

**Minnesota Volunteer Fire Relief Association
Working Group Meeting**

Office of the State Auditor
Thursday, November 13, 2014
11 a.m. to 1 p.m.

- I. Call to Order**
Chair Auditor Otto.
- II. Review and Approval of Working Group Meeting Minutes**
Exhibit A. Draft October 22, 2014 Meeting Minutes
- III. Presentation of “Empty Boots, Quiet Sirens: The State of Non-Career Firefighting in Minnesota” Report**
George Esbensen, Fire Chief/Director of Emergency Preparedness
City of Eden Prairie
- IV. Review of Draft Language for Technical Changes**
Exhibit B.
- V. Review of Draft Language for Attestation Requirements**
Exhibit C.
- VI. Discuss the Creation of a Joint-Powers Sub-Group**
- VII. Other Business**
 - Update on training and survey results
- VIII. Next Meeting**
Tuesday, December 2, 2014
11 a.m. to 1 p.m.
Office of the State Auditor
- IX. Adjournment**

Individuals with disabilities who need a reasonable accommodation to participate in this event, please contact Rose Hennessy Allen at (651) 296-5985 or (800) 627-3529 (TTY) by November 11, 2014.

Volunteer Fire Relief Association Working Group

Office of the State Auditor
Wednesday, October 22, 2014
11 a.m. to 1 p.m.

Members Present

Steve Donney, City of Harmony Mayor
Dennis Feller, City of Lakeville Finance Director
Dave Ganfield, Apple Valley Fire Relief Association President (defined benefit monthly/lump sum combination plans)
Bruce Hemstad, Bemidji Fire Relief Association Secretary (defined benefit lump sum plans)
Dave Jaeger, Mahnomon Fire Relief Association Vice President (defined benefit lump sum plans)
Aaron Johnston, Coon Rapids Fire Relief Association Treasurer (defined contribution plans)
Larry Martin, Legislative Commission on Pensions and Retirement Director
Rebecca Otto, State Auditor
Bruce Roed, Mentor Fire Relief Association Trustee (defined contribution plans)
Mark Rosenblum, Minnesota State Fire Department Association Representative (defined benefit lump sum plans)
Kevin Wall, Lower Saint Croix Valley Fire Relief Association President (defined benefit lump sum plans)
Nyle Zikmund, Minnesota State Fire Chiefs Association Representative (defined benefit monthly plans)

Members Excused

Others Present

Bill Braun, Woodbury Fire Relief Association Representative
Mary Chamberlain, Abdo, Eick & Meyers Representative
Candace Gislason, Van Iwaarden Associates Representative
Celeste Grant, Deputy State Auditor/General Counsel
Eric Hayes, Eden Prairie Fire Relief Association Representative
Rose Hennessy Allen, Office of the State Auditor Pension Director
Mike Luger, Eden Prairie Fire Relief Association Representative
Brian McKnight, Wells Fargo Advisors Representative
Tom Olinger, Abdo, Eick & Meyers Representative
Jeff Reed, Office of the State Auditor Supervisor of Special Investigations
Mark Schulte, Van Iwaarden Associates Representative
Dianne Syverson, Office of the State Auditor Audit Manager

The following motions were duly made, seconded and approved:

RESOLVED to approve the February 19, 2014, Working Group Meeting Minutes;
RESOLVED to pursue the four topics identified by the Working Group as technical changes;
and
RESOLVED to discuss the maximum benefit level topic.

I. Call to Order

Auditor Otto called the meeting to order.

II. Introductions

The Working Group members and others in attendance introduced themselves and identified the community they are representing.

III. Review and Approval of Working Group Meeting Minutes

The members reviewed the February 19, 2014, meeting minutes that had been provided in advance. Ganfield made a motion to approve the meeting minutes. Jaeger seconded the motion that then was adopted unanimously.

IV. Working Group Process Discussion

- Working Group Meeting Schedule

The members reviewed the Working Group Meeting Schedule and shared any scheduling conflicts. Auditor Otto stated that an additional meeting may be scheduled in January, if necessary.

- Working Group Purpose Statement

The members reviewed the Working Group Purpose Statement, which is the same as the Purpose Statement agreed upon last year. No changes to the Purpose Statement were proposed.

- Working Group Process Statement

The members reviewed the Working Group Process Statement, which is the same as the Process Statement agreed upon last year. The members agreed that unanimous consent be required for a proposal to move forward. A topic can be reconsidered if there is only one dissenting vote. No changes to the Process Statement were proposed.

- Working Group Membership List

The members reviewed the Working Group membership list and forwarded contact information changes to Hennessy Allen. Auditor Otto reminded the members that the Membership List is posted on the Office of the State Auditor's website.

V. Discussion of New GASB Statements

Auditor Otto explained that there is interest in discussing two new Governmental Accounting Standards Board (GASB) Statements that impact relief associations. The topic was taken up next on the agenda to make sure individuals attending the Working Group meeting had the opportunity to participate in the discussion. Auditor Otto explained that GASB is an independent board that sets accounting and financial reporting standards for state and local governments. GASB is not a government entity.

Syverson provided the members with background information on GASB Statement 67, which applies to relief associations and other public pension plans, and Statement 68, which applies to cities and other public employers. The new Statements relate to accounting and financial reporting issues only. The Statements do not change state law requirements related to pension plan funding. Additionally, the new Statements do not

impact whether a relief association is required to have an audit. The audit requirement is defined in Minnesota Statutes and is triggered when a relief association's assets or liabilities exceed \$500,000.

Relief associations, municipalities, and their auditors must work together to address the requirements of the new accounting Standards.

VI. Discussion of Working Group Topic Suggestions

Auditor Otto explained that topic suggestions have been received for the Working Group's consideration. Hennessy Allen walked through the list of proposed topics. The members discussed the proposed topics and agreed to send an email to Hennessy Allen before the next meeting with their topic rankings.

Ganfield suggested a potential topic of creating a study-group to review issues pertaining to joint-powers fire departments and their affiliated relief associations.

Zikmund made a motion for the Working Group to pursue the four technical changes identified by the members. Ganfield seconded the motion that was adopted unanimously.

Hemstad made a motion to discuss the maximum benefit level topic. Zikmund seconded the motion that was adopted unanimously.

Zikmund suggested that Chief Esbensen from the Eden Prairie Fire Department be invited to give a presentation on a new report by the University of Minnesota's Humphrey School of Public Affairs to the Minnesota Fire Chiefs Association, entitled "Empty Boots, Quiet Sirens: The State of Non-Career Firefighting in Minnesota."

VII. Discussion of Audit Threshold and Attestation Requirements

Auditor Otto shared information about the number of relief associations affected by the audit threshold change and the effect on the timeliness of form submissions. Auditor Otto also explained that the OSA would like to define in statute what level of examination is required for relief associations that are not audited. Draft language will be brought forward for the Working Group's review at the next meeting. Olinger suggested defined Agreed-Upon Procedures engagements as an option for relief associations below the audit threshold. Auditor Otto also mentioned that the OSA would like to update this section of statute to make it clear that accountants performing an examination of a relief association below the audit threshold are subject to the requirement that evidence of theft or other misconduct discovered during the course of the review be reported to the OSA.

VIII. Other Business

Other business was carried over to the November 13 Working Group meeting.

Volunteer Fire Relief Association Working Group

October 22, 2014

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IX. Next Meeting

Thursday, November 13, 2014

11:00 a.m. to 1:00 p.m.

Office of the State Auditor

X. Adjournment

The meeting was adjourned shortly after 1:00.

Exhibit B Technical Changes

Technical Change #1: Clarifying Authorized Administrative Expenses

69.80 AUTHORIZED ADMINISTRATIVE EXPENSES. (a) Notwithstanding any provision of law to the contrary, the payment of the following necessary, reasonable and direct expenses of maintaining, protecting and administering the special fund, when provided for in the bylaws of the association and approved by the board of trustees, constitutes authorized administrative expenses of a volunteer firefighters' relief association organized under any law of this state or the Bloomington Fire Department Relief Association:

(1) office expense, including, but not limited to, rent, utilities, equipment, supplies, postage, periodical subscriptions, furniture, fixtures, and salaries of administrative personnel;

(2) salaries of the officers of the association, or their designees, and salaries of the members of the board of trustees of the association if the salary amounts are approved by the governing body of the entity that is responsible for meeting any minimum obligation under section 424A.092 or 424A.093, or Laws 2013, chapter 111, article 5, sections 31 to 42, and the itemized expenses of relief association officers and board members that are incurred as a result of fulfilling their responsibilities as administrators of the special fund;

(3) tuition, registration fees, organizational dues, and other authorized expenses of the officers or members of the board of trustees incurred in attending educational conferences, seminars, or classes relating to the administration of the relief association;

(4) audit and audit-related services, accounting and accounting-related services, actuarial, medical, legal, and investment and performance evaluation expenses;

(5) filing and application fees payable by the relief association to federal or other governmental entities;

(6) reimbursement to the officers and members of the board of trustees, or their designees, for reasonable and necessary expenses actually paid and incurred in the performance of their duties as officers or members of the board; and

(7) premiums on fiduciary liability insurance and official bonds for the officers, members of the board of trustees, and employees of the relief association.

(b) Any other expenses of the relief association must be paid from the general fund of the association, if one exists. If a relief association has only one fund, that fund is the special fund for purposes of this section. If a relief association has a special fund and a general fund, and any expense of the relief association that is directly related to the purposes for which both funds were established, the payment of that expense must be apportioned between the two funds on the basis of the benefits derived by each fund.

Technical Change #2: Clarifying Postretirement Increases

424A.02 DEFINED BENEFIT RELIEF ASSOCIATIONS; SERVICE PENSIONS.

Subd. 9a. Postretirement increases. Notwithstanding any provision of general or special law to the contrary, a defined benefit relief association paying a monthly service pension may provide a postretirement increase to retired members and ancillary benefit recipients of the relief association if (1) the relief association adopts an appropriate bylaw amendment; and (2) the bylaw amendment is approved by the municipality pursuant to subdivision 10 and section 424A.093, subdivision 6. The postretirement increase is applicable only to retired members and ancillary benefit recipients receiving a monthly service pension or monthly ancillary benefit as of the effective date of the bylaw amendment. The authority to provide a postretirement increase to retired members and ancillary benefit recipients of a relief association contained in this subdivision supersedes any prior special law authorization relating to the provision of postretirement increases.

Technical Change #3: Updating State Aid References to Include Supplemental State Aid

424A.016 DEFINED CONTRIBUTION VOLUNTEER FIREFIGHTERS' RELIEF ASSOCIATION SPECIFIC REGULATION.

Subd. 4. Individual accounts. (a) An individual account must be established for each firefighter who is a member of the relief association.

(b) To each individual active member account must be credited an equal share of:

(1) any amounts of fire state aid and police and firefighter retirement supplemental state aid received by the relief association;

(2) any amounts of municipal contributions to the relief association raised from levies on real estate or from other available municipal revenue sources exclusive of fire state aid; and

(3) any amounts equal to the share of the assets of the special fund to the credit of:

(i) any former member who terminated active service with the fire department to which the relief association is associated before meeting the minimum service requirement provided for in subdivision 2, paragraph (b), and has not returned to active service with the fire department for a period no shorter than five years; or

(ii) any retired member who retired before obtaining a full nonforfeitable interest in the amounts credited to the individual member account under subdivision 2, paragraph (b), and any applicable provision of the bylaws of the relief association. In addition, any investment return on the assets of the special fund must be credited in proportion to the share of the assets of the special fund to the credit of each individual active member account. Administrative expenses of the relief association payable from the special fund may be deducted from individual accounts in a manner specified in the bylaws of the relief association.

...

424A.02 DEFINED BENEFIT RELIEF ASSOCIATIONS; SERVICE PENSIONS.

Subd. 3. Flexible service pension maximums. (a) Annually on or before August 1 as part of the certification of the financial requirements and minimum municipal obligation determined under section 424A.092, subdivision 4, or 424A.093, subdivision 5, as applicable, the secretary or some other official of the relief association designated in the bylaws of each defined benefit relief association shall calculate and certify to the governing body of the applicable qualified municipality the average amount of available financing per active covered firefighter for the most recent three-year period. The amount of available financing includes any amounts of fire state aid and police and firefighter retirement supplemental state aid received or receivable by the relief association, any amounts of municipal contributions to the relief association raised from levies on real estate or from other available revenue sources exclusive of fire state aid, and one-tenth of the amount of assets in excess of the accrued liabilities of the relief association calculated under section 424A.092, subdivision 2; 424A.093, subdivisions 2 and 4; or 424A.094, subdivision 2, if any.

424A.05 RELIEF ASSOCIATION SPECIAL FUND.

Subd. 2. Special fund assets and revenues. The special fund must be credited with all fire state aid and police and firefighter retirement supplemental state aid moneys received under sections 69.011 to 69.051 and section 423A.022, all taxes levied by or other revenues received from the municipality under sections 424A.091 to 424A.096 or any applicable special law requiring municipal support for the relief association, any moneys or property donated, given, granted or devised by any person which is specified for use for the support of the special fund and any interest or investment return earned upon the assets of the special fund. The treasurer of the relief association is the custodian of the assets of the special fund and must be the recipient on behalf of the special fund of all revenues payable to the special fund. The treasurer shall maintain adequate records documenting any transaction involving the assets or the revenues of the special fund. These records and the bylaws of the relief association are public and must be open for inspection by any member of the relief association, any officer or employee of the state or of the municipality, or any member of the public, at reasonable times and places.

424A.092 RELIEF ASSOCIATIONS PAYING LUMP-SUM SERVICE PENSIONS.

Subd. 3. Financial requirements of relief association; minimum obligation of municipality.

...

(d) The minimum obligation of the municipality with respect to the special fund is the financial requirements of the special fund reduced by the amount of any fire state aid and police and firefighter retirement supplemental state aid payable under sections 69.011 to 69.051 and section 423A.022 reasonably anticipated to be received by the municipality for transmittal to the special fund during the following calendar year, an amount of interest on the assets of the special fund projected to the beginning of the following calendar year calculated at the rate of five percent per annum, and the amount of any contributions to the special fund required by the relief association bylaws from the active members of the relief association reasonably anticipated to be received during the following calendar year. ~~A Reasonable amounts of anticipated fire state aid and police and firefighter retirement supplemental state aid is an~~ are amounts that does not exceed the fire state aid and police and firefighter retirement supplemental state aid actually received in the prior year multiplied by the factor 1.035.

Subd. 6. Municipal ratification for plan amendments. If the special fund of the relief association does not have a surplus over full funding under subdivision 3, paragraph (c), clause (5), and if the municipality is required to provide financial support to the special fund of the relief association under this section, the adoption of or any amendment to the articles of incorporation or bylaws of a relief association which increases or otherwise affects the retirement coverage provided by or the service pensions or retirement benefits payable from the special fund of any relief association to which this section applies is not effective until it is ratified by the governing body of the

municipality in which the relief association is located and the officers of a relief association shall not seek municipal ratification prior to preparing and certifying an estimate of the expected increase in the accrued liability and annual accruing liability of the relief association attributable to the amendment. If the special fund of the relief association has a surplus over full funding under subdivision 3, paragraph (c), clause (5), and if the municipality is not required to provide financial support to the special fund of the relief association under this section, the relief association may adopt or amend its articles of incorporation or bylaws which increase or otherwise affect the retirement coverage provided by or the service pensions or retirement benefits payable from the special fund of the relief association which are effective without municipal ratification so long as this does not cause the amount of the resulting increase in the accrued liability of the special fund of the relief association to exceed 90 percent of the amount of the surplus over full funding reported in the prior year and this does not result in the financial requirements of the special fund of the relief association exceeding the expected amount of the future fire state aid and police and firefighter retirement supplemental state aid to be received by the relief association as determined by the board of trustees following the preparation of an estimate of the expected increase in the accrued liability and annual accruing liability of the relief association attributable to the change. If a relief association adopts or amends its articles of incorporation or bylaws without municipal ratification under this subdivision, and, subsequent to the amendment or adoption, the financial requirements of the special fund of the relief association under this section are such so as to require financial support from the municipality, the provision which was implemented without municipal ratification is no longer effective without municipal ratification and any service pensions or retirement benefits payable after that date may be paid only in accordance with the articles of incorporation or bylaws as amended or adopted with municipal ratification.

424A.093 RELIEF ASSOCIATIONS PAYING MONTHLY SERVICE PENSIONS.

Subd. 5. Minimum municipal obligation. (a) The officers of the relief association shall determine the minimum obligation of the municipality with respect to the special fund of the relief association for the following calendar year on or before August 1 of each year in accordance with the requirements of this subdivision.

(b) The minimum obligation of the municipality with respect to the special fund is an amount equal to the financial requirements of the special fund of the relief association determined under subdivision 4, reduced by the estimated amount of any fire state aid and police and firefighter retirement supplemental state aid payable under sections 69.011 to 69.051 and section 423A.022 reasonably anticipated to be received by the municipality for transmittal to the special fund of the relief association during the following year and the amount of any anticipated contributions to the special fund required by the relief association bylaws from the active members of the relief association reasonably anticipated to be received during the following calendar year. ~~A reasonable amount~~ of anticipated fire state aid and police and firefighter retirement supplemental state aid is an are amounts that does not exceed the fire state aid actually received in the prior year multiplied by the factor 1.035.

...

Subd. 6. Municipal ratification for plan amendments. If the special fund of the relief association does not have a surplus over full funding under subdivision 4, and if the municipality is required to provide financial support to the special fund of the relief association under this section, the adoption of or any amendment to the articles of incorporation or bylaws of a relief association which increases or otherwise affects the retirement coverage provided by or the service pensions or retirement benefits payable from the special fund of any relief association to which this section applies is not effective until it is ratified by the governing body of the municipality in which the relief association is located. If the special fund of the relief association has a surplus over full funding under subdivision 4, and if the municipality is not required to provide financial support to the special fund of the relief association under this section, the relief association may adopt or amend its articles of incorporation or bylaws which increase or otherwise affect the retirement coverage provided by or the service pensions or retirement benefits payable from the special fund of the relief association which are effective without municipal ratification so long as this does not cause the amount of the resulting increase in the accrued liability of the special fund of the relief association to exceed 90 percent of the amount of the surplus over full funding reported in the prior year and this does not result in the financial requirements of the special fund of the relief association exceeding the expected amount of the future fire state aid and police and firefighter retirement supplemental state aid to be received by the relief association as determined by the board of trustees following the preparation of an updated actuarial valuation including the proposed change or an estimate of the expected actuarial impact of the proposed change prepared by the actuary of the relief association. If a relief association adopts or amends its articles of incorporation or bylaws without municipal ratification pursuant to this subdivision, and, subsequent to the amendment or adoption, the financial requirements of the special fund of the relief association under this section are such so as to require financial support from the municipality, the provision which was implemented without municipal ratification is no longer effective without municipal ratification and any service pensions or retirement benefits payable after that date may be paid only in accordance with the articles of incorporation or bylaws as amended or adopted with municipal ratification.

Exhibit C

Attestation Requirements

Topic:

Relief associations with assets and liabilities of less than \$500,000 are required to have their financial reporting form attested to by a certified public accountant or the state auditor. The level of review required is not clearly defined in the statute and the terminology should be updated to match current accounting standards.

Draft language is provided below that would require relief associations below the \$500,000 threshold to annually have an Agreed-Upon Procedures engagement. The Office of the State Auditor (OSA) will develop minimum procedures and a reporting format for the Agreed-Upon Procedures engagement. Additionally, the certified public accountant or the state auditor performing the engagement must sign the relief association's annual financial reporting form that is filed with the OSA. Defining and clarifying these requirements will provide for a consistent procedure and ensure that certain specific minimum steps are performed during the engagement.

When reviewing the attestation provision another issue arose. The statute that requires accountants to report evidence of theft or other misconduct that is discovered during the course of auditing a relief association does not clearly apply to certified public accountants who review the detailed financial statement but do not perform an audit. Draft language provided below in the new paragraph (e) clearly provides that the reporting requirement does apply.

Optional Changes:

69.051 FINANCIAL REPORT, BOND, EXAMINATION.

Subd. 1a. Financial statement. (a) The board of each volunteer firefighters relief association, as defined in section 424A.001, subdivision 4, that is not required to file a financial report and audit under subdivision 1 must prepare a detailed statement of the financial affairs for the preceding fiscal year of the relief association's special and general funds in the style and form prescribed by the state auditor. The detailed statement must show:

- (1) the sources and amounts of all money received;
- (2) all disbursements, accounts payable and accounts receivable;
- (3) the amount of money remaining in the treasury;
- (4) total assets, including a listing of all investments;
- (5) the accrued liabilities; and
- (6) all other items necessary to show accurately the revenues and expenditures and financial position of the relief association.

(b) The detailed financial statement of the special and general funds required under paragraph (a) must be certified by a certified public accountant or by the state auditor in accordance with agreed-upon procedures and forms prescribed by the state auditor. In addition to certifying the detailed financial condition of the special and general funds of the relief association statement, the accountant or auditor conducting the agreed-upon procedures engagement examination shall give an opinion as to the condition of the special and general funds of the relief association, and shall comment upon any exceptions to the report. The accountant must have at least five years of public accounting, auditing, or similar experience, and must not be an active, inactive, or retired member of the relief association or the fire department.

(c) The detailed financial statement required under paragraph (a) must be countersigned by:

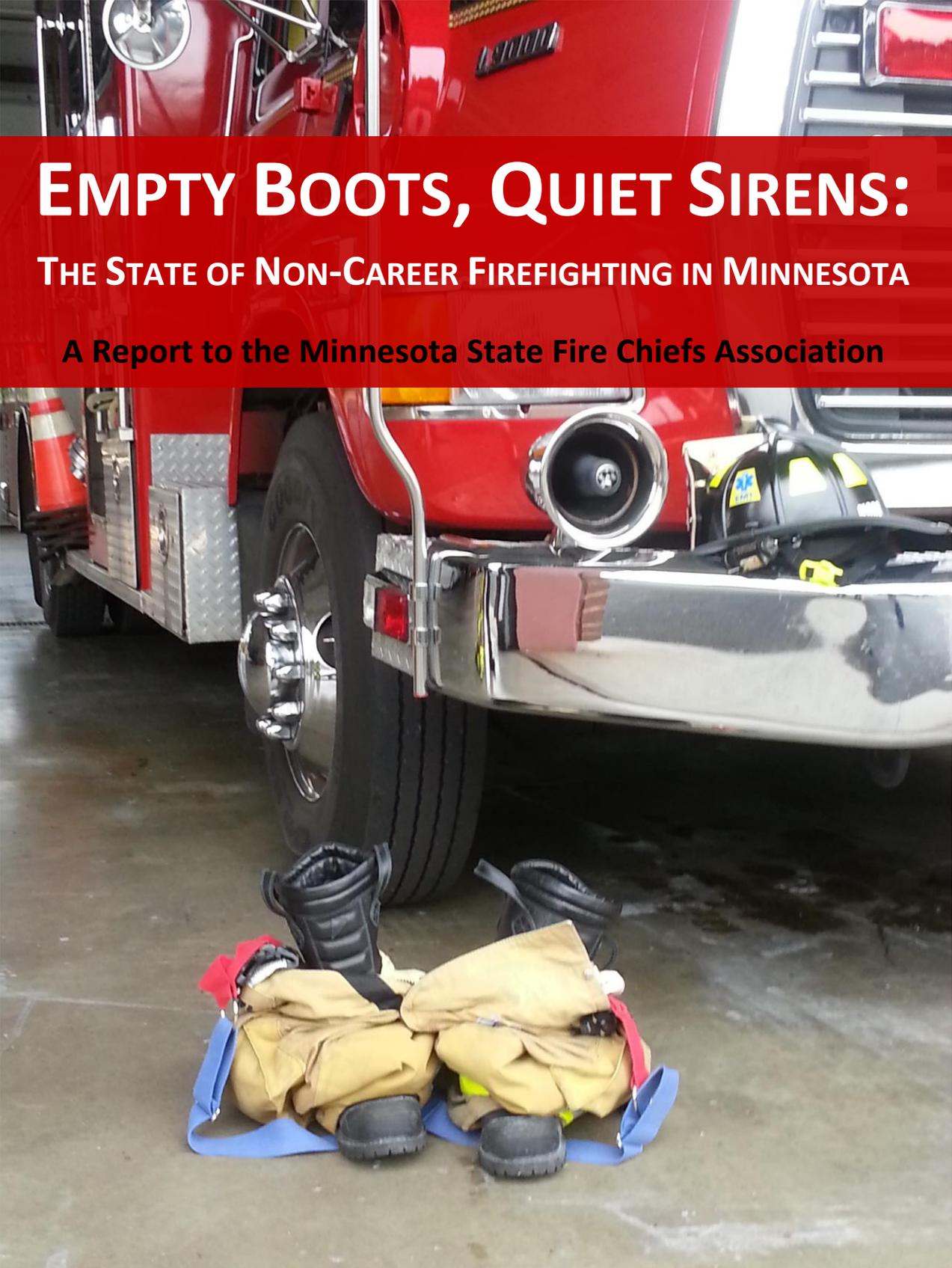
(1) the municipal clerk or clerk-treasurer of the municipality; or

(2) where applicable, by the municipal clerk or clerk-treasurer of the largest municipality in population which contracts with the independent nonprofit firefighting corporation if the relief association is a subsidiary of an independent nonprofit firefighting corporation and by the secretary of the independent nonprofit firefighting corporation; or

(3) by the chief financial official of the county in which the volunteer firefighter relief association is located or primarily located if the relief association is associated with a fire department that is not located in or associated with an organized municipality.

(d) The volunteer firefighters' relief association board must file the detailed financial statement required under paragraph (a) and the accountant's or auditor's report under paragraph (b) in the relief association office for public inspection and present them to the governing body of the municipality within 45 days after the close of the fiscal year, and must submit a copy copies of the detailed financial statement and accountant's or auditor's report to the state auditor within 90 days of the close of the fiscal year.

(e) A certified public accountant or auditor who performs the agreed-upon procedures engagement under paragraph (b) is subject to the reporting requirements of section 6.67.

A photograph of a red fire truck in a garage. In the foreground, a pair of black firefighting boots and a yellow jacket with blue straps are lying on the concrete floor. A black helmet with yellow accents is visible on the truck's bumper. The truck has a chrome bumper and a large circular light fixture.

EMPTY BOOTS, QUIET SIRENS:

THE STATE OF NON-CAREER FIREFIGHTING IN MINNESOTA

A Report to the Minnesota State Fire Chiefs Association

August 8, 2014

Maria Cote, Brad Hasskamp, Partha Chevuru & Mamta Verma

The research team dedicates this report to the heroic men and women of Minnesota's volunteer and paid-on-call firefighting force.

We are truly inspired by your commitment to Minnesota's people, communities and environment.

We thank you for sharing your time, insight and ideas with us. We hope this information helps ensure the strength of Minnesota's fire departments now and into the future.

**HUMPHREY SCHOOL
OF PUBLIC AFFAIRS**

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

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Executive Summary

In May 2014, the Minnesota State Fire Chiefs Association (MSFCA) engaged four students from the Humphrey School of Public Affairs to help determine the nature, scope and magnitude of the problems facing the recruitment and retention of Minnesota's non-career firefighters. The study sought answers to the following research questions:

- Do Minnesota Fire Departments have the non-career staff necessary to adequately protect people, property and the environment?
- What are the factors affecting non-career firefighter recruitment and retention in Minnesota?
- What best practices, public policy implications, and areas for further study can be identified and how could they be applied in Minnesota?

Based on exhaustive research and analysis of available data, the Humphrey School team has developed five recommendations that will:

- Gather the necessary information to develop effective recruitment and retention strategies for local communities;
- Prepare the non-career fire service for the future based on shifting demographics; and
- Have near-immediate impacts on local departments struggling to recruit and retain non-career firefighters.

Introduction

Non-career firefighting is a long-standing service in the United States, predating the American Revolution (National Fire Protection Association, 2014). Non-career firefighters include volunteer and paid-on-call firefighters and represent a majority of firefighters nationally. According to a 2012 National Fire Department Census, **87% of fire departments in the United States are staffed by volunteer or mostly volunteer personnel** (U.S. Fire Administration, 2014). This valuable service is not only one of civic engagement, but of great economic benefit – **the estimated annual savings of these individuals' service to the U.S. economy is approximately \$46.6 billion** (U.S. Fire Administration, 2007).

Minnesota has the second highest percentage of volunteer and mostly volunteer fire departments in the nation at 97.3%.

(U.S. Fire Administration, 2014)

Unfortunately, many communities across the nation are experiencing difficulty in recruiting and retaining non-career firefighters, most often due to several primary underlying factors: “more demands on people’s time in a hectic modern society; more stringent training requirements; population shifts from smaller towns to urban centers; changes in the nature of small town industry; internal leadership problems; and a decline in the sense of civic responsibility, among other factors” (U.S. Fire Administration, 2007, p. 2). While many of the broad trends are universally applicable, the severity and range of problems with recruitment and retention vary widely from community to community, and thus require community-specific solutions.

In May 2014, the Minnesota State Fire Chiefs Association (MSFCA), a membership organization made up of more than 2,000 chiefs and officers representing nearly 500 fire departments, engaged a group of student consultants from the Humphrey School of Public Affairs to help determine the nature, scope and magnitude of the problems facing the recruitment and retention of Minnesota's non-career firefighters. **Minnesota has the second highest percentage of registered volunteer and mostly volunteer fire departments in the nation at 97.3%** (U.S. Fire Administration, 2014). The MSFCA reports that many fire chiefs have

Minnesota's non-career fire fighters save the state an estimated \$742 million annually in wages alone.

(U.S. Fire Administration, 2007)

felt increasingly challenged to recruit and retain non-career firefighters, but little information is available at the statewide level to aid in developing effective recruitment and retention strategies that target the communities that need firefighters most. The value of addressing these challenges is undeniable: **Minnesota's non-career**

firefighters save the state an estimated \$742 million annually (U.S. Fire Administration, 2007), not including the value of their service in protecting lives, property and the environment.

This report explores Minnesota's unique context with regard to non-career firefighting, describes our research design and methodology, provides a summary of findings and concludes with recommendations for action and opportunities for further study.

Setting the Context for Minnesota Non-Career Firefighting

As mentioned above, Minnesota has the second largest percentage of non-career fire departments in the country. It also has **the fewest career firefighters per 10,000 people in the United States at 3.57** (U.S. Census Bureau, 2014) (U.S. Fire Administration, 2014). Comparing Minnesota to its regional neighbors, we found that Iowa has 6.2 career firefighters per 10,000 people, and Wisconsin has 7.96 (Ibid). One might assume Minnesota to have relatively high numbers of non-career firefighters per capita – but that is not the case. Minnesota ranks 21st in the nation for the average number of non-career firefighters per 10,000 population at 32.89 (Ibid). North Dakota has the highest in the nation with 110.5 non-career firefighters per 10,000 people (Ibid). The national average is 23.3 per 10,000 people (Ibid). Table 1 compares Minnesota to its regional neighbors and to the U.S. overall with regard to its career and non-career firefighters per 10,000 people (Ibid).

Table 1: Regional and National Comparison Data

Regional Comparison Data (per 10,000 population)					
State	Non-Career Firefighters	Career Firefighters	Total Firefighters	Fire Stations	Fire Departments
ND	110.5	7.5	118	4.92	4.31
SD	83.23	6.31	89.54	3.9	3.37
IA	53.38	6.2	59.58	2.63	2.38
WI	39.34	7.96	47.3	1.77	1.33
MI	20.26	7.56	27.82	1.46	0.96
MN	32.89	3.57	36.46	1.68	1.33
USA overall	23.30	10.44	33.74	1.57	0.85

U.S. Fire Administration – National Fire Department Census Database, 2014

It is worth noting that the information above, provided by the USFA National Fire Department Census Database, represents 88% of the total fire departments that are estimated to be in operation in the United States (U.S. Fire Administration, 2014) . As we will discuss throughout this report, there is a lack of complete national and state data with regard to non-career firefighters and departments. Filling in data gaps is critical in ensuring that state and national entities have the information they need to support community-based solutions to recruitment and retention of non-career firefighters.

Local control and factors dominate the firefighting policy field in Minnesota. Primary local stakeholders typically include the fire chief, officers, firefighters, relief associations, and municipal government leaders and entities. Locally, the fire chief runs the department and has a wide range of responsibilities, including budgeting, staffing and other leadership and management activities. Departments might have one or multiple stations. Each department is comprised of firefighters and officers. Officers serve in roles such as team captain, lieutenant, training leaders, and other key roles. Firefighter types include:

- 1) Volunteers receiving no compensation,
- 2) Members paid while on-call or paid per call, but typically serving while holding other full-time employment, and
- 3) Career firefighters serving in full- or part-time positions.

As defined on page 5, types 1 and 2 above are non-career firefighters. Departments typically have a relief association whose purpose is to raise additional funds for equipment and manage member pensions. Statewide, there are 684 relief associations, which report data to

the Office of the State Auditor (Otto, 2012). Most firefighters have access to a pension for their service, which can either be a local pension or the state non-career retirement plan. The state retirement plan was established in 2009. Most relief associations still utilize local pensions, due to the fact that it often pays more than the current state plan (Heger, 2014).

Fire departments have established areas of service, which often include the city/town limits plus an outlying rural area. Frequently, departments will have mutual aid agreements to assist neighboring departments with large fires, when they have a shortage of firefighters available for specific emergencies, or other cases when additional assistance is needed. This service area is changing and some cities are choosing to merge departments. In some areas with sparse populations, a single regional fire district has been created to serve an area that may include multiple towns and townships. Some fire chiefs have reported that they expect this trend will continue across greater Minnesota (Heger, 2014).

Local fire chiefs report to their municipal government. Typically, this is a city manager, a city or town administrator, or a city or town council. In the case of a merged department or a regional fire district, an operating agreement is needed to establish what municipalities will pay for each portion of the department's budget and how funding decisions will be made. While regionalized services is often an essential and positive step, building operating agreements can become very complex and sometimes create tensions among participating local governments and leaders. The nature of the relationships and interactions between these local stakeholders vary widely by local department and set the local context for non-career firefighting, which often has effects on recruitment and retention.

Research Design and Methodology

In exploring the lack of information on the non-career firefighting staffing needs in Minnesota, three guiding research questions were developed:

- 1) Do Minnesota Fire Departments have the non-career staff necessary to adequately protect people, property and the environment?
- 2) What are the factors affecting non-career firefighter recruitment and retention in Minnesota?
- 3) What best practices, public policy implications, and areas for further study can be identified and how could they be applied in Minnesota?

A three-part research study was designed to investigate the questions, including strategies to:

1) analyze available data; 2) research academic and practitioner literature; and 3) interview key stakeholders.

Data Analysis Methodology

To delve more deeply into defining the problem and attempting to fill information gaps, more detailed needs and potential stakeholders that may have access to information were identified. Data was collected from a variety of sources, including the MSFCA, the Minnesota Department of Revenue, the National Fire Protection Association, the Minnesota State Demographer's Office, the Minnesota Office of the State Auditor, the Minnesota State Fire Marshal, the United States Census, and the United States Fire Administration.

The collected data was categorized and compiled across sources. The Minnesota State Auditor's data on pensions and National Fire Department Census data was combined and cross-analyzed with U.S. Census data on community population sizes and changes to better understand possible reasons for the declines in non-career firefighter participation during the period of 2008 to 2012. The available data was analyzed by local relief association and by county.

Despite the information collected, many information gaps still remained. The gaps were both quantitative and qualitative. For example, no quantitative data was publicly available to describe the demographics, including gender and race of firefighters. In addition, while actual non-career firefighter numbers were available, no information detailed how many open positions existed statewide. Qualitative data, such as statewide best practices in firefighter recruitment and retention, have also not been collected in Minnesota.

Literature Review Methodology

The literature review (see Appendix B) includes 27 sources from researchers, scholars and practitioners relevant to the research questions listed on page 10. These sources included several local, state and national publications focusing on non-career firefighter recruitment and retention.

Sources were gathered in multiple ways, utilizing two strategies. First, we conducted an initial search of interdisciplinary databases, as well as dissertations, news, think tank publications, government publications and other relevant research sources. The second search strategy compiled projects and websites from relevant practitioners, nonprofits groups and

government organizations working to support the recruitment and retention of non-career firefighters. Key points from each source were summarized and compiled. Once complete, they were analyzed for common themes and compared to information revealed in the data search and interviews.

Interview Methodology

Additional context was sought through field discussions, interviews and site visits with key stakeholders. The capstone team conducted a site visit to the Victoria Fire Department, and eight interviews were conducted with representatives from various fire departments across Minnesota using a limited mixed purposeful sampling. Interviews were sought from individuals representing the MSFCA membership, from diverse geographic areas, including rural areas, and from prospective, current and former non-career firefighters or chiefs. While ten people were contacted for interviews, only eight were completed due to time conflicts and busy schedules of the representatives. The interviews included: One prospective firefighter, four current local fire chiefs, two current firefighters, and one former fire chief.

Table 2: Non-Career Firefighter Interviews

	Role	Area
1	Prospective non-career firefighter deciding between two potential departments	Rural area near two small towns in northern Minnesota
2	Current fire chief and MSFCA member	Suburban area
3	Current fire chief and MSFCA member	Suburban area
4	Current fire chief	Suburban area
5	Current fire chief	Rural area in northern Minnesota
6	Current firefighter and relief association leader	Small town in southwestern Minnesota
7	Current firefighter	Small town in western Minnesota
8	Former fire chief	Suburban area

Interviews varied in time from 30 minutes to more than three hours, depending on the representative's time available and desire to provide feedback and ideas. Individuals were typically asked a set of core questions (see Appendix C) with follow up questions being asked to provide additional context. Interviews frequently provided local context to the issues of non-career firefighting, verifying information from the data analysis and literature review. The interviews also served as a method to obtain local perspective and field feedback on common themes and potential recommended solutions.

Summary of Findings

Despite an overall lack of data, the research team identified several emerging themes from the literature review, data analysis and interviews. They include common factors impacting recruitment and retention of firefighters in Minnesota and across the country to help better illustrate the scope and geography of the problem in Minnesota.

Factors Impacting Recruitment & Retention

A multitude of challenges stand between a non-career firefighter and long-standing tenure in a single department. These challenges vary widely by individual and community. As a result, no list is comprehensive. However, the research identified 10 common factors significantly affecting recruitment and retention of non-career firefighters in Minnesota that fall into three broad categories: 1) increased demands; 2) local management; and 3) changing communities.

Increased Demands

1) More Time Demands. Non-career firefighting is a time consuming endeavor. Beyond emergency calls themselves, firefighters are required to participate in trainings, fundraising and community service events, departmental meetings and maintenance of stations and equipment, among other duties. The U.S. Fire Administration estimates that non-career firefighters spend 20-100 hours or more per month in service to their departments (U.S. Fire Administration, 2007). One local chief reported estimated spending more than 200 hours per month serving his department (Heger, 2014). These time demands are even more detrimental to recruitment and retention when placed in the context of a 21st century workforce – the number of two-income families has risen considerably since the 1970s. The time that individuals have to spare is often not enough to meet the requirements of the fire service, particularly as a new recruit (U.S. Fire Administration, 2007).

2) More Training Requirements. Increased training requirements, particularly since 9/11, have benefitted the fire service in professionalism and effectiveness, but have also had a profoundly detrimental effect on non-career firefighter retention and recruitment (U.S. Fire Administration, 2007). The National Fire Protection Association (NFPA) and U.S. Department of Transportation have established safety standards designed to increase safety awareness, establish minimum competencies, and improve emergency medical training (Ibid). In Victoria, Minnesota, within their first two years on the team, firefighters complete Firefighter I, Firefighter II and medical training, representing roughly 200 hours of training (Heger, 2014). This level of training is similar across other departments in Minnesota and has increased significantly. Previously, firefighters may have only been required to complete the equivalent of

Firefighter I. In addition, not only new members but current members have training demands that impact their ability to continue volunteering with the fire service. Firefighter certifications often need to be updated every three years. Local departments frequently offer anywhere between two and 20 hours of training per month (Ibid).

3) Increased Call Volume. In 2002, Minnesota's fire departments responded to 173,189 calls (Rosendahl, 2002). In 2012, that number had increased 41% to 244,722 (Rosendahl, 2012). The increased call volume has dramatically increased time demands on non-career firefighters.

4) Expanding Role. The role of the firefighter has also changed dramatically. The number of fire calls, including vehicle, structure and other fires, decreased from 16,817 in 2002 (9.7% of total calls) to 16,581 in 2012 (6.7% of total calls) (Rosendahl, 2002) (Rosendahl, 2012). The number of non-fire related calls responded to by departments during the same period increased by 45.9%, from 156,372 to 228,141 (Ibid). Non-fire calls include rescue and medical calls; hazardous condition calls; overpressure ruptures; service calls; good intent calls; and false calls. Rescue and emergency medical service calls make up the largest share of Minnesota fire department responses, representing 60% of total calls in 2012 (Ibid). In fact, multiple interview subjects stated that the role of firefighter has shifted to emergency responder. The greater variety of emergency response situations has necessitated additional training, which impacts the time demands on non-career firefighters.

5) Stricter Federal Legislation. Several acts by the federal government, particularly since 9/11, have impacted recruitment and retention of non-career firefighters. Specifically, the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), and the

Environmental Protection Agency have all enacted legislation that has redefined labor regulations, increased the number of firefighters required to be present during a fire call, and limited accessibility to local facilities to complete live-fire training (U.S. Fire Administration, 2007).

Local Management

6) Leadership Challenges. There is a common saying among management professionals: people do not leave jobs, they leave supervisors. Leadership is a critical ingredient for retaining non-career firefighters, which begins with strong recruitment and orientation to the department. This can be a challenge for chiefs and officers that are paid-on-call and are not allocated sufficient time or resources to lead the department. Leadership style is also important. Non-career members respond to participatory leaders who enable individuals to feel that they have some ownership and impact in the organization. At the same time, leaders must impress upon their service members the importance of discipline, particularly in hazardous emergency situations. Finally, change is inevitable in any fire department, and change management is a critical leadership skill. Fire departments might undergo consolidations, be impacted by legislative changes, or face staffing or demographic changes within their teams. Leaders must be skilled communicators in order to mitigate the negative impact of changes. (U.S. Fire Administration, 2007)

7) Internal Conflict. Along with leadership and management challenges, internal conflicts can cause retention issues. Disagreements among departmental leadership teams can create divisions and tensions that lead to turnover. Additionally, with many departments adopting

mixed-membership models, where some of the staff is career and some is non-career, there is often friction among members. Disagreements often arise about the way the department should operate, or whether career or non-career members will be the leader at an emergency call. Strong, collaborative leadership can help mitigate some of these challenges (Ibid).

Changing Communities

8) Changing Demographics. Minnesota’s population is expected to remain steady or grow in all 87 counties through 2030. Population decline is projected in some counties by 2045, mainly among some of the state’s northernmost counties (State Demographic Center, 2014). However, population demographics are changing rapidly. In 2020, for the first time in the state’s history, there will

If current trends continue, by 2022, 68% of Minnesota’s non-career firefighters will be age 45 or older.

be more individuals over the age of 65 than under the age of 18. One in five Minnesotans will be over the age of 65 by 2035 (Ibid). The aging of the population increase the demand for emergency medical services; it will also create a leadership gap as retirements increase. In 2012, 22% of Minnesota’s active non-career firefighters were over the age of 50. Forty-six percent were between the ages of 35 and 49 (Otto, Financial and Investment Report of Volunteer Fire Relief Associations, 2012). If these firefighters are retained for the next 10 years, **by 2022, 68% of Minnesota non-career firefighters will be age 45 or older.** Additionally, the state’s fastest growing populations are communities of color. Twenty-five percent of the

population will be minority by 2035 (compared to 18% today, and 1% in 1960) (Ibid). The Twin Cities will be 40% minority by 2040, resembling present-day Chicago (Sohmer, 2005).

9) Changing Sociological Conditions. As mentioned in factors 1 and 8 above, time demands and the increased prevalence of two-income families has impacted non-career firefighter recruitment and retention. Additionally, volunteering in general has decreased among the younger, “me” generation. Transience in urban and suburban areas also impacts volunteering, and is problematic for local fire departments hoping to retain non-career firefighters for many years. Transience is particularly challenging in communities with active seasonal tourism populations or high military populations. The decline in family farms in favor of large, corporate farms has also negatively impacted recruitment, particularly in rural areas. Rural communities have also experienced a redefinition and devaluing of community service as main street businesses are replaced by large corporate stores. Corporations are generally not as closely tied to local communities and are therefore less likely to allow employees to leave when a fire call is received, and less willing to give them time off to volunteer (U.S. Fire Administration, 2007).

10) Housing Costs. In wealthy communities, particularly in urban and suburban communities, the high cost of housing precludes traditional non-career firefighter candidates from residing in the area. Often, this places them outside an acceptable distance to ensure an acceptable response time. Affluent, white-collar communities also have lower daytime population rates. Community members are more likely to work a Monday through Friday, 9:00 a.m. to 5:00 p.m. shift, which is problematic for responding to daytime emergency calls (U.S. Fire Administration, 2007).

Case Studies

Each of the ten factors looks different locally. If we asked all departments to rank the factors by local priority, there would be significant diversity across different departments because their problems differ. In some local departments, the community factors are the primary driver of their problems. In other cases, the increased demands or the department issues are their primary concern.

Below are four cases from interviews that show the differences across departments. These cases also show us how these factors can be utilized to better understand local departments and assess their problems.

Local Case #1: A Suburban Fire Department in the Southwest Twin Cities Metropolitan Area

A couple of decades ago, many might not have even considered this area a suburb of the Twin Cities. However, like many other suburbs, this suburb is growing. Although the department has been fully staffed with non-career firefighters to date, the increased demand is impacting the firefighters and their service.

There is a relatively new chief at this department who has been working hard to increase recruitment efforts. He has even been working with the North Star Women's Firefighter Association to find ways to recruit more women to serve. While the efforts have reversed declines in the number of firefighters serving in the department, women still only make up about 10-15% of the local firefighting force.

There are also several open positions and roughly 15-20% of currently active firefighters will likely retire in the next 5 years. Currently, firefighters receive less than \$10 per hour, which is less than many other suburbs. The chief believes it is time to turn the chief position into a career position with the city in order to provide full-time attention to staffing issues. With competing requests for funding, the city manager states that money is not currently available.

Key Factors

- **Community Identity:** This town is considered a bedroom community, meaning that while the population is increasing, most residents work in the Twin Cities. This makes it extremely difficult to find firefighters who can serve Monday through Friday from 8:00 a.m. to 5:00 p.m.
- **Expensive Housing:** Housing prices are high in this community. Potential firefighters may not be able to afford housing in the residency area.
- **More Calls:** Call volume has increased 25% in the past four years, largely due to the increased service area and population.
- **Leadership Issues:** With the city growing, the chief believes that the department needs a full-time chief to address all the department issues, which includes budgeting, recruitment, working with city government.

Local Case #2: A Rural Fire Department in Western Minnesota

The situation in Greater Minnesota is different than in the Twin Cities suburbs. Like

many other small towns, this community is facing economic and population decline. This town had one main employer with more than a hundred workers, but the company has recently closed down. Now, the town is again primarily dependent on farming. The population that remains is aging. The younger adult population that exists is mostly male, many of them working on farms.

Local government has faced significant cuts due to the loss of tax revenue. Currently, 19 of 25 paid on-call firefighter positions are filled. The current 19 members are all white males; the vast majority of them are near retirement. The department does not do a lot of recruitment. They did have a single female that served for a short while, but she resigned.

The fire department is paid a single lump sum per emergency call (\$250), which is divided between all firefighters that respond (7-12 members). The local fire department is trying to combine public safety positions and exploring ways to combine police, EMT and non-career firefighter positions. Without changes, the fire department may be more dependent on mutual aid agreements to respond to their future calls.

Key Factors

- **Changing Sociological Conditions:** With the decline in population, transience has been a major issue. In town, the number of employers and employees has dramatically decreased, which limits the pool of potential firefighters. A majority of those working on farms may not be able to serve because they are not close enough to town to meet the residency requirement.
- **Changing Demographics:** This town is aging. The younger population frequently moves away to the Twin Cities for better job prospects, especially younger females.

- **Increased Training Requirements:** Unlike firefighters that started five years ago, firefighters are required to participate in a lot more training. Some at this department feel the requirements are too difficult and time consuming, especially considering that firefighters need to drive to a town more than 50 miles away for each day of training. This distance puts hundreds of miles on each firefighter's vehicle. Travel costs for individual firefighters are a couple hundred dollars. Until recently, firefighters were not reimbursed for their travel costs.

Local Case #3: A Suburban Fire Department in the Northern Twin Cities Metropolitan Area

This suburb is facing significant growth. In the last decade, the population has become increasingly diverse. Nearly half the population consists of people of color. However, most local firefighters are white. The chief has been trying to resolve this issue. When he posts a position, he reports no shortage of candidates. However, typically very few of them are women or people of color. Those who are women or people of color are far less likely to meet the minimum requirements of the position. He sees the solution to this challenge starting with the community's youngest members. His own desire to be a firefighter began as a young child, and he wonders how to ensure that women and children of color view firefighting as an option for themselves.

The chief also notes that firefighters need to do more than respond to fire calls. Their mission has expanded to serve the community in other ways and become a more visible member of the community. This department is made of eight career firefighters and more

than 30 non-career firefighters. The firefighters work well together, but some are resistant to the expanding roles they are asked to face. The chief is proposing to more than double the number of career firefighters, to nearly 20 career positions.

Key Factors

- **Changing Demographics:** This community is becoming increasingly diverse and includes an expanding African-American and immigrant population. The department is exploring how to be more aware of the city's cultural groups and their norms.
- **Expanding Roles:** A minority of calls are fire-related. Beyond emergency calls, firefighters are also expected to appear at community events and be highly visible public servants. The chief describes these new activities as part of their expanded mission to be more visible and meet a wider range of community needs. While most firefighters accept this new mission, some who have served for a longer time struggle to adopt the new expectations.

Local Case #4: A Prospective Firefighter in Rural Northern Minnesota

One person we interviewed recently moved to Northern Minnesota. He wants to become a non-career firefighter and his employer is on board. Because of where he lives, he meets the residency requirement of two neighboring fire departments. While both used solely paid on-call firefighters, the departments were very different.

Fire department #1 is in a small town with a population totaling less than 600. This department is closer to the prospective firefighter's home. The department has a shortage of

firefighters and desperately needs new members. Not all of the firefighters get along well.

The department also has significant resource limitations. Recently, the department purchased a fire truck but had to take out a one-hundred year loan in order to possibly pay it off. The other fire truck is a very old and not maintained well. Because the two towns are so close geographically and because this department has many problems, several community members feel that this department should merge with fire department #2. However, the department leadership is not willing to make any changes to the department.

Fire department #2 is in a larger small town with a population totaling more than 2,000. The department currently is full and has a waiting list for accepted applicants. It typically takes one year or more to get called from the waiting list. Firefighters and the community speak positively about the department and how it functions. Members get along well. The department has updated equipment that is maintained well.

Despite the fact that department #1 needed people more, the potential firefighter chose to be placed on a waiting list for department #2.

Key Factors

- **Leadership Challenges:** Whether the department leadership was willing to make tough choices and adapt to the community's needs was a big issue for this potential firefighter. He did not want to serve if the department had leadership issues that they were not willing to resolve. He wanted to serve in a department that made him proud.

- Department Conflict: Teamwork and camaraderie was another big factor for this potential firefighter. He wanted to serve in a department where the firefighters worked well together and were happy to serve.

A Local Problem Requiring Local Solutions & State Resources

In one of the first meetings between MSFCA representatives John Wolff and George Esbensen and the Humphrey School team, we were told “if you’ve seen one fire department, you’ve seen one fire department.” The research supports this assertion. Each community has unique economic, political, demographic and other factors, some of which are outlined in the 10 factors (pp. 12-18), which impact its ability to recruit and retain non-career firefighters. State- and national-level data, research and resources are critical to determine the full scope of the problem, identify best practices and ensure adequate resources for solutions, but success hinges on successful implementation and utilization by local fire departments.

A Rural Problem

Across the nation, recruitment and retention of non-career firefighters is primarily a rural problem (Fire Analysis and Research Division, 2011). Seventy-seven percent of relief associations that reported a decrease of 10% or more in their firefighting force from 2008-2012 were serving communities with populations of 4,000 or less, including both rural and suburban communities (see Table 3) (Otto, 2008) (Otto, 2012) (Rosendahl,

2012). Larger urban areas and affluent suburban communities are more likely to hire career firefighters. They are more likely to have the resources required to hire career firefighters and they do not face the same community demographic and economic challenges and shifts that are seen in more geographically-dispersed communities with smaller populations in greater Minnesota. Eighty-eight percent of career firefighters in the state of Minnesota are in counties with populations of 100,000 or more (Otto, 2012). Nationally, there are over 30,000 fire departments in the United States. Eighty-seven percent of them are volunteer or mostly volunteer, and they protect 40 percent of the total population (U.S. Fire Administration, 2007).

Lack of Reliable Data

As noted in the Data Research and Methodology section of this report, collecting state-level data on non-career firefighters is a challenging effort. No single statewide entity is charged

Table 3: Relief Associations Reporting a Decline of 25% or More in Non-Career Firefighters, 2008-2012

Maplewood	59%	Bovey	31%
Federal Dam	47%	Elmer	31%
Greenwood	44%	Frost	31%
Hokah	44%	Shevlin	30%
Bigfork	38%	Foreston	30%
Harris	38%	Colvill	29%
Roseville	38%	Fisher	29%
McDavitt	36%	Tofte	29%
Culver	36%	Hollandale	27%
Hector	36%	St. Francis	27%
Magnolia	36%	Clarks Grove	26%
Hitterdal	35%	Granada	25%
Bertha	33%	Remer	25%
Mazeppa	32%		

*Sources: Minnesota Office of the State Auditor;
Minnesota Department of Public Safety*

with collecting information that would determine an acceptable number of non-career firefighters required, identifying communities that are struggling, or providing the demographic information necessary to inform effective recruitment and retention techniques required to meet the unique needs of local fire departments. The data that does exist is inconsistent or incomplete.

Recommendations

Many of the findings revealed the local nature of non-career firefighting issues. Local departments are facing complex issues that require statewide resources, analysis and support. As a result, five solutions are recommended to increase the information available regarding Minnesota's non-career firefighting staffing needs, as well as address key issues and implement best practices in recruitment and retention. The recommendations include:

- 1) Conduct an annual fire chief survey;
- 2) Develop a statewide information sharing system on non-career firefighters;
- 3) Enhance leadership development for fire chiefs and officers;
- 4) Develop a state grant system to implement recruitment and retention strategies; and
- 5) Increase the diversity of the firefighting force to reflect Minnesota's changing population.

The recommendations include roles for both the state of Minnesota and local jurisdictions. The state-level role, as fulfilled by entities like the MSFCA, State Fire Marshal, the Minnesota State Legislature, and others, is to: collect and analyze information on issues and best practices using practical evaluation metrics; allocate sufficient state resources, including

funding, technology and technical assistance; and develop tools for effective state and local operations. The local role, as fulfilled by entities like fire departments and municipal governments, is to: analyze and communicate local issues and needs; brainstorm and implement strategic strategies using analytical tools and information available; seek and use resources appropriately from local and state entities; and evaluate the success of local efforts.

Recommendation 1: Conduct an Annual Fire Chief Survey

The MSFCA, in collaboration with the State Fire Marshal, should conduct a survey with local fire department chiefs that use non-career firefighters to obtain more local context and a mechanism for statewide aggregation and analysis. The survey would help fill in many of the information gaps that currently exist on quantifying the need.

At least twelve questions should be asked in the survey that cover department name, county, current staffing levels, the number of open non-career firefighting positions, the demographics of current firefighters, and recruitment and retention strategies implemented locally. At a minimum, demographic data should include: gender; race; age; education level; and number of dependents, including the number of school-aged children. This data would need to be obtained with the permission of the individual firefighters, but could include a wealth of data not currently available to key stakeholders like the MSFCA. For example, having access to the number of school-aged children could help state and department leaders understand the need for childcare assistance for non-career firefighters and their families in a local community or across the state. For a list of suggested survey questions, refer to Appendix D.

Data collected from this survey should be analyzed by the MSFCA, the State Fire Marshal, and other key stakeholders. If there are concerns about local chief participation in the survey, the state legislature should consider a nominal incentive for survey completion to compensate for the local chiefs' time. Information from the survey could serve as a foundation for evaluating the non-career firefighter stipend that begins in 2015.

This solution should be implemented immediately and is simple to implement using common online tools like Survey Monkey. Costs for this solution are minimal, requiring an online survey tool fee, staffing time for data analysis, and resources for producing reports and data summaries.

Recommendation 2: Develop a Statewide Information Sharing System on Non-Career Firefighters

This solution is recommended long-term to facilitate local data collection and statewide analysis. This solution would eventually and ideally include information in the annual fire chief survey. One way to implement this solution would be to develop a new database or expand a current database for fire chiefs to document firefighter information that is not currently being tracked and analyzed at a state-level, including the number of open firefighter positions, firefighter demographics, rationale for entering service, reasons for firefighters ending their service, and prioritizing issues and best practices in recruitment and retention.

In terms of expanding a current database, ImageTrend would have potential. Many fire departments already use ImageTrend since it is available for free to local fire departments. The

existing database could be adapted to collect more information locally and create statewide data analysis tools available to key stakeholders, with the appropriate funding and authority.

The new or expanded database should include some key information collected as new firefighters start their service and when firefighters announce their resignations. This solution, if implemented, would enable fire chiefs to enter information regularly and not wait for the annual survey. The database should be intuitive and simple, while adhering to data privacy laws. It would likely need to be piloted among a small number of local departments before a statewide launch. The initial piloting could include a small number of local departments, several of which should include MSFCA members and leaders. Chiefs participating in the pilot should receive an incentive to compensate their time.

The budget for this solution is important to consider. Depending on the entity building the database, there would be up front and ongoing costs, relating to the data collected and the reporting features desired. However, the state legislature should consider the benefits to collecting statewide information that is currently unavailable, the significant benefits non-career firefighters provide, and the increased cost of individual local databases if that were considered as alternative solutions. While the database could be developed by state government information technology staff, contracting the database to an outside entity may likely minimize ongoing costs for upgrades and create joint ownership between the MSFCA and the State Fire Marshal.

Recommendation 3: Enhance Leadership Development for Fire Chiefs and Officers

As the research revealed, department leadership is one of the most critical factors impacting recruitment and retention of non-career firefighters. Local fire chiefs face a growing number of issues. Fire chiefs require training about performing in emergency situations, but also in navigating local politics, intercultural competence and managing teams. In addition, as the baby boomers retire, this will also be critical to developing the leaders that will replace retirees.

MSFCA has been instrumental in the leadership development of local chiefs. However, additional state resources should be allocated to support the increased leadership demands.

Leadership development should be increased through three methods:

- 1) Establish a mentoring program for new chiefs and officers;
- 2) Allocate coaching resources for local chiefs facing significant challenges; and
- 3) Create additional statewide training opportunities that align with addressing leadership challenges faced by local chiefs.

1) New Mentor Program. A new mentoring program would connect new chiefs and officers with experienced chiefs from other departments. This would help transfer knowledge learned from years of experience and practice to new local fire department leaders. Mentoring would also create cross-community and cross-department relationships by comparing various local contexts and practices, creating a community of practice.

2) Allocate Coaching Resources. Leadership development should not end with orienting new chiefs. Just because a local chief has some experience does not mean they do not need help.

Local chiefs may likely face new challenges that are unprecedented locally, such as department mergers, new community members, significant firefighter retirements or other internal issues. By creating a fund for coaching local chiefs facing these challenges, they can have access to another department's leader or an outside specialist to guide the chief.

For example, one department obtained special funds to hire a facilitator that held interviews and discussion groups with the local firefighters and stakeholders to identify and analyze key department issues and needs. According to the local chief, the experience could not have been done without an outside facilitator and the special funding was very difficult to obtain. Other departments have wanted to replicate that process but have been unable to generate the funding necessary to pay for an external facilitator (Heger, 2014).

3) Create Additional Leadership Training Resources. As a third strategy, the MSFCA and other state entities providing training for local chiefs should emphasize and strengthen statewide training topics, especially regarding negotiating and working with city government officials, developing cost-benefit analyses, and building intercultural competencies to serve new community members and recruit a diversity of firefighters. The training provided would ideally start at state conferences but be longer-term and include job-embedded components to ensure applicability and increase its impact.

This option does require allocations from the state legislature to the State Fire Marshal and the Department of Public Safety. The actual costs would vary depending on the number of participants in each area, but would likely be greater than \$100,000 annually to adequately compensate mentors and their travel costs, pay for external specialists and provide more

leadership training at statewide events. By implementing this comprehensive assistance for local fire chiefs, chiefs can support each other to an even higher degree than current resource allocations allow.

Recommendation 4: Develop a State Grant System to Implement Recruitment and Retention Strategies

Even with the surveys, increased data collection and sharing, and expanded leadership development, local chiefs may lack the resources for implementing strategies to recruit and retain non-career firefighters. In addition, there still may not be qualitative evaluation information on the effectiveness of specific strategies. For these reasons, the state legislature should allocate additional funds to the Department of Public Safety and the State Fire Marshal to implement a grant program to recruit and retain non-career firefighters. This new funding could serve as a compliment or next step to funds already granted by the State Fire Marshal for local research purposes.

Local departments could submit grant applications that would support implementation of strategies that would:

- Address family inclusion ideas and issues to help firefighters balance work-life demands and family stress;
- Increase the diversity of local firefighters through training, targeted community engagement, and other strategies;
- Deal with physical and mental health issues faced by firefighters;

- Help firefighters move to a new community and fire department by paying for a transfer to a new local pension or participate in the state non-career firefighter retirement plan; and
- Establish individual emergency funds for firefighters in dire situations like job loss, family turbulence, and other traumatic life issues.

The grants would not only assist in these critical community-specific efforts, but would also provide an avenue to collect information about best practices being developed across the state. Best practices could be promoted by the State Fire Marshal on the web site and by MSFCA at meetings, conferences, newsletters, web site, and other communication methods.

Costs for this state-funded grant program could vary greatly, depending on the legislature's support for resolving non-career firefighter issues. Ideally, at least \$220,000 would be allocated by the state legislature, with at least \$200,000 being allocated in local grants. Individual department grant requests could range from \$5,000 to \$20,000 with 10-40 grants given annually. This would also allow for up to \$20,000 to be held by the grant authority for administrative, evaluative, accountability, communication and other purposes.

Recommendation 5: Increase the Diversity of the Firefighting Force to Reflect Minnesota's Changing Population

As discussed on page 17, Minnesota's demographics are changing rapidly. According to our interviews, firefighter demographics have not kept up with these changes. Fire department responses to diversity issues have been mixed, according to our discussions and research. Some departments have been very proactive in engaging with diverse communities and

organizations. Other departments admitted that they have not yet focused on recruiting women or people of color.

All of the previous recommended solutions embed strategies that attempt to increase firefighter diversity:

- 1) In an annual fire chief survey, questions should address the demographics of the current firefighters, including age, gender and race. This information can be aggregated and analyzed at the local-, county-, regional- and state-levels.
- 2) In collecting information locally and sharing it statewide through an expanded database or other method, demographic data and special recruitment and retention strategies should be collected, which could help identify local best practices in firefighter diversity.
- 3) In continuing the development of local chiefs and officers, topics like building a culturally competent fire department should be addressed through long-term professional development that can be embedded into local work and efforts.
- 4) In developing a state grant system to aid local departments wanting to implement special, non-career firefighter recruitment and retention strategies, diversity should be a key grant type. Reviewers and grant authorizers should ensure that some grants that focus on diversity issues get selected and funded each grant cycle. This grant will fund local efforts where departments have ideas and plans they can attempt. It will also identify and analyze best practices that can be shared across the state or generate ideas for other departments when developing applications in future grant cycles.

Due to the rapid population shifts, firefighter diversity also needs to be explored and addressed on its own both locally and statewide. This is essential not only to recruit and retain diverse non-career firefighters, but will help departments better understand and create effective working relationships the various cultures residing in their service areas. At the local level, fire departments need to continue working on this issue by identifying the cultural diversity of the communities they serve and their cultural organizations and leaders. Departments can continue building relationships with these cultural organizations and leaders. The relationship building should also focus on their safety needs and concerns, which could provide new opportunities for education and advocacy. This will help build the department's cultural awareness and competence. As they do this, local departments should continue to develop and implement additional ideas with these cultural groups to increase diversity within their ranks.

At the state level, the State Fire Marshal and the MSFCA, in collaboration with other key stakeholders like the North Star Women's Firefighter Association, should identify ways to continue measuring, evaluating and strategizing firefighter diversity issues. It should be an ongoing topic at all MSFCA events and communications. The State Fire Marshal, MSFCA and the state legislature should consider hosting a long-term statewide task force to explore this issue further and develop additional recommendations and strategies for statewide and local success. Diversity should be analyzed and made a priority not just among current firefighters but also with the pipeline of potential firefighters, including the Boy Scouts Explorer Program for school-age youth and courses offered by Minnesota State Colleges and University (MnSCU) campuses. It is important to note that at both the local and state levels, progress will likely be

slow in diversifying the non-career firefighting force. However, progress, even slowly, is essential for the long-term strength and sustainability of non-career firefighting in Minnesota.

Opportunities for Further Study

The recommended solutions will help fill some of the information gaps revealed by the research. As the solutions are implemented, additional opportunities will emerge to develop a deeper understanding of non-career firefighter issues in Minnesota:

- 1) Evaluate the results of the annual fire chief survey;
- 2) Evaluate the effectiveness of the non-career firefighter stipend program pilot;
- 3) Explore policies and best practices in non-career firefighter recruitment and retention in Minnesota and other states;
- 4) Compare local firefighter and community demographics;
- 5) Explore methods to ensure sustainable funding for the non-career fire service; and
- 6) Explore methods to increase use of state firefighter pension.

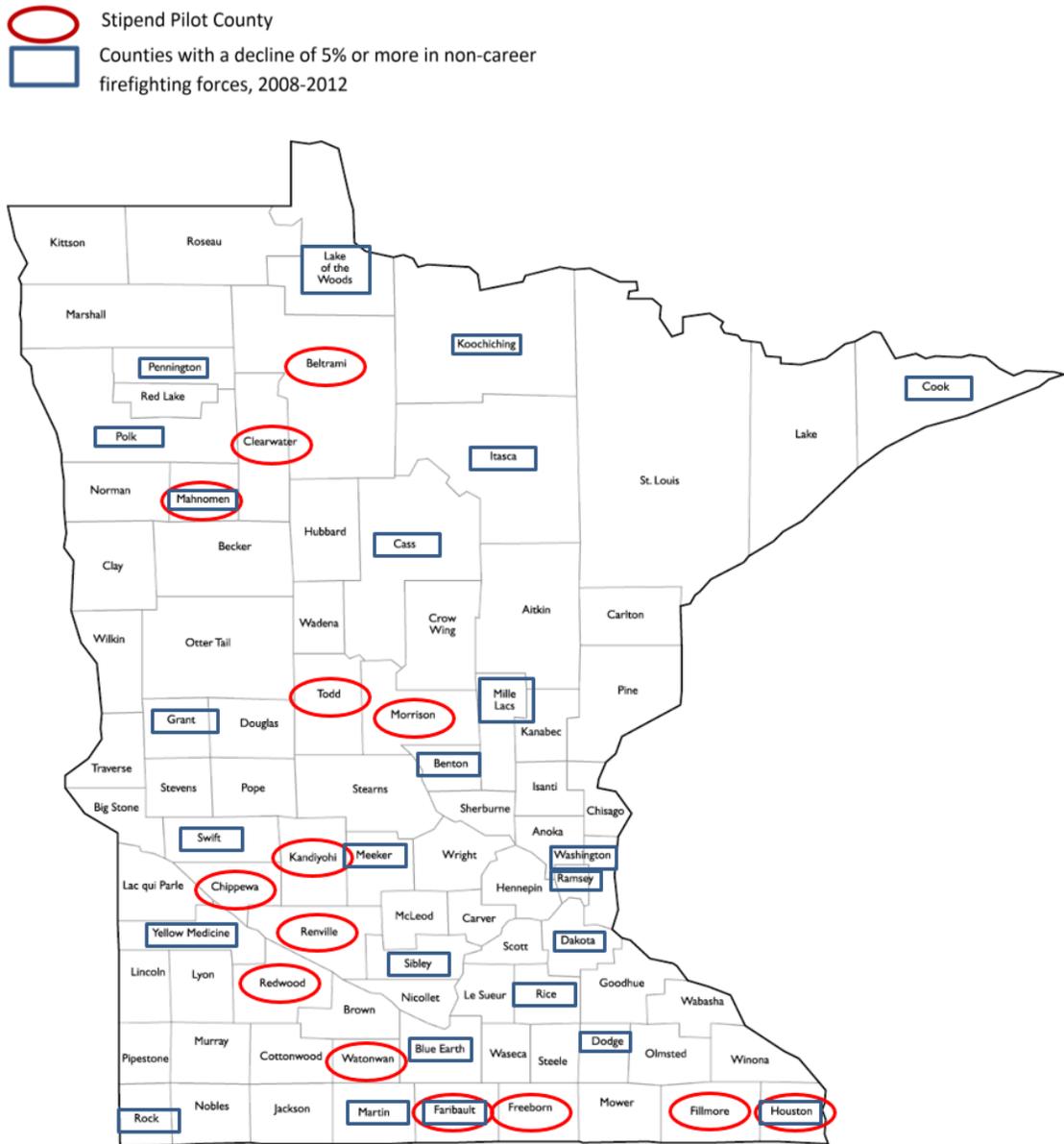
Evaluate Annual Fire Chief Survey Results

When survey is conducted, evaluate data collected to quantify the actual staffing levels and needs across the state and by county, analyze firefighter demographics and better understand local practices and issues. Statewide staffing numbers could be a major selling point in highlighting needs with media and state legislators. The results could shape the implementation of the other solutions and raise new questions for research.

Evaluate Effectiveness of Stipend Pilot

In 2014, the Minnesota Legislature authorized a three-year pilot \$500 stipend for non-career firefighters and emergency responders in 14 counties: **Faribault, Fillmore, Freeborn, Houston, Watonwan, Chippewa, Kandiyohi, Redwood, Renville, Morrison, Todd, Beltrami, Clearwater and Mahnomen**. The pilot is cited in House File 3167 or Chapter 308 of the 2014 Minnesota State Legislature's session law (State of Minnesota, 2014). This is a critical opportunity to collect and analyze data to assess the impact of the non-career firefighter stipend, particularly in the three counties where there is a notable decline in membership (see Figure 1): Faribault, Houston and Mahnomen. Data collected from the fire chief survey and through the database could compare tax incentive counties to other counties in greater Minnesota. In addition, since evaluation methods have not yet been identified for the tax pilot, collecting and evaluating information now could help give the MSFCA a leadership position in recommending evaluation methods and prevent data from being collected retroactively upon demand by other entities.

Figure 1: Volunteer First Responder Stipend Incentive Pilot



Sources: (Otto, 2008), (Otto, 2012), and (Rosendahl, 2012)

Collect and Disseminate Local and National Best Practices

There are many best practices that are not being collected and shared widely throughout Minnesota. These are being shared through informal networks and formal

networks, like the MSFCA. However, this information is not being documented or shared in any systematic way. Many promising practices do not seem to reach other departments that could benefit from them.

For example, statewide information should be collected on best practices in prioritizing and assigning local emergency calls. As the research findings revealed, call volume has increased significantly. Each department has their own arrangement with local 911 dispatchers to identify which calls warrant firefighters and/or department first responders. Some departments have found ways to prioritize calls and prevent excessive response by firefighters. Additional research should be conducted to investigate methods to balance firefighter demands, prioritize calls and minimize false alarms and identify best practices in responding to non-fire-related calls.

Compare Local Firefighter Demographics to Community Demographics

When a new or expanded database is developed and in operation, data analysis should compare local firefighter demographics to community demographics. With the comparative demographics, gaps between firefighters and community representation can be revealed. This analysis could lead local efforts to identify targeted communities and recruitment efforts. For example, if a local department has no Hispanic firefighters yet 10% of the local population is Hispanic, strategies for targeted recruitment and training could be implemented.

Explore Methods to Sustain Funding for Non-Career Firefighters & Departments

Further investigation efforts should explore and analyze methods to stabilize funding for

non-career firefighters and their departments. For example, research findings revealed a wide range of compensation, from nothing for volunteers to an hourly on-call wage of \$5.00-8.50 among interview subjects. Potential strategies to research might include:

- State or local tax incentives;
- Housing allowances that could mean exemptions from private mortgage insurance, down payment assistance, or other methods;
- Physical and mental health options, such as health insurance discounts or coverage, mental health benefits like access to counselors, gym memberships, etc.; and
- Increased call and on-call wages to ensure coverage and adequately pay for firefighter time.

Explore Methods to Increase Participation in State Firefighter Pension

Since its launch in 2009, the statewide non-career firefighter retirement plan has not seen high participation levels due to its low compensation levels and previously established local pensions. To date, only 79 of more than 700 non-career departments in the state participate (Public Employees Retirement Association of Minnesota, 2014). However, the state pension could allow firefighters that move to new communities to continue serving and keep their pension, instead of losing it or being forced to start over in a new community. In addition, a transferring firefighter is cheaper than a new firefighter. Additional research should further analyze participation and explore methods to increase use of state firefighter pension, including the possibility of increasing returns and creating a state match or contribution.

Conclusion

Minnesota's non-career firefighting force is a valuable state asset, and one that should be protected. The research reveals that the number of non-career firefighters is declining, but the statewide need or impact cannot be fully assessed until further data is collected. While it is a certainty that changing communities, sociological conditions and shifting demographics will continue to challenge local fire chiefs and force consolidation of departments in rural communities, the ability to address recruitment and retention challenges rests in gathering critical information, supporting local leadership development, and investing state resources in locally developed and led solutions.

List of Appendices

- A. Research Brief
- B. Literature Review
- C. Interview Questions
- D. Survey Questions
- E. Presentation Slides

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Appendix A: Research Brief



Empty Boots, Quiet Sirens

The State of Non-Career Firefighters in Minnesota

August 2014

A Valuable Service in Danger

Non-career firefighting is a proud and long-standing tradition in the United States, predating the American Revolution. Non-career firefighters include volunteer and paid-on-call firefighters and represent a majority of firefighters nationally. Eighty-seven percent of fire departments in the United States are staffed by volunteer or mostly volunteer personnel. This tradition is not only one of civic engagement, but of great economic benefit – the estimated annual savings of these individuals’ service to the U.S. economy is approximately \$46.6 billion – about \$45,000 per volunteer per year.

Minnesota has the 2nd highest percentage of non-career fire departments in the nation, saving the state an estimated \$742 million per year



FROM 2008-2012

- 56%** of Minnesota’s 87 counties experienced a reduction in the overall number of non-career firefighters
- 90%** of those counties were outside the 7-county metropolitan area
- 77%** of relief associations reporting a reduction of 10% or more serve communities with populations of 4,000 or less

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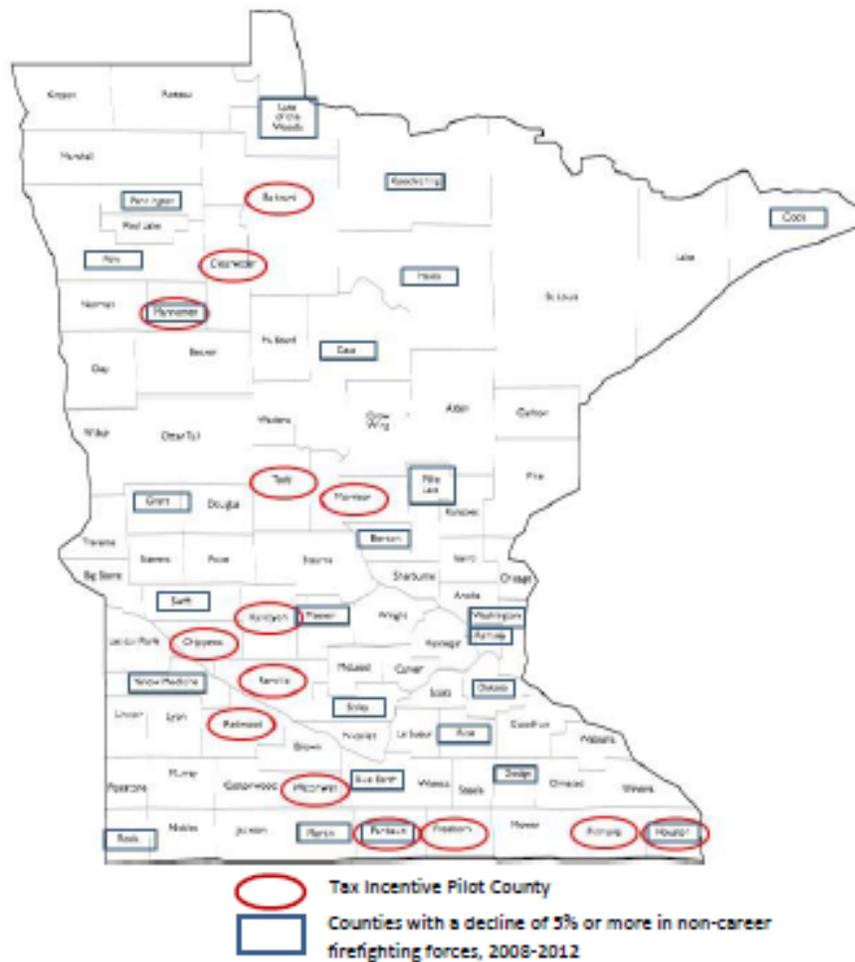
Download the full report & references at
<http://conservancy.umn.edu/>

Focus of the Study

In May of 2014, the Minnesota State Fire Chiefs Association engaged a group of student consultants from the Humphrey School of Public Affairs at the University of Minnesota to help determine the scope and magnitude of the challenges facing the recruitment and retention of non-career firefighting force in Minnesota. The consultants conducted a thorough analysis of available data and research in Minnesota, regionally and nationally. Overall, the number of non-career firefighters in the state declined 5% from 2008-2012. However, the statewide average does not account for the wide range of challenges and successes in individual communities. In order to fully quantify the need for non-career firefighters in the state; isolate the departments experiencing the biggest challenges; and analyze the existing fleet of non-career firefighters in order to devise effective recruitment and retention strategies, the consultants have developed a series of recommendations to meet the unique needs of Minnesota communities.

Regional Comparison Data (per 10,000 population)					
State	Non-Career Firefighters	Career Firefighters	Total Firefighters	Fire Stations	Fire Departments
ND	110.5	7.5	118	4.92	4.31
SD	83.23	6.31	89.54	3.9	3.37
IA	53.38	6.2	59.58	2.63	2.38
WI	39.34	7.96	47.3	1.77	1.33
MI	20.26	7.56	27.82	1.46	0.96
MN	32.89	3.57	36.46	1.68	1.33
USA overall	23.30	10.44	33.74	1.57	0.85

U.S. Fire Administration – National Fire Department Census Database, 2014



Volunteer First Responder Stipend Pilot

In 2014, the Minnesota Legislature launched a pilot \$500 stipend for non-career firefighters and emergency responders in 14 counties: Faribault, Fillmore, Freeborn, Houston, Watonwan, Chippewa, Kandiyohi, Redwood, Renville, Morrison, Todd, Beltrami, Clearwater and Mahnomon.

The map to the left illustrates the overlap between the 14 counties selected for the pilot program and the 24 counties that experienced a decline in non-career firefighters of 5% or more from 2008-2012.

The 14 pilot counties are circled in red. The 24 counties experiencing a decline of 5% or more in non-career firefighters from 2008-2012 are boxed in blue.

Findings

1

Recruitment and retention of non-career firefighters is a local problem requiring local solutions and state resources. "If you've seen one fire department, you've seen one fire department." Each community has unique economic, political, demographic and other factors that impact its ability to recruit and retain non-career firefighters.

2

Rural areas are more likely to experience difficulty recruiting and retaining non-career firefighters. Eighty-eight percent of career firefighters in the state of Minnesota are in communities with populations of 100,000 or more. Seventy-seven percent of relief associations that reported a decrease of 10% or more from 2008-2012 serve communities with populations of 4,000 or less.

3

Additional information is needed at the state level in order to provide the most impactful support to local communities. There is a lack of statewide data related to the existing force of non-career firefighters in Minnesota. In order to determine effective recruitment and retention strategies, additional data must be collected and analyzed.



Relief Associations Reporting a Decline of 25% or More in Non-Career Firefighters, 2008-2012

Maplewood	59%	Bovey	31%
Federal Dam	47%	Elmer	31%
Greenwood	44%	Frost	31%
Hokah	44%	Shevlin	30%
Bigfork	38%	Foreston	30%
Harris	38%	Colvill	29%
Roseville	38%	Fisher	29%
McDavitt	36%	Tofte	29%
Culver	36%	Hollandale	27%
Hector	36%	St. Francis	27%
Magnolia	36%	Clarks Grove	26%
Hitterdal	35%	Granada	25%
Bertha	33%	Remer	25%
Mazeppa	32%		

10 Factors Affecting Staffing Levels

- 1** A desire for greater work-life balance
- 2** Increased training requirements
- 3** Increased volume of non-fire-related calls
- 4** Evolving and increased firefighter responsibilities resulting in a decrease in the social nature of volunteering
- 5** Decreased sense of community in urban, suburban and rural areas
- 6** Department leadership challenges
- 7** Increased federal legislative requirements
- 8** Internal departmental conflicts
- 9** Increased housing costs prevent potential firefighters from living in more affluent communities
- 10** Shifting demographics – aging population, retirement of Baby Boomers, racial/ethnic diversity

Recommendations

- 1** **Conduct an annual statewide survey of Minnesota’s non-career fire chiefs.** In order to determine statewide firefighter resource requirements and identify departments with critical staffing needs, an annual survey of Minnesota’s non-career fire chiefs should be disseminated and its results analyzed to inform statewide support strategies to assist local communities.

- 2** **Create a statewide information sharing system for Minnesota’s non-career firefighters.** Effective recruitment and retention strategies and ongoing analysis of non-career staffing needs requires a centralized data collection system. The system should consolidate reporting requirements for state and local entities and provide opportunities to analyze firefighter demographic data and department staffing needs at the local, regional and state level.

- 3** **Expand leadership development, coaching and mentorship opportunities for Minnesota fire chiefs.** Department leadership is one of the most critical factors impacting recruitment and retention of non-career firefighters. Fire chiefs require training about performing in emergency situations, but also in navigating local politics, intercultural competence and managing teams. As the Baby Boomers retire, this will also be critical to developing the leaders that will replace retirees.

- 4** **Institute state grant program.** State funding should be made available for fire departments to implement local recruitment and retention strategies. The grants would not only assist in these critical community-specific efforts, but would also provide an avenue to collect information about best practices being developed across the state.

- 5** **Recruit and retain non-career firefighters that are reflective of the communities they serve.** Non-career firefighting recruitment and retention must adapt to major demographic shifts in the state. Minnesota’s population is expected to remain steady or grow in all 87 counties through 2030. Population decline is projected in some counties by 2045, mainly among some of the state’s northernmost counties. In 2020, for the first time in history, there will be more people over 65 in Minnesota than school age children. Meanwhile, the only population growth in the state will come from communities of color. Twenty-five percent of the population will be minority by 2035 (compared to 18% today, and 1% in 1960).

Opportunities for Further Study

<p>Evaluate Effectiveness of Stipend Pilot</p>		<p>Collect and Disseminate Local and National Best Practices</p>		<p>Analyze Demographic Data to Aid in Diversifying Local Firefighting Forces</p>	
	<p>Develop, Disseminate and Analyze Annual Fire Chief Survey Results</p>		<p>Explore Methods to Ensure Sustainable Funding</p>		<p>Explore Strategies to Increase Participation in State Firefighter Pension</p>

Appendix B: Literature Review

Empty Boots, Quiet Sirens: The State of Non-Career Firefighting in Minnesota Literature Review

1. D'Intino, R. S. (2006). *Volunteer Firefighter Recruitment and Retention in Rural Pennsylvania*. Harrisburg: The Center for Rural Pennsylvania.

This research helped to better understand volunteer firefighter recruitment and retention issues and identify strategies to increase rural volunteerism. The study used both qualitative and quantitative analysis to understand the issues and recommend policies. Recommendations include:

1. Establish and support a state-wide fire service information management system administered by the office of the state fire commissioner;
2. Establish state government coordination and support to improve communication between rural volunteer fire companies and the municipality they serve;
3. Establish a volunteer fire companies grant assistance program managed by the state fire commissioner that would employ fire service grant application writers to help rural volunteer fire departments receive more federal grant funding;
4. Offer state reimbursements for fire and emergency companies that respond to emergencies along limited access highways;
5. Offer additional firefighting and fire officer training courses at local fire stations or county fire schools; and
6. Implement a professional quality volunteer firefighter recruitment campaign through the office of the state fire commissioner.

2. Kline, R. C. (1998). *An identification of demographic factors affecting the recruitment and retention of paid-on-call firefighters in the Plymouth fire department*. Plymouth: National Fire Academy.

The research purpose was to identify environmental factors affecting the service delivery of the Plymouth fire department which poses barriers to the recruitment and retention of paid-on-call personnel. The research used descriptive analysis and evaluative research methodology, conducted survey and personal interviews with fire service administrators.

The findings of the research indicated that rapid community growth and changing socio-economic demographics factors have a negative impact on the ability of Plymouth fire department to recruit and retain paid –on-call firefighters. Also, other rapidly growing communities also face similar difficulties in recruitment and retention because of changes in socio-economic demographic factors. The research also suggested that the service delivery provided by paid-on-call departments can be improved by the implementation of technological advancements, revision of administrative policies, and the innovative use of fire personnel.

The research gave following recommendations:

1. Fire leadership should take active role in evaluating effects of socio-economic demographic factors on the ability of fire department to attract and retain firefighters personnel. Demographics trend should be utilized to plan strategies and recruitment and retention efforts must be related to it.
2. Efforts should be made to identify service delivery level expected within the community.
3. Member survey should be conducted at least once in every two years to identify socio-economic and demographics factors and influences.
4. City planners must be kept informed about the effects of proposed changes has on the ability of fire department to recruit and retain personnel. Comprehensive land use plans, city zoning requirements, population and infrastructure anticipated for future growth must be reviewed for input and fire department planning purposes by the fire department leadership.

3. Carter, H. R. (2005). *Member Retention in the Volunteer Fire Service: An Analysis of the Impact of Leadership*. Minneapolis: Capella University.

The study examined the issue of member retention in the volunteer fire service. The study identified number of influences which were determined to have a negative impact upon an individual's decision to continue their organizational membership. Strong economic, demographic, and human forces were identified as forces working against the continued use of volunteer fire organizations to provide protection for communities across the nation. The study also identified the fact that there is a limited amount of information on recruiting and retaining members for voluntary service. The study identified five major negative impact areas within the volunteer fire service: leadership, personal, inter-personal, economic and organizational issues.

4. Koos, F. H. (1998). *Volunteer Retention in the Dewitt Township Fire Department*. Lansing: National Fire Academy.

The research purpose was to understand why paid-on-call personnel resigned from the department. Descriptive methodology was used and interviews were conducted with personnel who left the fire department to understand the reasons in retention of paid-on-call firefighters. The results of the study indicated that time and training were key factors for volunteer retention. The allocation of time between family, work and volunteer fire service were causes for volunteer to resign or low participation with the fire departments. The study also indicated that the needs of the volunteers must be met in order to retain and for increased participation. The study recommended for conducting periodic surveys, along with exit interviews in order to retain personnel. A personnel committee should be formed to conduct applicant interviews, exit interviews, member surveys, and make recommendations to improve retention.

5. Brudney, J. L., & Gazley, B. (2003). *Federal Volunteerism Policy and the States: An Analysis of Citizen Corps*. In A. Wall, *Book of the States 2003* (pp. 516-522). Lexington: The Council of State Governments.

In 2002, President George W. Bush announced the creation of an umbrella citizen service initiative, USA Freedom Corps, which intended to increase volunteerism. The citizen corps had

the responsibility for mobilizing local volunteers in emergency preparedness and response. The citizen corps program was designed to ‘bring together a community’s first responders, firefighters, emergency health care providers, and law enforcement and emergency managers with its volunteer resources’. The authors examined the role of the states in citizen corps and early assessment of volunteerism initiative. The study analyzed the views of high level state officials in charge of implementing citizen corps, five factors emerged as crucial factors in implementation. These factors constitute a framework for assessing the prospects for success of federal volunteerism policy in the states. These five factors are:

1. The clarity of goals underlying the volunteer program;
2. The length, adequacy and flexibility of the funding commitment;
3. Promotional activities on behalf of the program;
4. Capacity, attention to volunteer management, recruitment and retention;
5. The strength of the implementation network.

6. Lewis, S. (2004). *Gender and Firefighting: Research Paper One: MFB Gender Equity Research Project 2004*. Swineburne: Swineburne University of Technology.

The metropolitan fire and emergency services Board (MFB) research project focused on the gendered culture of firefighting around the world and the issues for women and men as they become firefighters. The research shows that gender issues are often viewed as a nuisance and as a threat to the successful image of firefighters around the world. Developing and acting on a gender based change strategy in MFB would be complex because of organizational experiences of gender relations in most male-dominated organizations. The research indicates that developing and implementing gender based change strategy would require both strong executive and collaborative leadership. The study gives framework based on four recommendations: leadership and accountability; organizational development; retention and recruitment of female firefighters; and training and placement of firefighter recruits. Firefighting needs both feminine and masculine attributes to be equally valued in the culture rather than change programs being misunderstood as privilege either feminine or masculine styles and attributes. The focus is develop an organizational culture where both feminine and masculine attributes are valued and accepted, within individuals and organizationally.

7. Yarnal, C. M., & Dowler, L. (2010, November 21). Who is answering the call? Volunteer firefighting as serious leisure. *Leisure/Loisir*, pp. 161-189.

The study explored the meaning of serious leisure, based on 70,000 Pennsylvania volunteer firefighter responses. The volunteer firefighters are involved in emotionally-charged public service involving life and death situations. They are simultaneously volunteers, amateurs and professionals. They are negotiating continuously dynamic tensions because of both obligation and ambiguity. The resulting haziness concerning the value of volunteer firefighters as social capital has significant implications for future recruitment and retention numbers.

8. Marohl, M. (2002). *Recruiting Women Into the Fire Service*. Eau Claire: National Fire Academy.

The study addressed the extremely low numbers of qualified female candidates that apply for entry level firefighting positions in a local Wisconsin fire department. The purpose of the research was to determine what has been and what is being done to attract women in fire service. The results showed that targeting potential women candidate through word of mouth was the most successful strategy. The use of women firefighters in recruitment was highly recommended by both fire chiefs and women firefighters in the study. The research recommended five strategies for the technical college to increase the numbers of qualified female firefighter candidates. These recommendations can only be successful with cooperation from the local fire department in creating a gender friendly environment.

1. The technical college and fire department have to work actively for developing recruitment strategies.
2. College can take active role in creating organizations for women firefighters, both volunteer and career for recruitment purposes.
3. College can promote fire camp.
4. Women should be involved for recruitment effort.
5. After all steps are completed, research needs to be done to evaluate the impact of recruitment campaigns

9. Anderson, J. M. (1999). *Diversity Issues at the Washington Township Fire Department*. Indianapolis: National Fire Academy.

This study indicated that a diverse workforce is critical for fire department to meet its mission. Firefighter diversity affected the department's ability to communicate with minority communities and to provide improved customer service. The current method used for hiring and promoting firefighters were not effective in increasing diversity. The study recommended increasing efforts for recruiting minorities in fire service.

10. Salters-Pedneault, K., Ruef, A. M., & Orr, S. P. (2010, August). *Personality and psychophysiological profiles of police officers and firefighter recruits*. *Elsevier*, pp. 210-215.

The study examined self-reported personality traits of police officers and firefighter recruits. The police recruits scored higher than firefighters on some facets of extraversion and conscientiousness, specifically gregariousness, dutifulness, and deliberation. Compared to normative sample, police and firefighters both scored higher for excitement seeking, a facet of extraversion.

11. Bryant, R., & Harvey, A. (1996, January). *Posttraumatic stress reactions in volunteer firefighters*. *The Journal of Traumatic Stress*, pp. 51-62.

In this study, volunteer firefighters were surveyed for experiences of posttraumatic stress. The findings indicated that most firefighters felt their safety had been threatened. Post-traumatic stress was associated with multiple and recent critical incidents. The study suggested that the

experience of multiple traumas may predispose an individual to negative reactions. Adaptive rehearsal of stress management skills may enhance capacity to successfully cope with a trauma.

12. Wagner, S. L., & O'Neill, M. (2012). Mental health implications of volunteer fire service membership. *Disaster Prevention and Management*, pp. 310-319.

The study examined the mental health implications of volunteer membership and compared results with previous research looking at paid professional members. The findings showed that the volunteer fire service members reported significantly higher rates of post-traumatic stress symptoms compared to similar group of participants as a control. In contrast, no differences were found in other types of mental health symptoms between volunteer firefighters and the comparison group. Generally, regardless of group affiliation, neuroticism was a predictor of mental health symptoms.

13. Lerner, E., Billittier, A., Moscati, R., & Adolf, J. (2003, August). The time first-response fire fighters have to initiate care in a midsize city. *The Journal of Emergency Medicine*, pp. 171-174.

The research objective was to determine whether first response firefighters arrived before simultaneously-dispatched transporting EMS providers and the amount of time firefighters have on-scene to initiate care. The study showed that the average response time for fire incidents were 4.0 minutes (with a standard deviation of 2.6 minutes) and for ambulance incidents was 5.3 minutes (with a standard deviation of 2.0 minutes). Firefighters typically had an average of 1.3 minutes (with a large standard deviation of 3.2 minutes) to initiate care. The study suggested that the use of densely-staged first response and fire apparatus in a mid-size city may be appropriate since firefighters frequently arrive before ambulances and may have adequate time to initiate lifesaving interventions.

14. Hammer, R., & Heath, E. (2013, May). Comparison of aerobic capacity in annually certified and uncertified volunteer firefighters. *Journal of Strength and Conditioning Research*, pp. 1435-1440.

Since 1977, the leading cause of mortality among on-duty firefighters has been cardiac arrest, typically due to stress and overexertion. Out of 1,471 firefighters deaths reported between 1995 and 2008, 641 were attributed to sudden cardiac deaths. 347(54%) happening during emergency duty or while responding to or from an emergency. Of the 641 deaths during this period, volunteer firefighters suffered twice as many (448) on-duty fatal cardiac arrests as career firefighters (193). This study compared the aerobic capacity in annually certified volunteer and uncertified volunteer firefighters. Though there was no significant difference in predicted oxygen consumption (VO₂) maximum values for certified and uncertified volunteer firefighters, 30% of volunteer firefighters had predicted aerobic capacities below the recommended minimum VO₂ maximum levels. The study emphasized a need for prioritizing firefighter fitness programs for both their safety and the public's safety.

15. Jahnke, S. A., Poston, W. C., Haddock, Keith, C., Jitnarin, N., Hyder, M. L., et al. (2012, October 31). The health of women in the U.S. fire service. *BMC Women's Health*.

The rates of female firefighters remain very low, making it a high priority research subject. This study focused on the health of female firefighters and examined the health outcomes and risk behaviors identified as the most important in fire service. The findings showed that women had a more favorable body composition among both career and volunteer firefighters. While women in the fire service are generally healthy, they identified some unique health risk behavior challenges. Tobacco use rates were generally higher among females than males; rates among female firefighters were similar to female military members. Alcohol use among female firefighters was higher than the general population.

16. Cowlshaw, S., Evans, L., & McLennan, J. (2008, April). Families of rural volunteer firefighters. *Rural Society*, pp. 17-25.

Many Australian fire agencies were facing concerns over declining volunteer numbers and were looking at factors that could be impacting volunteerism. The evidence studied suggested that family issues played a significant role in many volunteer resignations and likely contributed to declining volunteer numbers. This review noted the small amount of research available on rural families generally and on volunteer firefighters specifically. It examined a work-family conflict model and suggested that time and stress pressures may be important sources of difficulty for spouses and partners in balancing volunteer firefighter and family roles. The research called for future research for volunteer-based fire agencies to develop new and revised policies that better support the families of the volunteers.

17. Cowlshaw, S., Evans, L., & McLennan, J. (2010, September). Balance between volunteer work and family roles: Testing a theoretical model of work-family conflict in the volunteer emergency services. *Australian Journal of Psychology*, pp. 169-178.

The conflict between emergency service work and family resulted in falling volunteer numbers. The study tested a work-family conflict model in Australia with couples having one partner as member of Australian emergency services. The purpose was to understand the difficulties experienced in balancing volunteer work and family. The research findings supported the theory that volunteer work-related conditions, including time invested in emergency activities and post-traumatic stress symptoms, had indirect links with outcomes, including volunteer burnout and their partners' support for the volunteer work role.

18. Shrader, K. W. (2012). *Improving the Recruitment and Retention of Volunteer Firefighters Within the Martinsville Fire & EMS Department*. Martinsville: National Fire Academy.

The research identified motivations in becoming volunteer firefighters and best practices in recruitment and retention. The study summarized that the ability to recruit and retain quality volunteer firefighters is one of the most important elements of any volunteer or mixed volunteer and paid staff fire department. The findings of the research suggested that the fire

department should consider incorporating the following into its recruitment and retention program:

1. Improving the applicant screening to determine their motivation for joining the department;
2. Evaluating current training programs;
3. Evaluating the current leadership of both career and volunteer officers; and
4. Implementing a formal recruitment and retention program that includes various incentives for the volunteers.

The leadership of the department was the most cited reason for the ultimate success or failure of any volunteer recruitment and retention program.

19. Smith, M. R. (2014). *Retention of firefighters in volunteer fire departments in suburban Nebraska*. Minneapolis: Capella University.

Research focused on understanding volunteer retention in Nebraska's suburban fire departments. Interviews were conducted about their reasons for joining, continuing, and potentially resigning from their departments. The study found that the key motivator for joining and continuing working as a volunteer was the desire to serve their communities and help people. Interpersonal relationship and department requirements were widely attributed to thoughts of leaving or staying. They enjoyed the camaraderie of their departments but were frustrated with the interpersonal conflicts. The reasons for potential resignation included interpersonal conflicts and concerns in not meeting department minimum response and training requirements. The volunteers felt that they would continue working as long as they were contributing and leadership of the department supporting them, even if they could not meet the minimum requirements for a short period of time. Activities which may improve the retention are providing supportive and appreciative environments for volunteers, limiting the conflict and disrespect on the departments, providing mentoring and leadership training adapting the training and response requirement to reflect the availability of volunteers and providing nonfinancial incentives to support the volunteers in their departmental activities.

20. Chapman, R. (2011, August 1). *21st Century Firefighting: Preserving the Volunteer Fire Service*. Retrieved July 27, 2014, from [www.fireengineering.com](http://www.fireengineering.com/articles/print/volume-164/issue-8/departments/volunteers-corner/21st-century-firefighting-preserving-the-volunteer-fire-service.html):
<http://www.fireengineering.com/articles/print/volume-164/issue-8/departments/volunteers-corner/21st-century-firefighting-preserving-the-volunteer-fire-service.html>

Volunteer fire departments are changing. Current fire departments are finding it more difficult to recruit and retain new volunteers. Recruitment success has been seen in cadet programs where people age 16 to 18 are introduced to fire service. Public education and open houses are also effective tools of recruitment. Retention is more challenging as the problems facing fire department are many, and it is better to study the statistics to understand and rectify these problems. A fire department may spend an average of \$1,000 annually to retain one volunteer, even though the average volunteer may stay relatively few years. Many volunteer fire departments are lacking basic equipment such as self-contained breathing apparatus. Despite

that they save municipalities millions of dollars every year with their services. The savings should be invested in tools and training which will allow them to perform in a much effective manner and safely. Firefighting is a dangerous job and it is hard to get people to volunteer without monetary compensation. Volunteer has to balance between family life and volunteer work. The volunteer's dedication requires not only the member's commitment but also his or her family's support. The leadership of the volunteer fire chiefs is very important in promoting positive environment and crucial for recruitment and retention of volunteers. Favoritism in non-career firefighter selection and promotion can be frustrating and this system with no to few checks and balances is endangered. Proposed solutions include:

1. Volunteer fire department should work with municipality to provide incentives such as, free gym membership or discounted golf or beach passes.
2. Department could provide housing above firehouses where aspiring young firefighters can live free of charge but will have to respond to calls and station duties.
3. Overhauling the officer corps should be done so that all current officers would be judged based on experience, certificates, formal training, and firefighter performances.
4. Encouragement should be given to members to pursue formal training by paying tuition fees out of the department training budget.

Volunteer firefighting will become a thing of past if volunteer chiefs do not recognize the issues and adopt proactive approaches for dealing with them.

21. Perkins, K. B., & Metz, C. W. (1988, January). Note on Commitment and Community among Volunteer Firefighters. *Sociological Inquiry*, pp. 117-121.

The purpose of this research was to describe social characteristics and orientation of a sample of 372 volunteer firefighters in Virginia. The literature suggested that volunteer fire departments are communal organizations. Therefore, considerable commitment to the organization should be demonstrated. Descriptive evidence of strong commitment and internal solidarity in these organizations was clear. The average fire firefighter had served 10.5 years, with a standard deviation of 9.3 years. 75 percent of participants indicated that half or more of their close friends were fellow firefighters. Commitment and the communal nature of volunteer fire department was also examined by contrasting membership with church membership. About 67 percent of church members indicated that being a firefighter was of equal or greater importance than church membership. Theoretically it was considered plausible that the primary group rewards experienced by firefighters as members of communal organizations accounted for high level of commitment. The correlation coefficient between number of years a volunteer firefighter and age was .77, which showed that the volunteer firefighters stick with their organizations. 75 percent of firefighters had seldom or never considered quitting their role.

22. Swank, A. M., Adams, K. J., Barnard, K. L., Berning, J. M., Ottersbach, M., & Bowerman, J. (2000, November). A comparative analysis of cardiovascular disease risk factors for volunteer firefighters. *Clinical Exercise Physiology*, p. 199.

The study provides comparative analysis of cardiovascular disease, or CVD, risk factors in volunteer firefighters to determine if the prevalence is different from paid firefighters or the general population. Results showed that age relates to trends with similar increases in blood pressure and weight with increasing age within groups. Descriptive comparison with the general population indicates that the VHF had similar prevalence of CVD risk factors as the general population. In comparison to the paid firefighters, the percentage of volunteer firefighters with hypertension and smoking was double that of the levels for paid firefighters. The results indicate that the volunteer would benefit from education and intervention strategies for decreasing modifiable risk factors associated with CVD. Financial investment should be done in these intervention programs.

23. U.S. Fire Administration. (2007). *Retention and Recruitment for the Volunteer Emergency Services: Challenges and Solutions*. Washington D.C.: U.S. Department of Homeland Security.

This comprehensive study identifies the main factors affecting the recruitment and retention of non-career firefighters nationally, according to an analysis of fire departments around the U.S. The Delaware State Auditor's Office estimated that the state saved \$136,335,339 in staffing costs in 2004 due to their large volunteer firefighting force (p. 23). The primary causes and effects of firefighter retention and recruitment include:

1. Time demands on firefighters both in service and in other life aspects;
2. Increasing training requirements, especially since 9-11;
3. Increasing volume of calls, but in non-fire-related calls like medical calls and automated alarms, causing an increased community reliance on local fire departments;
4. Evolving firefighting responsibilities to include dealing with abuse of 911 calls, decreasing the social nature of volunteering at fire departments;
5. Sociological conditions changing to decrease a sense of community in urban, suburban and rural areas;
6. Leadership issues, when departments lack proper coordination, are managed with an authoritarian style, or do not manage change;
7. Federal legislative changes have increased requirements on individual firefighters and departments, including when firefighters can volunteer, how many firefighters must participate in a call, and limiting training simulations;
8. Departmental conflict internally, either among members or leaders;
9. Increased housing costs have prevented potential firefighters from moving into some communities and serving as firefighters; and
10. Many communities have aging populations due to poor local economic issues, limiting the potential firefighter population.

The major challenges and potential solutions to retain non-career firefighters include:

Challenge	Potential Solutions
Leadership	<ul style="list-style-type: none"> • Adapt a more participatory management style focused on obtaining feedback while still demonstrating competent leadership with a vision • Create a local department mission statement outlining goals, purpose, objectives and vision • Identify longer-term goals through a strategic planning process • Select a chief based on skills needed to effectively lead a department through future changes and allow them three years to demonstrate their effectiveness • Elect officers for at least one- to three-years based on a full array of needed technical and management skills • Ensure that the chief and officers participate in long-term training that is affordable, field-accessible, and fits their schedules, while addressing all the skills they need to lead their departments successfully • Increase the effectiveness of internal communication by assessing current strategies, analyzing miscommunications and gaps, gauging how and what messages reach intended audiences, utilizing current technology, and emphasizing both sending (emails, meeting discussions, newsletters, etc.) and receiving information (listening, feedback sessions, etc.) • Develop a regional volunteer coordinator to assist with daily coordination, administrative duties, retention strategies • Collaboratively adopt standards for the department, discussing their intent among all firefighters and forming a development team or task force to help lead the development and adoption process
Department Image	<p>Actively maintain a positive department image by</p> <ul style="list-style-type: none"> • Increasing department exposure with political leaders, in media, and at events • Creating a positive organizational culture of pride • Training in public places • Keeping equipment and property clean and maintained • Publicizing the effectiveness and actual cost savings of local volunteer firefighters • Emphasizing customer service practices

	<ul style="list-style-type: none"> • Hosting a variety of public meetings at the fire station • Having firefighters wear their uniform and insignia at public events and meetings • Cultivating community and department pride through public service efforts that are both visible and social • Creating useful and engaging public safety campaigns and fire prevention programs
Risks	<ul style="list-style-type: none"> • Actively and routinely address actual and potential risks to health • Pay for firefighter medical exams by establishing a flat fee with local doctors, staggering exam requirements by age and recruiting a doctor to serve as a non-career firefighter • Address firefighters’ families’ concerns by involving them in certain education and training sessions • Provide death and disability coverage, including the potential for increased long-term, line-of-duty, and liability, for firefighters
Relocation	<ul style="list-style-type: none"> • Connect firefighters connected to the department and chief in their new community • Identify and share career possibilities locally available with current firefighters • Allow reciprocity of training in other locations and encourage standardized training modules and certifications
Diverse People and Interests	<ul style="list-style-type: none"> • Identify firefighters’ diverse interests and promote cross-training • Ensure that female fire department resources are available • Ensure policies that encourage effective female participation • Build department cultural competence and accommodate procedures appropriately • Create appropriate roles for aging and retiring firefighters • Create administrative and educational roles for non-firefighting personnel • Ensure policies allow a leave of absence to deal with burnout • Create roles for disabled members, like support and equipment maintenance and cleaning
Consolidation	<ul style="list-style-type: none"> • Carefully assess and manage the department’s identity and culture through a regionalization process

	<ul style="list-style-type: none"> • Collaboratively develop standards of a newly regionalized department • Develop joint governing structures and procedures before, during and after a consolidation
Attitude and Motivation Research	<ul style="list-style-type: none"> • Assess firefighter attitude regularly to identify problems early • Develop a local grievance procedure policy • Formally and informally identify firefighter motivation individually between leaders and members using surveys, exit interviews and coaching evaluations • Tailor practices to appropriately align with member motivations
Cohesiveness	<ul style="list-style-type: none"> • Prevent cliquish behavior by creating a welcoming environment and procedures with new members, encourage frequent intermixing of firefighters in service and trainings • Creating a welcoming environment with diverse members by examining and adjusting obvious procedures and subtle cultural factors that either encourage or discourage female and minority participation • Control conflicts between EMS and firefighters by assessing needs and priorities when making purchases • Establish informal and formal methods for dealing with grievances and problem volunteers, through effective listening sessions, grievance boards, coaching and even potential termination procedures • Encourage collaborations between career and non-career firefighters • Establish and embed guidelines for effective teamwork
Emotional Support	<ul style="list-style-type: none"> • Nurture new members through comprehensive local orientation and mentoring • Nurture all members appropriately supporting members dealing with issues, as long as they want help • Allow access to assistance programs, chaplain counseling, status circles, leaves of absences, and financial aid • Address problems early, even bickering • Create stress debriefings and prepare access to more professional support after more traumatic situations

<p>Training Requirements</p>	<ul style="list-style-type: none"> • Develop training schedules so firefighters can plan ahead • Create training modules that highlight context • Spread new firefighter training over multiple years • Use participant feedback to evaluate and improve instructor quality • Provide help for firefighters struggling with content and certification exams • Diversify training formats and content, including trainers, case studies, locations, guest speakers, participation with other departments, etc. • Explore the potential of creating chunked-module training weekends at locations to provide attractions for members' families • Reimburse firefighters for training and per diem expenses • Create competitions to encourage fun and engagement
<p>Time Demands</p>	<ul style="list-style-type: none"> • Evaluate requirements to improve efficiency • Create more specific assignments when possible to minimize requirements • Delegate tasks to share coordination responsibilities • Recruit support volunteers to handle administrative duties • Create duty shifts to allow firefighters to plan for on-call time • Allow for leaves of absence • Screen calls and create strategies to identify who should attend to which calls, including selective paging • Create public campaigns to educate on appropriate uses of emergency services • Impose fines for alarm system malfunctions • Encourage involvement from multiple members of the same family while preventing nepotism • Reexamine duties performed by auxiliaries • Assess how to handle difficult times, especially weekday hours, and work with local employers • Establish clear roles for full-time personnel

Recognition	<ul style="list-style-type: none"> • Create diverse ways to recognize firefighter efforts, through newsletters, thank-you notes, pictures, press releases, awards, banquets, graduations and other formal and informal methods
Incentives	<ul style="list-style-type: none"> • Create an equal incentive system that utilizes diverse methods, including giving thanks, direct and indirect monetary incentives, vehicle use, pins for years of service, paraphernalia, etc.
The Fun Factor	<ul style="list-style-type: none"> • Emphasize enjoyable aspects of service and camaraderie through social committee/directors, parties, prevention activities, interactive training activities, encouraging the socializing functions of the station, and brainstorming other ways to increase member fun while avoiding activities that could put the department in a negative light, such as alcohol use • Create ways to view expanding forms of services as opportunities to motivate current firefighters

The major challenges and potential solutions to recruit non-career firefighters include:

Challenge	Potential Solutions
Citizen corps	Utilize resources available at www.training.fema.gov/emiweb/cert
Needs assessment	Routinely take a departmental inventory of the types of services it offers and firefighters it needs
Preferred qualities and skills to seek	Reexamine what the department seeks from potential firefighters and ideally seek a diverse set of skills in the force, including social skills, leadership experience, maturity, commitment, teamwork, conscientiousness, moral character, problem-solving, and taking initiative, education, daytime availability, geographic location, youth, cadet training, previous public safety experience, and special skills
Recruiters	Establish effective roles to recruit new firefighters, including members, committees, and/or a recruitment coordinator
Recruitment sources	Develop an inventory of recruitment locations and strategies that includes personal contacts, door-knocking, hotlines, new community members, schools, retirement homes, civic organizations, neighboring and career department members, fairs, resorts, businesses, events, utility workers,

	government employees, military personnel, other emergency volunteers and general public training
Messaging	<ul style="list-style-type: none"> • Develop engaging messages that include the need for service, the personal benefits, and the reality of service • Identify the career advancement potential • Detail realistic portrayals of service • Create a recruitment checklist
Media use	Create a media strategy that selectively utilizes new and traditional media effectively within departmental resource limitations, including brochures, videos and multimedia, direct mail, posters, signage, advertising on vehicles, informal open houses, theaters, internet, and other places locally
Informational sessions	<ul style="list-style-type: none"> • Host sessions at least monthly, including evening hours • Create clear and compelling job descriptions
Screening	<ul style="list-style-type: none"> • Adjust to local need, while maintaining department and service quality • Ask applicants about their motivation for joining and use responses in decision-making • Assess written, physical, driving record, criminal background, and medical tests for appropriateness to ensure quality while not creating unnecessary barriers • Utilize at least two department members and one representative from an authorizing agency in interviews • Some departments use a non-binding commitment agreement to articulate expectations
Following through	<ul style="list-style-type: none"> • Phone prospective volunteers briefly to schedule informational meetings • Informational meetings can take place in informal settings that include family or significant others • Create introductory activities for potential or new members • Immediately include new members in activities and establish participation expectations, especially through comprehensive orientations • Create opportunities for members to evaluate their involvement and take opportunities for them to leave

Barriers	<ul style="list-style-type: none"> • Adjust the department’s image to prevent exclusivity • Create training schedules that meet member and department needs • Evaluate residency requirements and adjust or eliminate if possible and when needed • Evaluate tenure requirements and potentially eliminate requirements longer than one year
Special groups	<ul style="list-style-type: none"> • Designate member females and minorities as recruiters • Utilize women and minorities in recruitment photos and materials • Create a department child care service • Allow for leaves of absence for family purposes • Utilize bilingual recruiting messages when seeking Hispanic volunteers • Offer language education and citizenship education for immigrant members • Recruit using culturally-specific media • Emphasize a variety of roles when recruiting white-collar workers • Identify roles for retirees when recruiting
Recruitment plan	Develop an annual recruitment plan or calendar with activities that take place throughout the year
National recruitment hotline	Utilize 1-888-FIRE-LINE, www.firecorps.org , and www.nvfc.org/retention for recruitment

24. National Fire Protection Association. (2011). *Third Needs Assessment of the U.S. Fire Service: Conducted in 2010 and Including Comparisons to the 2001 and 2005 Needs Assessment Surveys*. Quincy: National Fire Protection Association.

The third needs assessment follows a 2001 and 2005 assessment. The assessment is based on a survey of fire departments throughout the U.S. and provides significant national-level data, which they report does not vary greatly by state. The report assesses personnel, facilities, equipment, prevention and code enforcement, challenging incidents and communication and technology needs of fire departments. The report highlights the various types of challenging calls that fire departments may receive: hazardous materials incidents, wild land-urban interface fires, floods, and other calls.

25. Recruitment and Retention Task Force. (2006). *Final Report: Recruitment and Retention Task Force for Volunteer Firefighters, Volunteer Ambulance Personnel, and Volunteer Emergency Responders in Minnesota.* Saint Paul: Commissioner of Public Safety.

The task force included members from the Minnesota Ambulance Association, Minnesota Fire Chiefs Association, League of Minnesota Cities, Minnesota Association of Townships, Minnesota State Fire Department Association, and the Minnesota Professional Firefighters Association. Their research included an emailed survey to members of the task force organizations, article reviews to find best practices in other states, and outreach meetings in Mountain Iron, Monticello, Albert Lea, Marshall, and an EMS Leadership Summit near Lake Mille Lacs. The report outlines feedback from the surveys. The report generally promotes workforce planning to address recruitment and retention. The task force recommended creating two state-level positions to collect and share data, address workforce issues across agencies, and promote recruitment and participation in volunteer emergency services. The task force identified several legislative initiatives, including providing access to Minnesota health care programs, tax incentives, reimbursements, funding for training, tort reform, creating pension plans, dedicated leadership, and grants for consolidation and regional programs.

26. Wilson II, F. W. (2002). *Recruitment and retention of the volunteer: The missing piece of the fire service.* Alexandria: National Volunteer Fire Council.

The report looks at recruitment and retention from a different angle. Barriers such as philosophy, self-esteem, diversity, business perspectives were analyzed. Over the past twenty years, fire service has seen a drop of 20% in the number of individuals who volunteer their time, and continue to see an additional two to three percent decrease each year. Each department has a responsibility to conduct its own needs assessment and determine the appropriate types of volunteer programs. Each department must realize that in order to accomplish its mission statement “protection of life and property” they should utilize the need assessment as a tool to maximize the potential within their own organization. They need to conduct research to help develop maintain a recruitment and retention program for the volunteer. Volunteer departments outnumber the paid ones at present but the fire service continues to change. In many suburban and rural areas, volunteer departments are in peril. Recruiting and retaining numbers become difficult because of high housing cost, strict training requirements, population mobility and distant employment.

Recruitment: Fire departments frequently neglect the significance of marketing, prospecting, sustainability expansion, retention of customers and addition of customers. Fire departments need to look at fire service as a business. Marketing in the fire service should be done to understand customers, develop needed services, and take opportunities to do business. Quantitative and qualitative data is not captured well for internal and external stakeholders.

Issues and diversity challenges: The report mentioned using of articulated approach to recruitment of diverse members and staff. The four important elements which need to be considered in recruiting diverse groups are relationship, environment, service and promotion.

Critical areas to increase recruitment are community, self-esteem, needs, philosophy, goals, messaging. Fire departments must be prepared to stimulate local problem solving capacities

and to involve the community deeply and actively generating new ideas and taking initiative. Volunteers should have high opinion of their service and feel they belong to a special group like a family. People are motivated when the jobs allow them to meet their specific needs, which include psychological, social, esteem or self-actualizing. The fire department should provide meaningful goal and experience to all who serve. Creative marketing of the challenges and work is important to communicate facts and convey the quality work.

Retention: The success of fire department lies in their ability to understand the needs of publics, ensure that the organizational goals are developed and accepted, and develop clear goals to address needs which are consistent with the organizational philosophy. Equally important is the ability to communicate the message that invites others to contribute, and an open process that will help to assess the motivation and capitalize on many assets as possible.

27. Divine, M. (2013, July 11). Stillwater grapples with shortage of firefighters. *Pioneer Press*.

The news reports that the Stillwater fire department is struggling to fill vacancies and retaining firefighters. The department depends on paid on-call firefighters. According to Fire Chief Stuart Glaser, increased training requirements, more duties, squeezed family lives and less flexible employers contributed to decreases in volunteering for fire services. He highlighted retention as a major challenge since people are more transient. People quit after only a couple years due to competing interests.

Firefighting is a dangerous and technical high-skilled job where volunteer really needs to know well what he is doing. He obtained approval from city council for hiring two full-time firefighters to stabilize staffing at an additional allocation of \$147,000 annually. He had nine vacancies in the 41-member department and had another six members to retire soon.

Other neighboring fire departments are also witnessing similar changes. Greg Malmquist, Lake Elmo's Fire Chief, said that he is running 400 additional calls per year now from 25 years ago. The department needs more training. Recruiting paid on-call firefighters has become more challenging. The department is down to eight members from a 32-member department. Kris Peterson, Chief of Lower St. Croix Valley Fire Department, said that they manage 400 to 500 calls annually and people do not have the same kind of commitment as before. Their Robert W. Mason Scholarship funds scholarships for department members, their spouses and children, which benefitted retention. Some approaches were identified by departments to retain new recruits switching to a part-time shift-based model, like in Eagan. Recruitment strategies include cable television, Facebook pages, and refocusing the roles for non-career firefighting volunteers, where they could handle less dangerous work.

On retention, Apple Valley Fire Chief Nelson said his department did not hire a new firefighter between 2009 and 2013 due to paying close attention to morale and clearly laying out expectations before he hires someone. Some departments involve spouses of volunteers for retention as family plays a major role in volunteer's contribution and commitment.

Appendix C: Interview Questions

Minnesota Non-Career Firefighter Staffing Study

Summer 2014

Researchers: Maria Cote, Brad Hasskamp, Partha Sarathi Chevuru, Mamta Verma

Description: Brief spot interviews will be conducted with a small number of current fire chiefs, current firefighters, former firefighters and other key stakeholders to develop a more comprehensive understanding of the information gap (needs, issues, and ideas) regarding paid-on-call/volunteer firefighter staffing, including retention and recruitment. Interviews will be conducted by one or two individual researchers and last an estimated 30 minutes each. The researchers plan to interview a total of five to nine subjects between now and July 20, 2014, time and subject availability permitting. Interview subjects will be selected by the researchers based on recommendations from the client, the Minnesota State Fire Chiefs Association.

Questions for All Interview Subjects

- 1) What is your name?
- 2) What is your role with the local fire department?
- 3) How many years have you served in your role?
- 4) What training and credentials do you have?
- 5) Have you served in multiple departments?
- 6) What other jobs do you have?

Questions for Current Fire Chiefs

- 1) Please describe your role and the number of hours/week you are serving as chief?
- 2) What are the other roles you have in your department?
 - a) How are roles changing or evolving?
- 3) Do you have the number of firefighters you need to adequately protect people and property?
 - a) If not:
 - i) How is the deficit affecting the services you provide?
 - ii) How are you adapting to the shortage?
 - iii) In your experience, what is hindering your firefighter staffing numbers?
 - iv) Which is the bigger problem for your department: retaining current firefighters or recruiting new ones?
 - b) If so:
 - i) Why is your department successful in retaining firefighters?
 - ii) Why is your department successful in recruiting new firefighters?
- 4) How do you determine the number of firefighters you need for your department?
- 5) What have you done to recruit new firefighters?
- 6) What are you doing to retain your department's firefighters?
- 7) How do you compensate paid-on-call/volunteer firefighters?
 - a) In your opinion, is the compensation adequate?

- 8) What are the demographics of your current workforce in terms of age, gender, race and other identifiers?
 - a) How could increasing the number of women and the racial diversity of the firefighters help improve the department's performance?
 - b) What strategies have you used to diversify your firefighting force?
 - i) How can these strategies be improved?
 - ii) What issues does this raise for you locally?
- 9) How do you measure "success" as a fire department?
 - a) What are the critical factors for your department's success?
- 10) What types of calls have shown an abnormal increase over the years? (fire, medical, structural, hazardous materials, wildfires, etc.)
 - a) Why are these types of calls increasing?
- 11) What are changes you would like to make to improve services of your department?
- 12) What additional resources (financial and other) do you need to run the department successfully? Please be specific.
 - a) How could the state, county, city/town, or other community partners better support your department?
- 13) What data systems do you have and use as chief?
 - a) How do you use the data system(s)?
 - b) Who selects the data system(s)?

Questions for Current Paid-On-Call/Volunteer Firefighters

- 1) What attracted you to serve as a firefighter here? Why?
- 2) What are the best parts of serving as a firefighter here?
- 3) What are the most difficult or challenging parts of serving as a firefighter here?
- 4) What future do you see for yourself in this department?
- 5) What additional resources might help improve your performance as a firefighter here?
- 6) What do you think about the existing training requirements for paid-on-call and/or volunteer firefighters?
- 7) What type of incentives would attract paid-on-call and volunteer firefighters?
- 8) What could be the single biggest reason or factor for paid-on-call and volunteer firefighters to leave the service?
- 9) What is the impact of the pressures or stresses felt in attending calls, especially after traumatic emergencies or incidents?
- 10) How do you maintain balance between work and family life?
- 11) What kind of organizational changes you would like to have in order to serve better?

Questions for Former Paid-On-Call/Volunteer Firefighters

- 1) Why did you become a firefighter?
- 2) What attracted you to serve as a firefighter here? Why?
- 3) What were the best parts of serving as a firefighter here?
- 4) What were the most difficult or challenging parts of serving as a firefighter here?
- 5) Why did you choose to stop serving as a firefighter? How do you feel about it now?

- 6) What potential changes could have helped you serve longer or return as a firefighter?
- 7) Would you like to join again if some changes are made?

Questions for All Subjects (Potential Solutions)

- 1) As we explore options, one of the suggestions was to develop a survey. What information would you want to discover through a survey?
 - a) Who should be surveyed?
 - b) What questions should we ask?
- 2) Tell me about the reports you need to file as a chief.
 - a) Who asks for these reports?
 - b) How do you submit reports?
 - c) How much of a time commitment are the reports?
 - d) What could make reporting easier?
- 3) How were you trained as a chief?
 - a) How do you deal with challenging department issues, especially around staffing?
 - b) What ideas do you have to better support new and/or existing chiefs?
- 4) How could state resources help increase compensation for non-career firefighters?
 - a) What do you think about the state pension?
 - b) How do you find resources for recruitment and retention projects?

Appendix D: Annual Fire Chief Survey Questions



Empty Boots, Quiet Sirens

The State of Non-Career Firefighting in Minnesota

Annual Fire Chief Survey

Developed by Partha Chevuru, Maria Cote, Brad Hasskamp, and Mamta Verma

Survey Questions

Identifying Information

1. Name of Fire Department?
2. County? (Select the county/counties your department/district serves)

Local Firefighter Numbers

3. Number of active firefighters currently serving with your department/district?
 - a. Number of non-career firefighters currently serving?

Local Firefighter Numbers	# of Non-Career	# of Career
Total		

4. How was the current firefighter force size determined?
5. Do you currently have a waiting list for non-career firefighters?
 - a. If so, how many applicants are on the waiting list?
 - b. Average length of wait per potential firefighter?
6. Do you currently have a shortage of non-career firefighters?
 - a. If so, how many open positions do you have locally?
7. How many non-career firefighters have starting serving with your department/district in the past year?
 - a. How did they learn about serving? (Check all that apply)
 - i. Open house
 - ii. Web site
 - iii. Word of mouth
 - iv. Special event

- v. Other advertisement
 - vi. Other? (Please specify)
8. How many non-career firefighters have left your department/district in the past year?
- a. Why did they leave? (Check all that apply)
 - i. Retired
 - ii. Moved
 - iii. Family issues
 - iv. Job issues
 - v. Health issues
 - vi. Compensation
 - vii. Conflict with other firefighters
 - viii. Replaced with career firefighters
 - ix. Other? (Please describe)
9. How many non-career firefighters do you predict will leave your department in the next 12 months?
- a. Why might/will they leave? (Check all that apply)
 - i. Retired
 - ii. Moved
 - iii. Family issues
 - iv. Job issues
 - v. Health issues
 - vi. Compensation
 - vii. Conflict with other firefighters
 - viii. Replaced with career firefighters
 - ix. Other? (Please describe)

Local Firefighter Demographics

10. What are the demographics of your department/district non-career firefighters currently serving?
- a. Gender: Number of Males, Females
 - b. Race: Number African/African-American/Black, American Indian/Native/Alaska Native, Asian/Pacific Islander, Hispanic/Latino, White/Caucasian, Multiracial/Biracial
 - c. Age: Average age, age range (minimum and maximum ages)
 - d. Number of dependents residing in the household

Non-Career Firefighters	# of Males	# of Females
Total # Currently Serving		

Non-Career Firefighters	Number Serving
Hispanic/Latino	

Non-Career Firefighters	Number Serving
African/African-American/Black	
American Indian/Native/Alaska Native	
Asian/Pacific Islander	
White/Caucasian	
Multiracial/Biracial	

Non-Career Firefighters	Average Age	Minimum Age	Maximum Age
Total # Currently Serving			

Local Compensation, Calls and Time

11. How does your department/district compensate your non-career firefighters?
- On-call hourly wage?
 - Call wage?
 - Local pension?
 - State retirement fund?
 - Other forms of compensation?

12. Hours served by non-career firefighters in the past 12 months?

Total # of hours by all non-career firefighters	Average # of annual hours/member	Minimum # of hours/member	Maximum # of hours/member

13. Number and types of calls your department responded to in the last 12 months?

Annual Calls and Types	Number of Calls
Fire	
Medical	
Mutual Aid	
Vehicle Accident	
Weather	
Good Intent	
False Alarm	
Other? (Please specify)	
Total Number of Calls	

- 14. Average call response time?
 - a. Change from past 12 months? Increase or decrease?

Recruitment and Retention Efforts

- 15. What have you tried for recruitment efforts?
 - a. What have you done to recruit diverse firefighters?
 - b. How many firefighters did you successfully recruit in the past 12 months?
- 16. What do you do to retain non-career firefighters?
 - a. What efforts seem to be most effective?

Local Issues Analysis

- 17. Please rate your department on the following factors.
 - a. Check the rating that best applies to your local department/district
 - b. Please detail why some factors are issues locally
 - c. What are things that can be done to resolve the issues:
 - i. Locally?
 - ii. With MSFCA?

Local Analysis	We are Strong	We are Satisfactory	Minor Issue	Major Issue
Demand and Role Issues				
Time Demands				
Training Requirements				
Call Volume				
Increased Types of Duties				
Legislative Requirements				
Local Department/District Issues				
Department Leadership				
Firefighter Conflict				
Community Issues				
Changing Population Demographics				
Housing Costs				
Community Sense of Identity/Volunteerism				

Appendix E: Presentation Slides

Empty Boots, Quiet Sirens

The State of Minnesota's Non-Career Firefighting



HUMPHREY SCHOOL OF PUBLIC AFFAIRS
UNIVERSITY OF MINNESOTA
Driven to Discover



July 2014
Partha Chevuru, Maria Cote,
Brad Hasskamp, and Manta Verma

Topics

1. Problems
2. Minnesota's context
3. Solutions
4. Questions & Discussion



Research Methodology



Minnesota

2nd highest %
of non-career
fire departments

Saving Minnesota
more than

\$742
million/year



Problems

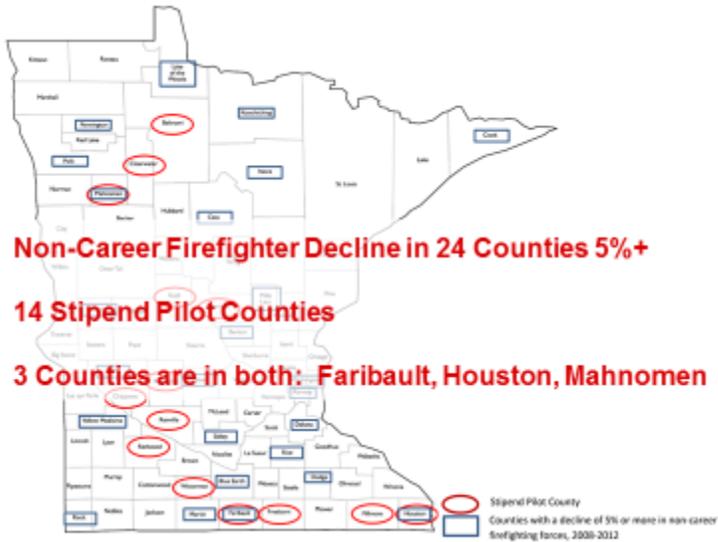


Fewer
Non-career
firefighters in
56% of counties
90% are in Greater
Minnesota
Of those facing 10%+
declines, **77%** in
**towns with less
than 4,000 people**

Findings

1. This is a local problem requiring local solutions and state resources
2. Rural areas are more likely to face non-career firefighter staffing issues
3. More statewide information needed

The background of this section is a photograph of a modern building with a red and white facade. The building has large windows and a curved roofline. The text is overlaid on this image.

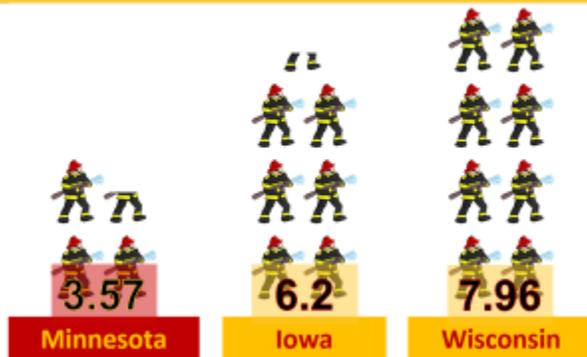


Comparing Minnesota

Regional Comparison Data (per 10,000 population)					
State	Non-Career Firefighters	Career Firefighters	Total Firefighters	Fire Stations	Fire Departments
ND	110.5	7.5	118	4.92	4.31
SD	83.23	6.31	89.54	3.9	3.37
IA	53.38	6.2	59.58	2.63	2.38
WI	39.34	7.96	47.3	1.77	1.33
MI	20.26	7.56	27.82	1.46	0.96
MN	32.89	3.57	36.46	1.68	1.33
USA overall	23.30	10.44	33.74	1.57	0.85

U.S. Fire Administration – National Fire Department Census Database, 2014

Minnesota: Fewest Career Firefighters in the U.S.



Source: FEMA and U.S. Census

Minnesota Depends on its Non-Career Firefighters



Non-Career Firefighters/10,000 population

Source: FEMA and U.S. Census

Major Information Gaps

Problem Scope

- State Numbers
- Locating Needs
- Demographics



Factors affecting recruitment & retention

Factors affecting Non-Career Firefighter Staffing

Departments Face New Demands

Departments Face Local Issues

Communities are Changing

Departments Face New Demands



Departments Face Local Issues

Communities are Changing



Issues Vary By Community

of 663 Minnesota fire departments

45% had decreases
(301)

36% had decreases of
5% or more (238)

4% had decreases of
25% or more (27)



Communities Facing the Greatest Decline in Non-Career Firefighters



Maplewood	59%	Bovey	31%
Federal Dam	47%	Elmer	31%
Greenwood	44%	Frost	31%
Hokah	44%	Shevlin	30%
Bigfork	38%	Foreston	30%
Harris	38%	Colvill	29%
Roseville	38%	Fisher	29%
McDavitt	36%	Tofte	29%
Culver	36%	Hollandale	27%
Hector	36%	St. Francis	27%
Magnolia	36%	Clarks Grove	26%
Hitterdal	35%	Granada	25%
Bertha	33%	Remer	25%
Mazeppa	32%		

Solutions

- Chief Survey
- Information Sharing
- Leadership Aid
- State Grants
- Increase Diversity

Annual Fire Chief Survey

- Collect Local Information
- Analyze Statewide
- Quantify Needs

Collect Statewide Information

- Demographics
- New & exiting
- Identify issues & best practices

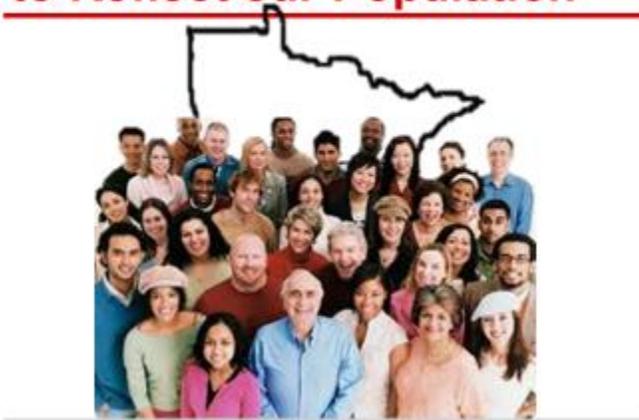
Leadership Development



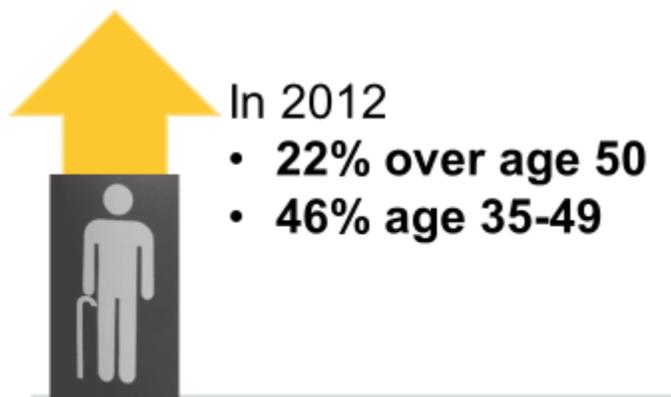
State Grant Program



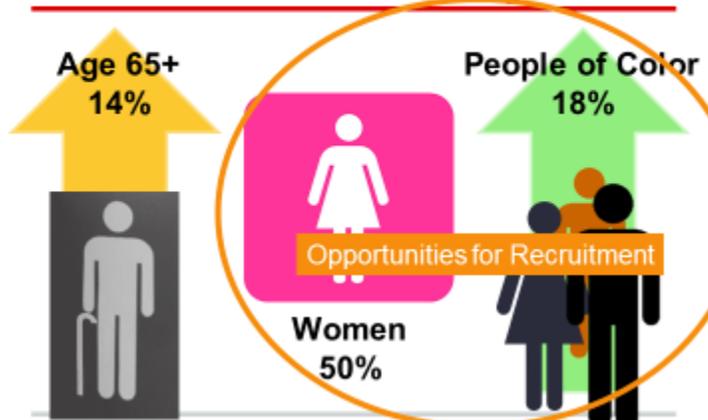
Increasing Diversity to Reflect our Population



Minnesota's Aging Fire Force



Minnesota's Diversity



Strengthen Minnesota's Firefighting Force

1. Conduct Survey
2. Collect Information
3. Help Leaders
4. Establish Grants
5. Increase Diversity

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