

Workforce Demographic Issues in Canada's Wildland Fire Management Agencies

Abstract

This report provides information and analysis of workforce demographics and provides recommendations for wildland fire management agencies to address succession planning needs.

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Executive Summary

The Wildland Fire Management Working Group (WFMWG) requested the development of a report to gather information from member agencies on resource capacity issues and workforce demographics. The objective was to gather data and observations on changing workforce demographics and agency responses and best practices in dealing with recruitment and retention of fire management staff. The WFMWG was interested in finding out what agencies were doing to prepare for the loss of experience through staff retirement, particularly with respect to the filling of key fireline positions within the Incident Command System (ICS).

Information was gathered from provincial, territorial and federal wildland fire agencies across Canada. Information was also obtained from an online employee survey that was completed by more than 1,050 respondents across the country.

Of the seven hundred and sixty-three (763) permanent staff workers that completed the online employee survey, two hundred and three (203) or twenty-seven percent (27%) indicated that they would be eligible to retire during the 5 year period from 2014 to 2018. The information collected from the agencies and the employee survey showed that there is little workforce succession planning taking place in Canada's wildfire management community.

Among the seasonal staff surveyed, the factor making it the most difficult to attract or retain staff was the perceived lack of a career path in fire management. Seasonal staff were also concerned about short contract lengths and the number of years it can take to be considered for one of the few full-time positions available in an organization.

To ensure that critical levels of ICS personnel resources are available across the country, the Canadian Interagency Forest Fire Centre (CIFFC) and member agencies should develop workforce succession plans that focus on identifying, assessing, and meeting forecasted workforce needs.

Summary of Recommendations

1. To support national workforce analysis and planning, CIFFC should gather basic workforce demographic information on an annual basis and produce a report for CIFFC and member agencies' review.
2. To ensure that sufficient levels of ICS personnel resources are available, CIFFC and member agencies should develop an Interagency ICS Workforce Plan that identifies critical ICS staffing requirements across the country and recommends actions to meet specific ICS position needs.
3. To ensure that critical levels of personnel resources are available, agencies should develop workforce succession plans that focus on identifying, assessing, and meeting agency workforce needs and support interagency resource sharing.
4. To retain institutional knowledge it is recommended that agencies develop processes to capture and retain critical information from workers leaving the organization.
5. To maintain a cadre of staff with basic forestry knowledge and education, it is recommended that agencies consider which positions would be strengthened by having an incumbent with a forestry education.
6. In order to attract and retain staff in the wildfire management community across Canada, agencies should promote and market the benefits of a career in wildfire management.
7. To support the training and development of Type 1 and Type 2 Incident Management Teams in Canada, CIFFC should work with the agencies to develop standard ICS simulations.
8. Agencies should review and increase their rosters, where necessary, of certified ICS workers to support agency and national workforce succession plans.
9. Agencies should adopt a standard definition for the term 'ICS staffing target' to support planning for training courses, mentoring programs and operational needs.
10. Based on an analysis of national fire load, CIFFC and member agencies should determine the optimal number of Type 1 and Type 2 Incident Management Teams that are needed to meet interagency needs in Canada.

Background and Objectives

The Wildland Fire Management Working Group (WFMWG) represents the federal, provincial and territorial agencies responsible for wildland fire management in Canada, and provides policy guidance and strategic advice on that subject to the Canadian Council of Forest Ministers.

Early in 2012, the WFMWG commissioned a survey of current and forecast trends in wildland fire load in Canada, and trends in resource capacity in Canada's wildland fire agencies. The WFMWG was concerned about the potential impact of increasing fire load and possible declining resource capacity on the future capability of Canada's system of mutual aid resource sharing.

The resource capacity survey indicated some potential areas of concern: while Type 1 firefighters (initial attack/sustained firefighters usually hired on a seasonal basis) were in reasonable supply, there were declines noted in other Types of firefighters (for extended attack, more typically hired on a short term basis), and declining numbers of experienced overhead staff and in numbers of Incident Management Teams (IMTs). These trends varied by agency.

The survey also showed that lack of data, and incomplete and inconsistent data sets hampered the ability to draw definitive conclusions. A number of agencies offered qualitative responses expressing some concern with trends in aging workforces, changing economic opportunities that were reducing the pool of traditional seasonal and short-term staff, reduced attractiveness of firefighting as an employment or career choice, and challenges of building a career path in wildland fire management as governments move to reduce public sector size.

The WFMWG wished to explore further some of the issues identified in the 2012 survey, and canvass its member agencies to provide more detail on some of the identified resource capacity issues, and to gather additional reports and analysis of workforce demographics and strategies where they are available. A Request for Proposal was issued in September 2013 which resulted in a contract to develop this report.

A consultant was hired to conduct a survey of Canada's 13 wildland fire agencies. The objective was to gather data and observations on changing workforce demographics and agency responses and best practices in dealing with recruitment and retention of fire management staff. The WFMWG was interested in finding out what agencies were doing to prepare for the loss of experience through staff retirement, particularly with respect to the filling of key fireline positions within the Incident Command System (ICS).

The Resource Sharing Task Team under the WFMWG assisted the consultant in refining the survey questions and providing support for the completion of the report.

Methodology

To accomplish the objective of gathering data and observations on changing workforce demographics and best practices in dealing with recruitment and retention of fire management staff, input was obtained from wildland fire staff across Canada.

An online employee survey was developed and distributed to staff across the country in November 2013. By December 20, 2013 when the survey ended, more than 1,050 permanent and seasonal employees had completed the survey and provided valuable input for review and analysis. A significant number of seasonal employees did not have an opportunity to complete the survey because of the time of year that the survey took place. It would be beneficial to carry out another survey during the fire season to obtain input from the seasonal firefighters and support staff that were not able to complete the November/December employee survey.

Agency representatives were sent three other surveys for completion. The first was an Agency Demographic Survey. The objective of that survey was to gather additional information about succession planning processes that may be ongoing in Canada. The second agency survey was intended to gather demographic information about Incident Command System staffing across the country. The third agency survey was created to gather general information about agency demographics and the distribution of staff by home job category.

Agency Survey

Twelve of the thirteen fire agencies provided a response to the online Agency Survey. Prince Edward Island did not provide a response.

Four agencies, British Columbia, Ontario, Quebec and New Brunswick reported that they had a recent survey of workforce demographics. British Columbia was the only agency that provided a copy of their strategy document for Wildfire Management Working Group review. The BC Wildfire Management Branch Workforce Plan identifies trends and strategies to achieve desired goals.

Northwest Territories, British Columbia, Alberta, Saskatchewan, Quebec and New Brunswick reported that they have strategies in place with respect to recruiting, developing and retaining full-time and/or seasonal staff. Agencies are attempting to accomplish their objectives through succession planning, mentoring programs and developing intern opportunities.

British Columbia identified three main goals in their Workforce Plan: Building Internal Capacity, Managing for Results, and Increasing Competiveness. The overarching strategy of Goal 1 is to: Foster a culture of learning, innovation, and continuous improvement. Goal 2's overarching strategy is to: Value and support diversity and inclusiveness and employee wellness. The overarching strategy of Goal 3 is to: Collaborate as a sector to manage our human resources and finances. The Wildfire Management Branch (WMB) strategy involves sharing information and best practices, and consolidating resources to enable WMB to apply limited resources to the highest priorities.

Issues or concerns with the recruitment, development and retention of firefighters and other seasonal and short term employees

Nova Scotia was the only agency that reported that they did not have any issues or concerns with the recruitment, development and retention of wildland firefighters and other seasonal and short term employees. Some of the issues and concerns identified by the other agencies include:

- Challenges associated with managing a large seasonal workforce including employee engagement, training and development and retention of seasonal staff into permanent positions.
- Training courses and staff development opportunities often occur in the winter when seasonal employees are not on contract. There are limited training opportunities for seasonal staff.
- In some regions of the country there is competition with the private sector. Many private sector jobs offer higher pay and better compensation packages.

- In some regions of the country there are limited accommodations and housing available for seasonal workers.
- Length of employment is a concern in some areas. Workers are looking for longer contracts or full-time employment.
- There is a limited career path in wildfire management in some agencies, as there are only a small number of supervisory and senior positions.
- The workforce is changing and fewer people are interested in working in the bush or engaging in challenging, dirty work.

Trends in the quality of candidate employees for wildland firefighter and other seasonal and short term positions

- Many candidates come from urban areas and have little outdoor experience.
- One agency reported that competition is high for fire crew jobs and they have many strong candidates to choose from. Obtaining a seasonal job in fire management provides candidates with union membership and the ability to apply for other jobs in the department.
- There are fewer staff with a desire to make a career in fire management. For many it is a job for a short time while they continue to look for a position in their preferred field.

Table 1: Factors Influencing Agency Ability to Attract and Retain Suitable Firefighters and Other Short-term Seasonal Employees

Factor	Number of Agencies Identifying Factor as Being Relevant
Other employment opportunities reducing the available pool of traditional workers.	10
Period of employment offered.	9
Perceived lack of a career path or ability to progress in the organization to full-time status.	8
Employment conditions- variability in income due to variable fire season severity, time away from home in remote locations, physical demands, working conditions.	6
Inability to meet fitness or other employment standards.	2

Note: Two agencies did not identify the above factors as applying to their situation.

Four agencies reported that they had strategies in place to attract and retain wildland firefighters and other seasonal positions. Some of the strategies include:

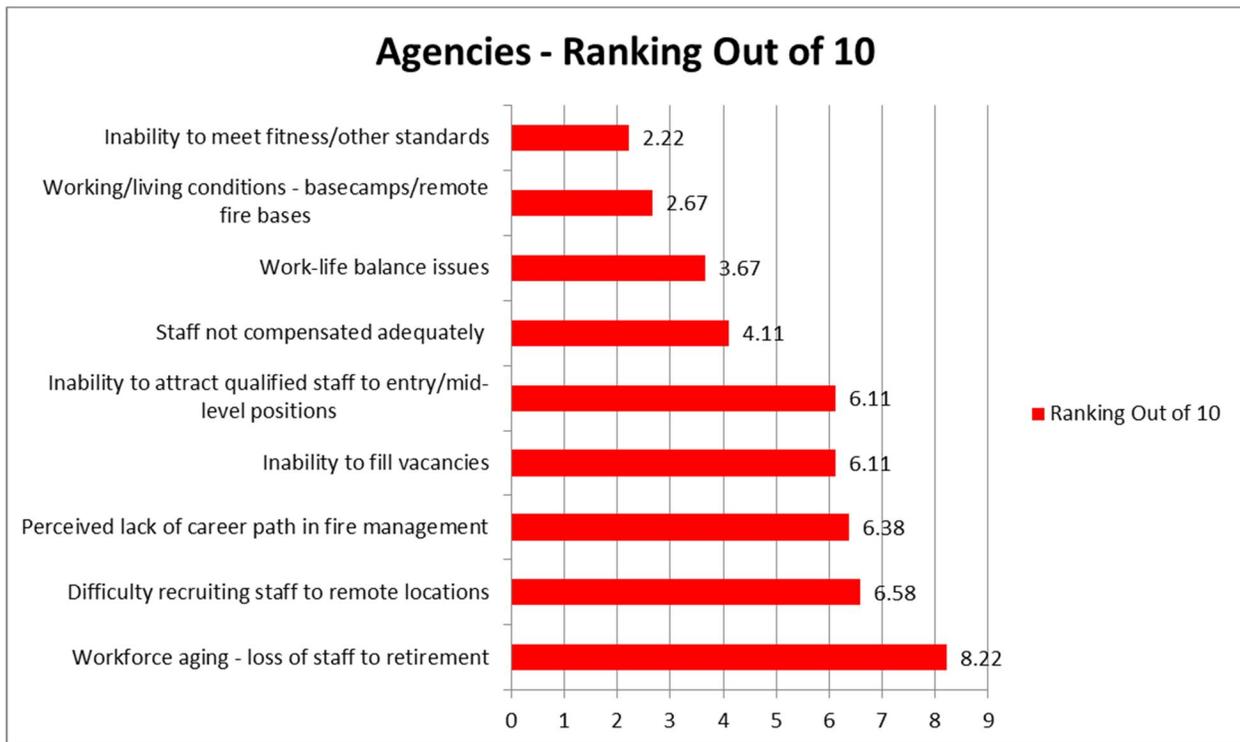
- Upgrading facilities and services (food and accommodations) at camps and other locations.
- Offering longer contracts. Creating some full-time positions to provide a career path.
- Developing off season temporary positions to provide longer contracts and exposure to other program areas besides fire suppression.

Issues or concerns with recruitment, development and retention of full-time fire management program staff

Eight agencies reported that they had concerns with recruitment, development and retention of full-time fire management program staff. Some of the issues identified include:

- There are more opportunities in the private sector that offer better benefits packages, better work-life balance and less accountability and responsibility.
- Many workers are not willing to move their families to smaller, remote communities so that they can gain work experience for potential jobs in the future.
- For those willing to move to smaller communities, there are limited opportunities for their spouses to obtain employment.
- Mid-level staff are leaving for private sector jobs with better compensation packages.

Figure 1: Factors that may be creating issues with respect to full-time agency staff



Challenges in Maintaining Necessary Skilled and Experienced Staff to Maintain Desired Staffing Levels for Fire Season Operations

Agencies identified several challenges related to maintaining appropriate staffing levels for fire season operations. Some of the challenges include:

- Lack of qualified staff to fill higher ICS positions. Staff less willing to step into higher roles because of work-life balance issues, added responsibilities and risk of personal liability.
- Most support functions are filled by non-fire, agency staff. Because of smaller workforces in other agency program areas, staff and managers are reluctant to free up staff because of other work program priorities.
- Challenges faced by existing staff to adapt to new technologies.
- Getting seasonal staff to complete all mandatory annual training during the fire season.
- Limited opportunity to properly dedicate mentors.

Incident Management Team Staffing

About half of the agencies reported that they had sufficient availability of overhead staff to fill their desired number of Incident Management Teams. Those that reported shortages indicated that the positions in short supply were:

- Type 1 Command and General Staff
- Specialty positions (such as Fire Behaviour Analyst, Air Operations Branch Director)
- Insufficient depth to deploy multiple teams.

Most agencies indicated that they had strategies in place to address overhead staff needs for Incident Management Teams. The strategies include:

- Use of mentors and coaching.
- Not using the same people all the time in the same roles and using more experienced staff as mentors.
- Taking advantages of opportunities to deploy trainees to other agencies through CIFFC resource sharing.
- Assigning staff as unit leaders to gain experience and see how the organization works.
- Carrying out a post incident evaluation process to determine next steps in personal development.
- Development of business rules which guide IMT development, assembly and deployment.

Workforce Planning

As noted earlier in this report, only four agencies, British Columbia, Ontario, Quebec and New Brunswick reported that they had a recent survey of workforce demographics.

Gathering data and making observations on changing workforce demographics for this report was challenging because there is not a consistent approach to workforce reporting in Canada. Job titles and job descriptions vary from agency to agency because of the nature of the provincial, territorial and federal organizations they are part of.

In order to carry out some basic analysis of workforce distribution by job category it was necessary to develop a format that would include the various fire agency jobs across the country. Because the Incident Command System (ICS) is used and understood across Canada, respondents were asked to categorize their job within their agency by ICS functional area.

Recommendation 1

To support national workforce analysis and planning, CIFFC should gather basic workforce demographic information on an annual basis and produce a report for CIFFC and member agencies' review.

- In order to support annual workforce analysis, agencies should establish procedures to acquire basic workforce demographic information.
- Agencies should adopt a standard format for categorizing fire agency job functions.
- Agencies should adopt procedures for acquiring and storing data to ensure that employee record privacy concerns are maintained.
- An example of a basic National Wildland Fire Demographics Report can be seen in Annex B.

Figure 2: Personnel Mobilized

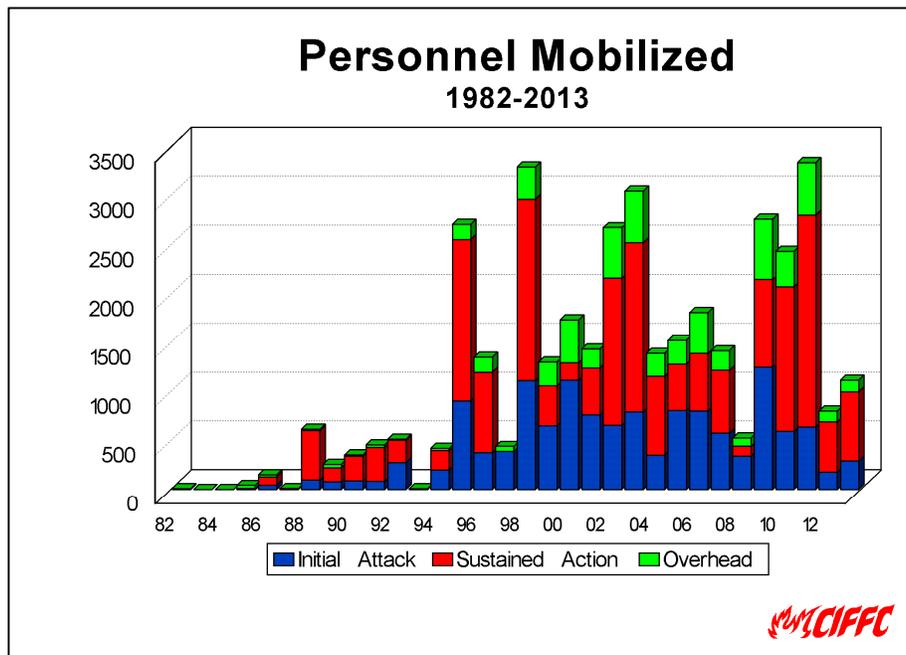


Figure 2 shows that the number of personnel deployed across the country through CIFFC has increased significantly since the mid-1990s. Overhead staff in the chart above includes the Incident Management Teams and ICS certified single resources that were shared. Agencies often find that during periods of escalated fire activity, single resources and IMTs are among the first identified critical resource shortages.

Recommendation 2

To ensure that sufficient levels of ICS personnel resources are available, CIFFC and member agencies should develop an Interagency ICS Workforce Plan that identifies critical ICS staffing requirements across the country and recommends actions to meet specific ICS position needs.

- CIFFC and member agencies should identify current and anticipated interagency firefighter and overhead staff needs and develop targets to drive ICS training, mentoring and recruiting initiatives.
- CIFFC should lead the development of the Interagency ICS Workforce Plan.
- Components of the Interagency ICS Workforce Plan should include the following:
 - Basic information on workforce demographics across the country.
 - Analysis of workforce demographics and identification of priority areas for development.
 - Development of plans to increase the use of mentoring and trainee programs to accelerate the completion of knowledge, skills development, and competency requirements.

- Development of plans to ensure that staff identified by agencies as requiring experience for ICS certification in critical roles are provided with opportunities through mutual aid resource sharing.
- An annual review of the Interagency ICS Workforce Plan at the fall CIFFC Resource Management Working Group Meeting to review targets and measure accomplishments.

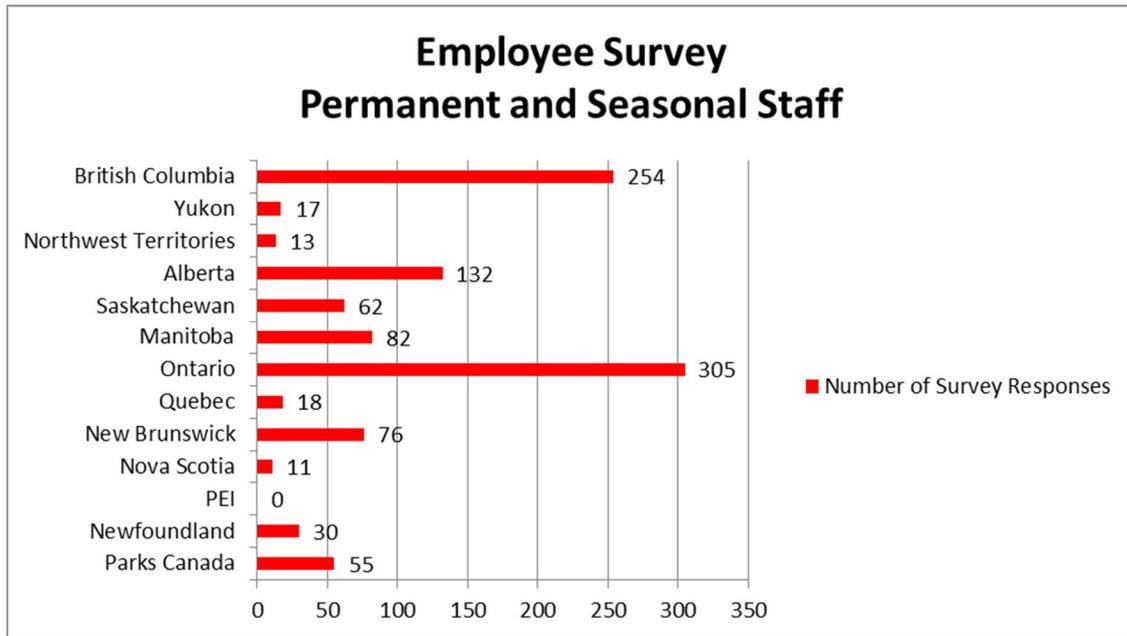
Recommendation 3

To ensure that critical levels of personnel resources are available, agencies should develop workforce succession plans that focus on identifying, assessing, and meeting agency workforce needs and support interagency resource sharing.

- Agencies should identify current and future agency firefighter and overhead staff needs and develop specific targets and procedures to measure progress in meeting those needs.
- Agencies should identify qualified staff in critical ICS positions that require mentoring and experience in order to become ICS certified. During quiet fire seasons these individuals should be provided opportunities to acquire experience through resource sharing opportunities identified in the Interagency ICS Workforce Plan.
- Components of the Agency Workforce Succession Plans should include the following:
 - Basic information on workforce demographics.
 - Analysis of workforce demographics and identification of priority areas for development.
 - Development of plans to increase the use of mentoring and trainee programs to accelerate the completion of knowledge, skills development, and competency requirements.
 - Development of methods to promote and market participation on IMTs and in obtaining certifications for deployment as ICS single resources.
 - An annual review of the workforce succession plans by agency fire management should take place to review targets and measure accomplishments.

Employee Survey

Figure 3: Employee Survey – Number of Respondents



One thousand and fifty-five (1,055) employees completed the survey. Seventy-three (73) percent were permanent staff. Seventeen (17%) percent were seasonal/part time employees on contract at the time of the survey and ten (10%) percent were seasonal/part time employees off contract at the time of the survey.

Figure 4, shows the breakdown of respondents by ICS functional area.

Figure 4: Survey Respondents by Job Category

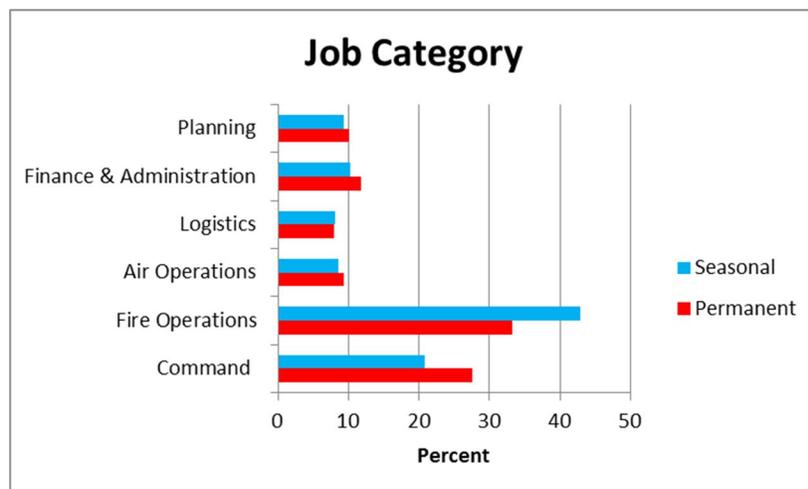


Table 2: Agency Job Categories

Job Categories
Command (director, manager, duty officer, etc.)
Fire Operations (firefighter, supervisor, trainer, etc.)
Air Operations (air attack officer, aircraft dispatcher, aerial detection, air operations support, etc.)
Logistics (warehouse, transportation, facilities, maintenance, equipment, radio operator, etc.)
Finance & Administration (human resources, accounting, business management, clerical support, etc.)
Planning (fire behaviour, fire science, GIS, IT, etc.)

Many workers fill more than one position within their organization. In addition to their ‘job’, many workers maintain qualifications or certifications for ICS positions. When considering workforce planning it is important to look at ICS position needs as well as ‘job’ needs.

Other than for mutual aid resource sharing purposes, there is very little movement of staff for job opportunities between fire agencies. There are several barriers that hinder staff from moving from one agency to another including collective agreements, seniority issues, wages and benefits, relocation expenses and pensions. The differences in job descriptions and job responsibilities between the fire agencies makes it difficult for a motivated individual to follow a career path that takes them from one agency to another.

Age Category and Retirement Eligibility

Figure 5: Survey Respondents by Age Category

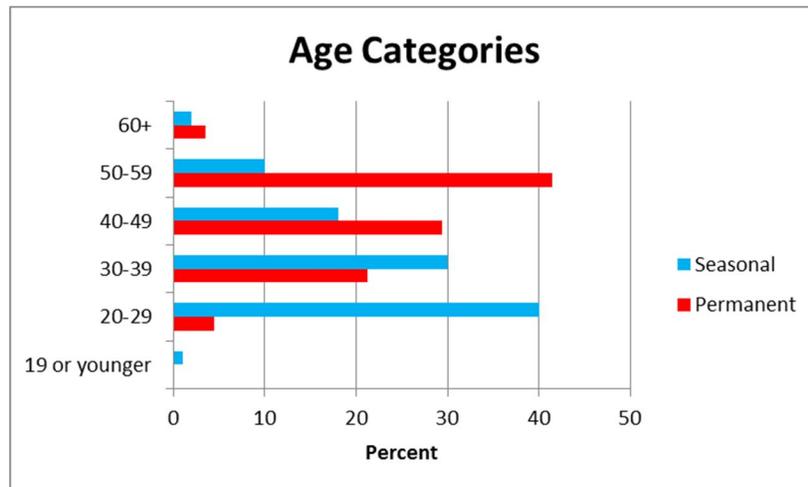


Figure 6: Survey Respondents and Retirement Eligibility

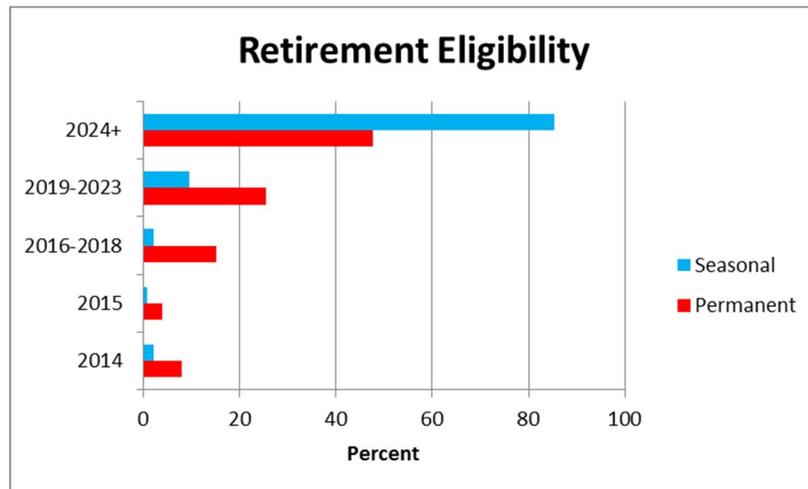


Figure 5 shows that forty-five (45) percent (342 people) of the permanent staff survey respondents were fifty years of age or older. Twelve (12) percent of those individuals (90 people) indicated that they would be eligible for retirement in 2014 and 2015. Fifteen (15) percent (113 people) indicated that they would be eligible for retirement during the three year period from 2016 to 2018. This means that twenty-seven (27) percent of permanent staff (203 people) that completed the survey indicated they would be eligible to retire during the 5 year period from 2014 to 2018. Twelve (12) percent of the seasonal staff were fifty years or older and while many may not be eligible for agency retirement packages, some may choose to leave the wildland fire management community. The potential exists for a significant turnover of staff and loss of experience over the next five years as more than 200 permanent staff across the country will be eligible for retirement.

Wildland fire agencies maintain a variety of plans, policies, and guidelines that document procedures for carrying out wildland fire operations. In addition to these documents, a significant amount of knowledge and experience is held in the minds of individual fire managers, specialists and other workers. Over the next five to ten years fire agencies across the country will lose a significant amount of 'institutional' knowledge as people retire, relocate or move on to new jobs within their agency. Institutional knowledge is defined as a collective set of facts, concepts, experiences and know-how held by a group of people. Many agencies don't have a strategy to capture critical information from these individuals before they walk out the door.

The loss of this institutional knowledge will increase rapidly over the next five years as a significant number of permanent staff employees will be eligible to retire. Many of these employees have experienced a number of busy fire seasons over the years. During periods of escalated fire activity and when dealing with contentious fires, it is often through consideration

of past lessons learned that fire managers able to make timely decisions that consider the safety of firefighters and the public, that maximize the efficient use of minimal resources and that are cost effective.

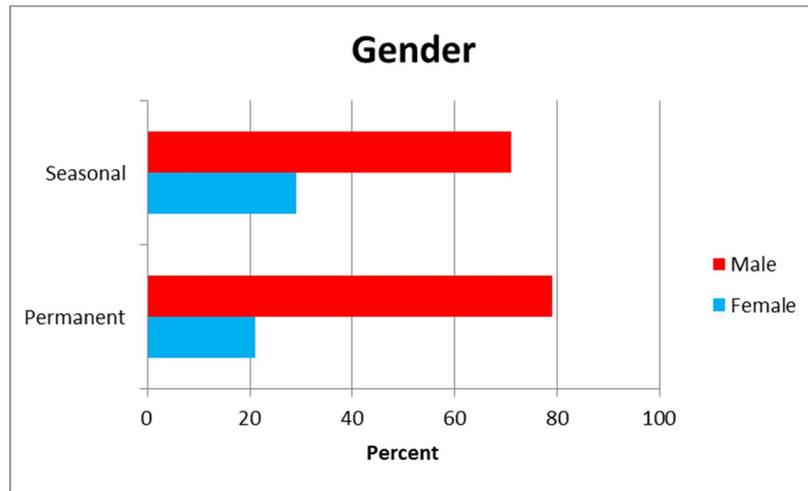
Recommendation 4

To retain critical institutional knowledge it is recommended that agencies develop processes to capture critical information from workers leaving the organization.

- Agencies should develop processes to continually capture and archive institutional knowledge.
- Agencies should actively preserve institutional knowledge by:
 - Supporting mentoring programs.
 - Establishing an ongoing process to identify which employees have the most critical knowledge.
 - Ensuring that attention is paid to critical, but less high-profile, positions.
 - Establishing the use of electronic 'filing' systems to archive and document critical information and knowledge.
 - Considering recording critical knowledge of employees about to retire by using video or audio interviews.
 - Building a knowledge-retention culture and make knowledge retention part of the organization's mission.
 - Holding "knowledge transfer" workshops where those leaving the agency can pass on experiences to those remaining at the agency.
 - Ensuring that exit interviews are carried out and important information is documented.

Gender

Figure 7: Survey Respondents and Gender

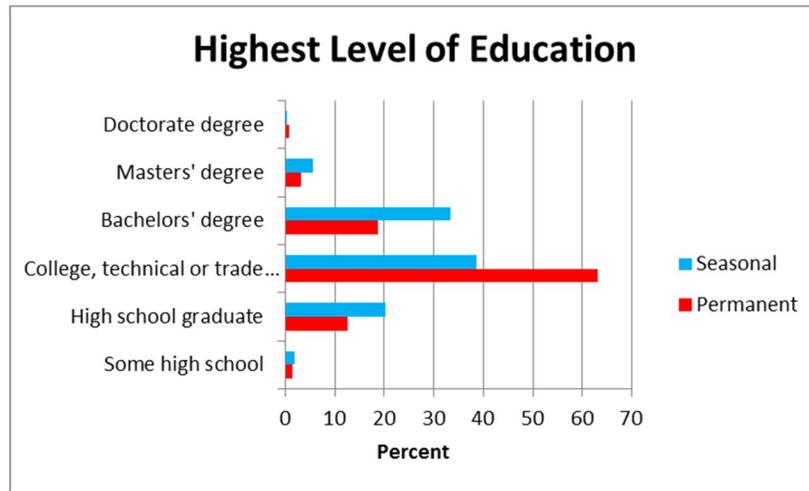


Seventy-nine (79) percent of the permanent workforce indicated they were male and twenty-one (21) percent indicated they were female. Of the seasonal workforce respondents, sixty-seven (67) percent indicated they were male and thirty-three (33) percent indicated they were female.

While wildland fire agencies in Canada continue to consist of a mostly male workforce, the percentage of female workers has increased over the past 20 years. The percentage of female staff is expected to continue to increase in coming years.

Education

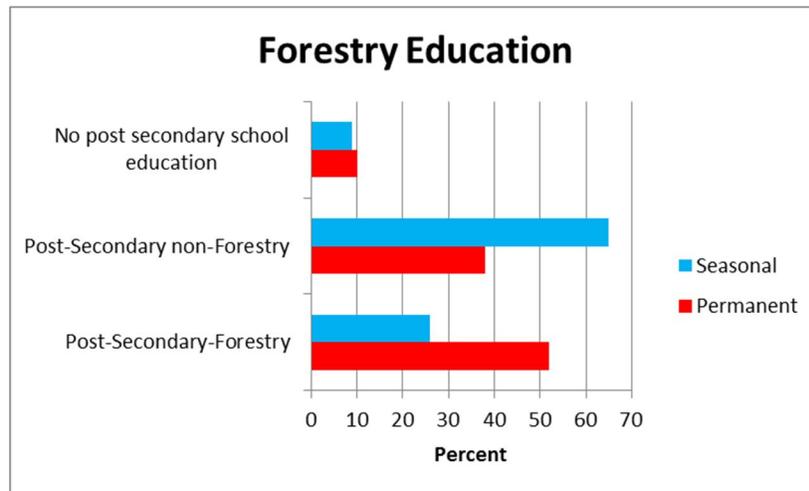
Figure 8: Survey Respondents and Highest Level of Education



Sixty-three (63) percent of the permanent staff respondents indicated that they had received an education at a college, technical school or trade school. Nineteen (19) percent indicated they had a Bachelor's degree, three (3) percent indicated they had a Master's degree and less than one percent indicated they had a Doctorate. Close to thirteen (13) percent or ninety five people indicated that their highest level of education was high school. Fifty-eight of these employees were over the age of 50.

Among the seasonal respondents, thirty-six (36) percent indicated they had received an education at a college, technical school or trade school. Forty (40) percent indicated they had a Bachelor's degree, five (5) percent indicated they had a Master's degree and less than one percent indicated they had a Doctorate. Close to seventeen (17) percent indicated that their highest level of education was high school.

Figure 9: Survey Respondents and Forestry Education



These statistics show that the percentage of employees with post-secondary school educations among the permanent and seasonal staff is about the same, close to 80%. The biggest difference is that almost twice as many seasonal employees have Bachelor's degrees than their permanent staff co-workers.

Another difference is in the subject area of the post-secondary school education. Fifty-two (52) percent of the permanent staff respondents indicated that their post-secondary school education was in forestry. Twenty-six (26%) of the seasonal workers reported that they had a forestry education.

Some agencies have made a forestry diploma or degree a requirement for certain positions within their organization. Some agencies have eliminated or reduced forestry education requirements. Since the 1980s there has been a reduction in some of the more traditional operational jobs (fire suppression oriented) and an increase in more specialized jobs (information technology, human resources, financial, GIS, communications, etc.). The number of educational institutions that offer forestry technician and degree programs has reduced and class sizes at several of those institutions still offering a forestry education are smaller.

Recommendation 5

To maintain a cadre of staff with basic forestry knowledge and education, it is recommended that agencies consider which positions would be strengthened by having an incumbent with a forestry education.

- Agencies should review and consider what forestry knowledge is necessary for certain specific positions and ensure that educational requirements are maintained or training opportunities are made available.

Incident Command System Certification

Wildland fire management agencies rely on their staff to perform many critical functions during periods of escalated fire activity. In addition to their regular duties, many staff maintain qualifications and certifications that enable them to be deployed to a variety of ICS functions on fires and other types of incidents. Seventy-eight (78) percent of the permanent staff survey respondents indicated that they were certified for an ICS function. Eighty-four (84) percent of these individuals reported that they had been assigned to an incident in an ICS function over the last five years.

Sixty-six (66%) of the seasonal staff respondents indicated that they were certified for an ICS function. Seventy-nine (79) percent of these individuals reported that they had been assigned to an incident in an ICS function over the last five years.

Figure 10: Survey Respondents and ICS Certification

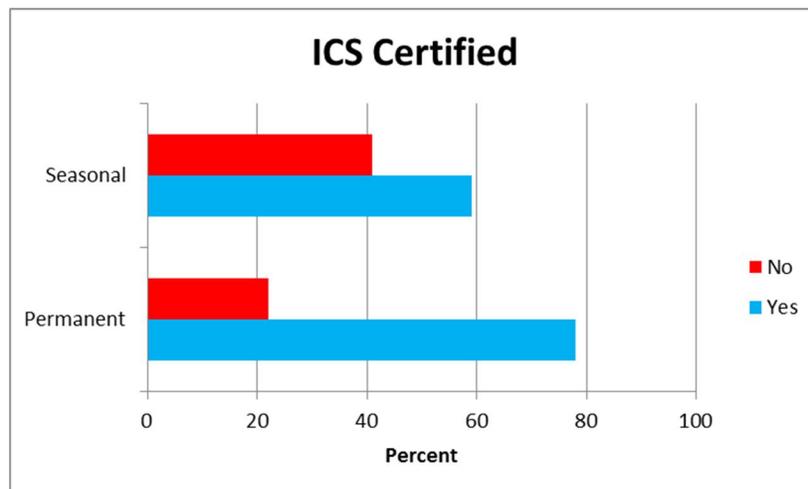


Figure 11: Survey Respondents with ICS Certification and Last Assigned to an Incident

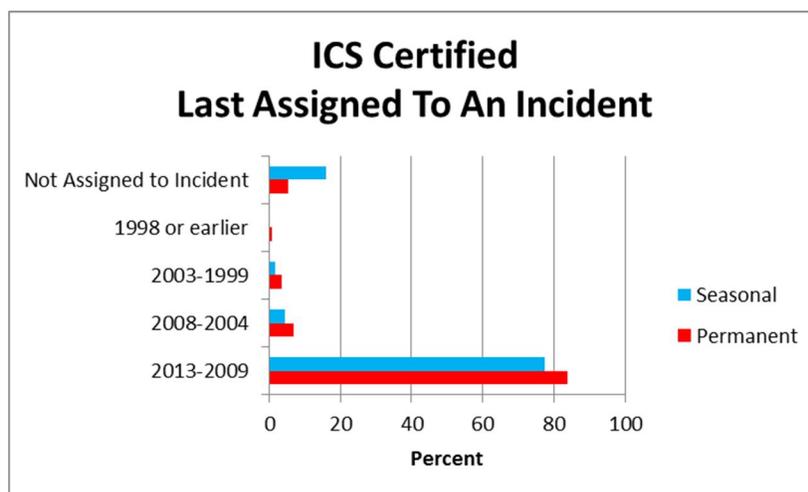
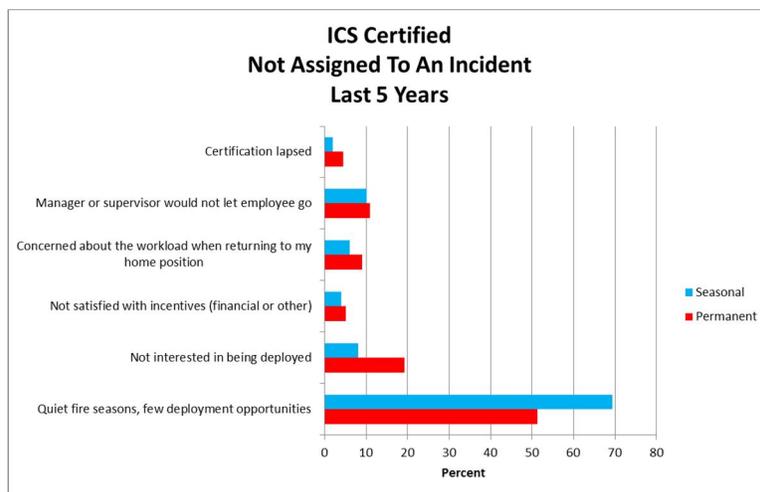


Figure 12 below shows that 51% of the ICS certified permanent staff not deployed to an incident in the last five years, indicated that quiet fire seasons with few deployment opportunities was the reason. Nineteen (19) percent reported that they were not interested in being deployed to an incident and eleven (11) percent indicated that their manager or supervisor would not let them go on deployment. Nine (9) percent reported that they did not go because they were concerned about the workload they would face when returning to their normal job and six (6) percent indicated that they were not satisfied with the incentives (financial or other). Five (5) percent reported that they had let their certification lapse.

Figure 12: Survey Respondents with ICS Certification - Not Assigned to an Incident



When asked why ICS certified permanent staff had not advanced to a higher ICS position, fifty-eight (58) percent reported that they were happy with their current ICS certification. Twenty-six (26) percent indicated that they were unable to gain the experience they required for ICS certification.

Figure 13: Survey Respondents with ICS Certification – Advanced to a Higher ICS Position

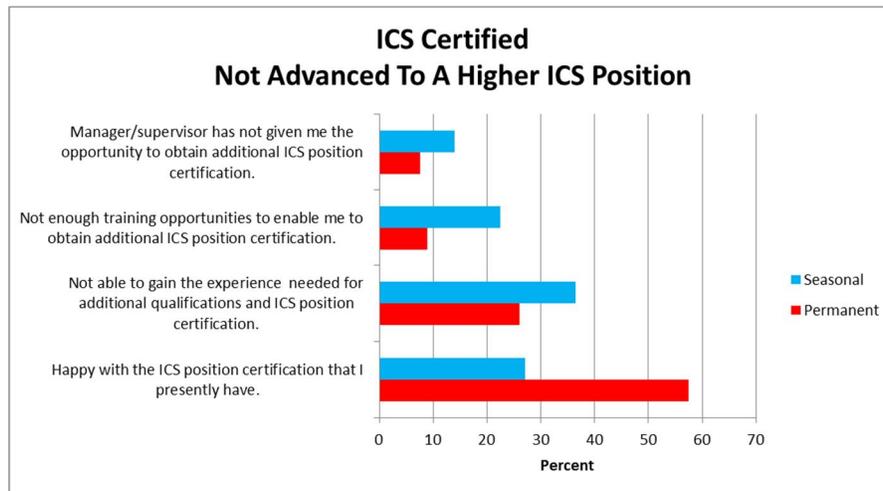


Figure 14: Survey Respondents – Reasons for Not Obtaining ICS Certification



Figures 12, 13 and 14 show a variety of reasons why ICS certified staff have not been assigned to incidents in recent years or have not taken opportunities to advance to higher positions in the ICS organization structure. Agencies will need to increase the numbers of ICS certified staff across the country to ensure that trained and capable people are ready and available to move into positions within the ICS organization as vacancies occur because of retirements. Agencies need to take some proactive steps. Recommendations appear later in the report in the section on Incident Command Staffing, on page 32.

Factors Making It Difficult To Attract or Retain Staff

Seventy-four (74) percent of the permanent staff respondents and seventy (70) percent of the seasonal respondents had the opinion that their agency was having difficulties maintaining or attracting people with appropriate skills and experience for program delivery within their organization.

The respondents were asked to rank, by priority, ten factors that may have an impact on an agency's ability to maintain or attract people with appropriate skills.

Figure 15: Permanent Staff Survey Respondents – Ranking of Factors Making It Difficult to Attract or Retain Staff

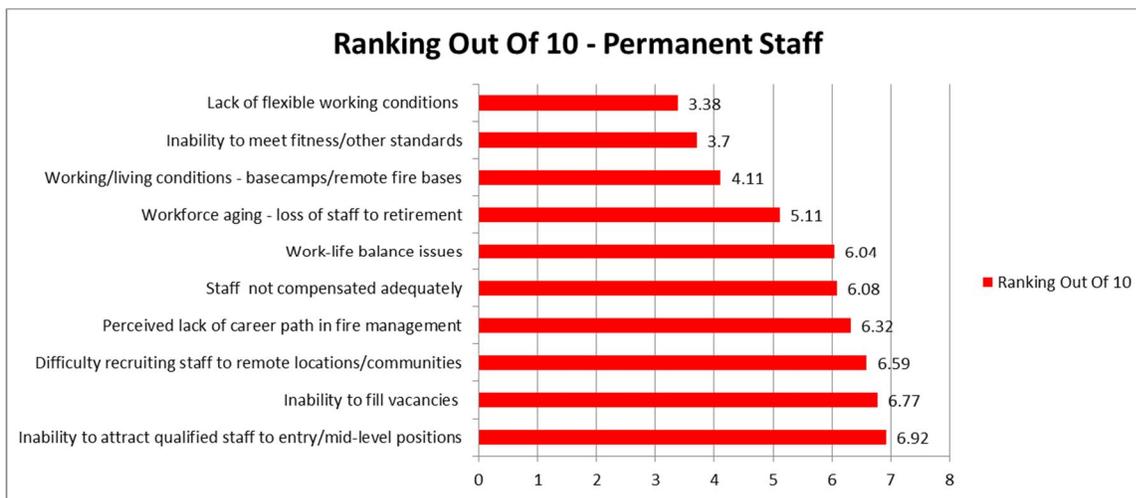


Figure 16: Seasonal Staff Survey Respondents – Ranking of Factors Making It Difficult to Attract or Retain Staff



The results showed that for permanent staff, six of the ten factors had a ranking of between 6 and 7 out of 10. For seasonal staff, five of the ten factors received a ranking of between 6 and 7 out of 10.

Among the seasonal staff, the factor receiving the highest overall ranking was the perceived lack of a career path in fire management. The second highest ranked factor was the inability to attract qualified staff to entry or mid-level positions.

Permanent staff gave the inability to fill vacancies because of hiring freezes or reduction in the public sector size the highest ranking and the inability to attract qualified staff to entry or mid-level positions the second highest ranking.

The factors ranked the lowest by both seasonal and permanent staff employees were lack of flexible working conditions and inability to meet fitness or other standards.

Other Factors Making It Difficult To Attract or Retain Staff

The survey provided employees with an opportunity to provide their own comments on the factors that are making it difficult for some agencies to attract or retain staff. More than 180 comments were provided. The comments for the most part can be summarized as follows:

- Contract lengths for seasonal workers are too short.
- It is hard to retain young, skilled workers when they don't see opportunities for full-time employment.
- Many young, motivated staff are not willing or able to make a career out of seasonal employment.
- In some parts of the country it is hard to compete with the wages and employment opportunities that are available in the oil and gas sector.
- Several respondents were critical of the hiring processes carried out by some of the agencies (i.e., behavioral interviews, requirement for a forestry education, lack of a requirement for a forestry education, and nepotism).

Many more of the comments found in Annex A – Employee Survey.

There is very little movement between the provincial, territorial and federal agencies. Several barriers such as pension plan portability, retirement eligibility rules, job seniority, wages, and employee relocation plans make it difficult for people to move from one agency to another.

Recommendation 6

In order to attract and retain staff in the wildfire management community across Canada, agencies should promote and market the benefits of a career in wildfire management.

- Agencies should review current jobs, position specifications and organization charts and make improvements, where necessary, to build an organization that shows a more clear career path from entry level positions to senior positions within the wildland fire community.
- Agencies should develop intern programs to provide skilled and motivated workers with opportunities to gain additional experience and longer employment.
- Agencies should work together to remove or reduce barriers that make it difficult to move from one agency to another.

Incident Command System Staffing

Agencies provided summaries of Type 1 and Type 2 command and general staff positions as well as staffing levels of other critical ICS positions. The agencies were asked to provide the current numbers of certified staff by position, their target number of certified staff by positions, age category breakdowns as well as retirement projections. Agencies were also asked to provide information on the number of Type 1 IMTs that were rostered in 2013 and the average age of team members.

Several agencies found it difficult to obtain information on projected retirement dates from their human resources sections. The reasons varied from privacy concerns to lack of information management systems that can easily collect the data from personnel records.

Earlier in this report it was noted from the Employee Survey that there were a variety of reasons why ICS certified staff have not been assigned to incidents in recent years or had not taken opportunities to advance to higher positions in the ICS organization structure. Quiet fire seasons with few deployment opportunities was the main reason that most ICS certified staff had not been deployed over the last 5 years. During that five year period there were times when several agencies were managing challenging fires and experiencing shortages in a variety of ICS positions.

Some agencies use training exercises and simulations as a way to help staff retain skills and gain experience during quiet fire seasons. Significant numbers of fire crews and operational overhead staff are shared each year through CIFFC. Many people in operational roles such as firefighters, strike team leaders, task force leaders and division supervisors gain experience each year through these deployments and through regular deployments in their home agency. There are fewer deployment opportunities for people assigned to ICS positions in the Planning, Logistics and Finance and Administration sections. For many of these people it becomes a challenge to maintain ICS certification, maintain skills and acquire necessary experience during years with low fire activity in their home province or territory.

Recommendation 7

To support the training and development of Type 1 and Type 2 Incident Management Teams in Canada, CIFFC should work with the agencies to develop standard ICS simulations.

- Standard training simulations and scenario-based table top exercises should be developed to expand opportunities for staff to obtain knowledge, experience and competency.

The responses from the survey also showed that some ICS certified employees were not interested in being deployed to fires and that a small percentage (4.5%) had let their certification lapse.

To respond to the fire load across the country in coming years, agencies will need to increase the numbers of ICS certified staff to ensure that trained and capable people are ready and available to move into positions within the ICS organization as vacancies occur because of retirements.

Recommendation 8

Agencies should review and increase their rosters, where necessary, of certified ICS workers to support agency and national workforce succession plans.

- Agencies should manage rosters to ensure that:
 - Individuals don't let their ICS certifications lapse.
 - Interested and motivated individuals are not held back from deployment in home positions that are less critical during a fire situation.
 - Individuals that require experience for ICS certification are provided with opportunities through deployment as trainees or through job shadowing.
- Agencies should develop marketing and awareness plans to encourage agency staff without ICS certifications to obtain training and certification.
- Agencies should encourage employees to obtain ICS certifications by creating incentives and formal recognition for those employees who complete their certifications.
- Agencies should identify which jobs should have ICS certification as a mandatory job component.
- Agencies should consider introducing term limits for IMT membership, where necessary, to provide new staff with opportunities to fill IMT positions.
- Agencies should review position qualification standards and consider accepting standard training simulations and scenario-based table top exercises as required experience for certification where possible.
- Agencies should identify which ICS positions could be filled during periods of escalated fire activity through the private sector or by qualified retirees.

In the survey, agencies were asked to identify the number of certified individuals they had for key ICS positions. They were also asked to identify their target number for those same positions. Some agencies indicated that they set targets and others indicated that they did not set targets. For those that do set targets, it was clear that agencies define the term 'target' differently when determining the numbers of certified staff that are required for rosters.

Setting targets for the desired number of staff to fill ICS positions in each agency will help support planning for future training courses and mentoring programs.

Recommendation 9

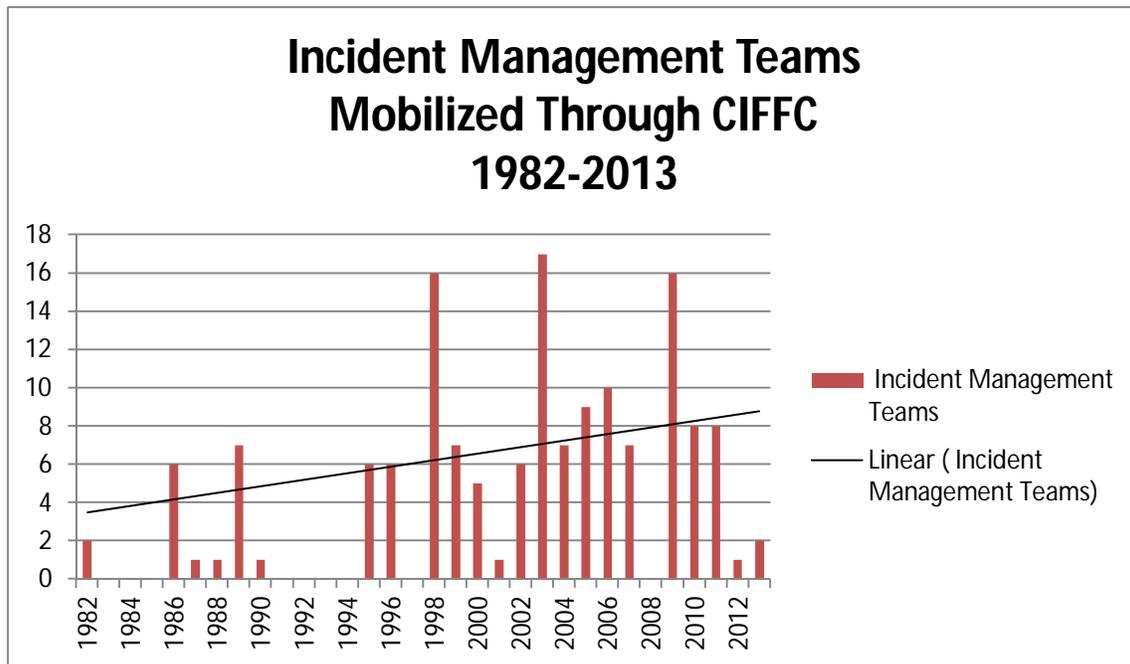
Agencies should adopt a standard definition for the term 'ICS staffing target' to support planning for training courses, mentoring programs and operational needs.

- *A proposed definition for "ICS staffing target" is - The number of ICS certified individuals needed to meet an agency's projected ICS staffing requirements. In determining the number of positions needed, agencies should consider their projected fire load and the need to have sufficient certified staff available to support staff recycling during periods of escalated fire activity. For example: If an agency has determined that it will maintain a roster of 4 Type 1 Incident Management Teams, it should consider an "ICS staffing target" of 6 or more certified Type 1 Incident Commanders to ensure that 4 are available when the need arises and that they have the ability to recycle staff when necessary.*

As noted earlier in this report, forty-five percent of the permanent staff survey respondents (342 people) were fifty years of age or older. Twelve percent of those individuals (90 people) indicated that they would be eligible for retirement in 2014 and 2015. Fifteen percent (113 people) indicated that they would be eligible for retirement during the three year period from 2016 to 2018. Twenty-seven percent of permanent staff (203 people) that completed the survey indicated they would be eligible to retire during the 5 year period from 2014 to 2018. Many of these people fill critical supervisory and specialist roles on Incident Management Teams. To support the Type 1 and Type 2 Incident Management Teams, large numbers of Single Resources (support and overhead staff) are often deployed as well.

Figure 17, Incident Management Teams Mobilized through CIFFC, shows that the number of IMTs mobilized has been moving upward since the mid 1990's. CIFFC and wildland fire agencies should work together to develop workforce plans that will ensure that the right people (with training, skills, experience and competencies) are in in the right place at the right time to meet future Incident Management Team staffing requirements.

Figure 17: Incident Management Teams Mobilized Through CIFFC



Type 1 Incident Management Teams are often deployed to the most challenging and contentious large fires in the country. CIFFC indicated there were potentially 27 Type 1 IMTs available in the country for export in 2013 (BC 4 Teams, AB 4 Teams, SK 2, Teams, MB 2 Teams, ON 4 Teams, QC 2 Teams, PC 4 Teams and NS 1 Team). The sizes of the teams varied from 4 to 11 person “short” teams and 12 to 19 or more person “long” teams. CIFFC also reported that there were approximately 20 “short” Type 2 Teams rostered in the country.

Some wildland fire agencies do not maintain Type 1 Incident Management Teams because of staffing levels, agency fire load or a lack of training and experience. Some of these agencies have individuals certified for specific positions but don't have the capacity to assemble a complete Incident Management Team. If the need arises for a Type 1 Incident Management Team these agencies would have to rely on assistance from other agencies. Agencies that build and manage Incident Management Teams do so for their own needs. To date, there has not been discussion or workload analysis at a national level to determine the optimal number of Incident Management Teams to meet interagency needs in Canada.

Table 3 shows the average age of 2013 Type 1 Incident Management Team members, as reported by the agencies. The average age of Type 1 Incident Commanders was 48 years. The average age of all Type 1 Incident Management Team members was 46 years.

Recommendation 10

Based on an analysis of national fire load, CIFFC and member agencies should determine the optimal number of Type 1 and Type 2 Incident Management Teams that are needed to meet interagency needs in Canada.

Table 3: 2013 Type 1 Incident Management Teams

	BC	YT	AB	NT	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total								
	Rostered	Avg. Age	Rostered	Average Age																		
Command and General Staff																						
Incident Commander	7	51		4	52	6	43	8	55		4	48	2	43	2	48	2	45	35	48		
Safety Officer	3			4	50	2	54	7	48		4	48	1	32	2	55	6	45	29	47		
Operations																						
Operations Section Chief	7	48		4	47	8	47	9	56		4	46	1	48	1	45	2	45	37	48		
Division Supervisors						7	46	28	50					10	47	8	45		43	47		
Air Operations																						
Air Operations Branch Director	7	52		4	49						4	50	2	48					17	50		
Air Support Group Supervisors							7	49											7	49		
Heli base Managers							13	53		4	52								17	53		
Finance and Administration																						
Finance and Admin Section Chief	7	50		4	44	1	23	1	47		4	40		1	40	2	45	1	52	20	43	
Cost Unit Leader								8	39										2	44	10	42
Time Unit Leader								13	41		4	33							3	36	20	37
Logistics																						
Logistics Section Chief	5	52		4	49	4	51	7	55		4	48	3	36	2	52	1	54	2	53	30	50
Supply Unit Leader								15	43												15	43
Facilities Unit Leader								26	47		4	57									26	47
Radio Operator								24	49												24	49
Planning																						
Planning Section Chief	6	47		4	39	2	45	8	53		4	46	2	53	2	50	2	35	2	45	30	46
Fire Behaviour Analyst	3	56		4	46	1	42	8	51		4	40	1	34	3	52	6	40	1	35	27	45
Situation Unit Leader								20	52						2	43	19	40	1	34	40	42
Resource Unit Leader								23	53		4	41			2	46	12	40	1	34	40	43
Average Age of IMT Members																						
		51			47		44		49			46		42		48		44		44		46

Table 3 provides a “snapshot” of the numbers of individuals assigned to IMTs and the average age of team members. The average age of IMT members was 46 and the average age of Command and General Staff (Incident Commander, Safety Officer, Section Chiefs) was 47. The average age of Branch Directors, Division Supervisors, Unit Leaders and other key positions on the teams was 45. This could indicate that a problem may arise in the future as Command and General Staff retire and those in line to replace them become eligible to retire soon after.

Table 4: Type 1 Incident Management Teams

	BC		YT		AB		NT		SK		MB		ON		OC		NB		NS		PE		NL		PC		Total	
	Certified	Target																										
Incident Commander	9		3	7	4	3	8	8			3	10	10	2	2		1	3			2						40	37
Safety Officer	28		2	21	4	2	5	1			3	7	10	1	2		2	3	6	2			2				68	33
Operations Section Chief	39		3	11	4	3	5	4			3	15	15	1	2			3					2				73	39
Finance and Admin Section Chief	7		3	3	4	3	5	3			3	12	10		2								2				38	31
Logistics Section Chief	19		3	5	4	3	5	5			3	12	10	3	2					1	2			2			48	28
Planning Section Chief	24		3	6	4	3	5	5			3	12	10	2	2		1	3					2				53	31

Table 5: Type 2 Incident Management Teams

	BC		YT		AB		NT		SK		MB		ON		OC		NB		NS		PE		NL		PC		Total	
	Certified	Target																										
Incident Commander	75	N/A	9	15	44	N/A	6	8	16	6	2		40	20	8	8	1	3	2	2			2	4			205	63
Safety Officer	3	N/A	3	7		N/A		8	1	6			N/A				1	3	6	2			2	4			16	30
Operations Section Chief	50	N/A	12	15	46	N/A	9	8		6			N/A		12	8		3	2	2			2	4			133	46
Finance and Admin Section Chief	10	N/A	3	9	2	N/A	3	8	1		2		N/A					2	2	2			1	4			24	25
Logistics Section Chief	38	N/A	3	9	42	N/A	5	8	9	6			N/A		7	8		3	2	2			2	4			108	40
Planning Section Chief	16	N/A	6	6	31	N/A	2	8	3	6	2		N/A		5	8	1	3	2	2			2	4			70	37

Table 6: Other ICS Positions

	BC		YT		AB		NT		SK		MB		ON		OC		NB		NS		PE		NL		PC		Total	
	Certified	Target																										
Incident Commander Type 3	146		17	30	86	N/A			41	N/A			93	75	3	4	4	8	9	9			1	4			400	130
Division Supervisors	184		25	30	32	N/A	9	9	4	N/A	6	6	77	80			6	10	8	12				4			351	151
Air Operations Branch Director	30		3	6	5	4	2	5		5			8	10	2	4								2			50	36
Air Support Group Supervisors	25		2	6	10	N/A				N/A			3	10										2			40	18
Helibase Managers	63		3	6	11	N/A			4	N/A			17	10										2			98	18
Time Unit Leader	36		8	10	16	N/A			7	N/A			44	25										2	4		113	39
Supply Unit Leader	35		5	8	35	N/A			1	N/A			23	25													138	37
Facilities Unit Leader	14		2	4	6	N/A			11	N/A			13	25													46	33
Radio Operator	13		5	10					9	24																	27	38
Fire Behaviour Analyst	11		4	4	7	4	8	10	2	4	2	16	20	1	4	3	3	8	11				1	6			61	70
Situation Unit Leader	21				50	N/A				N/A			24	25			2		19	12							117	43
Resource Unit Leader	35				14	N/A			9	N/A			41	25			2	1	12	12							114	44

From the information collected through the Incident Command System Staffing Survey, the goal was to identify critical positions shortages in the future. Because of the lack of data and inconsistencies in how agencies determine ICS staffing targets, it was difficult to identify future staffing shortfalls. From the data that was received (Table 6), it does appear however, that

without carrying out any succession planning, shortages may develop in the numbers of Fire Behaviour Analysts and Radio Operators available for export.

Workforce Distribution by Job Category

As noted earlier in this report, job titles and job descriptions vary from agency to agency. In order to carry out some basic demographic analysis of workforce distribution it was necessary to develop a simple format to categorize job types. Three basic categories were used to collect and display workforce distribution in Canada. Recommendation 1 addresses the need for agencies to adopt a standard format for categorizing job functions to support national workforce analysis and planning in the future.

Table 7: Workforce Job Categories

Category	Job Type
Management (non-bargaining unit staff)	Fire Managers Director Program Manager
Operational/Support	Clerks, Administration Staff, IT Officer, Weather Specialist, GIS Technician, Policy Staff, Financial Staff, Trainers, Machine Operator, Stock Worker, Supply Officer, Warehouse Clerk, Mechanic, Driver, etc.
Firefighters	Type 1 and Type 2 firefighters that are agency employees

Permanent Staff Workforce Distribution

Table 8: Permanent Staff Workforce Distribution by Job Category

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management	6	21	20	23	11	2	76	27	37	30	Data Not Available	2	Data Not Available	255
Operational / Support	23	56	76	378	121	22	151	141	35	100		10		1,113
Firefighters	0	0	163	0	11	0	0	0	120	91				385
TOTAL	29	77	259	401	143	24	227	168	192	221		12		1,753

Seasonal/Auxiliary Staff Workforce Distribution

Table 9: Seasonal/Auxiliary Staff Workforce Distribution by Job Category

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management	0	0	0	0	0	0	3	0	0	0	Data Not Available	0	Data Not Available	3
Operational / Support	32	63	167	0	129	18	410	84	11	0		8		922
Firefighters	27	134	1141	450	204	257	968	212	68	119		100		3,680
TOTAL	59	197	1308	450	333	275	1381	296	79	119		108		4,605

Permanent Staff Workforce Distribution by Gender

Table 10: Permanent Staff Workforce Distribution - Female

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management	1	1	4	1	0	0	7	3	2	2	Data Not Available	0	Data Not Available	21
Operational / Support	3	9	67	138	30	8	53	47	30	45		3		433
Firefighters	0	0	11	0	0	0	0	0	2	6		0		19
TOTAL	4	10	82	139	30	8	60	50	34	53		3		473

Table 11: Permanent Staff Workforce Distribution - Male

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management	5	20	16	22	11	2	69	24	35	28	Data Not Available	2	Data Not Available	234
Operational / Support	19	47	9	240	91	14	98	94	10	55		7		684
Firefighters	0	0	152	0	11	0	0	0	118	85		0		366
TOTAL	24	67	177	262	113	16	167	118	163	168		9		1,284

Permanent Staff Workforce Distribution by Age Category

Table 12: Permanent Staff Workforce Distribution by Age Category

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Under 20	0	Data Not Available	0	2	0	0	0	0	Data Not Available	0	Data Not Available	0	Data Not Available	2
20-29	3		10	60	6	0	7	11		15		0		112
30-39	6		46	107	23	7	40	53		40		0		322
40-49	8		79	104	38	9	61	42		60		4		405
50-55	9		76	68	33	4	64	37		55		4		350
56-59	1		38	32	33	3	30	23		35		1		196
60-65	1		9	23	9	1	13	2		15		3		76
66+	1		1	5	1	0	0	0		1		0		9
TOTAL	29		259	401	143	24	215	168		221		12		1,472

Permanent staff totals in Table 12 (1,472 total permanent staff) differ from Table 8: Permanent Staff Workforce Distribution by Job Category (1,729 total permanent staff) because some agencies did not report the ages of staff.

Agency Succession Planning Review

As mentioned earlier in this report, few Canadian wildfire management agencies have developed workforce succession plans.

A review of documents from other wildland fire agencies around the world showed that agencies from several jurisdictions have identified succession planning as an issue that needs to be addressed. It has proven to be difficult, however, to find examples of successful programs that have been initiated by agencies to resolve the problem. The United States Forest Service is currently implementing a succession planning process and there may be lessons to be learned from their experience.

Other Jurisdictions

In 2010, the U.S. Department of Agriculture, Office of Inspector General (OIG)¹ reviewed the Forest Service's firefighting succession planning process. The OIG evaluated whether the Forest Service had adequately planned for the timely replacement of critical fire management staff as retirements increased and fewer staff volunteer for fire related assignments. The audit assessed Forest Service plans for recruiting, training, developing and retaining staff that fill critical fire management positions (Incident Command and support positions). The audit also identified other factors or barriers affecting the Forest Service's ability to develop and mobilize staff.

The audit looked at positions that were critical to firefighting because they involved essential fire command and support positions (ICS positions). Overall the OIG concluded that the Forest Service had not taken necessary steps to ensure it has a sufficient number of qualified staff to meet its future needs.

The auditor's comments included the following:

- Most Forest Service personnel become qualified to hold fire fighter positions based on extra training and experience gained alongside their primary job occupations and firefighting is a collateral duty.
- The training program does not ensure that sufficient staff are trained to fill positions that meet the agency's current or anticipated needs.
- The Forest Service has trained and qualified many employees but does not require them to participate during wildfire events or reward them for doing so. Employees who choose to volunteer and are called upon are not rewarded for doing so, but are only

¹ Forest Service's Firefighting Succession Planning Process, Audit Report 08601-54-SF, USDA Office of Inspector General, March 2011

evaluated and paid in terms of their primary job responsibilities. The auditors concluded that having availability be voluntary and the lack of career incentives have caused most of the Forest Service fire staff to list themselves as unavailable for fire assignment.

It was determined that the existing system in the United States relied on voluntary participation. It could not be sustained due to a lack of sufficient incentives and accountability measures, and the length of time it takes for employees to gain position qualifications.

To address the recommendations from the audit, a Firefighter Workforce & Succession Planning Team was created. The process that will address the gaps in the fire program contains six steps:

1. Taking an overview of the agency's demographics -- implement a national approach to recruitment and hiring in an effort to improve diversity within the agency, as the workforce plan is implemented.
2. Identifying the gaps – current data and workforce planning templates are being utilized to pinpoint the gaps and prompt leaders to consider alternative methods of getting work done.
3. Developing talent pools – from within and outside the agency
4. Developing fire workforce succession strategies – workforce recruitment templates are completed for fire positions and needs (numbers for recruitment will feed into the regions, stations, areas and DC, for the national workforce plan in 2013).
5. Focusing on retention, learning and recruitment strategies – aimed at improving the diversity of the applicant pool and ultimately the workforce.
6. Documenting, monitoring and evaluating – in an attempt to revise efforts to improve the results.

Canadian wildland fire management agencies should follow the progress in the United States while at the same time addressing the issues described in this report on Canadian agency demographics and succession planning.

The Future Workforce in Canada

The workforce in Canada will be more diverse in the future. There will be diversity in age, race and gender.

Generation gaps have become a growing challenge in some workplaces as a young workforce works alongside more experienced personnel. In the wildland fire community there will be more generational diversity as larger numbers of older workers retire and young entry level employees work alongside the large number of personnel now in the 40-49 and 50-59 age groups. Each of the age groups has different values, work ethics, expectations, and are motivated by different factors. Wildland fire agencies will have to recognize the differences between the generations and consider making changes in the workplace to accommodate the needs of the workers.

Over the next 10 to 15 years the demographic profile of available workers will change in several regions of the country. In 2012, for the seventh consecutive year, Canada continued the highest sustained level of immigration in Canadian history, according to 2012 data released by Citizenship and Immigration Canada.

Canada welcomed 257,515 permanent residents in 2012. Each year since 2006, Canada has admitted an average of about a quarter of a million immigrants. In recent years, Canada has been welcoming the highest sustained level of immigrants in Canadian history according to Citizenship and Immigration Canada. Over the seven years from 2006 to 2012, Canada averaged approximately 30,250 more admissions per year than in the decade previous, from 1996 to 2005.

Statistics Canada has also reported that the average annual growth rate of the Aboriginal population is greater than the non-Aboriginal population. By 2031 the Aboriginal population will be younger than the non-Aboriginal population.

These and other statistics indicate that the demographic profile of entry level workers may be changing in the future. Fire agencies will have to develop recruitment and retention programs that satisfy the needs of a more diverse workforce.

Summary

For this report, information was gathered from provincial, territorial and federal wildland fire agencies across Canada. Information was also obtained from an online employee survey that was completed by more than 1,050 respondents across the country.

Twenty-seven percent (203 people) of the permanent staff workers that completed the online employee survey indicated that they would be eligible to retire during the 5 year period from 2014 to 2018. The information collected from the agencies and the employee survey showed that there is a lack of workforce succession planning taking place in Canada's wildfire management community.

To retain institutional knowledge agencies need to develop processes to capture and retain critical information from workers as they the organization.

Several recommendations are contained in this report that are related to the development of CIFFC and agency workforce succession plans that will ensure that the *"right people are in in the right place at the right time"* to meet future agency and Incident Management Team requirements. It is important that CIFFC and member agencies develop qualified pools of candidates ready to fill critical agency and ICS positions.

In order to attract new workers and retain staff, agencies need to establish clear career paths within their organizations, provide training and development opportunities and provide a work atmosphere that values diversity.

Annex A: Employee Survey Results by Agency

An online survey was created and a link to the survey was forwarded to all agencies for distribution to all staff. English and French versions of the survey were made available to staff. More than 1,055 employees across Canada completed the survey.

Number of Permanent Staff Survey Respondents

Number	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
	164	13	10	118	57	66	192	18	69	9	0	23	23

Percent	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
	22	2	1	15	7	9	25	2	9	1	0	3	3

Gender of Permanent Staff Survey Respondents

Agency	Male		Female		Total
	Number	Percent	Number	Percent	
BC	122	75	40	25	162
YT	12	92	1	8	13
NT	9	100	0	0	9
AB	91	77	27	23	118
SK	51	77	15	23	66
MB	50	77	15	23	65
ON	141	75	48	25	189
QC	15	88	2	12	17
NB	63	94	4	6	67
NS	7	78	2	22	9
PE	No Data Available				
NL	19	86	3	14	22
PC	19	83	4	17	23
Total	600	79	160	21	760

Age Categories of Permanent Staff Survey Respondents

Agency	19 or Younger	20-29 %	30-39 %	40-49 %	50-59 %	60+ %
BC	0	3	19	31	42	4
YT	0	8	15	8	62	8
NT	0	0	0	50	50	0
AB	0	9	37	25	26	2
SK	0	5	7	28	53	7
MB	0	9	26	30	32	3
ON	0	3	15	32	47	3
QC	0	0	22	33	44	0
NB	0	0	13	28	56	3
NS	0	11	56	0	33	0
PE	No Data Available					
NL	0	5	27	27	27	14
PC	0	0	39	35	26	0

Highest Level of Education of Permanent Staff Survey Respondents

Highest Level of Education	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Some high school (%)	0	15	0	3	4	5	1	0	0	0	No Data Available	0	0
High school graduate (%)	17	23	10	6	23	12	17	0	1	0		9	0
College, technical or trade school (%)	56	31	50	67	61	67	62	53	97	78		72	17
Bachelors' degree (%)	23	15	40	22	13	15	17	41	1	22		18	43
Masters' degree (%)	3	8	0	1	0	2	3	6	0	0		0	35
Doctorate degree(%)	1	8	0	1	0	0	1	0	0	0		0	4

Post-Secondary School Education in Forestry Of Permanent Staff Survey Respondents

Post -Secondary School Education in Forestry	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Yes (%)	45	15	50	76	37	21	40	78	93	100	No Data Available	82	48
No (%)	44	54	40	17	44	62	49	22	7	0		14	52
Did not continue with college or university after high school (%)	12	31	10	7	19	17	11	0	0	0		5	0

Retire Eligibility (Actual or Estimated) of Permanent Staff Survey Respondents

Eligible to Retire	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
2014 (%)	9	15	0	3	26	11	7	0	4	11	No Data Available	5	0
2015 (%)	6	0	20	3	7	2	3	5	4	11		0	4
2016-2018 (%)	21	0	20	12	7	14	16	17	18	11		18	13
2019-2023 (%)	22	46	10	16	35	20	35	22	25	0		32	17
2024+ (%)	43	38	50	66	25	55	40	56	49	67		45	65

Workforce Job Category of Permanent Staff Survey Respondents

Agency	Command		Fire Operations		Air Operations		Logistics		Planning		Finance and Admin.		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
BC	43	28	56	36	20	13	7	5	17	11	12	8	112
YT	5	38	2	15	0	0	3	23	3	23	0	0	8
NT	6	75	1	13	0	0	1	13	0	0	0	0	2
AB	19	17	52	47	6	5	15	14	10	9	8	7	91
SK	9	17	16	31	3	6	8	15	8	15	8	15	43
MB	15	24	29	46	4	6	1	2	12	19	2	3	48
ON	47	26	34	19	26	15	16	9	22	12	34	19	179
QC	11	61	1	6	4	22	0	0	1	6	1	6	18
NB	18	28	31	48	3	5	2	3	8	12	2	3	64
NS	3	37	4	50	0	0	0	0	1	13	0	0	8
PE	No Data Available												
NL	4	20	10	50	0	0	3	15	1	5	2	10	20
PC	16	73	2	9	0	0	0	0	4	18	0	0	22
TOTAL	94		227		67		55		83		68		594

Incident Command System Certification - Permanent Staff Survey Respondents

ICS Certified	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Yes (%)	85	38	100	93	70	65	74	72	78	89	No Data	48	91
No (%)	15	62	0	7	30	35	26	28	22	11		52	9

ICS Certified Permanent Staff Survey Respondents – Last Assigned To an Incident

	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
2013-2009 (%)	93	100	70	94	57	76	83	61	77	88	No Data Available	58	81
2008-2004 (%)	3	0	10	2	15	17	11	8	6	0		0	5
2003-1999 (%)	3	0	0	3	12	0	2	0	8	0		0	5
1998 or earlier (%)	1	0	0	1	8	0	1	0	0	12		0	0
Had not been assigned to work on an incident %	0	0	20	0	8	7	3	31	8	0		42	9

ICS Certified Permanent Staff Survey Respondents – Not Assigned To an Incident In Last 5 Years

	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Quiet fire seasons with few deployment opportunities	61	0	0	43	76	18	54	0	33	67	No Data Available	100	33
Not interested in being deployed	22	50	100	36	8	18	11	0	22	0		0	17
Not satisfied with the incentives for working on incidents (financial or other)	4	0	0	7	4	0	6	0	6	0		0	17
Employee concerned about the workload when returning to home position	13	0	0	10	4	9	6	0	17	0		0	17
Manager or supervisor would not let employee go	0	50	0	0	4	45	14	0	17	33		0	17
Certification Lapsed	0	0	0	4	4	9	9	0	5	0		0	101

ICS Certified Permanent Staff Survey Respondents – Not Moved Up To a Higher ICS Position

	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Happy with ICS position	51	40	88	54	68	48	69	60	59	50	No Data Available	27	53
Not able to gain experience needed for additional ICS certifications	41	40	12	38	19	3	14	0	21	33		9	33
Not enough training opportunities	7	20	0	3	13	14	8	20	9	0		46	13
Manager / supervisor not given employee opportunity to obtain additional ICS certification.	1	0	0	5	0	34	9	20	11	17		18	0

Permanent Staff Survey Respondents – Not ICS Certified

	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Not interested in obtaining an ICS position certification	53	0	0	25	53	16	60	0	8	0	No Data Available	33	0
Not been able to gain the experience needed for ICS position certification.	41	0	0	50	33	5	8	0	25	0		11	0
Not enough training opportunities to enable employee to obtain ICS position certification	6	0	0	12	7	37	5	100	25	100		22	0
There are too many training requirements	0	0	0	0	7	0	2	0	17	0		0	0
Manager/supervisor has not given employee the opportunity to obtain ICS position	0	100	0	12	0	42	25	0	25	0		33	0

Opinion Whether Or Not The Agency Is Experiencing Issues With Maintaining Or Attracting People With Appropriate Skills And Experience For Program Delivery - Permanent Staff Survey Respondents

	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Yes (%)	73	62	70	78	84	82	70	82	63	67	No Data	55	86
No (%)	27	38	30	22	16	18	30	18	37	33		45	14

Factors Making It Most Difficult To Attract or Retain Staff – Ranked By Permanent Staff Survey Respondents

Factor	BC	YT	NT	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC
Inability to fill vacancies because of hiring freezes or reduction in the public sector size.	6.5	4.4	1.4	6.8	6.5	7.1	6.6	3.2	8.6	8.3	No Data Available	7	8.6
Inability to attract qualified staff to entry or mid-level positions.	7.0	7.5	8.4	6.8	7.3	6.8	6.9	6.0	6.1	7.2		7.4	6.89
Perceived lack of career path in wildland fire management	6.9	7.2	5.9	4.8	6.2	6.8	6.4	5.0	6.2	6.5		8.6	7.2
Difficulty recruiting staff to work in remote locations and communities	6.2	9.4	8.3	7.6	7.7	6.5	6.4	7.2	4.6	2.7		6.8	5.8
Work-life balance issues (long hours, working on scheduled days off, working away from home for lengthy periods of time)	6.3	6.4	6.3	6.3	4.6	5.2	6.5	7.4	5.5	6.8		5.6	5.3
Working and living conditions at basecamps and remote fire base locations	3.7	3	5.1	5.2	3.9	4.3	3.9	6.1	3.7	3.2		3	3.3
Staff not compensated adequately for work related to fire operations & support (financially or otherwise)	6.6	5.1	4.1	5.4	5.6	6.9	6.4	6.5	6.1	5.2		5	4.5
Inability to meet fitness or other standards	2.9	3.9	6.9	2.9	5.5	4.2	3.5	3.1	4.5	5		3.73	4.8
Workforce is aging and there is a loss of potentially available staff to retirement	5.1	5.7	6.3	5.2	5.4	4.2	4.8	4.7	6.4	6.5		5	5.1
Lack of flexible working conditions (such as flexible hours or ability to work at home)	3.5	2.5	2.3	3.8	2.1	2.9	3.5	5.6	3.1	3.7		2.7	3.6

Other Factors Making It Most Difficult To Attract or Retain Staff

Survey respondents were provided with an opportunity to identify other factors that have an impact on an agency's ability to maintain or attract people with appropriate skills. The following is a summary of some of the comments provided by staff:

- Organization is doing a poor job in advertising and presenting firefighting as a career option.
- Booming economy in Alberta - too many other high paying job opportunities in Oil & Gas.
- We don't support more northern communities by hiring locally, instead we bring people in from more southern areas, and these people have no intention of staying in the more northern communities.
- There seems to be a lack of a system to invite staff to shadow with someone with more experience in order for that person to gain confidence in a new position.
- It takes too long to get on staff and most talented / motivated fire fighters can't wait 10 years to get a full-time job. They love the work but need full-time work and there are very few full-time openings.
- No ability to offer longer term employment to staff.
- It is tough to keep young, qualified people interested in following a path in the program when entry level is only 4-5 months of work. People have families, responsibilities and only being able to work for a short period of time a year is hard to commit to.
- Staff are looking for challenging positions, with a good compensation package, and job security. Our organization has created a number of reoccurring seasonal positions (6-9 month). Staff want to work full-time, and some are leaving the organization to seek full-time employment elsewhere, because of fewer full-time FTE's.
- It seems they are passing by those who have experience for newer, younger recruits.
- Post baby-boom generation have significantly differing views on the issue of commitment to their employer vs lifestyle as opposed to the "old guard" Forest Service employees who are retiring en mass. (The agency) has developed a workforce of well paid, seasonal employees who have adapted to their career path to include a "lifestyle first" attitude.
- The incredible discrimination (compensation) leveled against seasonal versus full-time time staff. It is no wonder that we have disgruntled staff in the workplace and we are losing staff to greener pastures!
- The interview process - people that been employed within the program for years are not passing the interview competency questions even though they are absolutely qualified to do the job. Some have acted in the roles as well, but if they don't use the 'buzz' words during the interview or meet the high level 'mark', they do not win the competition.
- Current legislation being passed to freeze wage increases for public sector employees. Changes to the Public Pension Plan that will affect everyone.
- Our organization and government is directing its attention to professional forestry. Many of our new staff do not have a forestry background and the lack of professional accreditation is scaring them from continuing with the career.
- Seasonal work is not acceptable as one gets older.

- 3 successive quiet fire seasons have discouraged our fire crew members because they have come to expect a lot of opportunities for overtime dollars and it hasn't been there. As a result, some are looking elsewhere, like the BC and Alberta oil patch positions.
- Seasonal work terms conflict with other seasonal work terms. While we expect our staff to be available at preset dates, lack of flexibility impacts those staff that must choose between a career with our fire agency and another line of work.
- Poor successional planning = no qualified staff to take mid and higher level positions. Hiring uneducated firefighters that will always be firefighters until they can't make the fitness test ... rather than bright/educated kids with potential for mid and upper level positions.
- Limited Technical/University schooling available to prepare/equip students to enter the trade. Down turn in the forest economy is not attracting a lot of new personnel into the business. Operational pre-qualifications to advance up through ICS are too stiff/high in (our agency).
- A lack of job satisfaction.
- It seems that "attracting and recruiting staff" needs to be targeted at main areas: "operational" for the seasonal staff who "perform the tasks" (fire suppression, fuel management, ecosystem burning, etc); managerial who do the "managing" of resources, geography, and incidents; and other key business areas (safety, training, etc).
- The main factor is how we hire. We have moved to competency based interviews, or "story telling" type interviews versus how we interviewed in the past which was actual knowledge based interviews / best person for the job interviews.
- Post-secondary education in forestry/natural resource sciences is not generally given as much credence as it is in other sectors. There appears to be a reluctance to hire staff from other fire management agencies.
- Nepotism. The best person isn't necessarily hired for the job.
- People just can't afford to move with two income households.
- Job classification levels in (the fire program) are generally significantly lower than anywhere else in the (the government). Salary compression between managers and technical staff make it almost impossible to attract young, talented people into the management ranks. Prolonged salary freezes exacerbate these glaring differences.
- Current organizational structure is outdated. Training availability is an issue. Seasonal employment limits attractiveness of employment. More diversity and development opportunities throughout the program would be beneficial.
- Staff members who have fire experience but have not worked on fires since the ICS system has come into effect feel overwhelmed with the ICS system and therefore will not commit to fire duties.
- Staff not wanting to work extra hours or be away from home.
- Seasonal nature of work (not a career goal when it can only be 6 months/yr)
- Staff are kept on seasonal for so many years that it isn't the most qualified people that stay it is more of an endurance test.
- Need to create more full-time positions to keep staff and build experience and better workforce.

- Changing demographics of entry level pool. Younger crew members are less likely to have bush skills.
- Agencies are hiring extremely competent and young specialists willing to learn and grow their careers with the organization; however, current management practices and managers are stuck in an old way of thinking that severely inhibits creativity and innovation within the fire program. Some areas of the program have many managers, but lacking leaders.
- (Private sector) contract is making it difficult to attract or recruit staff because the fire agency is utilizing untrained contractors (retirees) instead of training agency staff.
- In the public communications and media relations sector of the fire agency there are many bureaucratic hurdles with layers of approval; plus there is a block on social media access and limited resources for capturing video and still images to support the messages.
- Recruiting staff in a narrow field such as Fire Weather is difficult due to competition and opportunities at the Meteorological Service of Canada (MSC).
- Times have changed and the organization seems unwilling and or unable to adapt. Most relationships now involve two career paths, two working spouses with aspirations who make major contributions to the financial well- being of the family. The ability to uproot a family and move to other locations is no longer an option for many individuals.
- Unrealistic training standards set for temporary functions, (FUL, GSUL, TIME, RESL etc.) It is getting difficult to find folks with the mandatory training to qualify for these temporary deployments that only occur occasionally based entirely on the fire season.

Annex B – Annual National Wildland Fire Demographics Report

Example

National Wildland Fire Demographics Report

Permanent Staff Workforce Distribution

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management														
Operational / Support														
Firefighters														
TOTAL														

Seasonal/Auxiliary Staff Workforce Distribution

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management														
Operational / Support														
Firefighters														
TOTAL														

Permanent Staff Workforce Distribution - Female

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management														
Operational / Support														
Firefighters														
TOTAL														

Permanent Staff Workforce Distribution - Male

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Management														
Operational / Support														
Firefighters														
TOTAL														

Permanent Staff Workforce Distribution by Age Category - Management

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Under 20														
20-29														
30-39														
40-49														
50-55														
56-59														
60-65														
66+														
TOTAL*														

Permanent Staff Workforce Distribution by Age Category – Operational/Support

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Under 20														
20-29														
30-39														
40-49														
50-55														
56-59														
60-65														
66+														
TOTAL*														

Distribution by Age Category - Firefighters

	YT	NT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	PC	Total
Under 20														
20-29														
30-39														
40-49														
50-55														
56-59														
60-65														
66+														
TOTAL*														