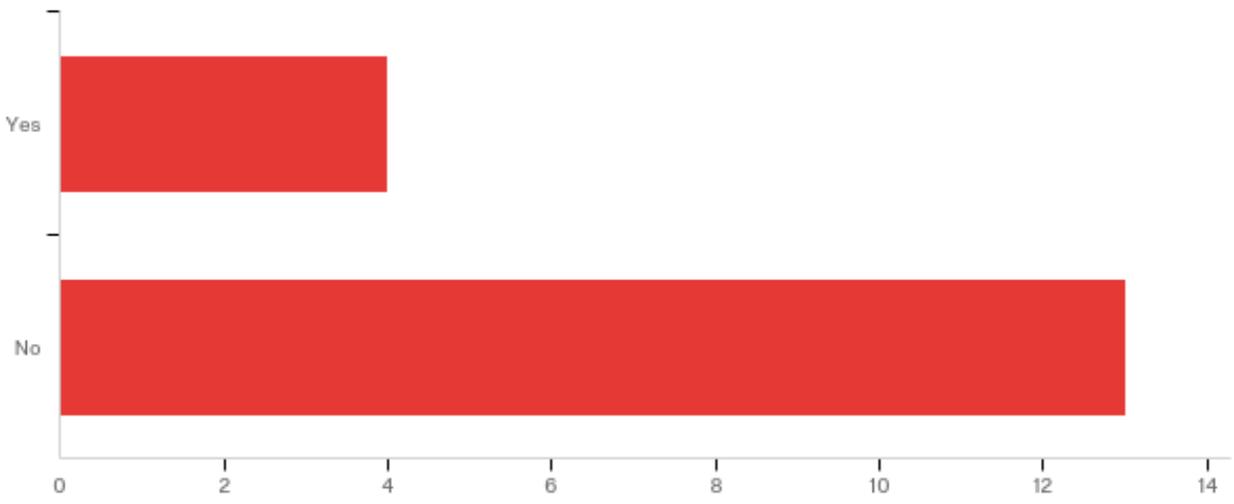
#	Answer	%	Count
1	Yes	58.82%	10
2	No	23.53%	4
3	Unknown	17.65%	3
	Total	100%	17

Q18 - Do current firefighters assist with the delivery of this program?



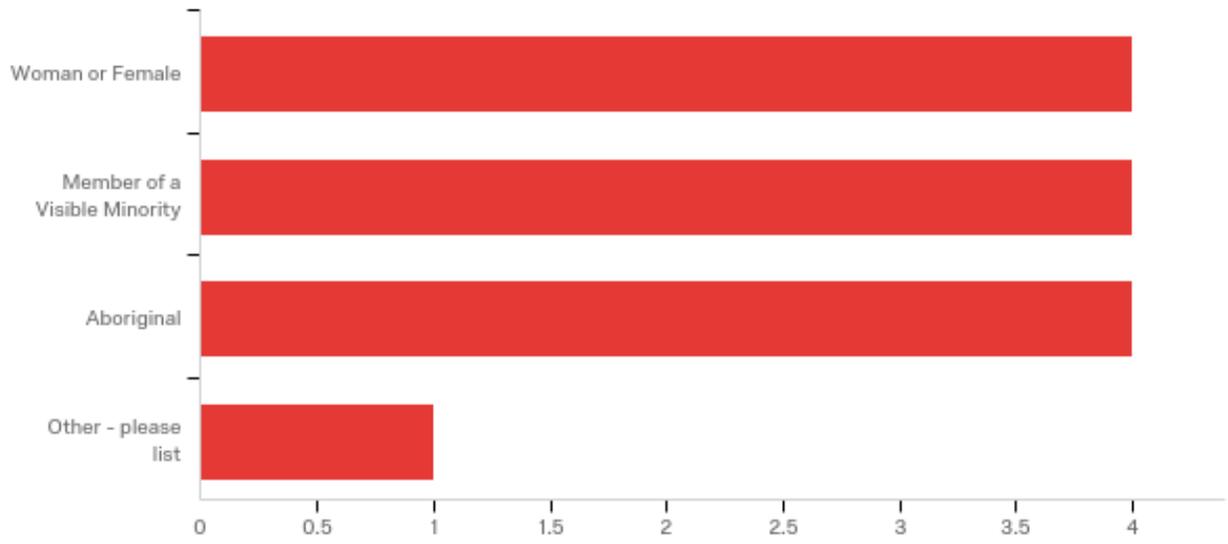
#	Answer	%	Count
1	Yes	80.00%	8
2	No	20.00%	2
3	Unknown	0.00%	0
	Total	100%	10

Q19 - Section 14 of the Ontario Human Rights Codes allows for Special Programs, allowing employers to develop a program to achieve equal opportunity. Does your municipality ask candidates to voluntarily declare membership in one or more of the designated groups?



#	Answer	%	Count
1	Yes	23.53%	4
2	No	76.47%	13
	Total	100%	17

Q20 - Which designated groups are listed? Please specify all that apply.

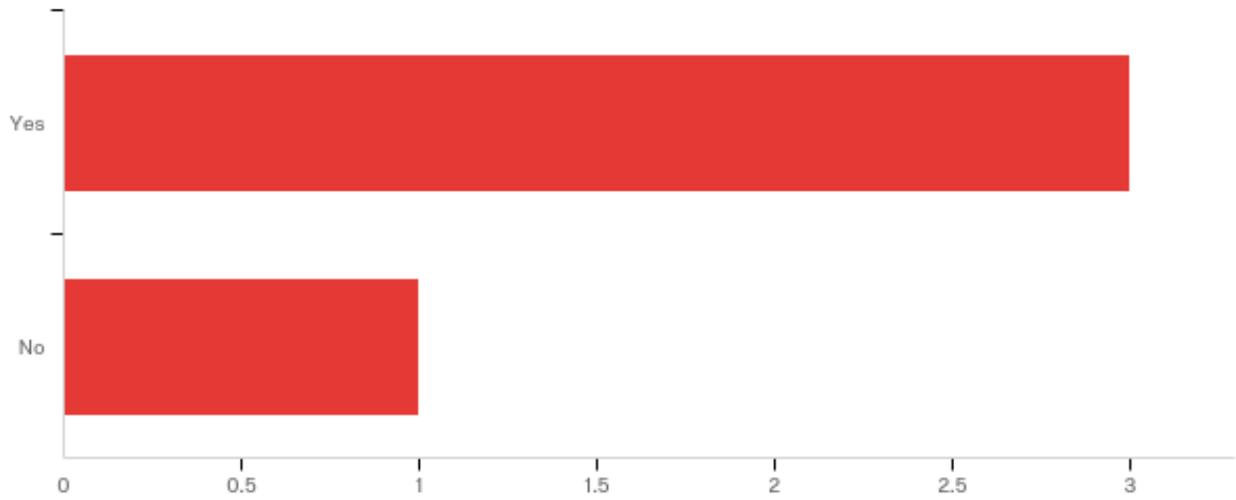


#	Answer	%	Count
1	Woman or Female	30.77%	4
2	Member of a Visible Minority	30.77%	4
3	Aboriginal	30.77%	4
4	Other - please list	7.69%	1
	Total	100%	13

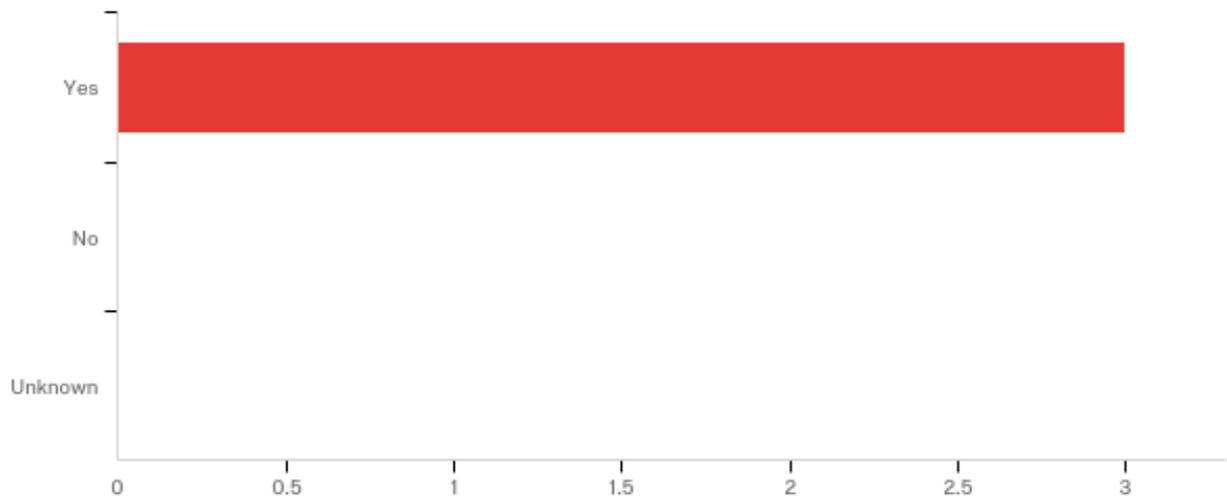
Other - please list

Other - please list - Text

sexual orientation

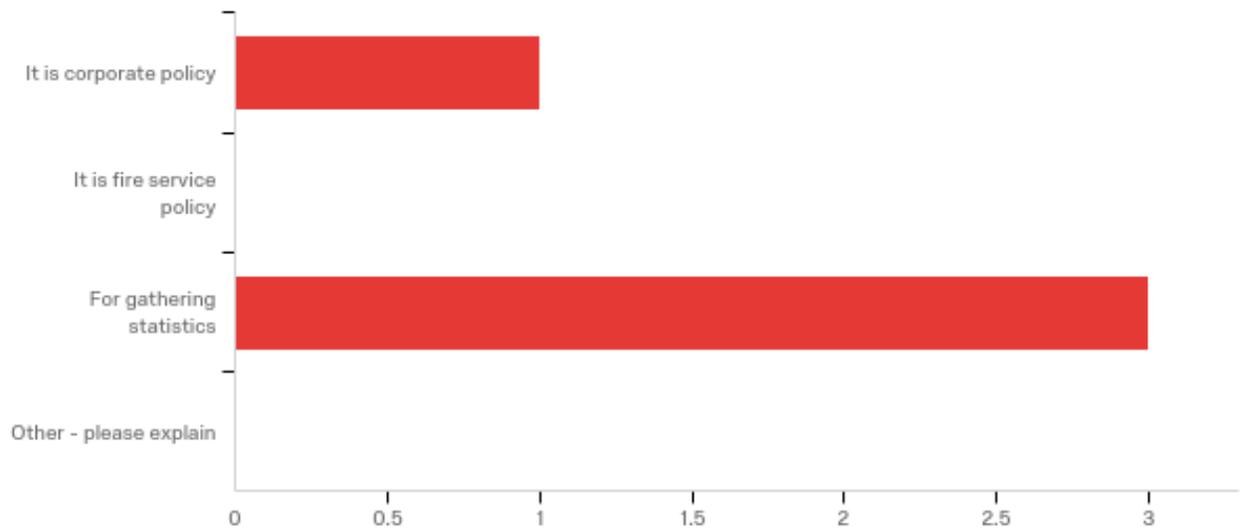
Q21 - Do you retain this data?

#	Answer	%	Count
1	Yes	75.00%	3
2	No	25.00%	1
	Total	100%	4

Q22 - Do you make use of the data?

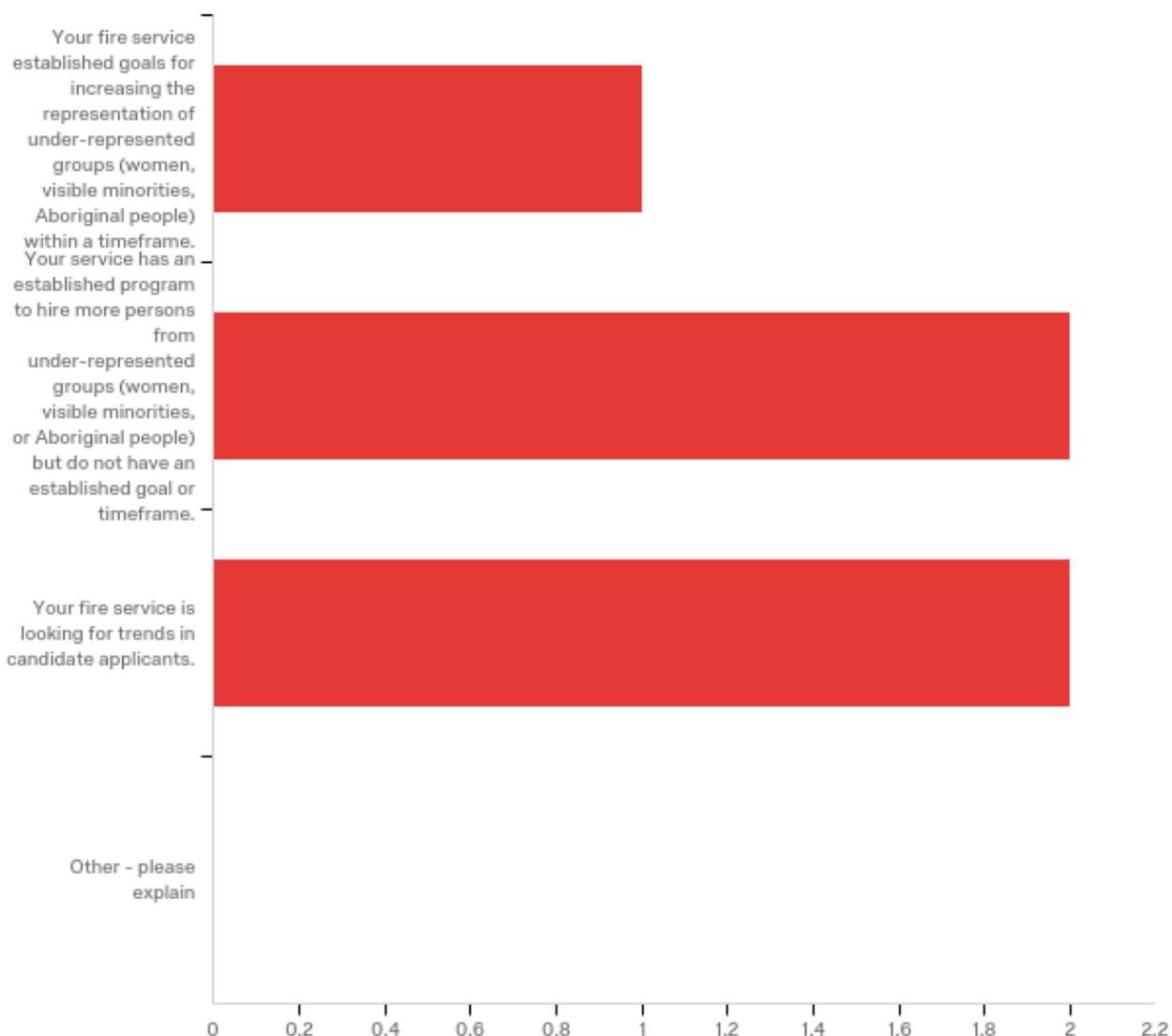
#	Answer	%	Count
1	Yes	100.00%	3
2	No	0.00%	0
3	Unknown	0.00%	0
	Total	100%	3

Q23 - Please explain why you do retain this data



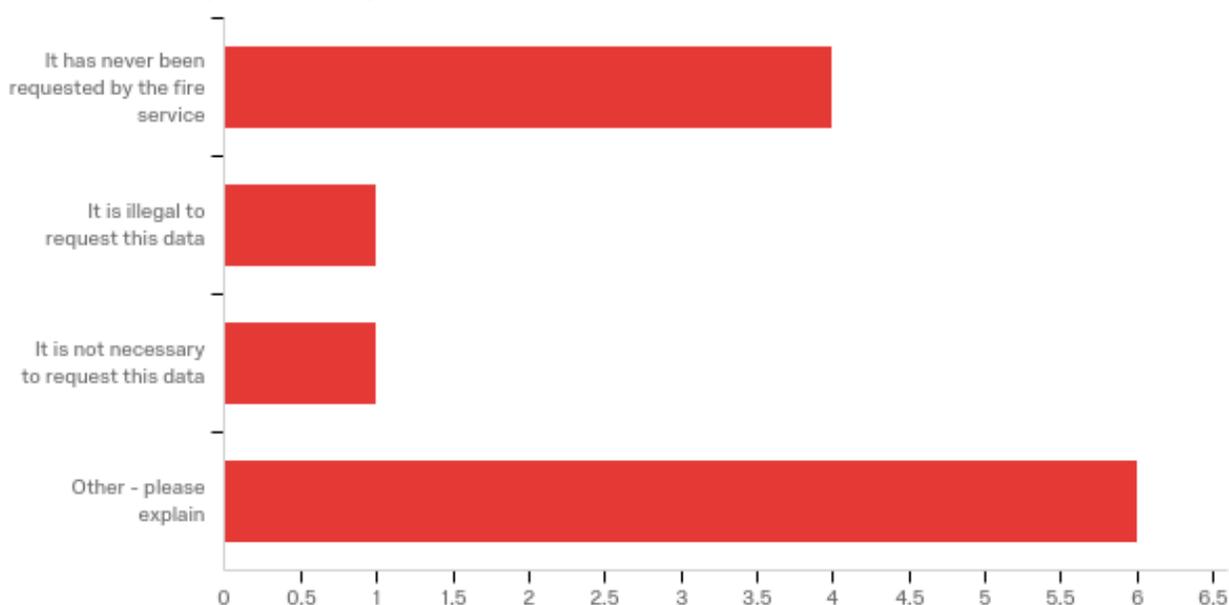
#	Answer	%	Count
1	It is corporate policy	25.00%	1
2	It is fire service policy	0.00%	0
3	For gathering statistics	75.00%	3
4	Other - please explain	0.00%	0
	Total	100%	4

Q24 - Please explain how you use this data? Select all that apply.



#	Answer	%	Count
1	Your fire service established goals for increasing the representation of under-represented groups (women, visible minorities, Aboriginal people) within a timeframe.	20.00%	1
2	Your service has an established program to hire more persons from under-represented groups (women, visible minorities, or Aboriginal people) but do not have an established goal or timeframe.	40.00%	2
3	Your fire service is looking for trends in candidate applicants.	40.00%	2
4	Other - please explain	0.00%	0
	Total	100%	5

Q25 - Please explain why you do not retain this data



#	Answer	%	Count
1	It has never been requested by the fire service	33.33%	4
2	It is illegal to request this data	8.33%	1
3	It is not necessary to request this data	8.33%	1
4	Other - please explain	50.00%	6
	Total	100%	12

Other - please explain

Other - please explain - Text

Organizationally, we have not initiated demographic data collection, nor do we have policies/practices surrounding this

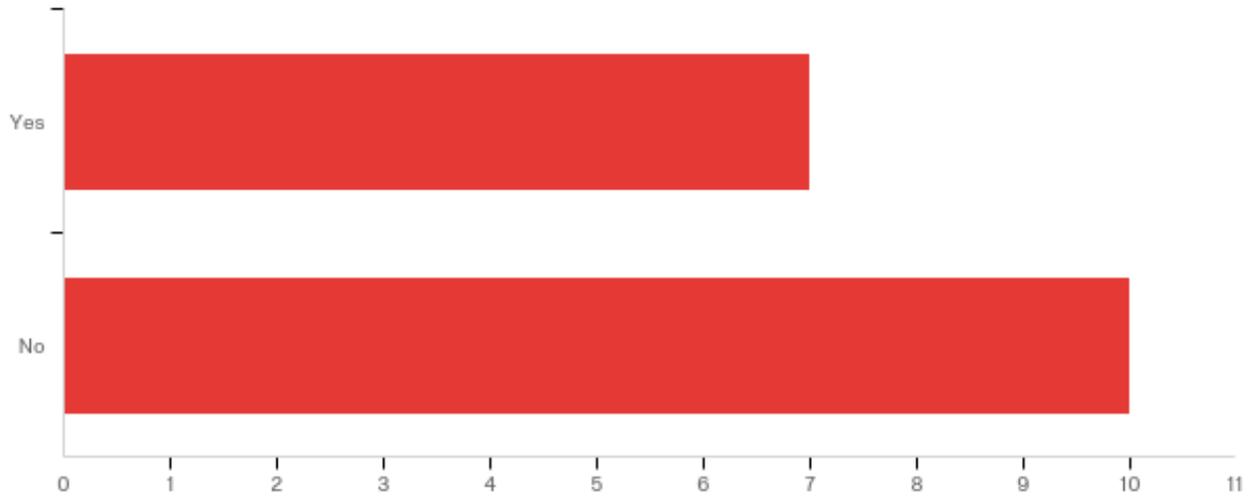
We only hire full time firefighters from our volunteer firefighters

currently in progress- moving to an online application process

We do not, as a municipality, collect this type of data, at this time.

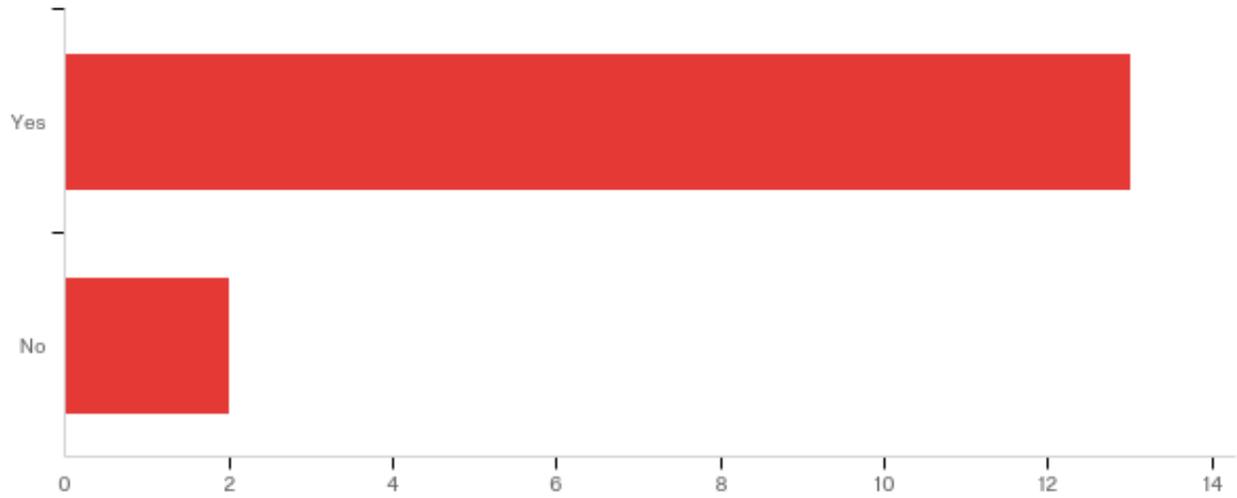
Concern with unsupported Human Rights Claims. We also hire for best qualified and do not have a Diversity target.

Q26 - Does your municipality have a dedicated HR staff member for your fire service?



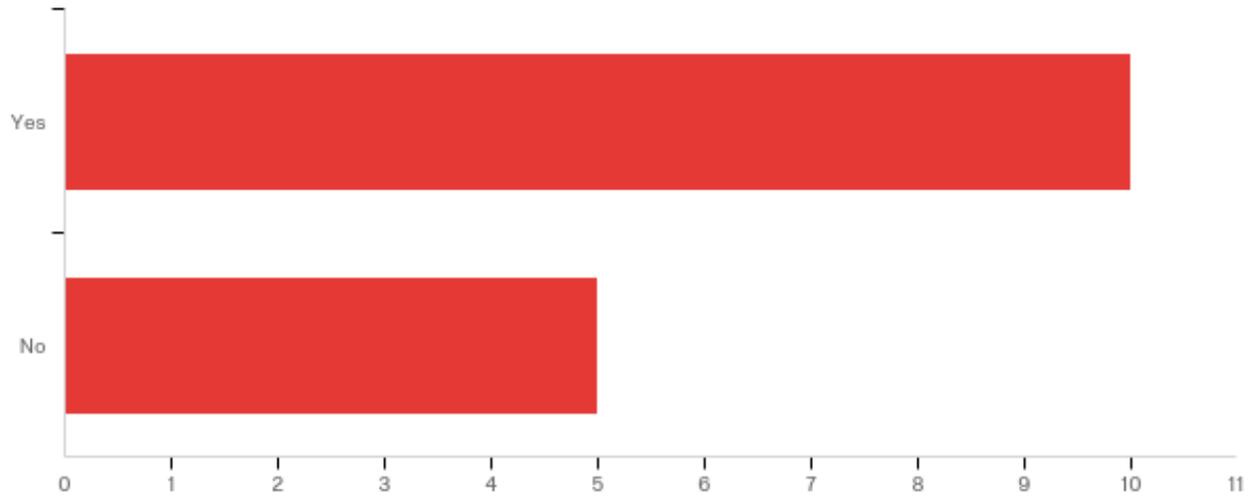
#	Answer	%	Count
1	Yes	41.18%	7
2	No	58.82%	10
	Total	100%	17

Q27 - Does your HR staff member use a previously established rubric, or rating system to rate candidates based on required qualifications?



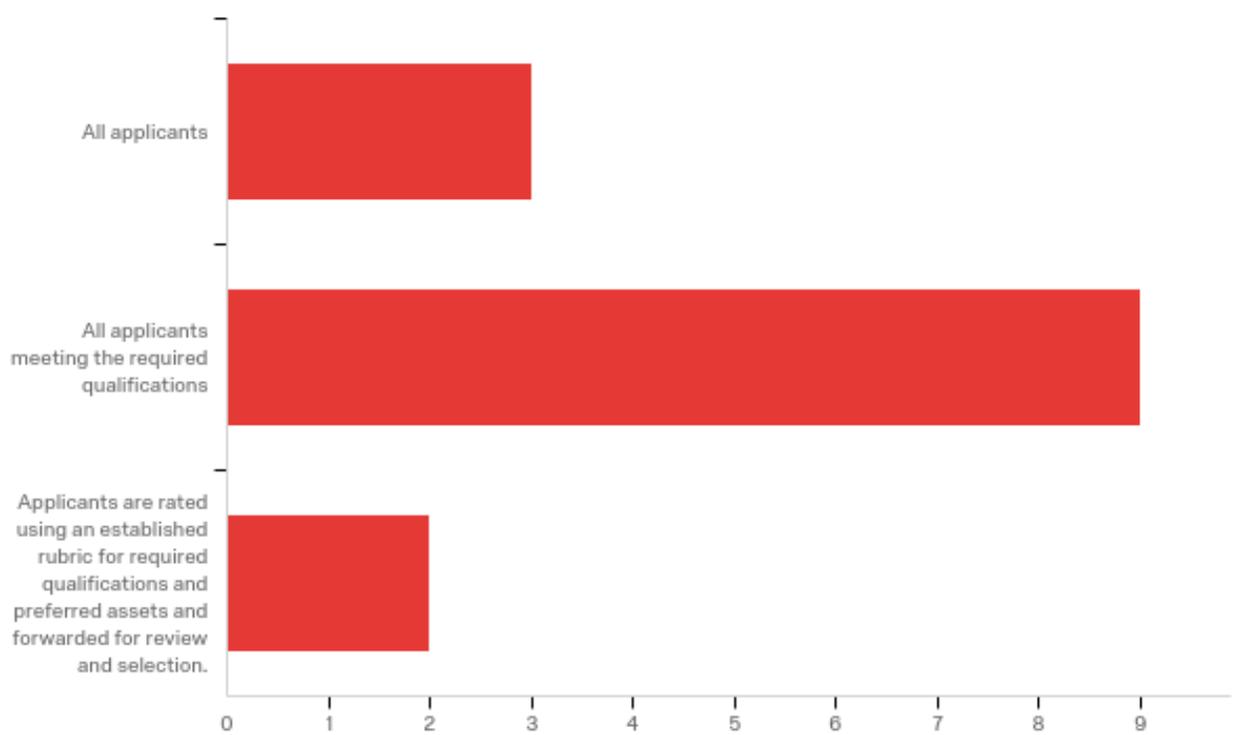
#	Answer	%	Count
1	Yes	86.67%	13
2	No	13.33%	2
	Total	100%	15

Q28 - Does your HR staff member use a previously established rubric or rating system to rate preferred assets of candidates?



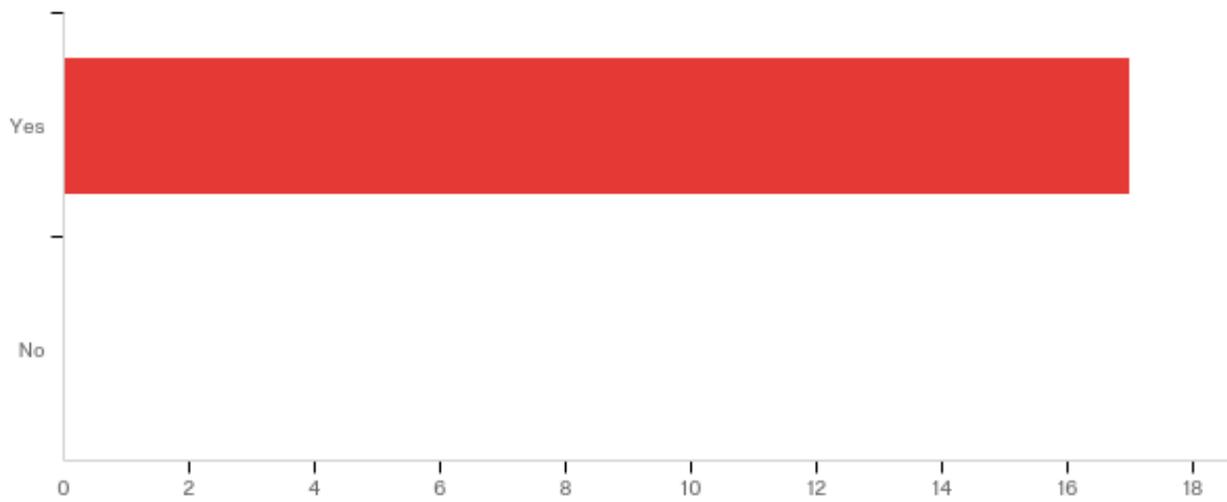
#	Answer	%	Count
1	Yes	66.67%	10
2	No	33.33%	5
	Total	100%	15

Q29 - If your municipality has an HR staff member for your fire service, which candidate applications are sent to fire service personnel for review and decision? (Select all that apply)



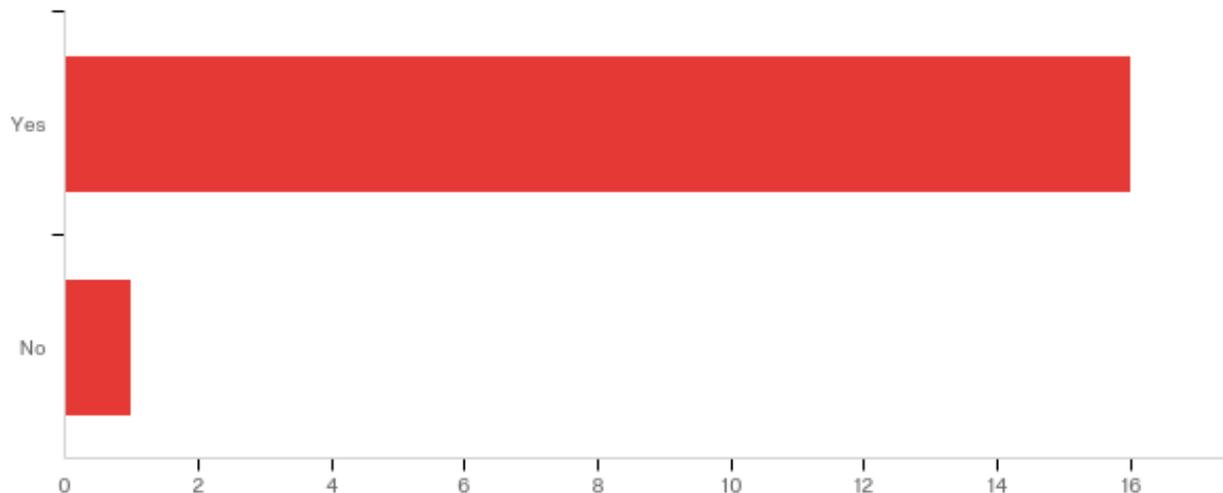
#	Answer	%	Count
1	All applicants	21.43%	3
2	All applicants meeting the required qualifications	64.29%	9
3	Applicants are rated using an established rubric for required qualifications and preferred assets and forwarded for review and selection.	14.29%	2
	Total	100%	14

Q30 - Do you as an HR department assist your fire service in the selection of candidates to move forward to the interview stage?



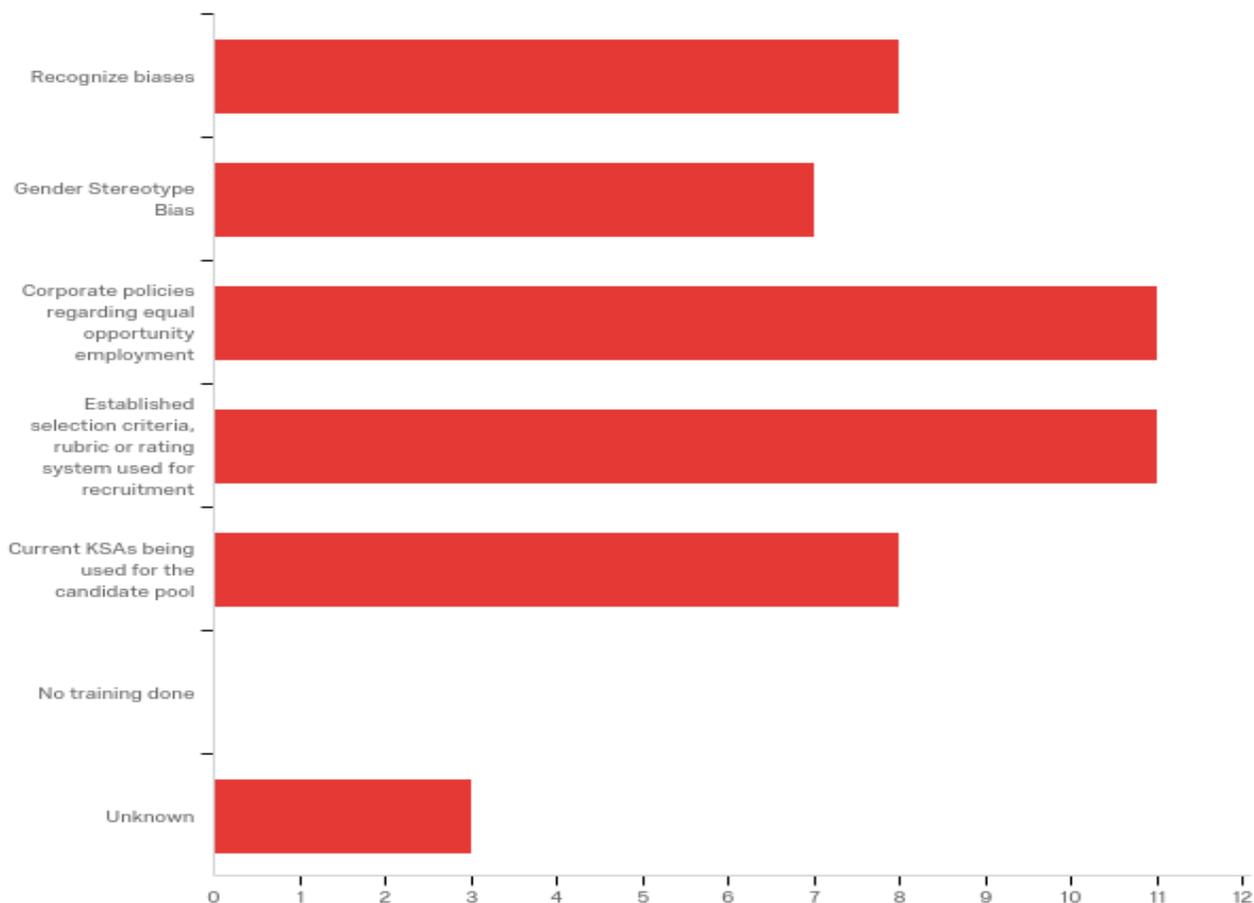
#	Answer	%	Count
1	Yes	100.00%	17
2	No	0.00%	0
	Total	100%	17

Q31 - Does an HR representative complete the full suite of HR hiring services for the fire department, including candidate recruitment, selection, internal testing (if applicable, or collection of information from third-party testing centre) and candidate interviewing?



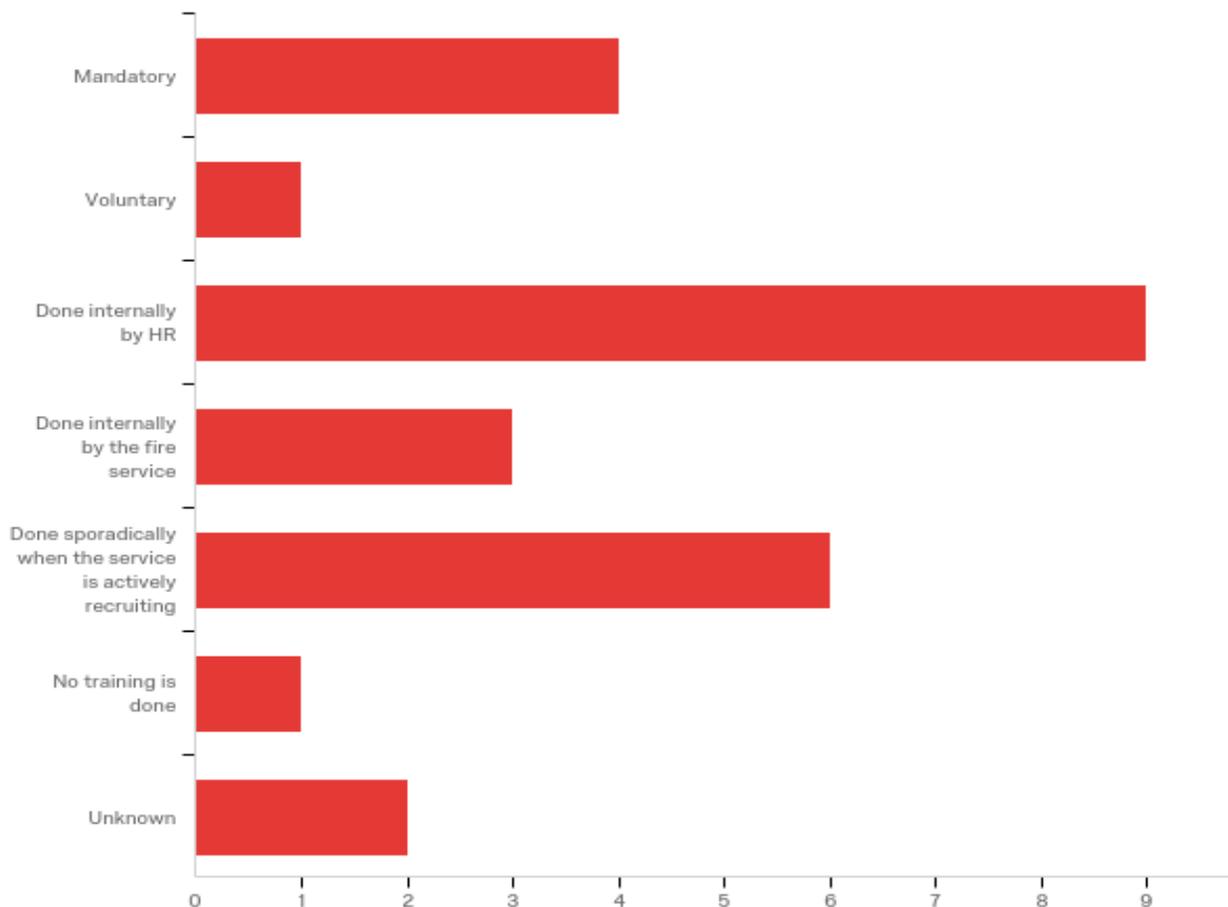
#	Answer	%	Count
1	Yes	94.12%	16
2	No	5.88%	1
	Total	100%	17

Q32 - Are fire service personnel who are reviewing the candidate applications, trained in human resources best practices? Please choose all that apply

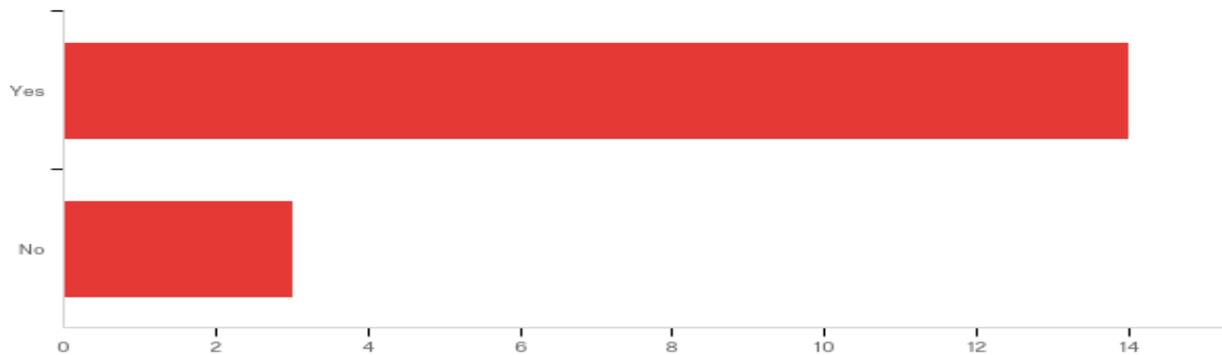


#	Answer	%	Count
1	Recognize biases	16.67%	8
2	Gender Stereotype Bias	14.58%	7
3	Corporate policies regarding equal opportunity employment	22.92%	11
4	Established selection criteria, rubric or rating system used for recruitment	22.92%	11
5	Current KSAs being used for the candidate pool	16.67%	8
6	No training done	0.00%	0
7	Unknown	6.25%	3
	Total	100%	48

Q33 - Please choose all that pertain to the training of HR best practices of fire service personnel reviewing candidate applications:

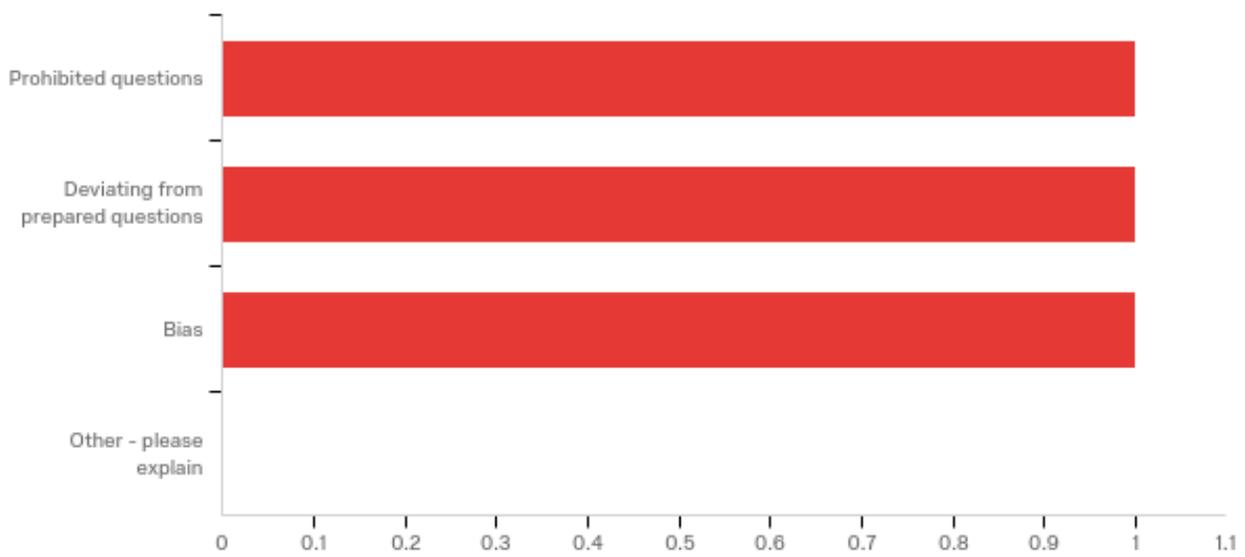


#	Answer	%	Count
1	Mandatory	15.38%	4
2	Voluntary	3.85%	1
3	Done internally by HR	34.62%	9
4	Done internally by the fire service	11.54%	3
5	Done sporadically when the service is actively recruiting	23.08%	6
6	No training is done	3.85%	1
7	Unknown	7.69%	2
	Total	100%	26

Q34 - Is at least one HR personnel present during firefighter candidate interviews?

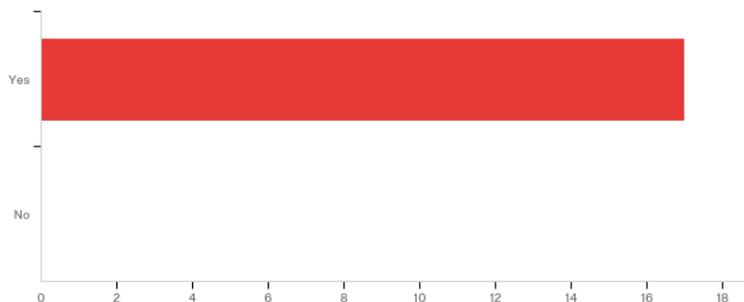
#	Answer	%	Count
1	Yes	82.35%	14
2	No	17.65%	3
	Total	100%	17

Q35 - Is someone on the interview panel trained in any of the areas listed below? Please select all that apply.



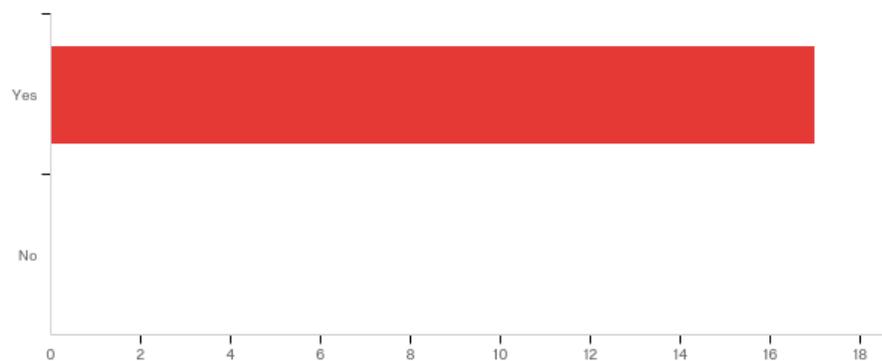
#	Answer	%	Count
1	Prohibited questions	33.33%	1
2	Deviating from prepared questions	33.33%	1
3	Bias	33.33%	1
4	Other - please explain	0.00%	0
	Total	100%	3

Q36 - When conducting candidate interviews, is a prepared list of interview questions used?



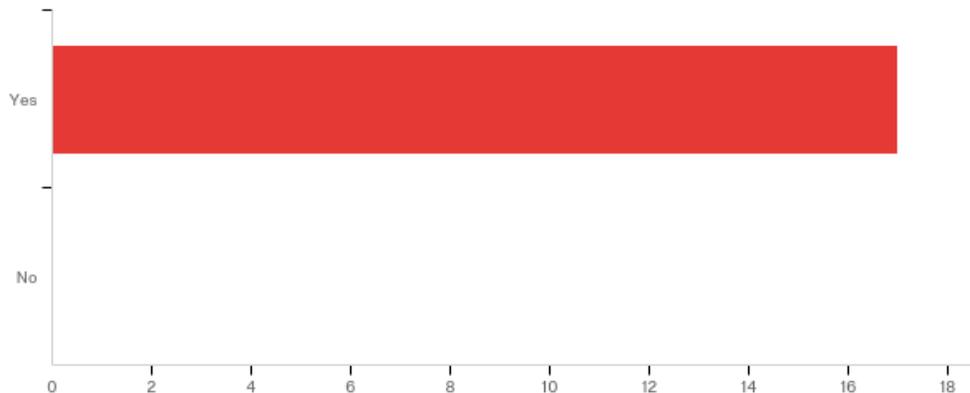
#	Answer	%	Count
1	Yes	100.00%	17
2	No	0.00%	0
	Total	100%	17

Q37 - Are questions consistent across all candidates?



#	Answer	%	Count
1	Yes	100.00%	17
2	No	0.00%	0
	Total	100%	17

Q38 - Do fire service personnel and HR personnel work together to develop interview questions and a rating rubric for candidate interviews?



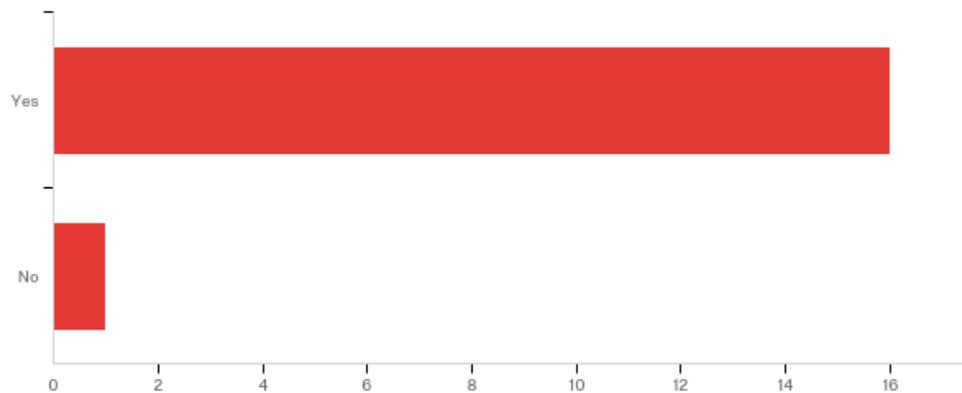
#	Answer	%	Count
1	Yes	100.00%	17
2	No	0.00%	0
	Total	100%	17

Q39 - Who is responsible for establishing the interview questions?



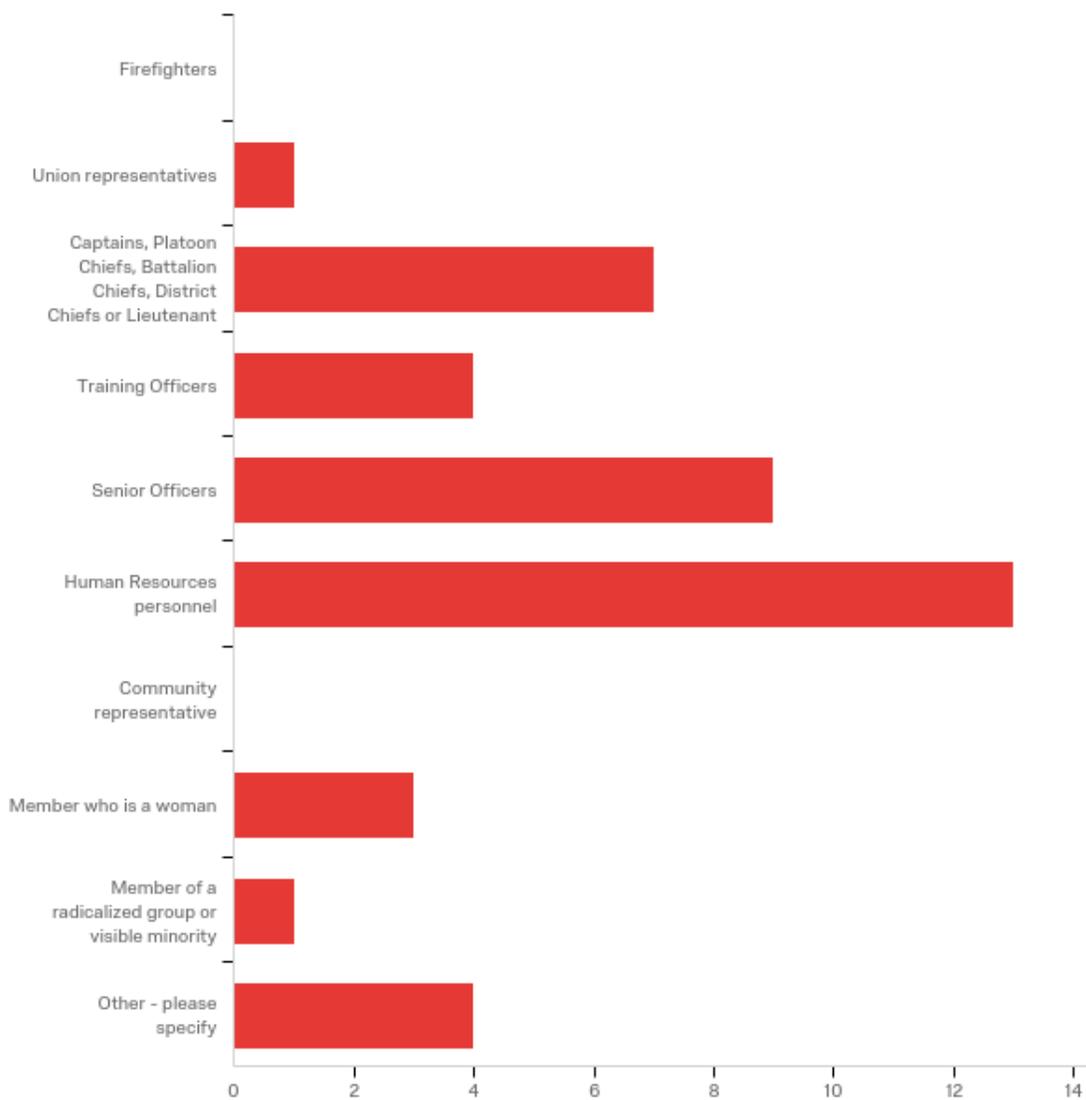
#	Answer	%	Count
1	Human resources personnel	0.00%	0
2	Fire service personnel	0.00%	0
3	Questions from previous hiring interviews are used	0.00%	0
	Total	100%	0

Q40 - Are candidate interviews completed using a panel of representatives from the fire service?



#	Answer	%	Count
1	Yes	94.12%	16
2	No	5.88%	1
	Total	100%	17

Q41 - Please indicate who would be on the panel? Please choose all that apply.



#	Answer	%	Count
1	Firefighters	0.00%	0
2	Union representatives	2.38%	1
3	Captains, Platoon Chiefs, Battalion Chiefs, District Chiefs or Lieutenant	16.67%	7
4	Training Officers	9.52%	4
5	Senior Officers	21.43%	9
6	Human Resources personnel	30.95%	13
7	Community representative	0.00%	0
8	Member who is a woman	7.14%	3
9	Member of a radicalized group or visible minority	2.38%	1
10	Other - please specify	9.52%	4
	Total	100%	42

Other - please specify

Other - please specify - Text

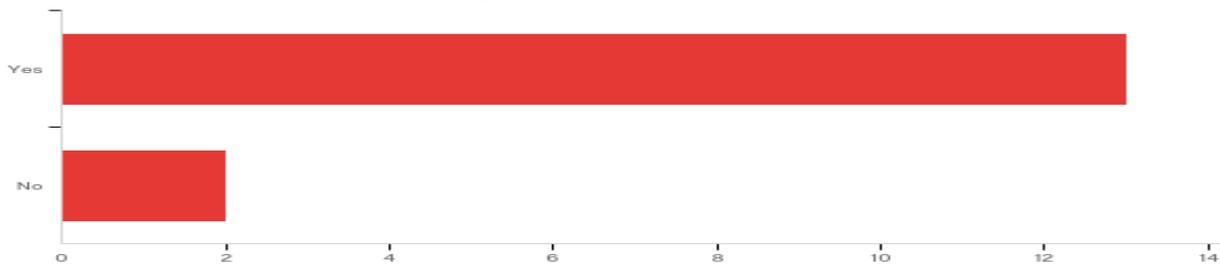
Fire Chief and Deputy Fire Chiefs

applicable this year as HR representative is a female and a visible minority

Deputy Chief & Chief

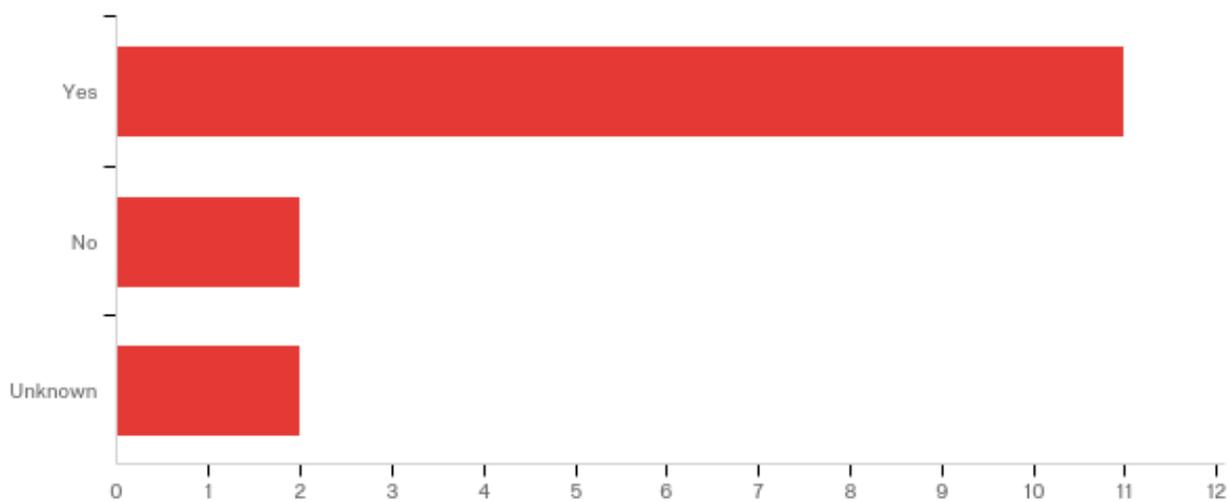
Deputy Chief

Q42 - Does the panel's membership stay consistent throughout the entire interview process prior to a hiring decision?



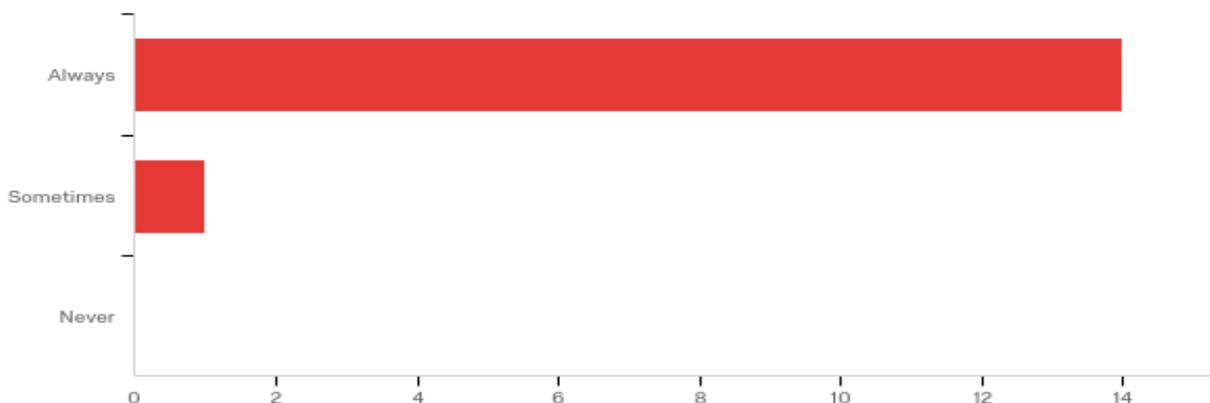
#	Answer	%	Count
1	Yes	86.67%	13
2	No	13.33%	2
	Total	100%	15

Q43 - If your fire service uses an interview panel, are the members of that panel made aware of potential bias in interviewing and hiring?



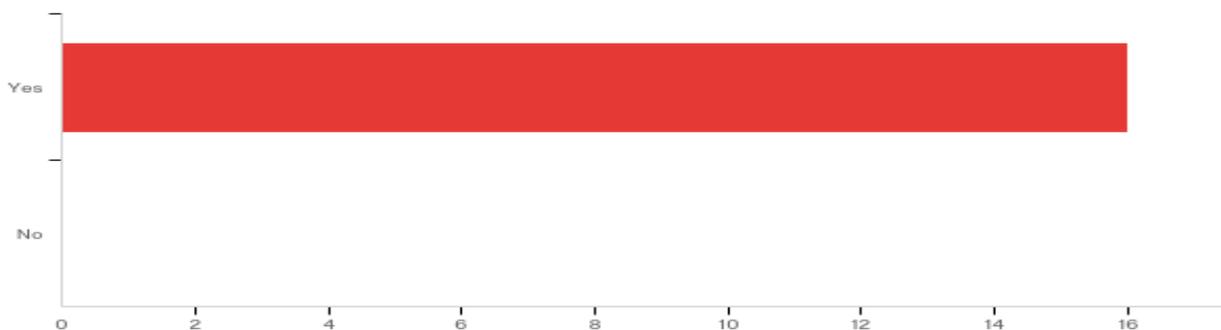
#	Answer	%	Count
1	Yes	73.33%	11
2	No	13.33%	2
3	Unknown	13.33%	2
	Total	100%	15

Q44 - If your fire service uses a panel as described in the prior questions, is the panel made aware of best HR practices when interviewing candidates, including avoiding prohibited questions and not deviating from the prepared questions?



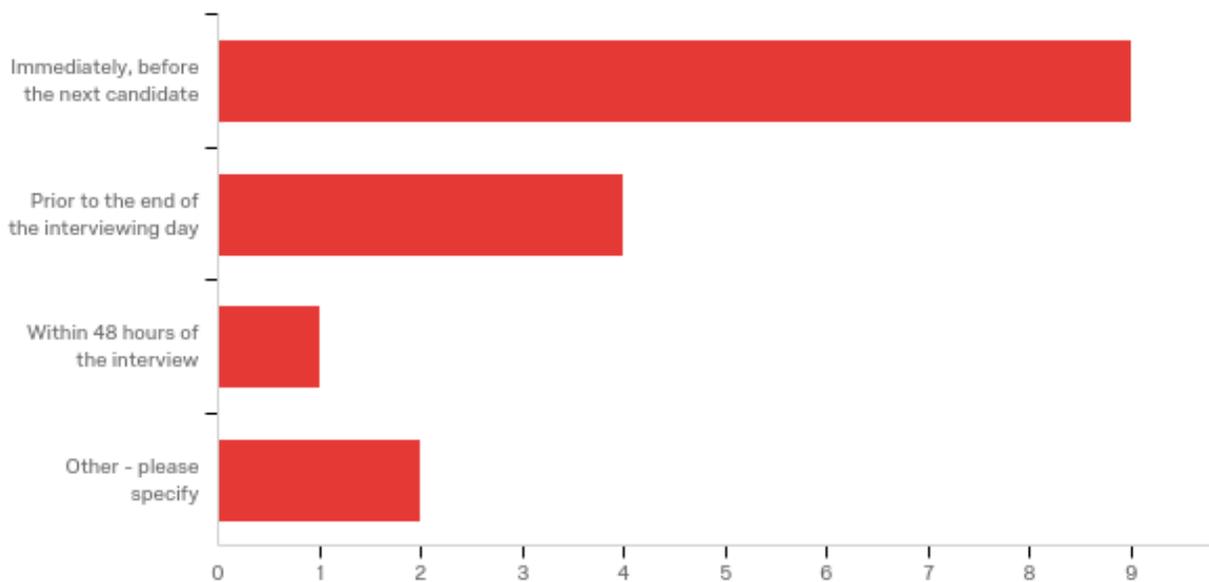
#	Answer	%	Count
1	Always	93.33%	14
2	Sometimes	6.67%	1
3	Never	0.00%	0
	Total	100%	15

Q45 - After the interview process do the hiring decision makers assess each candidate against the established selection criteria?



#	Answer	%	Count
1	Yes	100.00%	16
2	No	0.00%	0
	Total	100%	16

Q46 - When is the assessment done?



#	Answer	%	Count
1	Immediately, before the next candidate	56.25%	9
2	Prior to the end of the interviewing day	25.00%	4
3	Within 48 hours of the interview	6.25%	1
4	Other - please specify	12.50%	2
	Total	100%	16

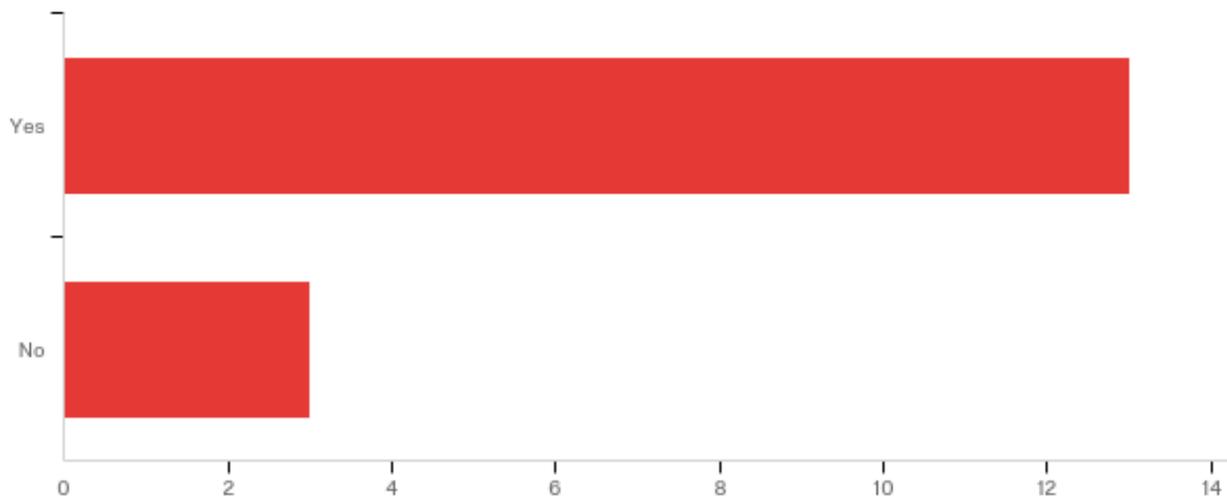
Other - please specify

Other - please specify - Text

if time permits

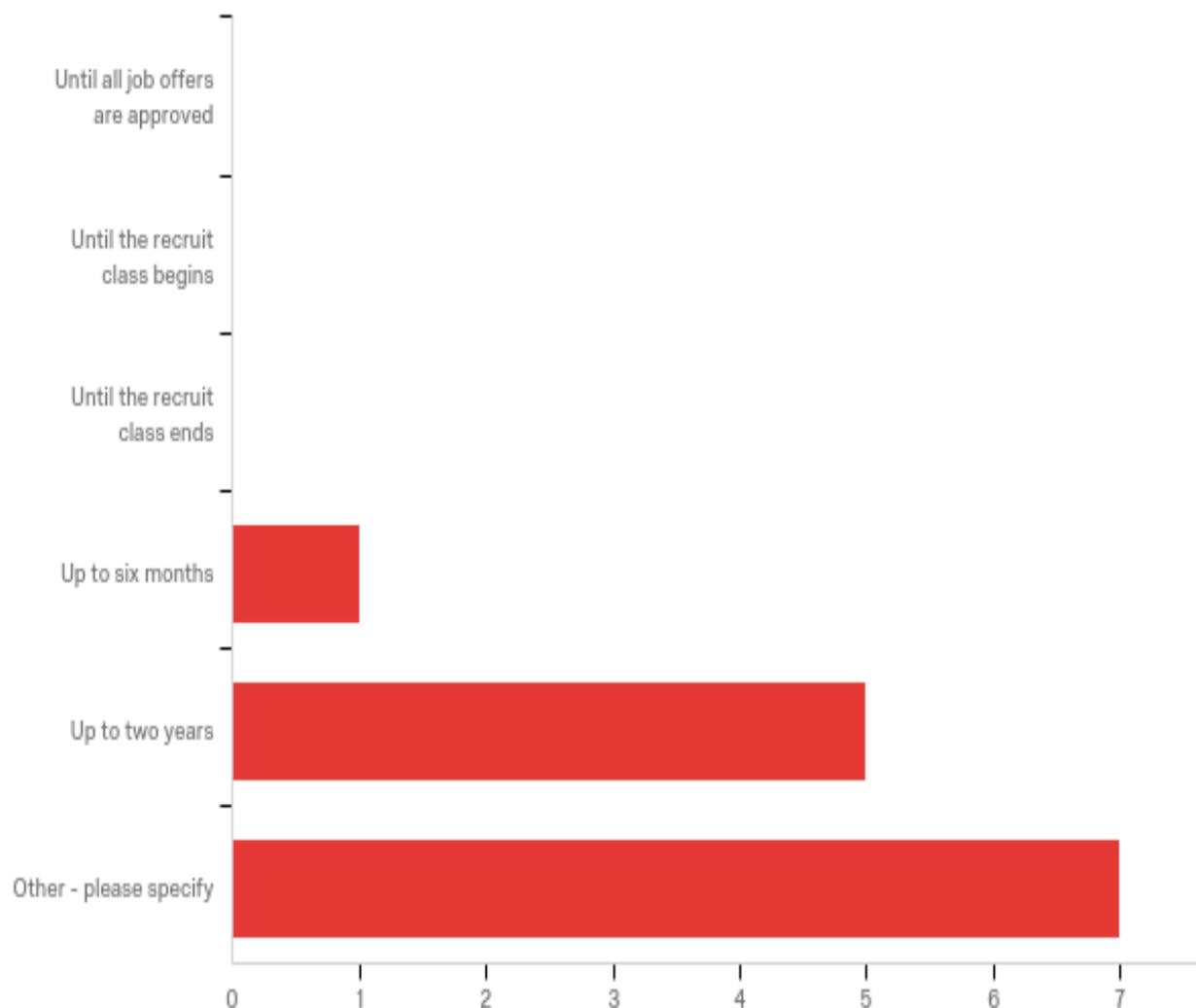
As soon as possible, following conclusion of interviews

Q47 - Are written records of interviews and selection meetings retained for an established period of time after hiring?



#	Answer	%	Count
1	Yes	81.25%	13
2	No	18.75%	3
	Total	100%	16

Q48 - How long do you keep the candidate interview records?



#	Answer	%	Count
1	Until all job offers are approved	0.00%	0
2	Until the recruit class begins	0.00%	0
3	Until the recruit class ends	0.00%	0
4	Up to six months	7.69%	1
5	Up to two years	38.46%	5
6	Other - please specify	53.85%	7
	Total	100%	13

Other - please specify

Other - please specify - Text

Up to 7 years for all competition files within the City

Greater than 2 years

6 year retention period on recruitment files

7 years

1 year after the recruitment is finalized

More than 2 years

3 years, in accordance with our records retention by-law